



**The Music–Writing Connection: Exploring a Rhythm-Based Framework
in the Primary Writing Classroom**

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Abstract

The purpose of this study was to develop a framework for the teaching of writing in the primary English classroom with a rhythm–grammar focus based on musical and rhythmic processes featured in Orff-Schulwerk and Kodály music pedagogies. The framework uses five key principles: listening, interpreting, rehearsing, improvising, and composing (LIRIC). These principles also express concepts shared across the Australian Curriculum: Music and English.

This multisite, design-based intervention was used to develop and refine a music-pedagogy-informed LIRIC framework for the teaching of writing, with attention given to a rhythm–grammar connection. The framework was refined through three iterations. It was first explored in a pilot study in my own classroom in two school contexts and was then further refined in another school setting where a music teacher and three generalist teachers used the framework to plan and deliver a series of writing lessons with a Year 1 cohort over a school term. Beginning with demonstration lessons and training with the researcher, the teachers took on the framework over a 6-week period. Through three iterative phases, the researcher collected teacher and student interviews, writing samples, teacher planning documents and filmed lessons.

The LIRIC rhythmic pedagogy model was employed with an emphasis on student collaboration—through musical rhythm, movement, sound, and speech. It featured oral language activities and short writing experiments and demonstrated several key findings from an analysis of both teacher and student data: (a) the viability of a music–writing framework for teachers using a LIRIC model; (b) the critical place of improvisatory and experimental strategies for writing; and (c) that an aesthetic appreciation for musical rhythm, through sound and gesture, could be used to lift metalinguistic creativity and awareness. Overall, students demonstrated a more expressive personal writing style through their metalinguistic creativity. This was evident through enhanced and experimental sentence structure, punctuation, and literary features.

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Dedication

To Jeremy, and to my mum Ellie (1948–1999).

Declaration

This is to certify that to the best of my knowledge, the content of this thesis is my own work. This thesis has not been submitted for any other degree or other purposes. I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis has been acknowledged.

Katherine Anne Halcrow

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List of Abbreviations

ACARA	Australian Curriculum, Assessment and Reporting Authority
ACT	Australian Capital Territory
ALEA	Australian Literacy Educators Association
EAL/D	English as an additional language/dialect
ESL	English as a second language
ICSEA	Index of Community Socio-Educational Advantage
LIRIC	Listening, interpreting, rehearsing, improvising, and composing
NAPLAN	National Assessment Program—Literacy and Numeracy
NCTE	National Council of Teachers of English
NSW	New South Wales
SI	Syntactic integration
WT	Writing Analysis Tool

Chapter 1.

Music and Language: A Lost Connection

Rhythms of an Education

[Words are] to literature what melody is to music, or pattern is to a picture.

—Lev Vygotsky, *Imagination and Creativity in Childhood*

This research study explores a lost connection between music and language and, by extension, between music and writing and its implications for education. It is a connection that is being rediscovered in a number of fields, each demonstrating that music and language are underpinned by essential rhythms as a hallmark of all human expression. Vygotsky, drawing on Tolstoy's experiences as a writing teacher, highlighted that writing is like music and other artforms; one where words, melody, and pattern are compositional elements. It is the aesthetic “rearrangement” of these elements, used to express human feeling and meaning, that is at the heart of creative work (Vygotsky, 2004, p. 49). Rhythm, as explored in aesthetics by John Dewey, Susanne Langer, Alfred North Whitehead and many others, underpins all forms of composition and which is especially evident in the connection between music and language.

A *rhythmic pedagogy* approach for writing composition seeks to reconnect music and language in the writing classroom. The *LIRIC* framework—listening, interpreting, rehearsing, improvising, and composing—proposed in this study is a cyclic iterative one. It emphasises rhythm (*rhuthmos*) in its original sense as ‘flow’, a harmonising between creative or playful elements and the technical precision involved in compositional work. Play is proposed in its imaginative sense (play as novelty and creative improvisation), as well as in its auditory musical sense (to play a piece of music, or to hear something performed). Through aesthetic experiences which emphasise music, movement, sound and speech, connections are made between music and

language, music and writing, and between rhythm and grammar. The LIRIC framework is inspired by the music classroom, especially Orff–Schulwerk and Kodály approaches and draws on common principles found in the Australian Curriculum: Music and English (ACARA, n.d.-c, n.d.-f). It seeks to support students in developing a more confident writer’s “voice” in an auditory and aesthetic sense, designed to strengthen their creative and expressive writing in the primary years’ classroom. Within a LIRIC rhythmic pedagogy, grammar in writing is conceived like rhythm in music, a creative structural tool, and is therefore also reconceived as *metalinguistic creativity*.

A multi-site qualitative study explored the viability and impacts of a LIRIC framework for writing and linguistic grammar in several contexts. It explored the ways in which a musical approach, through music, movement, sound, and speech could be used to support and elevate an aesthetic attention to grammar and metalinguistic creativity in the composition of spoken, written, and other multimodal texts.

The first section of this chapter gives an overview of key theories underpinning a music–writing connection. The second section identifies the ways in which writing and music have been conceptualised in teaching pedagogies evident in a short history of formal Australian education. The third section provides an overview of the researcher’s background and origins of the study, including the key research questions explored in this study. The chapter concludes with an outline of the interdisciplinary basis for the literature review which follows in Chapter 2.

Music and Language: A Rhythm-Based Connection

Music and language share an age-old connection. In evolutionary terms, a music–language connection stems from evidence that in its earliest forms, language resembled music (Corballis, 2011; Everaert & Bolhuis, 2013; Darwin, 1871; Müller, 1861; Tomasello, 2003; Rousseau, 1781, as cited in Besson et al., 1998). Brown (2017) suggests that even during the Renaissance, it was common for philosophers to speak of an “evolutionary connection between language and music”

(p. 1). This carried through to Darwin who asked the question, “Did our language commence with singing—is this the origin of our pleasure in music?” (Darwin, cited in Barrett et al., 1987, p. 568). Brown (2001, 2017) further proposes that music and language share an evolutionary history whereby they evolved from a joint prosodic origin. He draws on a range of research literature (e.g., the work of Margulis, 2013) to show that this original language form was fundamentally “emotive” in nature (Brown, 2017, p. 4) and was accompanied by gesture. The link also suggests that all communicative forms including song, speech, gesture, painting, and movement worked as “complementary communicative specialisations” rather than separately developed phenomena (Brown, 2017, p. 2). Composer and music educator Andrew Gant (2017) describes Brown’s theories regarding an original “musilanguage” as “a neat formulation which can remind us of what unites the two forms of communication rather than divides: and not, perhaps, only in the distant evolutionary past” (p. 57).

Certainly, throughout history, conceptions that encompass music and language are not uncommon. In ancient Greek, *mousike* was a single term used to signify both “words” and “music” and that could be extended to include philosophy and dance (McGrath, 2018; Murray & Wilson, 2004). Musicologist John McGrath (2018) describes that music and language have always been “mutually dependent” (p. 1) and that the notion of music and language as distinct disciplines is a relatively recent development. He charts the rending of the two, once linked in a “tangible” connection, to the time of the Enlightenment and describes where a distancing between music and writing took place. The separation of music and language took place “as rhetoric shifted emphasis away from performance”, and the notion of literature arose in its “silent form” (McGrath, 2018, p. 1). Linguist Theo van Leeuwen (1999) similarly points to the Enlightenment as the time at which music and language became separated.

In the last century, in academic scholarship, in literature and the arts and in education, connections between music and writing are being rediscovered. Gant (2017) describes that there has simply been a “category problem” so that what needs to be revisited is that music and

language overlap as “parts of a spectrum rather than separate entities” (p. 56). This would also seem to be implicated in the literary and linguistic theories that treat speech and writing within a continuum and as inextricably related (as explored in Derrida et al., 2007; Dewey, 1929; Vygotsky, 1978). In music education, Carl Orff (1963) conceived of the natural connections between music, movement, and speech, using stories and song to teach children music and literature. In the context of writing education, Dominic Wyse, a U.K. educator and professor of early years education (2018) explains that a music-writing link can be made on the basis that music is “the only other form that, like language, has both oral-sound and written forms” (p. 84). In conversations with several prolific writers, Wyse (2018) found that music was a key reference point used “to explain their craft and the processes of writing” as well as to describe their approach to the teaching of writing (p. 85).

Music and Language: Three Semiotic Perspectives

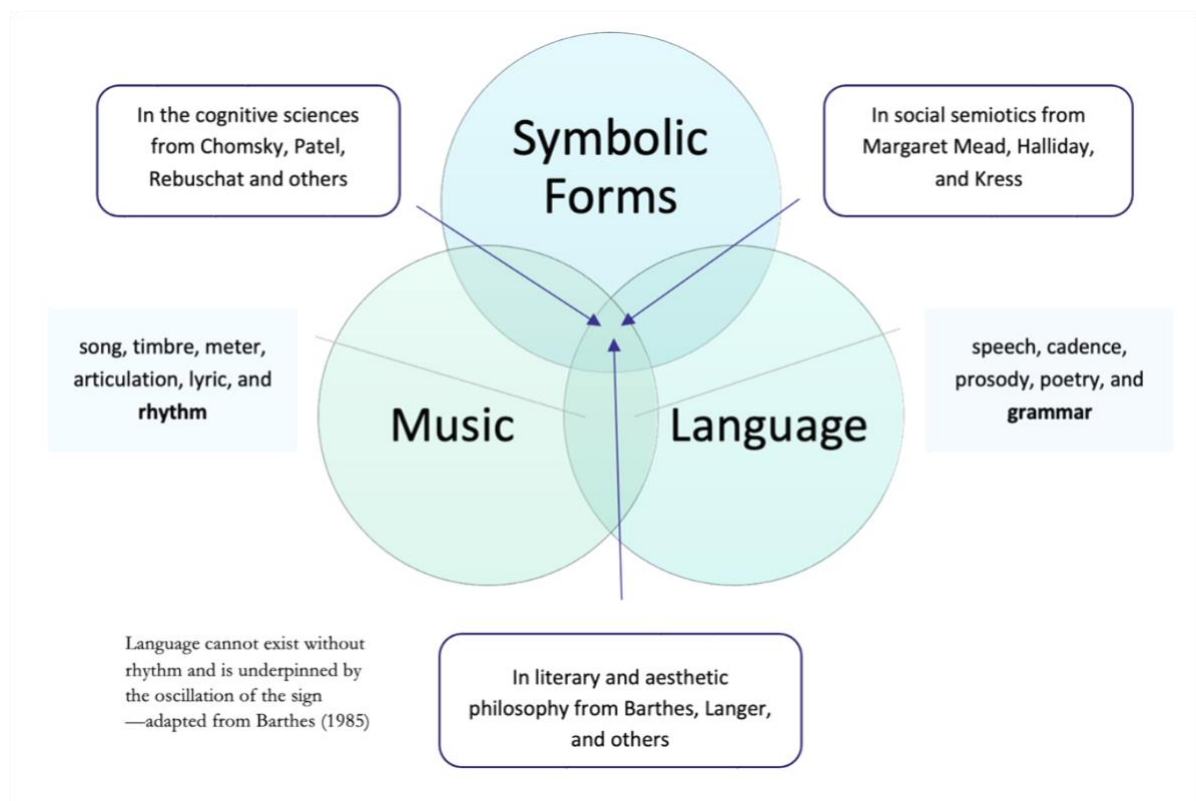
A music and language connection has been signposted through three main fields of study. An aesthetic phenomenological perspective, a cognitive science perspective and a social semiotics perspective have each drawn some attention to their links. The aesthetic and phenomenological aesthetic perspectives provided by Susanne Langer (1942) and Roland Barthes (1985), where music and writing are connected as symbolic languages. For Barthes (1985), music and language are connected within the “vast auditory fabric” of text (p. 77). Neurocognitive psychological explorations have also pinpointed a connection between rhythm and grammar (Jackendoff, 2009; Jackendoff & Lerdahl, 1980, 2006; Patel, 2007) and between rhythm and gesture (Malloch & Trevarthen, 2009a, 2009b, 2018). Finally, in a social semiotic, Michael Halliday (1978a) made connections between “symbolic languages” as linked phenomena found in dynamic sociocultural contexts and which included music, language, and literature (Halliday cited in Makkai, 1990). This was further explored as five modes in a multimodal social semiotic through the linguistic, visual, audio, gestural, and spatial semiotic modes of meaning (Bezemer & Kress, 2008, 2015; Kress &

Bezemer, 2009; Kress & van Leeuwen, 1996, 2002; Unsworth, 2008). Each of these three semiotic perspectives provide unique insights into a music–language connection.

In the literature review provided in Chapters 2 and 3, I have demonstrated that these seemingly disparate fields of derive from common semiotic interests . The key theorists who have advanced the field of semiotics in the last century and who have played a significant in the forging links between music and language include Margaret Mead, Michael Halliday, and Roland Barthes, and in the cognitive sciences through Noam Chomsky (see Figure 1.1).

Figure 1.1

Literature Review Findings: A Semiotic Basis for the Music and Writing Connection



A Cognitive Psychology Perspective

From a cognitive and semiotic foundation, music and language share common structures, where rhythm is described as a shared neural resource for music, language, and gesture (Morley, 2012; Patel, 2012). A cognitive psychology study of a music and language connection was in part

inspired by the linguistic theories proposed in Noam Chomsky's universal grammar (Chomsky & McGilvray, 2012; Chomsky, 2015). The music–language explorations of composer Leonard Bernstein (1972, 1976), and musical semiologists Jean Molino (1973) and Jean-Jacques Nattiez (1991), directly influenced neuroscientific and linguistic research. Studies, notably by Patel (1998, 2003, 2007) and others in the field (Dittinger et al., 2017; Fritz et al., 2013; Jackendoff, 2009; Jackendoff & Lerdahl, 1982), have since made a distinct contribution to a music-language link where they spotlight a nexus between rhythm and grammar.

Cognitive psychologists, Steve Malloch and Colwyn Trevarthen have investigated a music, gesture, and language relationship evident from birth. Their research has found that infants are connected to their caregivers in a musical storytelling exchange which they describe as an “intersubjective musicality” (2009a, 2009b, 2018, and in Trevarthen & Malloch, 2017). Drawing on such findings, composer Anthony Brandt and colleagues (2012) and music educator Anita Collins (2021), have described a baby's first experiences of language as a musical encounter where speech melodies (prosody) communicate meaning well before literal linguistic exchanges.

A Phenomenological Aesthetics Perspective

A music–language connection can be traced through an aesthetics and phenomenological perspective to Susanne Langer (1942). Langer explored logic and feeling through a semiotic aesthetics and meaning in music as “a tonal analogue of emotive life” (in *Feeling and Form*, 1953, p. 27).

A phenomenological approach to music, language, and text has been explored in anthropological studies. Margaret Mead (1972b) called for a new emphasis in schools, one that featured a “multi-sensory” (p. 284) and “multi-modal” (p. 285) language education. “Multimodal anthropologies” (S. G. Collins et al., 2017) have continued to develop a move away from an “ocularcentric” (Faudree, 2017, p. 256) emphasis on written and visual text to explore real-time interactions where language, speech, song, and music are not distinct. For example, Paja

Faudree's (2012, 2017) multimodal studies in a range of diverse language contexts gives "joint attention to language and music" (2017, p. 255) and the ways in which the "voice jointly embraces musical and linguistic aspects of human expression" (2017, p. 257).

Language in the body through song and the "grain of the voice" was also explored by literary theorist and semiologist Roland Barthes (1977), who recognised that language and the voice are intimately connected, as the material context for all acts of language, including writing. Barthes asserted that without rhythm there was no language, that rhythm was in the body within the human heartbeat. From a phenomenological and semiotic foundation, Barthes (1985) argued that all languages are underpinned by rhythm, through the oscillation of the sign or "the *marked*, and the *non-marked*" dimensions of all symbolic forms (p. 249).

A Social Semiotics and Multimodal Perspective

Paying tribute to Margaret Mead's legacy, English linguist Michael Halliday found that music, literature, and language were connected within a social semiotic framing (cited in an interview with Makkai, 1990). Halliday explored that meaning was conveyed across a range of "semiotic systems", which included language, linguistics, literature, fashion, religion, and music (Makkai, 1990, p. 8). Halliday's colleagues explored these systems in further detail, with particular attention given to the visual image (Kress & van Leeuwen, 1996, 2002), but also to other semiotic modes (Kress, 2010; Bezemer & Kress, 2008, 2015; Unsworth, 2008b) and to music, sound, and speech (van Leeuwen, 1999).

This section outlined the research that underpins an age-old music–language connection. Studies in the last century have rediscovered the connection through a semiotic basis and have been explored through cognitive psychology, linguistics, and archaeology; through a phenomenological and aesthetic view; and through a social semiotic and multimodal framing. It described research over the last century that has begun to excavate those connections and point a

way forward for explorations of music, movement, sound, and speech in the English writing classroom. A detailed exploration of these perspectives is provided in Chapter 2.

Cross Rhythms in Music and Writing Education in Australia

Music, song, art, dance, and story have been important ways of being and knowing for First Nations in Australia for millennia (Hughes, 1997; Riley et al., 2021). Song, music, and language are strongly interrelated in oral and cultural heritage, an expression of histories, knowledge sharing, and identity (Bracknell, 2014a, 2014b, 2017; Bracknell et al., 2021). Like other oral cultural and religious traditions, a seamless music–language connection has never been lost and is an essential aspect of sustaining language in many parts of the world (as explored in several contexts, such as Anakesa & Jeannin, 2008; Bracknell, 2019; Bracknell, 2020; Faudree, 2012, 2017; Mead, 1972).

Yet, since the colonisation of Australia in 1788, it was a facsimile version of a western-influenced British model of schooling that was introduced prior to federation. Yet, during this same period in the early years of the twentieth century, and during the most intense period of school building in Australia (Australian Bureau of Statistics [ABS], 2007), prominent educationalists—Dewey, Vygotsky, and Whitehead—were damning this kind of western schooling model. Among their charges against this kind of education were that it was dehumanising and that it diminished creativity (Dewey, 1900; Vygotsky, 1978; Whitehead, 1929). Throughout the 20th century, other philosophers continued to expose the style and content of this kind of education as reinforcing hegemonic power (Bernstein, 2003; Freire, 2005; Deleuze, 1995; Deleuze & Guattari, 1994). It treated its citizens as “automatons” (Freire, 2005), and was a model that was complicit in disenfranchising First Nations’ cultures in countries like Australia (Cole & Somerville, 2017). This includes the important ways of knowing that combine music, rhythm, dance, and language.

The metaphor of cross rhythms, a term used to describe rhythms that work against each other in a discordant way, is used in this section to identify fundamental differences in views about the purposes of education that underpin the foundations of education in Australia. These cross-rhythms have important implications for music and writing pedagogies in schools. The LIRIC framework seeks to address these competing claims about the aims of education, where the vocational and holistic aims of education, as well as the technical and creative, are addressed.

The Aims of Education? Origins of a Cross Rhythm

At the time an Australian formal education system was being established, Whitehead (1929), and others like him (Dewey, 1900; Vygotsky, 1978), were advocating an aesthetic and arts-based education. These were more akin to traditional First Nations approaches that were being systematically “ignored” in schooling systems in Australia at the time (Hughes, 1997).

Alfred North Whitehead’s work provides one lens through which to view the origins of a cross-rhythm in an Australian education context. Whitehead’s critique was delivered at an interesting moment at which mass education systems based on a western-influenced British model, were spreading across the globe. The critiques Whitehead provided are ones that a number of commentators argue still apply today (Cole & Somerville, 2017; Goodkin, 2012; Petrov & Scarfe, 2019; Somerville, 2013). Whitehead’s theoretical perspectives on education, in addition to his interdisciplinary work and exploration of aesthetics and creativity, are key to the present research study.

In 1917, Whitehead gave a series of lectures he later published as *The Aims of Education* (1929) in which he described the prevailing model of schooling in his home country as “inert” (p. 1). This school environment was one he likened to the “dryness of the Sahara” (p. 17) implying that nothing living, especially the creative mind, could survive there very long. Among his claims about the aims of education and the change that was needed, was a lifted emphasis on creative arts education in order to “produce a population with some love of music, some enjoyment of

drama, and some joy in beauty of form and colour” (Whitehead, 1929, p. 41). He also proposed an emphasis on “aesthetic appreciation” across all subject disciplines (p. 48). In fact, Whitehead conceived of creativity in his process philosophy (1929/1978) as a metaphysical principle within which he “redefines the human–nature relationship” and that unwittingly echoed “Aboriginal knowledges” (Cole & Somerville, 2017, p. 78). In a vision for education that was radically different to western models of the time, Whitehead expressed ideas that were complementary to First Nations’ ways of being and knowing, *onto-epistemologies* (Somerville, 2013), which suggested that

to improve education is to recalibrate teaching and learning along fluid thinking lines (and not to increase functionality/ instrumentalism/ intervention). This suggestion has been forcefully enacted by the Aboriginal Australians over millennia, and, one could argue, they have never stopped thinking in the entangled and intricate way that Whitehead proffers. (Cole & Somerville, 2017, p. 81)

Fundamental views about the aims of education, whether for vocational ends or for social and cultural aims, impact on educational pedagogies and on the emphasis given to creativity and the arts (Craft, 2003, 2005; Cremin & Chappell, 2021; Ewing, 2010, 2018, 2020; Fleming, 2012; Henning, 2019; Jefferson & Anderson, 2021; Weber, 2019). Views about the purpose of education have implications for policy settings and which impact the place of writing and music in formal schooling and its pedagogies (Burke, 2014; Cicco, 2020; Collins, Dwyer & Date, 2020; Comber & Cormack, 2013; Ewing, 2019a, **2019b**; Myhill, 2005). As Whitehead claims, a sole emphasis on the former aim (i.e., vocation) is greatly limited, yet an emphasis on the latter (i.e., an holistic and creative-cultural education) is an emphasis that ultimately achieves both aims, vocational and holistic, more effectively.

Cross Rhythms in an Australian Schooling

The establishment of a free public education system in Australia began in the 1870s, first in the south-eastern state of Victoria and public schools subsumed many of the church-run schools over some decades. Within the model being established, it was understood that a general education could provide important workplace skills such as basic accounting and letter writing (Murray, 1999). O’ Toole (2010) has described the early context for public education which was “[established at] a time when change meant social instability, and compliance was the duty of all classes, so that the last thing the 19th century power-brokers wanted from their budding workforce was creativity or independent thought!” (p. v).

Similarly, Bessant (1986) describes that there was a reluctance in early public policy to provide an education beyond the basics. This reluctance, Bessant (1986) argues, was founded in a fear that “the working class could rise above their station in life—that introducing all children to knowledge beyond the 3Rs endangered the traditional class structures” (p. 40).

Added to this, the business of setting up a mass public education model across Australia was most intensive between the 1890s and early 1900s during a time of economic crisis in the eastern states of Australia (ABS, 2001). From the outset, it meant that a two-tiered system was set within the DNA of Australian schooling, as church-run private schools and the children of “upper- and middle-class families” were able to invest in music and the arts as a “desirable artistic pursuit” (Stevens, 2018), while public schools tended to provide the basics. Australian literacy and arts professor Robyn Ewing (2010, 2018) has provided several comprehensive studies of schooling in Australia that have revealed that a diminished place for creativity and the arts is longstanding. Others have charted a decline in creativity and creative teaching in schools in an environment of high-stakes testing which takes emphasis away from arts subjects like music, while also undervaluing creative approaches to “core” academic skills such as writing (Bloom & VanSlyke-Briggs, 2019; Gannon, 2019; Gill, 2018; Karp, 2018; McGaw et al., 2020; Thomas, 2020; Wyatt-Smith & Jackson, 2016; Wyse & Ferrari, 2015).

Since then, a history of music education in public schools in the Australian states of Victoria and New South Wales (NSW) has been given to a feast-and-famine style policy cycle in which investment in more aspirational and creative music education models has been short lived (Chaseling & Boyd, 2014). A history of music education described by Burke (2014) shows that creative music programmes and approaches are often undermined by a lack of sustained funding which inevitably leads to a return to “more traditional forms” of music instruction and prominence in schools (Burke, 2014, p. 34).

A history of writing pedagogy in Australia tells a similar story. Up until the 1970s, narrow policy settings for writing, focused on spelling, grammar, and composition as separate skills left little room for writing as creative or sociocultural practice (Derewianka, 2015). Restrictive approaches to writing have also been set within policy contexts which, since the early twentieth century, regularly return to themes of a reading and writing “decline” or “failure” (Cambourne, 2021; Freebody, 1997, 2007; Green et al., 1997; Sawyer & Watson, 1997; Snyder, 2008).

Since the 1960s, both music and English writing pedagogies have expanded their approaches with a greater emphasis on creative pedagogies. In the music context, two key pedagogies that had been developed by celebrated composers, Carl Orff and Zoltán Kodály were introduced to Australia. These pedagogies, henceforth referred to as Orff–Schulwerk and Kodály, emphasised the sociocultural contexts of music and aimed to feature local examples of traditional and folk music. Of the two, the Orff–Schulwerk approach developed by Carl Orff placed particular emphasis on developing children’s creative capacity. Zoltán Kodály foregrounded singing while Orff–Schulwerk emphasised improvisation through a range of expressive forms. Both composers emphasised rhythm.

From the 1960s onwards, a shift in creative pedagogies began to form within the English writing classroom. A creative process writing approach was promoted through the work of Donald Graves and Donald Murray (Graves, 1983; Walshe, 1981/2015). Like the Orff–Schulwerk and Kodály approaches that had been developed by celebrated music composers, the

process writing approach was co-developed by a celebrated writer, the Pulitzer Prize-winning author Donald Murray (1984, 1985). Graves and Murray set about developing an approach that would nurture children's writing capacities as authors.

Multimodal and arts-based creative approaches to writing education have also been influential and which have reconceived writing as a multi-resource and multi-semiotic creative activity (Bull & Anstey, 2018; Jewitt et al., 2016; Tomlinson, 2015; Unsworth, 2008a). These models for writing seek to emphasise writing as a creative socio-cultural work, where children are involved in the selection of their subjects, to write about what is important to them and are supported to exercise their creative agency (Sharples, 1999; Lähdesmäki et al., 2021).

There continue to be many examples of inspiring and creative pedagogies employed in Australian and international class contexts for literacy and music (Baker & Harvey, 2014; Barton & Riddle, 2022; Ewing & Saunders, 2016; Gannon, 2014; Middleton & Curwood, 2020; Niland, 2009; Oakley et al., 2020; Portier et al., 2019; Severino, 2020; Stockman, 2020; United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2017; Vass, 2019; Vass et al., 2014; Young & Ferguson, 2020). Yet, across the research literature these approaches are often described as a counter stance taken against the grain of high stakes testing and “core skills” paradigms which make creative teaching and creative classrooms difficult to sustain (Bauer, 2014; Bowman, 2012; Carey et al., 2022; Craft et al., 2007; Ewing, 2016; Felton et al., 2016; Jaeger, 2020; Ponella, 2020; Wright, 2022; Zhao, 2019).

Australian composer and music teacher, Richard Gill (2018) goes so far as to imply that such teachers have to be brave where policy and other “forces seemingly conspire at every turn to frustrate the creative teacher and which reward narrow ‘results’” (p. 1). Even Joseph's (2018) defence of the National Assessment Programme of Literacy and Numeracy (NAPLAN) acknowledges that the effect of the test on writing skills has been a negative one. Many argue that this decline is directly due to the overly prescriptive teaching approaches that are a direct result of

high stakes testing as outlined in several Australian and New Zealand studies (Parr, 2016; Parr & Jesson, 2016; Thomas, 2020; Wyatt-Smith et al., 2016; Zammit et al., 2019)

While the challenges for music and English writing pedagogies are different, they stem from misaligned views about the purpose of education, and of the place for creative and cultural pedagogies (Barton, 2018, 2020; Barton et al., 2018; Sabet, 2022). An education such as the one Whitehead, Dewey, and Vygotsky envisaged, rails against a “basics” approach. They each saw the arts, and associated concepts of *creativity* (Whitehead, 1929/1978, 1961), *imagination* and *play* (Vygotsky, 2004), and *aesthetic experience* (Dewey, 1934/1989; Vygotsky, 1978; Whitehead, 1929) as fundamental to human learning and human flourishing. Whitehead (1929) called “the use of art the condition of a healthy life” that was “analogous to sunshine” (p. 58).

Writing and music are expressive and creative communicative forms which involve similar processes. Among other artforms, Ewing (2010, 2020) identifies that quality music and creative writing processes involve risk taking, metaphor, collaboration, and shaping. Similarly, Eisner (2008) identifies that all the compositional arts, including writing, involve *inscribing* (representation), *editing* (refining and reshaping), and *communicating* (in which a final coherent form is achieved and shared with others).

All symbolic languages, including music and writing, are inherently creative, including everyday speech and communication (Carter, 2015; Cremin & Maybin, 2013; Maybin & Swann, 2007), all writing forms (Wyse, 2017), and multimodal processes (Edwards-Groves, 2011). However, not all pedagogies are inherently creative, and the place for creativity and the arts in education has become increasingly narrow (Ewing, 2006, 2010, 2018, 2020; Jefferson & Anderson, 2021; Palastanga, 2021). Views which regard the essential purpose of education as providing vocational skills tend to perceive creative pedagogies as a cross rhythm, in other words, as being at odds with the lifting of national standards.

However, an expanded view of education sees room for both creative and traditional pedagogies in which they find a complementary or harmonising rhythm. A detailed analysis of pedagogies for music and writing are included in Chapter 3.

This section outlined the context in which the settings for a creative and music education have been made in a formal Australian education system and internationally. It described a history in which notions of the purpose of education have been so misaligned that creative pedagogies have been undervalued and misunderstood. These views have implications for the teaching and learning of writing and music. A rhythmic music-inspired pedagogy for writing through a LIRIC framework, seeks to address the cross rhythms evident in views about education. It attends to the creative and technical aspects of writing and seeks to restore a lost connection between language, music and writing, based on evidence in the cognitive and social sciences. A framework for writing which harmonises creativity with technical skill, and which understands these aspects to be interrelated and mutually dependent is more likely to achieve aims which include raising academic achievement and self-efficacy in writing. It also acknowledges the true creative compositional nature of the writing process, as akin to musical and arts processes.

Rhythms of an Education: Basis of the Research Study

The study began as part of my own interests and explorations of the arts and literature in education, which have been a steady pulse running throughout my schooling and teaching life. The value of the arts and literature were emphasised in my upbringing and continues to be a source of personal enrichment. These have been further amplified by experiences working with children and young people. I have found that the arts and literature have been vital and powerful dimensions for supporting children to grow and develop their identities, sense of creativity, and confidence.

The Creative Arts in My Education

Throughout my own government-funded public-school education in six primary and high schools in Sydney's western and southern suburbs, I was fortunate to have good teachers. However, my experience of the arts was varied particularly in the creative arts where resources seemed limited. A weekly radio show for children was broadcast into our classrooms, a program called, *Let's Sing!* (Australian Broadcasting Corporation, 2022) but recorder lessons in Year 4 was the only opportunity I had to play music at primary school. This changed in my secondary school education, where Music and Visual Arts were offered. Our English teachers combined drama and literature in their lessons.

My parents also invested in out-of-school hours arts (dance, drama and music) activities and my father, a secondary English and History teacher, was also passionate about poetry, music and theatre and helped me to develop an interest in the arts. I began to see the unique and special role teachers played in school environments and for students.

The Arts in My Teaching Career

Primary teaching has provided an opportunity to be a teacher of both writing and the creative arts. It has afforded the opportunity to offer experiences to children and their families that had been limited in my own schooling.

Throughout my teaching career, in a range of school contexts, I have been fortunate to work in several high-quality school settings where the arts have been strongly valued. These environments are marked by community engagement, where students and their families are brought together, and which in turn, adds value to the professional experiences of teachers. The arts and literature underscore an acknowledgement of human creativity in the individual, as well as a sense of collective human potential.

Arts and Literature as a Catalyst for Educational Research

An action research project to investigate spelling supported my development as a teacher–researcher. Most significant about the experience was the opportunity to connect with other action research leaders in the region, with specialist teachers at my own school, and to see potential in the classroom for research inquiry. The answers to inform us about the best practices for helping our students, were often self-evident within our own classrooms, in conversations with students when undertaken through a reflective practice lens, and in collegial discussions.

The questions I was asking about spelling and vocabulary, naturally turned to the broader question of writing. The real dilemma soon seemed to me, not a problem with spelling, but an issue of disengagement from writing. A time-consuming emphasis on spelling and vocabulary textbook exercises seemed to be a part of the problem. It became evident to me that to properly engage and pay attention to vocabulary and spelling, students needed to see, understand and experience the power of writing. The fate of vocabulary and spelling, like grammar, seemed closely linked to attitudes about writing, not separate to it. This was the starting point for this design-based research project.

Cycles of Part-to-Whole Practice in the Research Classroom

The investigations in my classrooms about writing also prompted me to think more broadly about the ways other part-to-whole, skills-to-practice applications were taught across the spectrum of subjects. The visual arts teachers taught colour theory that the students often forgot in the experimentation and enjoyment of creating their artworks but slowly incorporated the skill into their repertoire as the teacher drew them back to it from time to time. The language teachers taught vocabulary that the students might have echoed with precision but in context became more challenging. In the music classroom, the students played or sang each note perfectly when slowed down in an “I do, you do” practice but were more fluid in the immersion of playing the piece right through.

Every teacher seemed to wrestle with the skills versus application balance. Precision and play, discipline and freedom had to be managed. It seemed to me that where it worked most effectively, precision through the practice of a skill, was applied just enough to make way for the important work of free experimentation where there was space for personal choice, discernment, and failure—a necessary part of growth.

In experimentation and application, things go unexpectedly; the opposing team does something we had not practised for, the palette paint dries prematurely, the script lines are forgotten, the time runs out, a question is asked in a different way we had not practised for. In other words, we learn to improvise amid experiences of the skill used in context. Skills practised discretely or isolated from context had value to a point but could not, on their own, adequately prepare students for the unexpectedness of real applications. In a similar way, an emphasis on isolated skills practice in the literacy classroom seemed to limit the development of discernment and creative and critical thinking for writing.

In several high-quality educational settings where I have been fortunate to work, music and other arts and languages opportunities allowed access to specialist music, visual arts, drama, and language classes. These helped me to make connections and imagine possibilities for an arts-based approach to writing. I wondered, “What did writing have in common with other artforms that taught composition?” “Were there some commonalities between them, and if so, what were they?”

In this context, I began to think particularly about music and writing side by side, where there seemed a fundamental relationship. I began to look more closely at what the music teacher was doing to teach composition in comparison to the methods being used in the English classroom: How were the two approaches similar, and where was there further room to bring the pedagogies and practices closer together? Furthermore, what impact would this have on the students’ writing? And what was the curriculum asking teachers to do in each context for music

composition and for writing, how were they parallel or overlapping, and how would an attention to these similarities be useful?

Personal perspectives influence all research endeavours (Ragin, 1987) because all research involves interpretations to be offered. Research analysis, whether quantitative or qualitative, involves reflexivity and “bias” (Richardson & St Pierre, 2008). Yet, qualitative researchers seek to make transparent the research perspectives they bring to the research analysis process, rather than to obscure or deny them.

In that spirit, this section provided insights into my own research perspectives and interests. In this section, I provided an overview of my experiences as a student, teacher, and researcher. In addition, I described the origin for the design-based study and framework that is the focus of this research project. I gave insight into the qualitative perspectives and attitudes I brought to the pilot study and to the research study and analysis overall. A LIRIC framework began as an exploration of the challenges and dilemmas I was attempting to solve in my own classroom. These aspects are further explored in Chapters 4 and 5. The culmination of the exploration is explored in Chapters 6, 7 and 8 where I was able to study the LIRIC framework and its impacts in the classrooms of four other teachers in a different school context to my own.

Purpose of the Study

There are three key aims of the study:

- a. to offer a music pedagogy-informed instructional framework for the teaching of writing, with the rhythm–grammar link as a key consideration,
- b. to offer a new and legitimate instructional perspective for primary writing teachers that addresses the longstanding dilemma of how to balance the teaching of skills versus immersive experience, meaning, and context,
- c. to highlight the benefits and potential for arts-based approaches to curriculum and to provide new opportunities for interdisciplinary curriculum collaboration.

Research Questions

Given the music–literacy connection (Hansen et al., 2014) and the rhythm–grammar connection clearly signposted in neuroscience (Patel, 2003, 2007, 2011), the study sought to answer the following questions:

Primary research question

1. What insights might be gained from music pedagogy, inspired by the Orff–Schulwerk and Kodály philosophies, for teachers of linguistic grammar in the writing classroom?

Sub-questions

2. To what extent can the similar cognitive processes used for rhythm and grammar be extended to pedagogy and therefore be instructive for the teacher of writing and grammar?
3. Could common music education practices—particularly “recitation” and “improvisation”—be analogous for the writing classroom to lift technical aspects such as linguistic grammar?

Rationale for an Interdisciplinary Evidence Basis

This section provides a rationale for the interdisciplinary approach to the evidence basis for a music–language connection explored in Chapter 2. An interdisciplinary approach to research is widely advocated as an important means of solving complex problems, fostering innovation, and understanding multifaceted phenomena (Klein, 1990; Markauskaite & Goodyear, 2017; Markauskaite & Wrigley, 2023; Weingart & Stehr, 2000; Wright & Ville, 2017) and has been an imperative in the advancement of music–language research (Jackendoff, 2011; Lerdahl & Jackendoff, 1983; Jackendoff & Lerdahl, 2006; Lorenzo et al., 2007, 2014; Magné et al., 2005).

Interdisciplinarity has been described in various ways, and there is no one agreed definition. Klein (1990) has described a brief history of interdisciplinarity in academia where the term generally describes “intra-academic integration of different types of disciplinary knowledge”

(p. 4). In collaborative creative arts research, interdisciplinarity has also been described as a process in which “researchers from different fields [attempt] to make sense of each other’s languages, assumptions, meanings and values” (Chan et al., 2011, p. 162). Such work has also been conceptualised in the context of academic and professional collaborations as *hybridity* (Rutherford & Bhaba, 1990), *boundary work* (Bakker & Akkerman, 2016), or learning in the *third space* (Rutherford & Bhaba, 1990; Zeichner, 2010).

Interdisciplinary Studies in Music and Language

The music–language connection has attracted the attention of researchers and theorists from diverse fields, including anthropology (Faudree, 2012; Feld & Fox, 1994; Feld et al., 2004), archaeology (d’Errico et al., 2003), semiology (Molino et al., 1990), music theory (Goodall, 2013; McGrath, 2018; Temperley, 2022), neuroscience and cognitive psychology (Bekius et al., 2016; Bolhuis et al., 2018; Bolhuis & Everaert, 2016; Corballis, 2009; Jäncke, 2012; Oesch, 2019; Patel, 2007; Tomasello, 2003), linguistics (Jackendoff, 2009), and literature (O’Callaghan, 2018). For extensive examples in literature, see explorations of music and sound in the work of Samuel Beckett (Bailes & Till, 2014; McGrath, 2018), Thomas Wolfe (Carlile, 1968; Evans, 1976), James Joyce (O’Callaghan, 2018), and in Australian literature (Cummins, 2019).

In the context of education, a music–language connection has also been framed as a “music–literacy” (Collins, 2021; Hansen et al., 2014), “music–literature” (Niland, 2007, 2011), “music–writing” connection (Halcrow, 2018; Riddle, 2016; Wyse, 2017) and “rhythm–grammar” (Fiveash et al., 2020; Gordon, Jacobs et al., 2015) connection. The extent to which both language and music are integral to studies across diverse disciplines suggests that they both also underpin human learning and culture.

Contemporary perspectives that posit music and language as connected phenomena can be traced to the field of semiotics through two broad schools of thought. One school derives its beginnings from a pragmatic philosophical origin inspired by the work of Charles S. Peirce (1998)

and Ferdinand de Saussure (de Saussure & Harris, 1922/2013), through anthropologist Margaret Mead (1972b) and English linguist Michael Halliday (1978b), in a “multi-sensory”, “multi-modal”, and social semiotics frame (Halliday, 1978a, 1978b; Halliday cited in Makkai, 1990; Hodge & Kress, 1988; Kress, 2010). The other school derives from a structuralist perspective, inspired by René Descartes but also informed by Peirce and Saussure, through Chomsky, and takes a *biolinguistic* stance on language and music. This biological and cognitive approach to a music-language connection is articulated by cognitive psychologists such as Brown (2001, 2017) and is evident in the work of Rebuschat et al. (2012), and others.

Another characterisation of the two schools derives from a Platonic–Aristotelian divide on the theories of language. Halliday (1978b) construes these schools of thought broadly as language as an endeavour of categorisation and correctness (language as *rule*), a view derived from Aristotle, and the other being language as a natural phenomenon to be observed and described in its dynamism and ambiguity (language as *resource*), as inspired by Plato and the stoics (p. 34). While clearly preferring “team” Plato, Halliday notes that the two schools are in fact interested in the same things, the structure of language for one, and had not always been so opposed as they are now. Halliday notes that there is a necessity in acknowledging each school’s approach and critiques the aspects that are incomplete about each one (1978b, p. 37). While acknowledging some universals about language—for example, its “melody, rhythm and syllabic articulation” (p. 27)—Halliday is put off by universal “absolutists” who tend to spring from an Aristotelian foundation (p. 26). While the dualism Halliday describes is articulated in reference to *language*, it has also informed views on a music–language connection. From an educator’s perspective, it is necessary to acknowledge the Platonic-derived (social–semiotic) and Aristotelian-stemmed (formalist and cognitive) perspectives as they each lay important claims within education. Each perspective can reveal what may be missing in the other due to their inherent biases while also highlighting points upon which they agree.

There are many examples that prove the value, if not the necessity, of interdisciplinary studies within contemporary language and music studies. In the 1960s, for example, when making the case for the overarching field of language study *semiotics*, Claude Lévi-Strauss who proposed the study of semiology in the European context (Singer, 1978) and Margaret Mead who proposed semiotics in the U.S. context (Mead, 1972b) were only able to successfully argue their case within an interdisciplinary paradigm. Knowing there were implications for a range of fields that held a stake in the outcome, Mead stressed that the “new science” of semiotics would need to serve everyone and therefore be “interdisciplinary in its genesis” (Mead 1972b, p. 285). Italian linguist, Umberto Eco (1976), has also described the positive potential for semiotics as an interdisciplinary activity and a lens with which to view all cultural phenomena.

Both the broad fields of social semiotics and the cognitive sciences take interdisciplinary approaches as a necessary aspect of study. Archaeologists Barham and Everett (2021) explain that exploring the origins and nature of language as a “biocultural behaviour” is “necessarily an interdisciplinary exercise” (p. 535), which draws on social, cognitive, and genetic evidence. Likewise, Halliday (2002) has described himself as a “generalist” (p. 7) wandering “the highways and byways” (p. 14) to find answers to his questions. Meanwhile, in the adjacent field of music studies, Zbikowski (2012) picks up the term “consilience” to explain how the combination of “empirical and humanistic methodologies” provides an important “synoptic view” of the human origins of language and music (p. 125).

From an educational perspective, Wyse (2017) highlights that educators, inspired by the pragmatic philosophy of Dewey, can gain “new knowledge about writing and its processes” through the intersections that appear between different research perspectives and what these reveal about music and writing (p. 25). With a similar pragmatic lens, Markauskaite and Goodyear (2016) explain that bringing together multidisciplinary perspectives, including “cognitivist, sociocultural and other accounts of learning, knowing and acting” is a vital process for professionals as they make important decisions about their practice (p. 1).

Challenges and Opportunities of Interdisciplinary Research

Inherent problems and challenges of interdisciplinary research should also be acknowledged. A prominent example within the field of research in music–language studies is the work of composer and conductor Leonard Bernstein who was inspired by the linguistic work of Noam Chomsky and attempted to find links between linguistic and musical grammar. Proposing that “the best way to know a thing [is through] the context of another discipline” (Bernstein, 1973/2001), his work *The Unanswered Question* (1973/2001, 1976) was ultimately unable to convince many musicologists or linguistics at that time (Keiler, 1978). Bernstein’s work seemed to mainly flounder on definitional problems that did not initially satisfy the establishment in either field.

However, Bernstein’s work, in addition to the work of Molino (1990) and Nattiez (Nattiez, 1990, 2013), has inspired much ongoing work in the field to date (Baber, 2019; Dunsby et al., 2018), including the work of neuroscientist, Aniruddh Patel. Patel, whose research into a music–language connection, especially linguistic and musical syntax (Patel, 1998, 2007), are considered significant in the field (Casasanto, 2009; Schön, 2009; Woodruff, 2009), acknowledges the influence of Bernstein on his own work and other luminaries in his field (Patel, 2007, p. 240). One of these luminaries, a linguist and philosopher in the field of music and language, Ray Jackendoff, acknowledges Bernstein’s legacy. He assesses that while Bernstein’s investigations into a music–language link was “a rich mélange of brilliant and wild theoretical speculations” (Jackendoff, 1977, p. 883), he had nevertheless contributed key insights. This insight was especially that “music can be approached in the way we are accustomed to approaching language” (Jackendoff, 1977, p. 884).

Since Bernstein’s work, significant gains have been made in the field related to music and language. Patel notes that though this work has been thorough, including the extensive contributions of Jackendoff and Lerdahl (Jackendoff, 2009, 2011; Jackendoff & Lerdahl, 1980, 2006; Lerdahl & Jackendoff, 1983), such studies continue to inspire both “warm enthusiasm and

cool skepticism” (Patel, 2007, p. 240) while clear definitions of music and language remain unresolved (Temperley, 2022).

For this reason, a key driver of an interdisciplinary approach is the effort to link, integrate, or even to reconcile multiple disciplinary theories and frameworks (Harvard University, 2023). Miller (2010) explains that interdisciplinarity as a broad term overarches various kinds of multidisciplinary, cross-disciplinary and transdisciplinary approaches which involve various degrees of interdisciplinary interaction. Interdisciplinarity might also involve the weaving together of perspectives and viewpoints that report on similar phenomena from different vantage points. Yet, Miller also warns that “advocating explicitly” for an interdisciplinary approach is “risky” (2010, p. 14). While there can be push back from established disciplinary academics, “one of the main reasons for engaging in truly innovative interdisciplinary activity is to break free of the narrow, restrictive and presumably inadequate contexts of the established disciplines” (Miller, 2010, p. 15).

This section provided a rationale for an interdisciplinary literature review that seeks a synthesis of the theoretical perspectives. When taken as a whole, the perspectives provided throughout the review reveal significant overlaps and highlight important areas of consensus. Insights into interdisciplinary research also explain the approach taken in the empirical research conducted as outlined in Chapters 6 and 7.

Conclusion

Based on the music–language connection signposted in the broad “field” of semiotics, a rhythmic music pedagogy for writing through a LIRIC framework—listening, interpreting, rehearsing, improvising, and composing—is proposed to support young writers. Using music, movement, sound, and speech, a rhythmic pedagogy emphasises not only play and precision, but also precision *through* play. This means, for example, that grammar, punctuation, and vocabulary as technical elements are treated as tools for metalinguistic creativity within a creative

compositional framing. Through a rhythmic pedagogy—of music, movement, sound, and speech—music is reconnected with language to support young writers in the writing classroom.

This chapter has provided an overview of this research study and has prepared a basis for the literature review given in Chapters 2 and 3, where the important multidisciplinary semiotic and educational perspectives for a music and language connection are explored and synthesised. Chapter 4 will build on the literature review with an outline of the methodological and theoretical underpinnings of the study. Chapters 5 to 8 describe three iterations of a design-based empirical study in three ACT and Canberra school contexts. Together, they demonstrate the iterative processes and multiple viewpoints that have been brought together in the development of a LIRIC framework. Chapter 5 details two pilot studies and chapters 6 and 7 describe the main study where teacher and student data are provided. Chapter 8 provides key findings resulting from the three phases of the study and which also synthesises the themes and throughlines that have emerged from the literature review and empirical in-school studies. Chapter 9, the final chapter, outlines the limitations and important implications of the study. A Glossary of Key Terms is provided in Appendix A.

Chapter 2.

“Symbol Weavers”: Origins of a Music–Language Connection

Review of the Literature: Part I

Without rhythm, no language is possible

—Roland Barthes

A music–language connection is found in rhythm. Roland Barthes (1977) identified that the music–language connection begins with the body, in the ‘grain of the voice’, and implies that it is the essential rhythm of the heartbeat that expresses itself through the “oscillation of the sign” (1985, p. 249) and underpins the essence of language, music, and all the arts.

This literature review is presented in two chapters and includes Chapter 3. The review in its entirety establishes an interdisciplinary research premise for a music–language connection as the basis for approaches to the teaching of writing.

This chapter is presented in four sections. The first section outlines the contemporary perspectives on music and language as symbolic and creative forms. The second section outlines the culmination of these contemporary perspectives in the field of multimodality, exploring what further potential there may be for an acoustic metalanguage to support the reading and writing of texts. The third section describes the development of music, language, and writing in early childhood, including the early capacity of children as “symbolic weavers” (Dyson, 1988, 1990) who naturally “integrate speech, music and other sound” (van Leeuwen, 1999, p. 4) and other artforms through their play and social interactions from a young age.

In light of the evidence provided, the chapter concludes with some considerations made about the implications of the music–language connection for educators, which are explored in

detail in the following chapter. Chapter 3 looks more deeply at what implications the field of music–language research holds for educators, especially for writing pedagogies. Key terms introduced in this chapter, and which are explored throughout proceeding chapters, can be found in Appendix A.

Symbolic Species: Contemporary Music–Language Perspectives

Significant shifts in our understanding of the phenomenon of human language have developed over the recent century with important implications for music. These shifts have challenged the previous dominant paradigm that positioned music and language as separate, a view that was only established during the Enlightenment (McGrath, 2018; van Leeuwen, 1999) and in the shift towards academic “disciplines” ushered in during the “age of science” (Barthes, 1999).

The study of semiotics has provided a new lens that implicates all other disciplines so that connections can be rediscovered and has provided the impetus for research in the language–music field. That humans possess the unique capacity for symbolic thought (Barnard, 2012), the capacity to use symbols and patterns in generative combinations for thought and communication, has been of interest for millennia but has revolutionised thinking about language in the recent century with the dovetailing of the arts, philosophy, and cognitive sciences (Eco, 2014; Langer, 1942).

Though expressed through different methodologies, a music–language connection, whether conceived through a social anthropological lens as “semiotic systems” (Halliday cited in Makkai, 1990) or through a neuroscientific lens as having “deep connections in terms of cognitive processing” (Patel, 2012, p. 204), both derive from a semiotic origin. Therefore, semiotics, the study of the sign as a unique underlying quality of human language and social interaction, is an important vantage point for clarifying the music–language connection.

The Symbolic Species

Through the work of Charles S. Peirce (1913/1998), Ferdinand de Saussure (1922/2013), and further developed by many others (including Barthes, 1977, 1999; Eco, 1976, 1978; Sebeok, 1986), human language and communication have been reconceived within the paradigm of the sign. The sign—as described in the seminal work of anthropologist Terrence Deacon (1997)—underpins the unique capacity of human thought and communication as the “symbolic species” and is a foundation for all “human mental operations, including language, mathematics, and music” (p. 635). Within notions of the sign and framed within ethnography, anthropological perspectives have also conceived of language as a dynamic social and cultural practice (Sapir, 1955; Mead, 1939).

These ideas have been synthesised by theorists like Italian linguist Umberto Eco, who described the study of signs as “the most characteristic human function” (Eco, 1978, p. 73) but also that “all cultural phenomena are really systems of signs” (Eco, 1976, p. 28). Both concepts can be traced back to the early work of Peirce who, strongly influenced by friend and writer Ralph Waldo Emerson, conceived of a (capital M) Mind as a shared semiotic phenomenon (Bailey, 2018; Peirce, 1913/1998). Peirce’s concepts of a “social mind” inspired anthropologist Margaret Mead (1972b) to propose a study of semiotics as a contemporary academic “enterprise” and argue that language studies in schools must be focused on how language works in practice within societies. The semiotics Mead (1972b) argued for would be “grounded in a belief that a fuller knowledge of patterned but unarticulated parts of the communication system will advance our understanding of teaching, learning, and human behaviour in general” (p. 286).

Implications for a semiology of music have also been explored through the work of Molino (1975/1990), Nattiez (1990, 2013), and Tarasti (1987). These studies have mostly been interested in building concepts of a musical signification. Tarasti (2012) has pursued an interest in a semio-aesthetics, an investigation into the ways a musical aesthetic creates meaning in unique ways. Unlike linguistics, which has made significant impacts on language education, music

semiology though explored by a growing field of researchers is still being established (Dunsby et al., 2018) and is not clear yet what contribution to education this might make. The concept of the sign as the basis of all human communication is also a frame within which music and language, but also music and writing, can now be considered side by side. This then provides the foundation for considering music and writing in the classroom.

A Semiotics Education

Though not explicit in Peirce's observations, the important implications for education that are evident in his work have been picked up by others (Strand & Legg, 2019). In Mead's (1972b) imperative arguments for a semiotic approach, language education in schools is a key aspect. Peirce's concept of language as a living and active phenomenon seemed to influence her analysis in a key statement that claimed that "in our schools today, most teachers cling to the old tradition of civilization of teaching language as a tool of civilized thought, not as part of the expected multi-sensory face-to-face behaviour of interacting human beings" (Mead, 1972b, p. 284).

It is important to note that Mead explored music as a fundamental aspect of diverse cultures and languages. It would be reasonable to assume that this must have guided her vision, at least in part, for a semiotic-inspired language education. Describing music as a "human need" entwined within language through vocal tones, rhythms, and "drum language" (Mead, 1972, p. 25), music provides an important lens for guiding our interpretation of Mead's rationale for a semiotic education. Mead (1972b) explained that semiotics should include a study of the "multi-sensory" (p. 284) and "complex multi-modal communication patterns [in students'] culture, and their society" (p. 286). Taken in the light of Mead's keen research interests, a multimodal semiotics approach to language education, as Mead would have advocated, strongly implied the integration of music as a key feature of multimodal language studies.

A semiotic approach to language education, then, at its foundation, is a call for the reframing of the teaching of English and of language as a living, breathing phenomenon, drawing on multiple communicative resources as they are used in social practice, and which includes music. A social semiotics has followed in the footsteps of Mead's vision and has attempted to re-envision language. Halliday, the architect of a social semiotics who has been particularly significant in the Australian education context (Cahill, 2018; Primary English Teaching Association Australia [PETAA], 2018) paid tribute to Mead's legacy (see Halliday's interview with Makkai, 1990) and actively pursued the goals Mead articulated.

The impacts of a multimodal education are now clearly evident in the Australian Curriculum. Multimodality is recognised as an underpinning aspect of the General Capability: Literacy (ACARA, n.d.-e), particularly an emphasis on linguistic and visual metalanguage. A multimodal language–music parallel has been clearly made in anthropological studies (Mead, 1972b; Faudree, 2012, 2017), and the implications of a multimodal metalanguage for music, sound, and speech in education and curriculum are still being explored (Barton & Riddle, 2019, 2022; Callow, 2023; Lyndon & Simon, 2017; Noad & Barton, 2020; van Leeuwen, 1999).

Music and Language: Connections Within the Semiotic Web

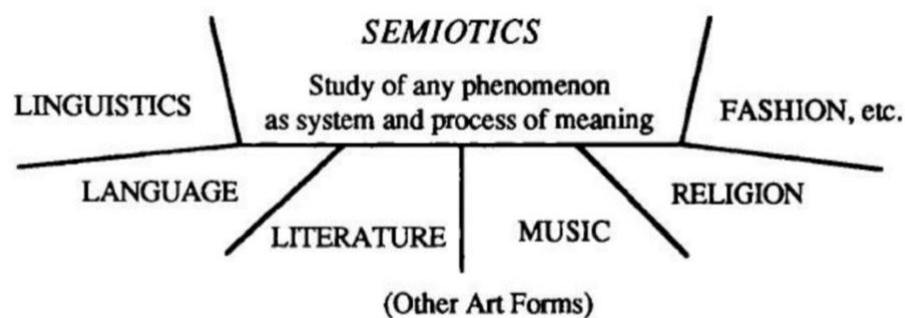
The study of semiotics has frequently been expressed as being, at its core, a study that enables the (re)discovery of lost or overlooked connections. For example, linguist Thomas Sebeok (1978), among others, used the metaphor of the “semiotic web” to describe the potential for semiotics to establish connections across disciplines and, in Sebeok's case, even across the species.

A semiotic interest in such connections has been responsible for the repositioning of music and language as linked phenomena in contemporary thought. Halliday, who proposed a social semiotic as the study of “any system and process of meaning” (Makkai, 1990, p. 8), understood that semiotics could “[open] the way” for new connections to be made between

“dance and music, modes of adornment and display, architecture and artforms, imaginative literature, mythology and folklore” (Halliday, 1978a, p. 36). Halliday articulates a model that seems inspired by Mead (see interview with Makkai, 1990). It posits music, literature, and language as parallel semiotic systems (see Figure 2.1).

Figure 2.1

The “Semiotic Systems” Proposed by Halliday



Note. Figure taken from ‘Interview with Halliday’ (Makkai, 1990, p. 8).

Anthropological studies in the field in which Mead worked seem to have gone further in making music–language connections through multimodal explorations. Multimodal language connections in the work of Müller and colleagues (2013), for example, conceive of an “enlarged approach” to multimodal communication as an “integrated study” or “interactional linguistics” (p. 580) that emphasises the study of multiple modes, especially voice, language, and gesture as they appear in real-time interactions. Anthropologist Paja Faudree (2012) also uses a multimodal tool to gain a sharper focus on music–language intersections, describing multimodality as providing an objective lens that, when applied to cultural phenomena, reveals their intertwined nature and the “leakiness of their boundaries” (p. 522). This lens could be useful to inform multimodal studies of language, music, and sound in diverse classrooms. For example,

multimodal anthropologies seek to transcend cultural biases where oral cultures, vocal expression, music, and sound are not equally acknowledged. So, Faudree (2012) found that

language and music are not merely separate expressive channels but part of a seamless semiotic complex, one calling for an integrated, holistic, unified analytic framework that takes as its most basic unit of analysis, the socially situated relationally understood sign, be it sung, spoken, written, performed, or embodied. (p. 530)

These anthropological studies may be closer to notions of a language education as conceived by Mead and may prompt a sense of the further opportunities afforded by a semiotics-framed multimodal study of language education in schools. In this way, a more permeable connection between music and language could be established and which appears to be a goal of multimodality, an approach that envisages the text as the synthesis of multiple modes, such as music and speech, for making meaning. Bezemer and Kress (2015) have explained that the “most significant effect” of multimodality is “to show that areas that at the moment are seen as distinct—in practical, professional, and therefore also in disciplinary terms—are in fact closely related” (p. 4). While these links have been achieved in the synthesis between text and image, there is further work needed to understand the intersections between musical, speech, and acoustic elements and other semiotic modes (Müller et al., 2013; Noad & Unsworth, 2007).

Music and Language: Distinctions and Intersections

Semiotic explorations in linguistic and musical semiotics have inspired interdisciplinary comparison studies. Stemming from a semiotics origin, two key fields of a music–language interest are distinct in their preoccupations. These can be broadly identified as an interest in, first, the cognitive science perspective, that is, how language and music are connected on a biological and cognitive level, and second, the social semiotic field, which explores how language and music are expressed in social and cultural contexts.

Formal and Structural Explorations of a Music–Language Connection

Comparisons between language and music in the cognitive sciences are sometimes an attempt to point to items that are distinct—for example, the reasoning, propositional, and semantic capacity of language that some argue music does not possess (London, 2012). In a similar way, there is a synchronicity and alignment of “brain states” that musical performance appears to achieve more than language (Bharuscha et al., 2012).

However, these assessments often highlight some limited definitional premises. It has been argued, for example, that a propositional and reasoning capacity can be achieved in music and song (Cross & Woodruff, 2009; Langer, 1942), though of a different nature. This includes, for spatial–temporal reasoning (Hetland, 2000) or to communicate moral, cultural, and expressive significance (Barthes, 1977, 1985; Whitfield, 2010). Historical studies have also shown that in medieval societies, for example, reasoning involved other forms of rhetoric, including song and silence, architecture, and gesture (Carruthers, 2010). It has also been demonstrated that an interpretation of meaning in music is described by both children and adults and is primarily a sociocultural activity, where listeners have learned to recognise cultural emblems and musical motifs (Herbert & Dibben, 2018). In this way, making meaning in music is similar to reading other texts, relying on social and cultural knowledge (James, 2019; Kress, 1997).

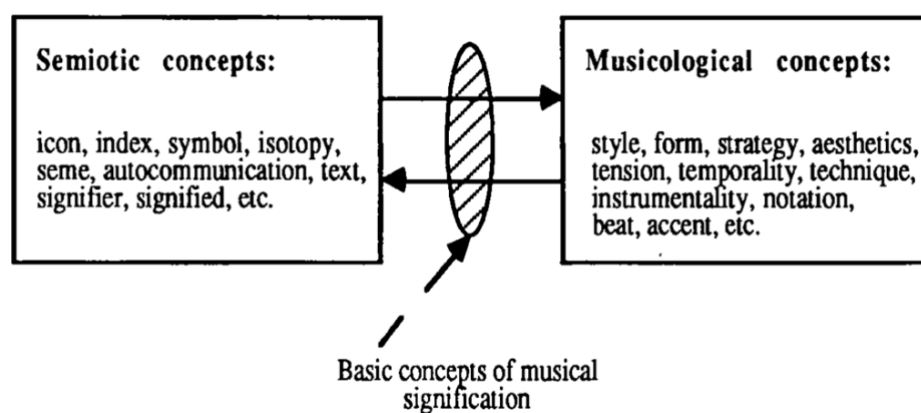
Similarly, a rhythmic synchronicity, though stronger in musical experiences, is also apparent in other human interactions, implying a basic synchrony of brain states in the social sphere (Greenfield et al., 2021; Schön et al., 2010). What the attempts at distinctions tend to reveal is degrees of difference in intensity, modularity, or other dimension of music and language (Peretz, 2012) rather than distinct essential characteristics. These point to a connection between language and music on a syntactical rhythm or expressive level (Besson & Schön, 2006; Besson, Jäncke et al., 2016; Besson et al., 2018; Gordon et al., 2010, 2011; Kunert et al., 2015; Patel, 2011; Patel & Daniele, 2003; Patel et al., 2017; Schön et al., 2004).

Studies that highlight overlaps, parallels, and similarities between music and language also face challenges within existing subject paradigms. Composer Anthony Brandt and cognitive neuroscientists Molly Gebrian and Robert Slevc (2012) pinpoint that a basic problem lies within their overly restrictive definitions. They explain that the definitional challenges obscure a clear view of music–language connections. The problem lies with trying to pin down music to a basic set of criteria where emotive–expressive, instrumental, and other parameters are unendingly diverse across the range of cultural artforms and genres. Scientific and technological discoveries make distinctions redundant even on a basic structural level where electronic music analysis has demonstrated the “musicality of speech” (Brandt et al., p. 5) and the “congruence between speech and music” at an “atomic perceptual level” (p. 4).

Attending to the definitional challenges that have beset music–language studies and seeking to create some synthesis between disciplines, semio-musicologist Eero Tarasti’s (1987) study brought together linguists and musicologists. The aim was to articulate the distinct characteristics of their fields to determine a set of terms that could express musical signification (see Figure 2.2).

Figure 2.2

Basic Semiotic and Musicological Concepts



Note. From Tarasti (1987, p. 406).

A key aspect that emerged from Tarasti's study and which has informed much of his research since then is the key area of musical aesthetics and the semiosis used to interpret it. His findings showed that the musicologists emphasised aesthetics while the linguists did not. For Tarasti (1987), a "semio-aesthetics of (re-)production of sounds as semiosis" (p. 543) has included an exploration of the concept of "style" to denote signification in music and has dominated much of his work (e.g., Tarasti, 2012).

Similarities between the underlying architecture of music and language, of their basic forms rather than of their surface features, have also been a focus of the cognitive sciences. Deriving particularly from the work of Noam Chomsky (2005, 2015), the concept of a basic architecture of language and its generative combinatorial function has inspired similar explorations about the properties of music. For example, through neuroscientific studies, overlaps and parallels between musical and linguistic structures have been found (Chiang et al., 2018), including in the musical work of composers in various languages (Patel & Daniele, 2003) where their use of musical structure and phrasing was shown to share similarities with the syntax of their mother tongue. Furthermore, linguists Nigel Fabb and Morris Halle (2012) show that while there may be some perceived formal differences between language and music, the distinctions break down when comparisons are made between particular types of music and language—for example, showing that metrical (poetic) verse and music possess "the same iterative rules" (p. 4).

Some areas of consensus about a music–language link have been made within the cognitive sciences, as highlighted in a compilation of studies coordinated by Rebuschat and colleagues (2012). The interaction between evolutionary biologists, neuroscientists, and linguists included peer critique and ultimately resulted in some areas of consensus, including that rhythm and gesture underlie both domains of music and language (Cross, 2012; Fitch, 2012; Mithen, 2012) with the view that the two domains at least share cognitive resources if not overlap and intersect (Patel, 2012).

Other studies, by Trainor and Trehub (1992), Mithen (2006), Trevarthen (1990, 1999, 2015a, 2015b), and Fiveash et al. (2022), have also identified rhythm and gesture as common aspects at the core of music and language. Cross and colleagues (2012), Malloch (1999) and Malloch and Trevarthen (2018), also point to rhythm, music, language, and gesture as inseparable phenomena, woven in concert as orchestrated social and communicative events that take place in cultural contexts. These suggest a strong, in-built social dimension to the music–language connection, one that suggests a social communicative dimension is needed to underpin a music–language education.

Music–Language in Literary Theory

Rhythm as a specific locus for a music–language connection has also been identified in literary theory. Barthes suggests that rhythm is at the heart of all human impulses and drives all the arts. As a semiotician and phenomenologist (Pagan, 2019), Barthes (1985) took a great interest in the origins of language and used the example of cave wall incisions found in France, which he referred to as “rhythmic incisions” (p. 248), as early evidence of a symbolic act. In *Music’s Body*, Barthes (1985) suggests that “without rhythm, no language is possible”: “Long before writing was invented, even before parietal figuration was practised, something was produced which may fundamentally distinguish man from animal: the intentional reproduction of a rhythm” (p. 249).

Barthes builds a case for rhythm as an underpinning feature evident in all the arts as others had done. However, in Barthes’ exploration music is a distinct quality of language with rhythm as its basis—and pinpointing an exploration of this in the body—is a unique analysis. Drawing back to the concept of rhythm as oscillation, Barthes describes rhythm in psychoanalytic (Freudian) terms, as an appearance and disappearance, a sound and a silence. With a particular interest in examples of the singer and the voice, rhythm as a locus between music and language is

“what is expressed [as well as] what is implicit in the text: what is pronounced, (submitted to inflection) but [also, what] is not articulated” (Barthes, 1985, p. 284).

With a literary aesthetic as Barthes’ chief impulse, he describes that what makes language musical is not simply its phonological qualities but its value as “a good metaphor” (Barthes, 1985, p. 285) and, further, that music is not abstract but physical, in the grain of the voice or in our bodies. “Musical meaning” is explored by Barthes as “une esthétique sans entraves” [“an aesthetic without bounds”]. In Barthes’ (1984) work *The Rustle of Language*, he engages in a thought experiment that explores a world in which interactions rest on a pure musical aesthetic. In this “utopia” all things are reversed, so that a “vast auditory fabric” replaces “the semantic apparatus” and “the phonic, metric, vocal signifier is deployed in all its sumptuousity” (p. 77). His analysis seems to further explore what makes humans essentially distinct from animals—that in the end, we are not songbirds content with a purely musical interaction. Barthes describes that he is caged within a human condition in which “speech ... remains condemned to stammering; writing to silence” (p. 77), trapped by a constant drive to make meaning through language (p. 79). However, Barthes appears to distinguish music and language as though one form (music) is pure unmitigated expression, while the other form (language) is contrived and more difficult. This view of music was challenged by music and aesthetics philosopher, Susanne Langer (1953). Langer asserts that both are at once organic but also shaped. Therefore, the distinction between music and language, one as pure, the other as mediated, is too simplistic. Barthes’ view that music is a pure mode is a common one and is one that I address later in this chapter.

A treatment of rhythm as an underpinning of language and music, but that synthesises the cognitive sciences, sociocultural and phenomenological perspectives, is found in the lifework of psychologists Colwyn Trevarthen and Steve Malloch. Trevarthen and Malloch studied the social capacity of infants and what they identify as an inherent “communicative musicality” (Malloch, 1999; Trevarthen, 2008, 2011; Trevarthen & Malloch, 2018) as babies communicate with their caregivers. An infant’s capacity for musical and affective semiosis (Trevarthen, 2015b) is evident

in an early orchestration of gesture, sound, rhythm, and voice (Trevvarthen, 2016) and a young child's communicative development with their caregivers and within a community (Trevvarthen & Malloch, 2017). This evidence points to a rhythmic musical basis to communicative interactions between infants and carers as well as in a body's very life force, through the human heartbeat. Trevvarthen (2015a) describes that a "communicative musicality" explains the subtle sharing of emotional rhythms and shared narratives created between caregiver and baby. Studies elsewhere, such as the work of Zentner et al. (2010) and Tafuri (2008), support such findings.

To summarise the discussion in this subsection, a music–language connection is located in the domain of rhythm, as has been identified in the field of cognitive sciences (Rebuschat et al., 2012) and in aesthetic and semiotic theory. More precisely, as explained by Barthes (1985), the locus of the connection is within the body, where rhythm is expressed through gesture and the voice (Barthes, 1977). "Music's body", a term used by Barthes (1985, p. 243), could be used to summarise the location of convergence between these fields. However, perhaps more precisely (or more accurately) than these, music and language converge in the bodies (plural) of humans communicating in "intersubjectivity" and synchrony, as explored by Trevvarthen and Malloch (2017).

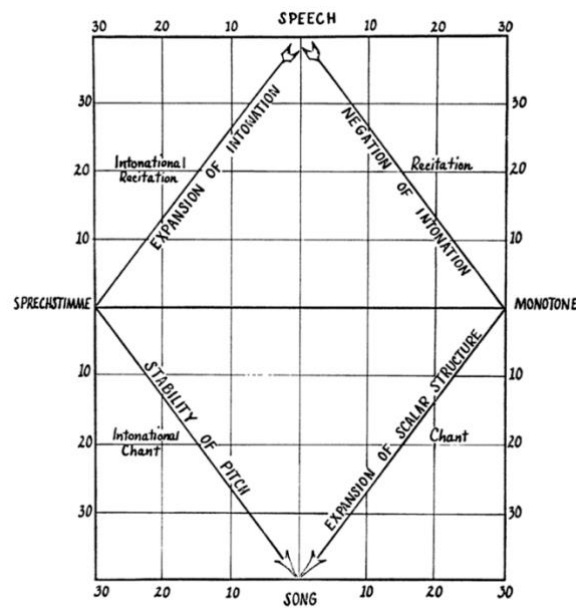
Speech, Song, Sound

In the cognitive sciences, the boundary lines between music and language have been explored on an acoustic level, highlighting a nexus between speech, sound, and song. The acoustic surfaces of language and music that reveals common musicological and linguistic properties, was explored by music theorist George List (1963) in a speech-to-song continuum (see Figure 2.3). Within this continuum, List identified elements of modularity, pitch, and structure as mirrored across song and speech to reveal indistinguishable similarities between items such as "sprechstimme" ["speech voice"] used in song and monotone used in speech.

Other symmetrical or mirror forms, such as chant within music and recitation associated within speech, were also identified.

Figure 2.3

Classifying Forms From Intermediate Speech and Song



Note. From List (1963, p. 9).

Recent studies in neuroscience have gone further to investigate speech-to-song on a perceptual level, which indicate that instead of a continuum, distinctions between speech and song are mostly illusory (Schön et al., 2010). These have shown that discernment between speech and song require cultural or musical familiarity or training (Trainor & Trehub, 1992; Vanden Bosch der Nederlanden et al., 2015, 2020). The degrees to which such characteristics as repetition, timbre, pitch, modularity, and rhythm are used could produce the “illusion” of song or speech and are blurred across the forms of chanting, emphatic speech, poetry, rap, and song (Lerdahl, 2001). Furthermore, the distinctions between speech and song are mostly indistinguishable to “naïve” (or untrained) listeners (Tierney et al., 2008). These have important

implications for the distinctions made in the classroom between music and language studies and the further implications that one (music or song) supports the other (speech) and vice versa.

Within a literary and phenomenological framing, the concept of voice has also been explored in an interesting way, again by Barthes (1977). In *The Grain of the Voice*, Barthes sought “to displace the fringe of contact between music and language” by examining “the very precise space (genre) of the *encounter between a language and a voice*” (Barthes, 1977, p. 181). Barthes uses the phrase “the *grain* [emphasis added] of the voice” to push the limits of meaning invoked by the term “voice”, seeking to foreground the materiality of the voice but also to transcend the textual landscapes of music, culture, song, and word. He generalises the idea of the grain as the “friction” that happens in any process of expression and creation through the body: “the ‘grain’ is the body in the voice as it sings, the hand as it writes, the limb as it performs” (p. 188).

Recognising that music resists ordinary linguistic analysis, Barthes also suggests the need for a new aesthetic metalanguage, particularly for music. He suggests, for example, that “diction” could signify the material quality and listening experience of the singer’s emotive vocal expression.

Speech and song have also been explored in a range of studies that aim to demonstrate their inextricable interconnections within diverse cultures. For many Australian First Nations peoples, a seamless music–language connection has been an essential aspect of nourishing and sustaining cultural traditions and language (Bracknell, 2014, 2017, 2020). The work of the Gondwana Indigenous Children’s Choir features Australia’s First Nations songs and singers who sing in language; its aims, language, and music are inseparable features (Barrett & Zhukov, 2022).

Applications of speech-to-sound in learning and early education contexts have also found that song is vital for the language development of young children. These would include, for example, language learning through song and child-directed speech in infants (Ma et al., 2020; Schön et al., 2008), for second-language learning (Albaladejo et al., 2018; Busse et al., 2018), for autism (Paul et al., 2015), and for emotional development (Stuber & Nicoladis, 2021). These

studies suggest that song aids memory and provides a greater “rhythmic regularity” to support speech development. Furthermore “the playfulness of song may make it ideal” for language learning with young children (Vanden Bosch der Nederlanden et al., 2020, p. 7).

In summary, treatments of song-to-speech (and of music-to-noise continua in van Leeuwen, 1999) suggest that these are mostly perceptual (Fritz et al., 2013; Trainor & Trehub, 1992) and are socially or culturally construed and constructed. Furthermore, it suggests that language, voice, and song each have aesthetic as well as representational properties that, when combined, carry a particular potency through emotive affect. These ideas might be further summarised in the account provided by Feld and Fox (1994), which found that “music’s poetic de-referentialising of language heightens the symbolic efficacy of its affecting discourse, making it a sensitive gauge of both traditional and emergent forms of sociability and identity” (p. 43).

The findings suggest that the connection between music and language are particularly evident within a speech-to-song framing. Differences of degree exist on an acoustic level and are mainly perceptual and cultural in nature. Finally, language through song improves speech and memory, provides cohesion within social and cultural contexts, and has an emotive, affecting aesthetic, all of which have implications for education and language learning.

This section drew together contemporary perspectives on music and language, which posit them within a semiotic framing. As the “symbolic species”, humans use music and language as semiotic systems for interaction and communication that are fundamental aspects to human expression and cultures. Semiotic explorations have enabled music and language to be examined as connected social semiotic systems and processes.

Each perspective pointed to the interconnection of music and language and implicates gesture and rhythm. These perspectives suggest that together, these are an inherent aspect of human expression from birth and are a fundamental way we interact socially, so that instead of music being a decorative artform, it is positioned as a core feature of human beings, their societies, and basic social functioning. These have important implications for education.

The “Acoustic Turn”: Expanding a Multimodal Education?

This section explores the implications of the theories presented so far. Semiotic studies through phenomenological, aesthetic, cognitive psychology, and social semiotic studies have pinpointed a connection between music and language and between rhythm and language. This section looks at these fields of research and their “practical” applications in history telling, literature, and the arts, in anthropology, and in education. This section then explores the implication of an acoustic paradigm for multimodal writing, critical literacies, and the curriculum.

Departures from “Ocularcentricism”: An Acoustic Paradigm

An acoustic turn has been described across various fields of study in the last 50 years. It is a critique of the “ocularcentricism” of western orientations (see the work of theologian Jacques Ellul, 1985 and Martin Jay, 1988). This turn towards music and language has been explored in anthropology (Faudree, 2012, 2017; Mead, 1972), in ethnomusicology (Bracknell, 2014, 2019) and in history (Collins, 2006; Goodman, 2017; Hurley, 2019).

Exploring sound histories of Australia, historian Diane Collins (2006) has explained that even when a “history of the senses” became an interest for historians, their work was still preoccupied with “looking rather than listening” (p. 2). In her own exploration of acoustic histories through the ears of explorers as recounted in their writings, Collins recreates a vivid sense of the ways in which the writers perceived Australia “as an acoustic other” (p. 10). Its silence as much as its sounds conveyed menace to explorers like John Oxley. The silence represented lonely desolation—punctuated by thunderstorms, tree fall, kookaburra’s laugh, cockatoo screech, and wild dingo calls—and challenged their aesthetic expectations. The ordered pastoral sounds of Britain symbolised by church bell, blacksmith’s anvil, and urban sounds of mechanical industry were the “audible proof of a cosmic order” (Collins, 2006, p. 3), whereas Australian sounds gave them no such comfort.

This kind of acoustic historical account draws attention to an additional perspective that helps us to feel, to understand, and to critique the experiences of the past more effectively. In history and literacy classrooms, the ocularcentrism that has tended to dominate may be corrected through the acoustic insights of music educators. In the U.K. context, Joyce Goodman (2017) has described the experiences of students in a music classroom experimenting with composing through drawing on the sounds and silences of the local natural environment as shaping materials (as inspired by Paynter & Astor, 1970). A similar exploration of sounds by Locke (2022) explored the natural world through an ecoliterate pedagogy but used music-making as an alternate sensory means by which to “open up consciousness” (Vaugeois, 2019, cited in Locke, 2022, p. 114).

In the literacy context, a longstanding acknowledgement of the importance of oral language in the literacy classroom has been reinforced since Britton’s (1970) description that literacy floats “on a sea of talk” (p. 164). Recent discussions from genre theorists have refocused attention on classroom talk. Frances Christie and Beverly Derewianka describe that the importance of purposeful “classroom talk is gathering momentum in a number of countries around the world” (cited in Jones et al., 2018, p. 2). They draw attention to a history since World War II where an applied linguistics, through discourse analysis, has given insights into the experiences of teachers, students, and classrooms, including in the work of Halliday (1975; also seen in the work of Kress, 2011, Locke, 2004 and van Leeuwen, 1993).

Explorations in Music and Literature

Inspired by semiotic implications for language and music, the turn of the 20th century saw an exploration of music and sound in the work of modernist writers, including James Joyce, Samuel Beckett, and Thom Wolfe (McGrath, 2018). The intersections between music and language within these experiments reveal what literary theorist Katherine O’Callaghan (2018) refers to as the inherent “interstitial space” (p. 2) between words and music.

Experimenting with the aesthetic and representative powers of music and language, modernists studied a music–language connection through their artistic practice and sought to discover how far the boundaries of their artforms could be stretched. There was a modernist literary interest in what music could express that words could not, and vice versa (Carlile, 1968; McGrath, 2018; O’Callaghan, 2018). Writers like Samuel Beckett believed that music had superior expressive powers that words did not possess (McGrath, 2018) and explored the “text” as a woven integration of music, sound, song, and word.

Since then, a recognition of the importance of music, sound, and song have begun to challenge long-held emphases on written and visual texts. It is referred to by some as “an acoustic turn” (Cummins, 2019) or a “sonic turn” (Faudree, 2012). Australian musicologist Joseph Cummins (2019) has declared an enlightenment period for music, which he refers to as an “ensoniment”, one that gives reinvigorated attention to music and sound in literature and culture.

The acoustic turn provides new opportunities to properly consider the embodied language, music, and sound experiences of our historical past, as well as to the face-to face human communication and experiences in the present, as Mead envisaged. The sonic turn is necessary to ensure a full range of knowledge sharing and experience is represented. For education, the implications would mean further investigations of the multisensory and real-time experiences of children in the music or language-writing classroom, as has been explored by Brownell (2019), Chee-Hoo Lum & Campbell (2007) and Dernikos (2020).

The sonic turn, within a shared framing of music and language as semiotic systems, has nudged notions of the “text” to reflect these. Rather than an emphasis on written language, contemporary uses of “text” refers to any composition that uses various elements in a greater range of multimedia that can be either written or spoken, including “any instance of language” and “using any medium” (Halliday & Matthiessen, 2013, p. 4).

In a social semiotic framing, music and language come into contact within the work of language users and writers in a digital context where “sign producers use the semiotic resources

available to them according to their interest at the moment of sign production” (van Leeuwen, 1999, pp. 193–94). In the lives of children and for learning, Genishi and Dyson (2014) further explain that to “be composers in contemporary times, when multimodal texts proliferate, children must learn to differentiate and access the power of symbolic media” (p. 232).

Multimodality: An Expanded Paradigm for Reading and Writing

Multimodality provides a compelling basis for a synthesis of music and writing in the primary classroom and is already embedded within the Australian Curriculum, both in the Australian Curriculum: English (ACARA, n.d.-c) and in the General Capability (Literacy) (ACARA, n.d.-e). Multimodality as explored in literary and linguistic studies, is associated with social semiotics and multiliteracies, as proposed by the New London Group (Cazden et al., 1996).

The term multimodal has a longer history and has been used in various contexts including in psychology (for an earliest reference, see Garth, 1921, cited in Mead, 1926) and in “multimodal therapies” where affect, sensations, mental images, and behaviour are analysed as connected dimensions of wellbeing (Lazarus, 1989). Mead (1926, 1964, 1972) explored the terms multimodal and multisensory interchangeably in her anthropological writings and was the first one to use the term in reference to language education, ultimately preferring “multisensory”:

What we need now is to develop systems of education that are consonant with human development—in which ... multisensory involvement and the disciplined use both of the mind in the usual sense and of the whole body in the light of our new knowledge about the participation of the whole body in thinking and in overt action. (Mead, 1964, p. 13)

Mead’s pioneering work in multimodal anthropology has continued (S.G.Collins et al., 2017). Within her multimodal and multisensory vision for education is a phenomenological emphasis on language as an experience in the body. Language, argues Mead, is multi-sensory. The

acknowledgement from Halliday about Mead's legacy has been a surprise finding in this literature review. This is especially as it isn't acknowledged in any of the contemporary commentaries.

In contemporary semiotics, the term multimodality as it is used in linguistics today, was a term that was established in the middle to late 1990s. It was used, for instance, by Charles Goodwin, in a seminal article submitted to the *Journal of Pragmatics* in 1998 (Goodwin, 2000). It also features in Kress and van Leeuwen's (2001) *Multimodal Discourse: The Modes and Media of Contemporary Communication*. The concept was also advanced in the work of van Leeuwen (1999, 2000) and in Jewitt et al. (2016).

Social semiotics which "takes the notion of the *sign* as its starting point" (Bezemer & Kress, 2015, p. 9) emphasises that signs are shaped by participants within their social environments. Multimodality also seeks to address the changing context in which texts are increasingly online, digital, and culturally diverse. In complex multimedia landscapes, "reading" and "writing" are reconceptualised as active social activities and writing is reconceptualised as compositional design (Kress, 2010). The writer is an agentic designer (Walsh, 2010) who selects a range of semiotic modes or resources with which to build an "ensemble" that communicates a message through multiple semiotic resources (Bezemer & Kress, 2015, p. 7).

Multimodality which is embedded in the Australian curriculum and internationally (Callow, 2020) requires a multimodal metalanguage to enable the critical analysis of many kinds of text, where "text" denotes a range of forms, including picture books, film, and theatre (Buch & Callow, 2020; Callow & Buch, 2020; Macken-Horarik, 2016). Unsworth's (2008a, 2008b) analysis of text—whether, spoken, written, musical, or visual—through an expanded version of Halliday's (1978a) field, mode, and tenor, has applied the concepts broadly.

There have been other lens and frameworks used for interacting with visual and other texts. Barthes' (1977) "theory of the text" made a contribution to literary and art theory (see Barthes, 1971, cited in Harrison & Wood, 2004, pp. 965–970). However, the aims of

multimodality are more overarching and try to take a more robust transdisciplinary stance on the text, so that

the point of a multimodal approach is to get beyond approaches where mode was integrally linked, often in a mutually defining way, with a theory and a discipline.

In such approaches writing was dealt with by linguistics; image by art history; and so on. (Kress, 2010, p. 38)

Therefore, building on Halliday's functional linguistics, multimodality as a concept seeks to achieve equity through gaining a special knowledge about the way texts work within social spheres. All modes are "equal, potentially in their capacity to contribute meaning" (Kress, 2011, p. 242). Multimodal theory approaches texts as discourses of power and so paying attention to all modes of meaning gives the reader a more comprehensive knowledge about the ways this might be achieved. To define "text" within a multimodal framing, Kress (2010) draws us to its etymology, linked to the concept of weaving or being woven. Text, explains Kress, is the result of a process of weaving multiple threads or modes together in communicative forms. Kress elaborates on the metaphor to explain that the text as something woven "implies a weaver who has a sense of [its] coherence" (Kress, 2010, p. 36). The text is the "*material* site of emergence of *immaterial* discourse(s) [emphasis added]", the "semiotic manifestation" (Kress, 2010, p. 37) of social interactions.

This explanation seems to emphasise the written, visual, or cultural artefact as important evidence of hidden or unseen (immaterial) discourse(s). The action of analysis, then, is a process of recognising or unravelling the strands that have been woven in to create the whole and, therefore, to deduce the intentions of the weaver and find its true meaning or coherence.

As per Foucault or Bernstein, the woven text indicates its "ideological arrangement" and points to power relationships (Kress, 2010, p. 37)—that is, the ways in which the weaver/writer positions the reader. In this sense, Kress's analysis is a critical one. While it may value the textual

processes involved in text-making, in theory, it is the woven “manifestations” or artefacts which are of most interest. These are decoded for the intentional processes, biases or omissions that are evident there (Kress, 2010; Unsworth, 2008b).

Multimodality and an Acoustic Metalanguage

While multimodal studies intended to treat all modes with equal attention, studies have tended to place an unintended emphasis on the linguistic and visual elements as pointed out by Callow (2020, 2023). Kress, Hodge, van Leeuwen and others gave extended attention to exploring the image (Callow, 2008, 2016; Callow & Zammit, 2002; Hodge & Kress, 1988; Kress & van Leeuwen, 1996, 2002, 2006).

The first comprehensive attempt at an exploration of music, sound, and speech was provided by van Leeuwen (1999). Within van Leeuwen’s excellent exploration of these, he acknowledges that the term *music* becomes problematic, as a broad term, and uses the term *sound* more than music (p. 170). Overall, van Leeuwen finds that the multimodal terms used to apply to visual images are do not work as well when analysing music. Finding and applying terms suited to multimodal-specific study is a challenge Bezemer and Kress (2015) have acknowledged. One example of a term that has been proposed as one that could be applied across modes, “intensity”, for example, denotes saturation (in the case of colour) or loudness (in the case of sound) (p. 7). As a burgeoning field of interest, multimodality has been pioneered over several decades and is still establishing adequate terms for its study, especially for audio dimensions of text.

The notion of music and sound explorations in multimodal study continues to resonate with educators and musicologists, who have continued to explore its scope within multimodal studies (Noad, 2007; Noad & Barton, 2020; Noad & Unsworth, 2007; Tomlinson, 2015). Out of great respect for Kress’s work, Lyndon and Simon (2017) build the case that music has somewhat languished within a multimodal taxonomy and see an opportunity to apply a multimodal framing

to music more rigorously. Seeing an important place for multimodality within music, they have sought to strengthen the multimodal terms as they pertain to sound and music.

These examples demonstrate that since van Leeuwen's (1999) landmark project on music, sound and speech, a multimodal project for sound, speech, and music, has continued. The acoustic dimensions of texts are being foregrounded, though further explorations are needed to explore multimodal language that might describe the acoustic dimensions with more specificity.

The “Acoustic” Turn and Implications for Young Writers

Given that music, sound, and speech are powerful tools within multimedia texts, but also in face-to-face interactions, a greater repertoire of metalanguage for analysing sonic elements seems appropriate. Exploring tone, inflection, pitch, intensity, and timbre in song, speech, chant, and natural discourse, a greater degree of critical analysis could be possible.

Within an expanded understanding and experience of texts, multimodal writing demands a greater range of creative text-making skills. Text-making is the crafting and weaving together of elements, as described by Dyson (2016), whereby children “capture the music of language, and [begin] to reconstruct and reimagine their worlds; energized by participation in a composing practice” (p. 174). Similarly, Barton (2014) defines these processes as “interpretive and expressive fluency through symbolic form, whether aural/sonic, embodied, textual, visual, written or a combination of these within the context of a particular art form” (p. 3).

There is, therefore, room to further consider multimodal processes (de Silva & Feez, 2018), particularly acoustic ones, involved in the creation of texts—to conceptualise that not only are the manifestations of text material (physical, embodied experience) but also the discourses involved in making them are also material. As Dyson (2016) explains in the early years context, pertaining to multimodal processes, that where “children can play with language like a musical theme; they can transform its tempo, melody, volume, or medium” (p. 160).

As explored earlier in this chapter, music teachers have provided examples of the language that could also be provided to young writers of text. Using a music, movement, sound, and speech paradigm, they might further explore, for example, the “acoustic topographies” of their environments, their own “resonant” and “sonic selves” (Goodman, 2016, p. 528) and what they can do with their speaking voices as “sonorous” and real-time experiences—as described by music teachers earlier in this section (Goodman, 2016; Locke, 2022).

The Australian Curriculum defines text as “print or digital/online forms”, “multimodal texts”, and “augmentative and alternative communication” including film, photographs, and real objects (ACARA, n.d.-i, para. 1). The Australian Curriculum acknowledges that the main function of the text, in all its forms, is to “provide important opportunities for learning about aspects of human experience and about aesthetic value” (ACARA, 2021 n.d.-i, para. 1).

However, the General Capability: Literacy in the Australian Curriculum underscores all curricula and includes more replete notions of visual, genre, or grammatical (linguistic) metalanguage for writing. The Australian Curriculum is yet to articulate more detailed evaluations of the music, movement, sound, and speech dimensions of texts in the same way as for the linguistic and visual dimensions. An acoustic turn is yet to see its full fruition in language and literacy within the Australian Curriculum beyond notions of phonology and rhyme and general notions of talking and listening. An acoustic metalanguage would give students an adequate repertoire to understand how to convey and interpret sensory elements of meaning through such elements as tone, modularity, timbre, diction, rhythm, and pitch.

Towards a Critical Literacy of Music?

The difficulties in experiments with a musical semiotic metalanguage such as van Leeuwen’s (1999) are arguments that posit music as a special artform that exists beyond the reaches of analysis. Indeed, even van Leeuwen (1999) contends that “the most abstract form of sound is music” (p. 177), and Barthes (1977) assesses that language rarely does well when

describing music. Cox (2011) similarly makes a case for music's unique aesthetics; however, she argues that this uniqueness is not in its being abstract but instead in its immediacy and material nature. Music is a muscular human action, "an audible expression of nature in all its dynamic power" (Cox, 2011, p. 150). However, Cox also argues that because of the "concrete" nature of music, this also makes music something that is "beyond" signification.

Cox is right to point to music's concreteness, pointing as Barthes did to the visceral experience of listening and to the production of sound in the body; however, the arguments might extend out to equally consider that there is a material physical, social, and cultural reality within which music is created and its intended aims. As Kress (2011) suggests, the weaver of a text, be it sung, written, or spoken, has an intentional role in weaving its coherence (or intended impact) into being. From a psychology perspective, Sacks (2006) seems to agree that it would be dangerous to give music an exceptional status outside of critical analysis (Sacks, 2007). He argues that we should also be wary of its powers to persuade, manipulate, and control, precisely because it can do so implicitly, even subliminally. He draws on examples of musical manipulation in 20th century cults and political (including Nazi) regimes that illustrate his case and is supported by a number of other case studies (Douek, 2013; Schäfer et al., 2013).

Yet the view that music is something "other", or above the common or political fray, has become so ubiquitous that a critical literacy of music continues to be resisted. Australian philosopher of music Robin James (2019) describes being in a small minority of those willing to conduct a critical analysis of music but argues that music is not outside the work of representation and signification, though it may sometimes appear so. James strongly challenges the pervasive view of music as a rarefied pure aesthetic form, akin to pure mathematics, existing in a "flat social ontology" (p. 13) that is benign and ordered. James (2019) shows that music has a very sophisticated repertoire with which to represent values and attitudes within social contexts and proposes a "sonic episteme" (p. 22) for the critical evaluation of music. James provides examples of the ways in which pop songs position the listener, and she explores aspects such as

rhythm, instrumentation, timbre, pitch, and lyrics that contribute to a signification of politics, gender, and status, among other aspects. While James uses a different theoretical methodology to those offered in multimodal analyses, her insights may be used to inform similar multimodal and critical framing of music in education.

These perspectives remind us that critical analysis can support readers of text, including of music and sound, to explore their signifying and ideological potential. In a Kantian aesthetic approach, an appreciation of beauty cannot be separated from moral judgements. In Kant's (1790) approach to aesthetics, the viewer/listener makes aesthetic choices knowingly and is able to articulate the reasons for their choice with critical astuteness. An aesthetic education that would include an acoustic sensibility could allow listeners to appreciate and evaluate the "sublime" while also recognising the retrograde.

Towards New Definitions of Music and Language

A semiotic frame has enabled language and music to be compared using parallel concepts, such as musical syntax, musical grammar, and musical linguistics (Kunert et al., 2015). Within these, the similarities between the disciplines or modes are emphasised while the distinctions become blurred. Some see such blurring as inevitable as they simply reveal that music and language are "phenomenally intertwined" (Feld et al., 2004, p. 340) and that what is needed is "a unified framework of sound" that includes music, sound, and speech (p. 340).

Such conceptions of music *as* language have become ubiquitous, particularly in the field of music, as is evident in international music curricula. For example, in the United Kingdom, the national curriculum states that "music is a universal language" (Department for Education [DfE], n.d.). The New Zealand curriculum refers to music as "a sonic language, born of context" and explains that "music is an expression of, and a way of connecting with, language, identity and culture" (Ministry of Education, 2023, p. 53). The Australian Curriculum states that music is "a basic expression of human experience" (ACARA, n.d.-g), and within the provincial education

system of Canada, the Ontario Curriculum (Arts) refers to music and other artforms as having their own “artistic ‘language’ or symbols” (Ministry of Education Ontario, 2009, p. 14).

However, Kress (2010) believes that we have demanded too much of the term language, using it as a “receptacle for all the semiotic stuff” (p. 15) that seems to compromise the clarity of the term language. Halliday (2003), like Kress, is similarly cautious about using language as a universal term and preserves it for linguistic use. Language, though it is one of a number of “systems of meaning” (p. 2), is distinct in its value as a “prerequisite for all the other systems. Other linguists have preserved the use of language in this way also (Derewianka, 2012; van Leeuwen, 1999, 2021).

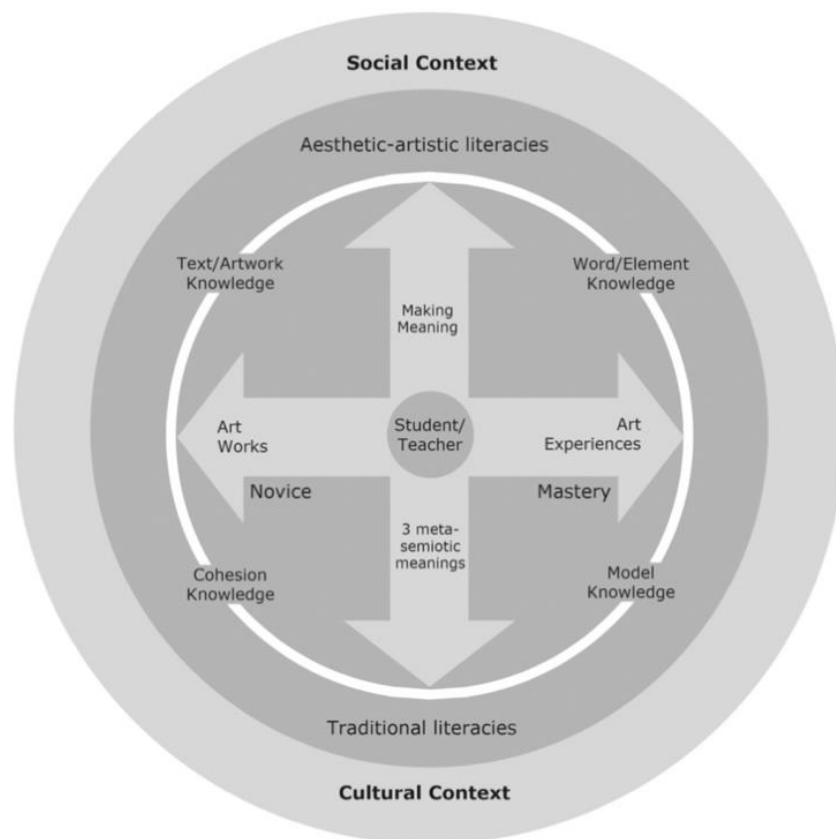
Due to the complexities of definition, and drawing from descriptions of the phenomena in practice, ethnographic studies of music and language have tended to describe music and language as active processes rather than in terms of fixed characteristics. Eco (1978) identifies that sociocultural practices are delicate and constantly evolving so that the ways we conceive of them, define them, and talk about them fundamentally change the way we interact with them. Therefore, terms such as “musicking” (Locke, 2020; Small, 1998), “languaging” (Halliday, 1985, p. 193; see also Bloome, 2023), “storying” (Lowe, 2002), or “musical-linguistic practices” (Faudree, 2012, p. 522) are preferred and appear to “age” more favourably.

A social view of music and language posits them not as autonomous objects of study but asks, “What are they for?” Through this frame, Halliday (1978b) clarifies that there is a long tradition of dual notions of language—one as resource, the other as rule (p. 22). For Halliday, the idealisation of language should not be located in the language itself (which misunderstands the location of the phenomenon) but in the functions it is used for (Halliday in interview with Parrett, 1972/2013).

Drawing together a social semiotic and multimodal framing with an aesthetics approach inspired by educational philosopher, Maxine Greene (1976, 1984, 1986, 1995b), others such as Australian educator Georgina Barton (2020) has envisaged an arts-based “metasemiotic”

approach to literacy education. Barton’s model (see Figure 2.4) proposes an integrated approach that posits literacy within a social and cultural paradigm. Within this reimagining of the literacy classroom, “aesthetic–artistic” and “metasemiotic” practices and processes are emphasised.

Figure 2.4
Literacy Education as Aesthetic–Artistic and Metasemiotic



Note. From Barton (2020, p. 51).

Within Barton’s framing of an aesthetic–artistic approach to literacy, a literacy classroom where music and acoustic processes are emphasised is conceivable. Within this model, semiotic systems are not only material resources for creating artefacts but the material processes that undergird creative learning in the literacy classroom. In models such as Barton’s, an architecture

is provided for classrooms where writers, or “symbol weavers” of text, incorporate the threads of spoken, sung, visual, gestural, and written dimensions for communicative interactions.

Definitions for Music and Language

The definitions provided (see Appendix Table A1) are underpinned by threads that have run throughout this section. First, language and music are both innate and socioculturally developed (lending from both the Chomskyan and Hallidayan perspectives).

That language and music are innate seems evident in the ways in which babies communicate musically from birth (Trevvarthen & Malloch, 2018), and the evidence from our evolutionary origins (Boe et al., 2019; Brown, 2001, 2017; Mithen, 2003, 2006). Yet, specific cultural and social manifestations of language and music in each context is also evidence of their learned dimensions (Vygotsky, 1978). It seems evident that both positions can be held simultaneously as is evident in Barham and Everett’s (2021) definition of a “biocultural tool”.

Second, language and music are built on an underlying semiotics—that is, semiotics as resource but also semiotics as the patterns and structures built on the human preference for symbols and patterns of communication. Third, language and music are generative cognitive systems as well as creative social processes, as seems evident from the underlying patterning and structures of language (see Berwick & Chomsky, 2016, and Rebuschat et al., 2016) and in the intertwined phenomena noted in ethnographic anthropological studies (Feld & Fox, 2004). Music and language are creative acts evident not only in the masterful examples but in the everyday (Maybin & Swann, 2007; Vanden Bosch der Nederlanden et al., 2015; Walia, 2019).

Fourth, music and language are aesthetic meaning-making creative acts. They are intertwined in communicative processes and communication, where modularity, timbre, pitch, repetition, and dynamics are resources called upon in each system of meaning.

As shown within this section, multimodal framing has brought about a refiguring of key notions both about language and music and about the process of reading and writing. Writing has

been reconceptualised as design and notions of the text as any speech, written, or multimodal manifestation of communication. Notions of writing and the text have the potential to be further expanded within an “acoustic turn” where a semiotic language is developed that allows an educational approach that would provide a tool with which to evaluate music and sound appreciatively, both in terms of aesthetics choices and in terms of developing a text’s intentional acoustic coherence. These perspectives have laid the groundwork to examine music language in the early years in the following section.

Music–Language in Early Childhood: Moving Between Symbolic Worlds

A constellation of symbolic forms, of which music and language are a central part, is strongly evident in childhood. Dyson (1988, 1990) highlighted that in a child’s early years, a capacity for symbolic thought is active—including initial forms of song, dance, language, drawing/writing, drama, and gesture—so that children naturally “move between symbolic worlds”, weaving these forms together in their imaginative play and social interactions. Creaghe et al. (2021) explain that this symbolic play in early childhood is “fertile ground” for language development, including first attitudes to oracy, writing, and reading. Cornett (1999) also describes this play as arts experiences with powerful curriculum potential for early years teachers. The imaginative play and creativity in early childhood (Jeffrey & Woods, 2009; Lähdesmäki et al., 2021) also point to a creative generativity that underpins all human interactions, behaviour, and interactions (Csikszentmihalyi, 1997a, 1997b).

As discussed earlier in this chapter, evidence suggests that this capacity begins even in infancy (Lerdahl, 2020). Cognitive psychologists have shown that babies first communicate in a complex “communicative musicality” that is in rhythmic synchrony with their carers (Trevvarthen, 2005, 2008, 2015a; Trevvarthen & Malloch, 2018; Zentner et al., 2010) and that these lay the foundation for later language development.

These findings challenge assumed notions about when and how language and music first develop and suggests that music is intertwined within the structures of language from the beginning (Trevvarthen, 2011, 2015b). A “communicative musicality”, explains Trevvarthen (2016), is the basic “material of human thinking” and of problem-solving forming the “basis of the grammar of language” [video transcript]. Brandt et al. (2012) further show that it is “human creativity, aural abilities and a desire to communicate” (p. 13) that underpin music and language development. The perception that music is a universal language stems from the fact that early experiences with musical sound “directs our attention to and amplifies the features of speech that we were paying attention to *before* [emphasis added] we were listening for referential meaning” (Brandt et al., 2012, p. 13).

In this way, music has also been described as a baby’s first language given that infants are beginning to interact and respond to their carers through melodic sound and rhythms, well before literal linguistic meaning is understood (Collins, 2021; Malloch, 1999). This may explain the beneficial outcomes of music and rhythm approaches that have been shown to support young children’s grammar and language skills (Fiveash et al., 2020, 2022; Patel, 2007). The rhythmic and iterative musical and creative use of language evident in the creative use of language demonstrated by children (Cekaite & Aronsson, 2005; Cremin & Waybin, 2013) is also evidence of this underlying musicality. An understanding of such musicality has the potential to inform and influence our pedagogies for teaching literacy and language, and for writing.

The “Symbol Weavers”: Children at Play

Before formal schooling, symbolic languages—including music, sound, drama, drawing, and writing—find a natural synthesis in children’s play. Vygotsky (2004) has explored the ways in which children’s language develops through play and creative experiences. Dyson (1998) observed that from a young age, children learn to “differentiate” between the symbolic languages (p. 356), but also experience these worlds as “permeable” (p. 357). For children, their text world

in its broadest multimodal sense (as per the etymology of text, “a thing woven”) “is nestled within the larger symbolic and social world” (Dyson, 1988, p. 357) in which they live.

Integrated experiences of these symbolic languages through social interaction and during play include cultural artefacts such as literature and music (Niland, 2007; Kelly et al., 2020); dance or responding rhythmically to a tune, swaying or tapping a beat (Callen, 1985; Collins, 2013; Trainor & Cerelli, 2015); through expressive gesture (Rowe, 2018); and through improvisations with speech and language (Cremin & Maybin, 2013). Through these early sensory experiences, children begin to develop an appreciation for the aesthetic dimensions of music and language, which is instinctive (Dyson, 1988; Feeney & Moravcik, 1987), consciously and culturally cultivated (Kant, 1790), but also learned through social interactions and experiences (Halliday, 2004; Kress, 1997; Mavers, 2004).

From a young age, children begin to form aesthetic judgements (Fingerhut et al., 2021; Pugach et al., 2017), and Feeney and Moravcik (1987) describe this aesthetic awareness as a “fundamental human characteristic”, explaining that the “boisterous, sometimes lyrical; and expressive movements” of young children are the “essence of poetry, music and dance” (1987, p. 8). These artforms—sometimes conceptualised as an elitist interest, or as an adult preoccupation—are, in fact, evident from birth are also essential to communication from birth (Gibson & Ewing, 2020).

Music and Language in Early Childhood

As described earlier in this chapter, an infant’s experience of language in the first year is through the voices of its parents, but the meaning is conveyed primarily through the rhythm, dynamics, and pitch of their vocal sounds long before the literal meanings of the words are understood. Accompanied by gesture and facial expressions, a repertoire of meanings and emotions are communicated including comfort, affection, playfulness, or to warn of danger and

to which infants respond vocally (Perani et al., 2010). At this stage of life, language is essentially song to a baby's ears, and it is the music that conveys the meaning (Collins, 2021, p. 5).

It is also through the music of language—in addition to other music and singing experiences in early childhood—that young children, even by the age of 4 years, already possess an impressive ability to “identify changes in pitch, tempo, dynamics and musical duration” (Acker et al., 2012). Comparative studies of the development of language and music from birth to preschool age appear to confirm that language and music are complementary functions, which develop together and in a similar chronological progression (Acker et al., 2012; Trainor & Cerelli, 2015; Trehub, 2003; Trevarthen, 1974). Using Patel's (1999, 2003) syntactic integration model of language and music, which measures language and music structural complexity, Cohrdes and colleagues (2016) were able to show that “language and music skills are significantly interrelated” in early years development (p. 9). Experienced teachers' observations support these findings. Niland (2007), for example, observed that children often integrate music and literature “naturally in their play” (p. 11), and Ewing and colleagues (2016) argue that “serious play with sounds and words is critical” for early language development (as cited in Ewing, 2019 b, p. 4).

Therefore, interpretation of oral language for young children is not only about the literal meanings but the capacity to interpret the tone of meaning and nuance through the music of the language (rhythm, dynamics, pitch, timbre). Children who have trouble deciphering the tonal elements of language will experience difficulties, and for this reason, music interventions have been shown to have a positive relational impact on literacy skills (Dittinger et al., 2017). Even in early childhood, music interventions have made a positive impact on a range of literacy abilities (Fiveash et al., 2020, 2022; Fonseca-Mora et al., 2016; Hansen et al., 2014), including the ability to distinguish speech sounds (Zhao & Kuhl, 2016).

Rhythm interventions with 6-year-olds have also demonstrated positive impacts on sentence and grammar awareness and for literacy development (Gordon, Fehd et al., 2015;

Gordon, Jacobs et al., 2015; Gordon, Shivers et al., 2015), and music has been shown to have significant therapeutic and academic outcomes for children with autism (Vaiouli & Andreou, 2018). Young students who are hearing impaired have also benefited from music interventions for speech and language in a classroom setting (Nelson et al., 2016) and for young children's spelling (Gaboury et al., 2020).

The symbolic language systems have an important role to play in strengthening engagement and learning outcomes for other forms (Sotiropoulou-Zormpala & Mouriki, 2020). For example, music interventions can be useful in language development. Considering that a child's language ability at 4 years of age is a powerful predictor for long-term educational and life outcomes, the additional support of music in the early years is an important aspect that can work to complement linguistic and language development (Cogo-Moreira et al., 2012; Reilly et al., 2010).

Writing, Language, and the Arts in Early Childhood

Several studies over more than four decades have continued to demonstrate the link between language and the arts from a young age and the integration with writing. As described by Vygotsky (1978), young children imaginatively experiment with a range of forms. A strong link between talk, drawing, and writing prior to formal schooling is evident, for example (Bradford & Wyse, 2013; Britton, 1972; Dyson, 1988, 1990; Kervin & Mantei, 2015; Myers, 1983; Scull & Mackenzie, 2017; Wixon & Wixon, 1983).

The talk–writing connection is often associated with the work of Britton (1972; as described in Durst & Newell, 1989) where he explored the talk–writing connection through “expressive writing”. This was a term he coined to describe a naturalistic or raw style of writing that would encourage students to write down their thoughts as they would express them through speech. For Britton, writing classroom needed to happen within an environment of rich talk. An expressive writing process would capture children's natural speech patterns so that the structures

of language could then begin to be internalised through writing. It was Britton's observation that only once children felt comfortable with the link between their talk and their writing could they begin to mature into other styles of more formal writing. An aspect of Britton's emphasis was that as soon as children began to think about and discuss their writing, they were doing the beginning work of composing already. Several studies by Hertzberg (2011, 2014) also describe the important place of oracy in the literacy classroom for young second-language learners, in adult-facilitated, conversational, and play settings. These research explorations have implications for music and writing, as shown earlier in this chapter; a speech–sound–music continuum underpinned by rhythm supports all acts of language, including writing. Attention to talk in the process of writing in the classroom is important for supporting a rhythmic and metalinguistic approach to writing.

A synthesis of other research over many decades has also upturned the presupposition that writing only begins once formal schooling commences. One study, for example, found that while parents did not recognise the “marks” or “scribble” their preschool-aged children created as being writing, children themselves often described their work this way (Bradford & Wyse, 2013). The study showed that the preschool-aged children involved in the study were always able to make sense of their writing/drawing, telling the (often) complex stories they had depicted, providing detailed explanations of the messages their marks had created. Furthermore, the study showed that the same students were creating both handwritten and digital forms of text for their own enjoyment. Students were already producing texts for a range of aesthetic, communicative, or creative purposes in a range of formats (Bradford & Wyse, 2013). Mackenzie and Scull (2018; Scull & Mackenzie, 2017) have also outlined the ways in which drawing, talk, writing, and other “symbolic representations” are used in children's writing throughout their development and that these do not necessarily develop along a linear path (p. 10).

The biased adult perception of the work of young writers has been challenged by a number of studies. Mavers (2011) also encouraged teachers and parents to look more carefully at

the seemingly “unremarkable” nature of children’s early drawing. While acknowledging that with practice comes mastery, Mavers challenged the assumed notions of developmental progress in children’s writing from “simplicity to complexity”. Instead, Mavers posited that young writers merely learn to imitate the socially acceptable signs and symbols of their cultural landscape.

In our conceptualisation of writing, if we only value the writing product and do not see the young writer, we forget that writing, like early spoken language, involves thinking and intention. Mastering the recognisable conventions are one aspect of the developing skills involved in language and writing.

The “permeable” relationship between the symbolic systems used for language, stories, music, and play in the early years point to an interplay between innate biological instincts and sociocultural factors. Many studies have shown that in the preschool years, “the development of child–music interaction is strongly intertwined with the social and physical environment” (Moog, 1976, as cited in Acker et al., 2012).

The degree to which young children have the opportunity to play and interact with language, music, and writing in the home and in preschool has a profound impact on academic and life outcomes. Several studies, including from Duff et al. (2015) in the United Kingdom and from Reilly et al. (2010) in Australia, have demonstrated the critical role of rich early language environments for long-term literacy outcomes—that is, environments where regular adult–child conversations, play, and literature interactions are nurtured. While these studies show a link between socioeconomic and educational advantage and outcomes for later language development, it is the interaction with music, literature, and conversation in social interactions that play a pivotal role (Ewing et al., 2016).

Writing, Language, and Music in the Early Years

Educational initiatives in the early years have identified ways to strengthen the connections children make between the symbolic languages, especially connecting music and

writing. Building on earlier studies such as those by Morrell and Duncan-Andrade (2004) and Love (2015), Meacham et al. (2019) employed hip-hop music strategies to strengthen “complex literacy” concepts for Kindergarten and Year 1. Through developmental and culturally appropriate hip-hop music models and strategies such as writing experiments, verbal recitation, and dance/gesture, students were able to strengthen their concepts of rhythm, rhyme, phonemic, and vocabulary awareness. A mentoring dimension of the program meant that older Year 4 students wrote and recorded their work to provide hip-hop models and helped the younger students to write their songs. Such arts and music approaches often feature social and peer learning in which students collaborate to rehearse, practise, and experiment with their language and music skills, especially helpful to the English as an additional language or dialect (EAL/D) context (Lähdesmäki et al., 2021).

Paquette and Rieg (2008) also found that through using song, they could “enhance students’ creativity and cultural awareness” (p. 228) and “experience rich language in a pleasing way” (p. 231), while also strengthening technical elements such as practising consonant sounds through echoing song lines. Similar benefits of using music in early years and English language contexts for writing have been noted in a range of other studies over several decades, including using song and gesture to support writing (Schoepp, 2001).

Conversely, using literate practices in a music classroom, through using experimental symbol-notation approaches to develop written music composition, supports young students to make sophisticated connections in both their writing and music learning (Burnard & Younker, 2002; Ohman-Rodriguez, 2004). Sotiropoulou-Zormpala and Mouriki (2020) also advocate for an integrated arts approach. Within this model, they advocate that musical experiences can be used in other disciplines to “encourage children to engage in acoustic tones, rhythms, melodies, musical expression, [and] playing musical instruments” (p. 19). The findings in their study with young children were that integrating music and other artforms enhanced learning across a range of indicators and confirmed findings from similar studies (Bloome, 2004; Fleming, 2012; Oreck,

2006). Sotiropoulou-Zormpala (2020) and colleagues found that arts integration had two impacts; sometimes the artform took the “role of a teaching object, and at others the role of a medium of the teaching process” so that the children sometimes felt they were “being taught the arts, and at others they were being taught a subject through the arts” (p. 79). The findings suggest a sharpening or illumination effect when one artform is introduced into another disciplinary setting. It suggests that music approaches in the writing classroom are feasible and have merit.

These studies confirm that a combination of semiotic and aesthetic approaches can serve to support students in bringing symbolic languages in concert together to support expressive communication in the early and primary years. This supports the case for employing music approaches to enhance language and writing. Research demonstrates that music approaches could heighten rather than diminish outcomes in another subject.

Three aspects within this overview of early childhood education are particularly striking: first, the entwined nature of language and music through speech prosody from birth, second, the internal relationship between all the artforms, and third, the impressive development of language, music, and writing, evident at 4 years of age through experiences in the home, in social interaction, and in play.

Conclusion

This chapter looked at the music–language connection through the lens of the learner—that is, the essential connection of music and language for human expression and ways of being. Underpinned by rhythm, music and language are expressive functions that being in the body through music (song), movement, sound, and speech. Music and language—through music (song), movement, sound, and speech—are related to social and cultural contexts and for building identities and connections. Chapter 3 explores the implications of these findings for educations and school pedagogies.

Chapter 3.

Towards a Rhythm Pedagogy for Writing and Grammar

Review of the Literature: Part II

It is the imagination that must be awakened.

—Carl Orff

This chapter builds on an interdisciplinary research premise for a music–language connection established in the previous chapter. As expressed in Orff’s (1963) statement that the imagination must be reawakened, and which has been echoed in the work of Maxine Greene (1995a), this chapter explores what possibilities a music-language connection offers for teachers and students. Underscored by evidence that music and writing have been reconceptualised within a semiotic and aesthetic frame over more than a century, the nature of a rhythm-based music–writing connection has been demonstrated. The four key points made in Part I of the review were that: rhythm underpins all language (Barthes, 1985; Patel, 2008; Rebuschat et al., 2012; Trevarthen & Malloch, 2018); the concept of text has been enlarged to combine multiple forms (Hodge & Kress, 1988; Kress, 1988, 2003, 2010); young children instinctively weave forms together (Dyson, 1990; Friedrich et al., 2019); and that aesthetic arts elements, including music and sound, are needed to enhance language and writing (Barton, 2020; Barton & Le, 2022; Ewing et al., 2016; Ewing et al., 2014).

The previous chapter also showed that integrating an arts-based discipline, such as music, can strengthen learning in another field. These insights provide the basis for a creative rhythmic pedagogy in the writing classroom—one that emphasises music, movement, sound, and speech—and explores their implications for metalinguistic elements such as grammar.

The first section of this chapter provides an overview of the imperative for a creative and arts-led education in Australia. The second section describes the challenges and opportunities available within music and writing contexts in Australian schools, including a description of creative pedagogies that have been influential. The third section explores the scope for a music, sound, and speech emphasis in the English classroom, including for rhythm approaches to linguistic grammar. The chapter concludes with a discussion of the future opportunities of a rhythmic pedagogy in the writing and grammar classroom.

An Aesthetic and Creative Arts-Led Education

This section outlines evidence that supports aesthetic and creative arts-based approaches in education. The schools in which the empirical studies were conducted for this present study took place in contexts where the arts and arts processes were valued by the school community. Yet even in these comparatively privileged contexts, the broader pervading pressures have been felt, including assessment and funding issues, and which highlight the prevailing conditions that impact creative arts pedagogies in education in Australia (Ewing, 2020).

Amid the significant global challenges and opportunities facing present and future generations, an aesthetic and creative arts education provides unique ontologies that are best poised to address these. Creative and aesthetic ways of knowing enhance self-empowerment and ethical and moral awareness (Biesta, 2013; Ewing et al., 2014; Ewing & Saunders, 2016, 2017). Our human capacity to be imaginative and to be ‘fully awake’ is strengthened through the arts (Greene, 1984, 1995). Music-making and creative writing each involve compositional processes. Using music to enhance a writing classroom requires an awareness of the common arts aspects that they share.

Tracing Notions of Creativity

Calls for an increased attention to creativity and the arts have been made for more than a century. Since the beginnings of mass education systems around the world within the context of

an industrialised age, important questions have been raised about their impacts on human life and experience, including for human connection, wellbeing, and work. See critiques from Dewey (1900) in the United States, Whitehead (1929) in the United Kingdom, and Vygotsky (1924/1978) in the European context.

In the era of Dewey and Vygotsky, mathematics and physics professor Alfred North Whitehead (1929/1978) used the term creativity as a human activity. For many centuries prior to this, the concept of creation, “*creare*” in Ancient Greek or “*creatio ex nihilo*” in Latin, was the act of making something from nothing and therefore could only be the divine work of the gods (Pope, 2005; Rose, 2019; Taterkiewicz, 1980). Though concepts of creativity had been evolving since the Enlightenment (in the work of William Duff, Graham Wallis, and Polish poet Maciej Kazimierz Sarbiewski, for example), Taterkiewicz (1980) describes that ‘the concept of creativity entered European culture late, against resistance, [and] with effort’ (p. 250). Pope (2005) agrees that, only “gradually and fitfully” (p. 38) did a specifically human creativity become accepted.

A number of scholars have traced the term, and its first reference in the Oxford English Dictionary, to associations with Whitehead (Ford, 1987; Halewood, 2011; Nelson, 2010; Meyer, 2005). Whitehead was the first to untether the term from its mystical and religious connotations. Whitehead developed the term creativity to describe a metaphysical conception of the world in *Process and Reality* in 1929. As Belgian philosopher Michel Weber (2019) explains, Whitehead understood creativity as the “ontological marrow” of the cosmos (p. 23).

The term became a part of modern parlance, and the attribution to Whitehead was quickly forgotten (Ford, 1987; Halewood, 2011; Meyer, 2005). However, in reconceptualising creativity as a basic principle of all life, Whitehead had also detached the concept from notions of genius, in contrast to Galton (1869). Creativity was also not anthropocentric in Whitehead’s view but saw each event as “a process issuing in novelty” (Whitehead, 1961, p. 236).

Several decades after Whitehead's initial treatment of creativity, U.S. psychologist Joy Paul Guilford (1958) took an interest in creativity. However, Guilford (1958) struggled to establish a clear definition for creativity, and he began to focus on the characteristics of creativity instead.

Contemporary Explorations of Creativity

Attention has turned to characterising the attributes of creativity in the work of a number of theorists and educationalists. Guilford (1984) described creativity as a cognitive function that was “behind behaviour” and which involved the “imaginative and inventive” (p. 6). Guilford (1984) concluded that all humans had the capacity for creativity but that assessing it was a complex “multivariate endeavour” (p. 3). Guilford (1984) also identified divergent thinking as key to all kinds of creative thinking and that this skill was teachable or at least could be nurtured.

Exploring creativity in the U.K. and U.S. contexts respectively, educator Anna Craft and psychologist Mihaly Csikszentmihalyi, continued to advance notions of creativity. Like Guilford, they each highlighted that creativity was not just an attribution of genius. Instead, it was proposed that there are “big C” and “little c” examples (Csikszentmihalyi, 1997b), and that all levels of creativity are marked by ‘possibility thinking’ (Craft, 2003). Big-C examples of creativity denote the rare kind of creativity associated with genius, seen in figures such as Einstein. The little-c examples are those existing in every field of work and endeavour, an idea also further advanced by Beghetto and Kaufman (2007). For Craft and colleagues (2013), both the big C and little c examples share similar attitudes and processes that involve an essential common feature—that is, exploring possibilities. Further, for Craft, examples of creative work and thinking are evident across all areas of cultural endeavour, especially across the science–arts divide. Craft’s work was significant in prompting educators to shift attitudes about creativity as a special talent or concepts of creativity as an elite attribute.

Like Craft, psychologist Margaret Boden (2004) has described that creative processes across the disciplines are “fundamentally similar” (p. 23). Boden also concedes that the exact

nature of creativity remains a mystery and a paradox that is “beyond the reach of science” (2004, p. 11). Boden (1998) has been interested in finding discernible characteristics of creativity, as that which is “novel, surprising, and valuable (interesting, useful, beautiful)” (p. 347). This echoes other generally accepted definitions in the field, which stem from Vernon (1989). Boden has added to this a reframing of creativity as three types: combinatorial, exploratory, and transformational. The combinatorial makes use of familiar compositional elements in new ways. The exploratory tests the boundaries of possibility, and the transformational fundamentally alters paradigms, ways of thinking and working.

The relationship between exploratory and transformational creativity is especially significant, especially in the light of compositional work. Exploratory creativity is where important new ideas are first discovered and which begin to be shaped. It is what scientists, artists, and jazz musicians do, where “they inherit an accepted style of thinking from their culture, and then search it ... to explore its contents, boundaries, and potential” (Boden, 1998, p. 348). Brandt (2021) also raises questions about accepted notions of creativity especially those that declare it must be something novel or of value, arguing that these judgments are highly vulnerable to human perception, given to change and dependent on time and cultural factors. These, Brandt argues, risk “under-representing the non-conformist, the marginalized, the amateur, and the child” (p.13).

Other explorations of creativity, particularly creativity in childhood, have emphasised the role that play and imagination hold (Vygotsky, 1978; Bergen, 2014), and that creativity is a dynamic social and problem-solving process (Amabile, 1996; -2018). In education contexts, Beghetto (2019) distinguishes that creativity “is a way of describing phenomena and not an entity itself” (p. 28), and in the educational context, emphasises the place of “creative thought and action” (p. 27). Genishi and Dyson (2014) propose that creativity is an important precursor for literacy development, which is also explored by Kress (1997, 2000).

These descriptions are useful for teachers to consider as they enable a way to re-evaluate creative compositional work. As teachers of creative work in music or writing composition, it is worth re-evaluating what creative work is, and how that might be expressed in the music and English writing classroom.

Leading advocate for arts education in Australian schools, Robyn Ewing argues that creative and arts-based pedagogies are important for developing the imagination and creativity of all children and young people across all subjects and as a catalyst for social change (Ewing, 2020; Ewing & Saunders, 2016). Ewing also draws our attention to the ways that the creative arts have the capacity to transform other curriculum contexts, including in the literacy classroom (Gibson & Ewing, 2020). Through the arts children are able to “play with possibilities that take them beyond their own perspectives to encourage openness and mindfulness towards the others who share their worlds” (Ewing & Saunders, 2014, p. 104).

If the qualities and characteristics of creativity are innate to all human beings, rather than a quality of genius, then this would suggest that all children deserve for this to be nurtured. If it also true, as the research suggests, that such characteristics as exploring possibilities and divergent thinking can be taught, then this also provides an imperative for a creative arts education.

Creative Pedagogies

Educators and teachers play a crucial role in the quality of creative arts education being offered in educational settings. “Teacher stance”, identified as a teacher’s attitude, training, and sense of self-efficacy in creative pedagogies, is a powerful aspect (Craft et al., 2007). It includes attitudes to student choice, tensions between freedom and skills, and the place of collaboration. Craft and colleagues found “evidence of the powerful significance of teacher stance in the kinds of composition tasks and processes children are offered” (p. 141). Cremin and Chappell (2021) argue,

There is an urgent need to understand creative pedagogies in order to enable the young to develop their creativity and handle the uncertainties of life; equally, teachers need to expand their repertoires of pedagogical practice in order to nurture young learners' creativity. (p. 300)

Teacher stance can include an arts-based or creative application of pedagogy and a responsiveness to the creative needs and interests of children (Ewing & Saunders, 2016; Gibson & Ewing, 2020; Wyse & Dowson, 2008). A number of features of creative pedagogies have been described for education. Creative pedagogies that feature “problem-solving” (Craft et al., 2011), where “What if?” strategies are emphasised, which teach students to think empathically and creatively (Craft, 2005; Ewing & Saunders, 2016).

A student-centred approach to creative education is one where student interest, identity, personal development and growth are emphasised. Wyse and Dowson (2008) advocate for “teaching that is receptive to *pupils'* creativity [and] is probably more likely to enhance children's creativity than creative teaching per se” (p. 6). The role of student choice and the impact of this on student identity is emphasised in several studies by Cremin and colleagues (e.g., Cremin & Chappell, 2021; Cremin & Locke, 2017) and by Manyukhina and Wyse (2019).

In considering the context for teaching creativity, alternatively, there is the potential for creativity to be untaught or unlearned. In other words, it is possible, in the absence of creative pedagogies, to enact a curriculum that undoes the creative impulse and instils unimaginative thinking (Simonton, 2017). If teachers can actively create the conditions for creativity to flourish, then there is also the capacity to create conditions where creativity is constrained.

This section provided further evidence to support a creative, arts-led approach in formal education. These have implications for the creative processes that undergird both the writing and music education contexts.

Music and Writing Pedagogies: Prevailing Practice and Future Opportunities

As discussed so far in this chapter and as outlined in Chapter 1, problems in defining creativity and a de-emphasis of creative pedagogies in Australian policy and curricula, as well as funding and resourcing dilemmas, underpin issues within the arts in education. A music-inspired rhythmic pedagogy—through music, movement, sound, and speech—is premised on an understanding that arts processes can transform the curriculum (Gibson & Ewing, 2020).

There is evidence that creative and arts processes are undervalued across the curriculum. Cremin and Chappell (2021) explored the challenges for creative pedagogies in both music and literacy–writing education contexts in England. Their study specifically showed that these kinds of pedagogies became more constrained in music and writing contexts over the years of formal schooling. Furthermore, it was found that assessment pressures had “far reach” and could be felt even in the youngest grades of school.

Challenges for classroom pedagogies in both music and writing contexts are evident. These challenges have arisen through a tendency toward the atomising of skills within curricula and a de-emphasis of creative and engaging pedagogies for both the music context (Hallam, 2015; Powers, 2019) and English context (Hayes et al., 2017; Loudon et al., 2005).

A tendency towards constrained and atomised approaches to music and writing is a response to views about what is involved in creative work and its complexity. Vygotsky (2004) has made the point that imaginative and creative work is “extremely complex”, but which “often leads to incorrect ideas about this process being something extraordinary and completely exceptional” (p. 25). He has suggested that teachers sometimes assume that an equally complex teaching response is required, a view similarly expressed by Cambourne where ‘lock-step’ approaches in English classrooms can have a detrimental effect on creative writing (2015).

Setting a Rhythm for Creativity? Pedagogies in Music Education

Music education in Australian schools has its beginnings in a western-influenced British music education. In pre-federation schools, the song and music repertoires were designed to pass on traditions that would ensure cultural ties remained with the commonwealth (Burke, 2014).

Music education was mostly focused on learning through recitation used in singing and choral instruction as an easily transportable and low-cost music education option. A music and singing education emphasis continued throughout the 1980s, with a repertoire of popular music through the Australian Broadcasting Corporation's radio program, *Let's Sing!* (ABC, 2023; Stomann & ABC, 1978).

Since then, reports on music education in Australia show that music education in many schools has continued to suffer a lack of quality resources, adequate teacher music training, and a paucity of ongoing professional development for primary school generalist educators. Within this context, there are several key challenges. The first is that Australian students have not had access to music education at all (Collins et al., 2020; Dwyer & Collins, 2022), a problem that persists within broader perceptions of a crowded curriculum and music as an elite interest (Gant, 2017, Pascoe et al., 2005). A 2007 review of education in Australia (as cited in Letts, 2007), showed that only 23% of Australian school students had access to a specialist music teacher and found that most preservice primary teachers received on average less than 20 hours of training in music over the course of their degrees (Collins et al., 2013).

Common misconceptions about the arts and arts learning can also be barriers to a thriving creative arts education. Perceptions of the arts, particularly music education, are that it is elitist, for example (Gant, 2017; Gibson & Ewing, 2020). Added to this is a discourse which often refers to an 'overcrowded curriculum' where arts learning can be viewed as a distraction from the "core business" of reading, writing, and numeracy. These perceptions also impact the time given to music and arts education in preservice teacher training (Collins et al., 2013; Joseph, 2015).

Second, creative music pedagogies have not been well funded or resourced in Australia. This means that music pedagogies, especially those that support music-making as creative work, have not been adequately emphasised (Burke, 2014; Power, 2019).

Others have described that chronic underfunding is a reason that some music classrooms in Australia have continued to use constrained models of the past. Burke (2014) describes that creative music pedagogies in Australia have enjoyed short-lived cycles, where resourcing cannot ultimately be sustained as is also described in other accounts (Letts, 2007; Powel & La Rocca, 2021; Powers, 2019). While experiences of music education in Australia may be uneven across the country, the overall picture is, at best problematic, and has long-term implications for creative music education in Australia. Meanwhile, there are studies to show that the provision of a quality music education would be an opportunity to support student wellbeing, sense of connection, academic achievement, and children's creative capacities (Collins, 2020, 2021).

A lack of resources has also led to an inadvertent emphasis on music as product rather than as creative process. Collins (2013) has drawn attention to a situation in Australia where music can be conceptualised as technique, within a product-centred orientation, which is damaging to student self-efficacy in music in the early and middle years of education.

In a recent study from Türkiye, Sungurtekin (2021) has found that when primary teachers conceptualised music education within an “arts” frame, emphasising imagination and creativity, the focus shifted from product-orientated technique to music-making. In this context, creative practices were expanded to include experimentation and time for composition. The approach also drew on other elements such as poetry and lyrics. Furthermore, it encouraged teachers to specifically identify what imagination and creativity should like in the music classroom and this paradigm shift appeared to transform the teachers' pedagogical orientation.

With a view that is sympathetic to the one proposed by Sungurtekin, in the Aotearoa New Zealand context, music teacher and researcher Linda Locke (2020) makes powerful arguments for a reconceptualising of music education as a social and cultural process. Within a

view of music that draws on the context of Aotearoa New Zealand, music is seen as an important cultural human activity that has powerful local, cultural, and historical dimensions. Recognising the diverse music and language contexts of Australia, New Zealand, and Pacific Island nations, Locke (2020) applies the term “musicking”, a term borrowed from Small (1986) to describe a dynamic ‘constellation’ of social practices.

Like the teachers in Sungurtekin’s (2021) study, Locke’s emphasis on music as a social process also highlights the potential for collaborative, improvisational, and compositional music education (Locke, 2011, 2012). Affirming Locke’s emphasis, both Cross (2012) and Lage-Gómez (2020) and their colleagues also emphasise composition as a social process playing an important role in creative work that engenders empathic understanding between students.

Clear concepts and philosophies of music that conceive it as a creative and social process are vitally important. In the United States, Reimer (2022) argues that conceptualising music as a creative and expressive artform is critical to what happens in the classroom. When music educators, including generalist primary teachers, are trained and supported to develop a confident philosophy for teaching music, it provides “an inner sense of worth that comes from doing important work in the world” (p. 3). Reflecting on decades of music education, Reimer has proposed a view of music that is positioned within aesthetics but also emphasises a social framing. Music is conceived as “a basic way that humans know themselves and their world” (p. 6). For Reimer, musical knowing includes modes that are equally important to “rational” ones, and Reimer contends that music is ultimately an “education of feeling” (p. 121).

Like Locke, Reimer’s (2022) emphasis is also on recognising the local cultural contexts of music education. Reimer’s conceptualisation of music education is also made within education contexts in the U.S in which he observed widespread practices which featured

performance-centred learnings, with all their needs for technical expertise with notation, craft, music theory knowledge, and acquaintance with the musical

literature of the Western classical tradition and how it works. (Reimer, 2022, p. 328)

In Australia, several approaches to music education have been influential and which have sought to offer an alternative to the models of music education, such as those described by Reimer, Burke and others. Arguably, most prominent among these are Orff–Schulwerk and Kodály (Hoermann, 1998, 2011; Ibbotson et al., 2021; Samild, n.d.; Southcott & Cosaitis, 2012). These two philosophies were developed by 20th century European composers, both of whom were intensely interested in music education and in making connections with local cultural contexts. These approaches continue to inform contemporary music education practices internationally (Abeles & Custodero, 2010; Barrett et al. 2018; Goodkin, 2001; Petty-Norbury & Pontarini, 2018; Roulston, 2002; Samild, n.d.; Southcott & Cosaitis, 2012).

Orff–Schulwerk Pedagogy

It all begins with the beat of a drum.

—Carl Orff

There is a long history of Orff–Schulwerk music education in Australia, and it continues to be an influence on teaching approaches used in classrooms today (Haselbach, 2006; Power, 2019). The Orff method was first introduced in Australia in the late 1950s but became more firmly established in the 1960s (Southcott & Cosaitis, 2012). It was conceived and developed in Austria, in the first half of the 20th century by German composer Carl Orff and his colleague Gunild Keetman.

The Orff–Schulwerk approach designed by music composer, Carl Orff (1963) emphasises music education as a holistic interdisciplinary approach through music, movement, and speech (Abril, 2011; Power, n.d.). While Orff–Schulwerk shares some aspects with the philosophies of Kodály and Dalcroze [such as body movement] an emphasis on improvisation and composition are defining points of difference (Goodkin, 2012; Locke, 2016 Orff, 1963). Emphasising the

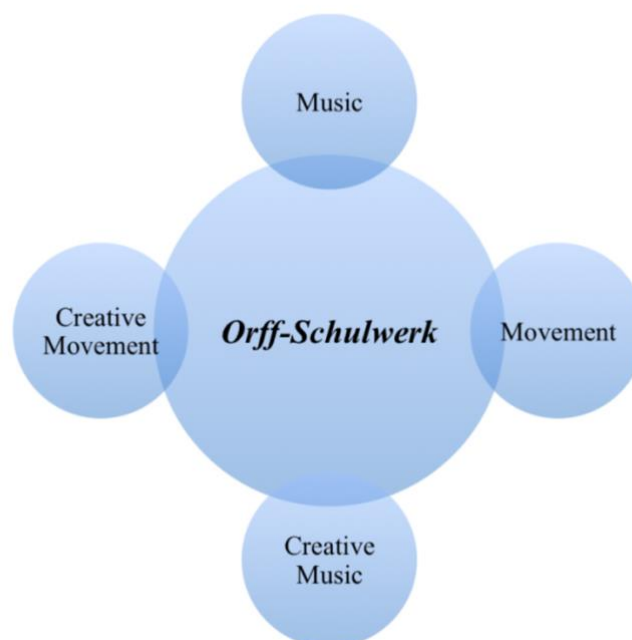
organic nature of music making, Orff stated that music classes should begin “with the beat of a drum” (Orff, 1963) and should strongly feature rhythm and improvisation.

At the core of Orff–Schulwerk music philosophy is an understanding of music as one of the symbolic languages and, therefore, draws in speech and movement. It places an emphasis on the child and a natural inclination towards making music using elemental, untuned, rhythmic music instruments. The Orff music approach seeks a return to the original meaning of the word “music” (“*mousikē*” in Ancient Greek), which conceives of the arts as entwined (Orff, 1963).

The Orff–Schulwerk method employs an approach akin to guided inquiry, creating an environment of exploration and appears to channel Alfred Whitehead’s iterative recurring cycles of learning (romance, precision, and generalisation), a connection made by Goodkin (2001). See Figure 3.1.

Figure 3.1

Orff–Schulwerk Schematic Representation



Note. From Cunha & Carvallho (2012, p. 2).

In Orff pedagogy, music, movement, and speech are integrated and classroom practices may incorporate literature, drama, and visual arts experiences (Abril, 2011; Orff, 1963; Locke, 2011, 2017, 2020). An Orff–Schulwerk framework includes exploration, imitation, and improvisation, and aims to develop children’s abilities using musical elements such as rhythm, melody, harmony, and texture (Davies-Splitter & Splitter, 2006; Liess, 1966). It begins with concepts of rhythm, before progressing to melodious “tuned” instruments (Southcott & Cosaitis, 2012).

There is an orientation towards music as process, and the central focus of creativity is through improvisation and composition (Goodkin, 2001; Locke, 2011, 2017). Orff–Schulwerk educators often describe how the approach has led to a transformational change in their music pedagogy and for teachers and students involved in these approaches (Locke, 2016). The capacity for interdisciplinary links to be made, for language development and an emphasis on creativity, alters the quality of student engagement (Kerkovius, 2005; Orff, 1963; Paolino & Lummis, 2015). Some have also described Orff–Schulwerk through the lens of flow theory given its interdisciplinary emphasis on bringing together music, singing, language, movement, and dance through organic means, including storytelling and other meaning-making arts processes (Cunha & Carvalho, 2012).

Kodály Music Pedagogy

Singing connected with movement and action is a much more ancient and, at the same time, more complex phenomenon than is a simple song.

—Zoltán Kodály

The work of Zoltán Kodály, a Hungarian composer, ethnomusicologist, and educator of the 20th century, has also had significant impact on contemporary music classroom practices internationally and in Australia (Wheeler et al., 1977). In addition to being a musician and composer, Kodály was also a trained linguist (Roulston, 2002) and believed that language and

music were inextricably connected, essential for preserving culture and identity. Kodály often “wrote of language and music synonymously” (Roulston, 2002, p. 31).

As part of synthesising music and language, especially through traditional song, Kodály included 20th century concepts of the internalised and externalised elements of music and language. The internal memory of music through the imagination was especially important for composition (Collins, 2013; Kodály, 1974).

Kodály’s philosophy and theory of music instruction emphasised singing and the use of high quality, authentic music exemplars (Kodály, 1941), especially in using music that was significant in his traditional Hungarian folk music context (Kodály, 1925; Roulston, 2002). Kodály advocated for the use of quality, authentic music to support music playing in the classroom and considered the poor-quality music exemplars that were ubiquitous in classrooms to be one of the greatest challenges to overcome (Kodály, 1925). In this framework, music learning was essential to cultural identity and so local music was a focus (Kodály, 1974). As in Orff–Schulwerk pedagogy, movement was vital to Kodály’s method (Roulston, 2002). Movement was an accompaniment to singing and became instilled with the introduction of solfège, a series of hand gestures used to support the visualising of vocal pitch and rests (Samild, n.d.).

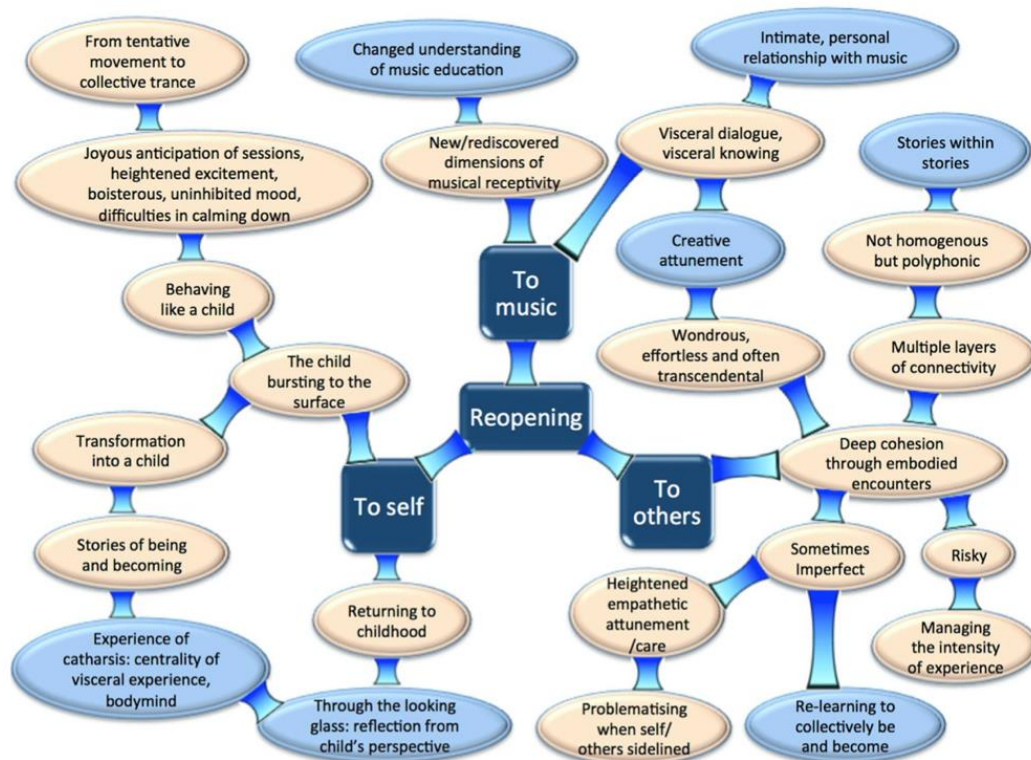
An evolution of contemporary Kodály approaches, the “Kokas” approach, places emphasis on the experiences of “music, movement and reflection” (Vass, 2019, p. 179). It seeks to “develop an embodied aesthetics of understanding” (Vass, 2019, p. 179).

The approach employs a dialogic or social approach to synthesise learning within the body and mind, and in connection to the environment. Its emphasis is on the experiential instead of abstract intellectual studies of music (Vass, 2019, p. 180). This approach brings music education further towards an arts paradigm, closer in alignment with Orff–Schulwerk approaches, and centres the child in the act of music-making. Vass (2019) proposes some key experiential themes that have emerged from practice of the Kokas approach in classroom practice. These experiential themes may have some implications for a music and writing

connection when experienced as an experiential embodied artform—for example, through ‘creative attunement’, and described in Kokas, see Figure 3.2.

Figure 3.2

Summary of Key Experiential Themes in the Kokas Model



Note. From Vass (2019, p. 185).

Writing Pedagogies in Australia and Internationally: A History of Cross Rhythms

Through a framing of creative approaches and pedagogies, as this chapter has premised, a similarly complex picture emerges for writing education in Australian schools as has been described for music. Over half a century, there have been cycles in which creative writing pedagogies have been able to flourish. Yet over several decades in Australia, writing has been conceptualised within various perspectives in government policy and educational research that have conflicted with each other. Notions of writing as a creative process are often superseded by notions of writing as an academic and workplace skill. Within limiting national curricula and high-

stakes testing environments, the teaching of writing has become increasingly constrained, as reported in Australia and New Zealand (Barton et al., 2018; Barton & Ewing, 2017; Ewing, 2019a; Ewing et al., 2014; Higgins et al., 2006; Louden et al., 2005) and internationally (Craft, 2010; Cremin & Chappell, 2021; Wyse, 2017).

A range of studies have demonstrated that the most common writing pedagogies practised in Australia predominantly feature these narrow concepts of literacy and writing (Cambourne, 2017a, 2017b; Hayes et al., 2017; Mariano et al., 2022; Thomas, 2019) and is similar to findings in the United States (Graham, 2019) and United Kingdom (Dockrell et al., 2016). These studies describe approaches to writing that atomise the surface features of writing and feature worksheets or tasks focused primarily on the “code-breaking functions of language” including “letters and sounds” (Hayes et al., p. 137). Recent findings in early years writing classes showed that writing classes dedicated a disproportionate amount of time to learning about capital letters, full stops, and spelling (de Abreu Malpique et al., 2020, 2022; Zammit et al., 2022) to the exclusion or de-emphasis of the critical creative and authorial dimensions.

As demonstrated in Chapter 2, children understand themselves to be writers from a young age and understand that they are making meaning on the page long before many parents or teachers confirm their efforts as writing or these young children as writers (Bradford & Wyse, 2013; Mackenzie & Scull, 2018 ; Mavers, 2011). As the progression of learning in the first 4 years demonstrates, children make significant progress in the natural environment of their home lives and preschools, especially where there is a rich oral language and reading emphasis (Cambourne, 2021). While the technical and genre aspects of writing need to be explicitly taught, there are many elements of language and writing that are not meaningful and do not make sense unless contextualised.

Writing is an artform, and its compositional and aesthetic features have much in common with other artforms. Similar concepts and terms are used to describe the features of composition across all the artforms that equally apply to writing. Features such as structure, form, tone,

texture, rhythm, repetition, theme, and genre are aspects of composition in the visual arts, in music, in dance, in drama, and in writing (Ewing, 2016). Seen through the primary lens of writing as an artform, writing can encompass many perspectives, including the potential for joy, difficulty, complexity, social connection, cultural practice, meaning making, critical reflection, emancipation, and personal expression and growth. Such perspectives can apply to various writing forms, from literary texts to factual and media texts.

Writing Pedagogies in Australia

Since the 1970s, four key contributions have significantly impacted on writing pedagogy in Australia and internationally. The process writing approach, or writers' workshop model, inspired by the work of U.S educator Donald Graves in the 1970s and 1980s; the genre approach arising from the work of Michael Halliday and the "Sydney School", used across Australian schools since the 1990s and still the most influential model; the new literacies approach, made in response to the changing dimension of texts in the 21st century; and finally, the introduction of high-stakes testing of writing through the National Assessment Program—Literacy and Numeracy (NAPLAN) in 2008 and the indicators that show how it has come to shape writing pedagogy.

Process Writing and the Writers' Workshop Model. The process writing approach, which began in the late 1970s and early 1980s, was the first significant pushback against rigid approaches to writing that had persisted for a long time (Fox, 2012/2015; Turbill, 2015; Wyse, 2018). In traditional approaches, prior to the 1970s, writing was a once-a-week event in which a formal composition was completed on a predetermined subject to demonstrate competence in bringing together the elements of spelling, grammar, and structure (Derewianka & Jones, 2012).

The process writing movement, inspired by the work of U.S. educator Donald Graves, used the term *process* to highlight an important but different emphasis. That is, rather than the writing product, the process and, by extension, the writer was central to the writing classroom

rather than the writing itself (Graves, 1983; Walshe, 1981). The model sought to emulate the recursive writing processes used by creative and professional writers (Ivanič, 2004; Ortlieb, 2016), and has continued to evolve through models such as the writer's workshop that has been most prolific in the United States and has also found a place in classrooms in Australia (Fletcher, 2017; Fox, 2012/2015; Lowe, 2005; Turbill et al., 2015; Wright, 2022). Process writing classrooms feature daily writing, personal choice of subject and genre, and iterative stages of writing similar to the professional writer (Flower & Hayes, 1981; Walshe, 1981/2015). In a process writing approach, the teacher's role is as a master writer themselves, a mentor and editor (Cambourne, 2018). This is in contrast to the writing teacher as merely an instructor, who provides individualised feedback to each student (Calkins, 1994); the classroom environment is a community of writers (Lowe, 2012); and the developing identity of the writer is also central (Fletcher, 2017; Graves, 1983).

The legacy of the process approach is that it gave rise to a generation of passionate writing teachers (Fox, 2012/2015; Kittle & Graves, 2015), and it continues to find a place in classrooms today (Abdullah et al., 2020; Lowe, 2012; Walshe, 1981/2015; Wyse, 2018). In the United Kingdom, Wyse (2018) has explored the impacts of the process writing approach and found that “even 30 years later” there was “compelling experimental evidence that process approaches to teaching writing are effective” (p. 11).

Certainly, in the intervening decades, key elements of the process writing approach have become accepted practice established in research and used within other approaches, though sometimes not explicitly acknowledged. These include the importance of daily writing, individualised teacher feedback, teacher as writer–model, an emphasis on teacher and student writer identities, and writing as an iterative practice (AERO, 2022; Cremin, 2015; Dunn, 2021; Graham, 2018; Graham et al., 2012; Graham & Harris, 2017; Graham et al., 2019; Pritchard & Honeycutt, 2006; Wyse, 2018).

For process writing pioneers, the writing classroom as they found it had disempowered and disengaged students. Furthermore, the traditional models of literature were not inclusive and using such models was merely “sanctioning” the dominant culture (Giroux, 1987, p. 176). The process writing model promised a new way in which students were at the centre as active agents, developing their own voice within the writing process (Fletcher, 2017; Walshe, 1981/2015).

The primary issue that became apparent within the process writing model was that over time, unless a teacher was skilled in guiding or inviting students to experiment with new genres, students could become stuck in one mode, most commonly on writing recounts (e.g., “On the weekend, I ...”) or may not have progressed outside comfortable parameters (Cope & Kalantzis, 1993). Students may not have been as well prepared for writing in other genres required across the curriculum as for other school subject contexts.

Genre Theory. Genre theory introduced through the work of linguist Michael Halliday conceived language “as social semiotic” (Halliday, 1978a, 1978b; Halliday & Webster, 2003; Halliday & Matthiessen, 2013). Social semiotics was a reframing of linguistics as language in action. A study of the sign in specific social use, saw language as malleable within the context of interpersonal constructions. Genre theory was also critical discourse analysis for the classroom, an approach that sought to teach students to perceive and critique the discourses of power relationships (Hodge & Kress, 1988; Locke, 2004; Miller, 1984; van Leeuwen, 1993). Genre theory was developed in Australia through the Sydney School (Christie & Derewianka, 2008; Rose & Martin, 2012) and became prevalent in schools in Australia in the 1990s (Derewianka, 2012). The continued impact of genre theory in Australia continues to be seen and felt, having become ingrained in the fabric of writing pedagogies (Cazden et al., 1996; Cope & Kalantzis, 2012; Macken et al., 1989) and reflected in national reading and writing assessments that assess genre characteristics (Wyatt-Smith & Jackson, 2016). Core to the approach is a functional linguistics and genre theory is an emphasis on teaching language at the text level, sentence and

word level so that students develop a sophisticated understanding of how texts work (Rose & Martin, 2012).

It, too, was a reaction to what had come before, and Beverly Derewianka (2015), a key contributor to genre theory in Australia, recalls Halliday's disparaging reference to the "progressive" pedagogies, which process writing had epitomised, as "benevolent inertia" (p. 30). However, genre theory drew on a number of elements of the process writing approach, even if it did not acknowledge this, including the iterative dimensions of the writing process, so that a process of writing would be included within the genre model.

The social semiotics view that developed genre theory within the Sydney School held at its core the belief that writing always assumes a particular discourse and so reveals certain perspectives, power, or bias. Predicated on the view that symbols signify more than their literal meanings, genre approaches to writing saw a need for teachers to explicitly guide students to see the hidden intentions and elements at work in any text (Halliday, 2013; Rose & Martin, 2012).

For genre theorist pioneers, the writing classroom as they found it had neglected students, having not provided opportunities to learn the powerful textual discourses needed to succeed in society. Genre theory's aims were to "design a writing pedagogy that could enable any student to succeed with the writing demands of school" (Rose & Martin, 2012, p. 1). It led to several models, including the teaching and learning cycle (Derewianka & Jones, 2012) and the learning by design model (Cope & Kalantzis, 2015).

Yet, as has been provocatively argued by English poet and writer Michael Rosen (2011), genre theory promised more than it could deliver, with an implicit promise to somehow "save the world". Though it came with "an excellent pedigree" (Rosen, 2011, p. 4) through celebrated linguist, Michael Halliday, it was also inadvertently "mapped on to the 'matrix' of the National Literacy Strategy" and other agendas (para. 9). In other words, the model was co-opted for other (technocratic) ends.

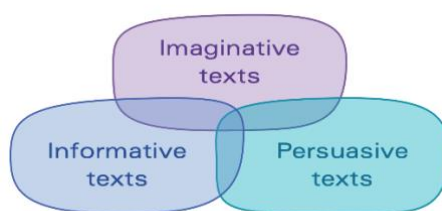
Genre theory is a lens with which to perceive and evaluate specific social actions and contexts, or texts in a dynamic cultural sense and was not meant to be used to generate a static taxonomy of text types (Rossbridge & Rushton, 2015), yet those have arisen. While it is true, as Derrida (1980) has identified, that “a text cannot belong to no genre” (p. 61), genre implies an identification that can lead to distortions. For example, Thwaites (1994) explained that, in the case of narratives, the extent to which these are “used in many different kinds of texts and social contexts, [meant that] they cannot properly be labelled a genre” (p. 112).

Genre theory is also problematic when it becomes apparent that “hybrid genres abound” (Chandler, 1997, p. 2), to the extent almost of redundancy. Genre is a “theoretical minefield” (Chandler, 1997, p. 2) that has been questioned, particularly by literary writers and film theorists (Feuer, 1992; Miller, 1984; Rosen, 2011). Literary texts rarely comply with clear delineations (Fox, 2012/2015).

In recognition of these complexities, and never having intended such taxonomies, writers of the Australian Curriculum: English have moved away from identifying specific text types and have instead identified three broad categories or “family resemblances” (a term from Wittgenstein, 1978). Rossbridge and colleagues (2015) explain that the three “broad purposes” (p. 3) identified in the curriculum—persuasive, informative, and narrative—are also overlapping (see Figure 3.3). Drawing back to the original aspects identified by Halliday (1978)—field (subject), tenor (relationship), and mode (channel and structure)—a flexible framework is highlighted. Genre, through a social semiotic framing, therefore, remains a powerful lens for understanding the way texts work in dynamic social interactions.

Figure 3.3

Categories of Texts



Note. From Rossbridge et al. (2015, p. 3).

New Literacy: Multiliteracies and Multimodality. As defined in Chapter 2, the development of multimodality, and the associated work of the New London Group (1990), was an effort to rethink the way reading and writing were being conceptualised for the 21st century. Their work was based on research in the 1980s that had conceptualised literacy in sociocultural contexts in the work of Miller (1984), as well as Kress and Hodge (1988). This paralleled the developing work of the Sydney School and laid the groundwork for the New London Group. Multiliteracies theory (Cazden et al., 1996; Cope & Kalantzis, 2012, 2015), multimodality (Kress & van Leeuwen, 1996), critical literacy (Lankshear, 1994; Luke & Freebody, 1999), and a balanced literacy approach through the four resources model (Freebody & Luke, 1990) are associated concepts within multiliteracies and the work of the New London Group.

These concepts reframe what communication means in the contemporary and digital age, with the increasing proliferation of multimedia forms made possible through online and digital formats. Where traditional concepts of language, literature, and literacy tended to privilege linguistic forms of meaning making, multimodality and multiliteracies sought to describe complex multimedia forms that were beginning to dominate the world of online text.

The concept of multimodality (Kress, 2010; Kress & van Leeuwen, 1996) provided an expanded vocabulary to talk about how meaning is made beyond a purely linguistic frame. Multimodality revitalises the way that readers pay attention to meaning so that “meaning applies

to *gesture* as much as to *dance*, to *writing* as much as to *moving image*, to *music* as much as to *interior design*” (Burn & Kress, 2018, p. 5). For van Leeuwen (2015), “the ubiquity of [commercial branding]” (p. 191) meant that multimodality would expose discourses at work in advertising.

Articulating additional dimensions of meaning-making also meant that developing a metalanguage was required to understand the semiotic elements needed, for example in reading images (Callow, 2005). Furthermore, an understanding of multimodality and the metalanguage that could support teachers to be more effective in teaching about the full range of texts as seen in the work of Callow and others (Anstey & Bull, 2010; Callow, 2016; Rushton & Callow, 2020).

The important legacy and ongoing work of multimodality is that a nexus between the symbolic worlds of language, writing, and other artforms has been highlighted. Multimodality, especially through aesthetic framings (Barton, 2014, 2020; Callow, 2023; Tønnessen et al., 2018), provides an arts–music basis for writing that provides a scope to further develop a music-rhythmic pedagogy of writing through music, movement, sound, and speech.

National Assessment Program—Literacy and Numeracy (NAPLAN). Some commentators note the unique value that testing such as NAPLAN provides in Australia as the first systematic means of tracking development in literacy and numeracy over time for all students (ACARA, 2022; Joseph, 2018; Thomas, 2019). NAPLAN provides a nationwide picture of writing achievement replacing state-based measures used in the years before it that could not easily be compared. Yet, questions have also been raised about the value of NAPLAN, including its focus on accountability (seemingly above matters of equity) and its unintended impact on classroom practice (Wyatt-Smith et al., 2016). There is also some evidence of compounded negative impacts on teachers and students (Cormack & Comber, 2021; Gannon, 2019; McGaw et al., 2020).

NAPLAN tests the writing of students in either persuasive or narrative genre writing where students are given 40 minutes to write in response to a prompt. The evaluation of writing is highly oriented to genre and technical features. In the Australian context, studies have detected

that national high-stakes testing data have had negative impacts on wide-ranging outcomes and tend to have “a life that extends to the reworking of political systems and educational structures” (Hayes et al., 2017, p. 226). NAPLAN, which has also been used to target low-performing and disadvantaged schools, so that narrow approaches are introduced as a remedy in contexts where low engagement, low self-efficacy, and wellbeing aspects are sometimes further negatively impacted (Comber & Cormack, 2013; Lingard et al., 2016; Thompson, 2013).

While writing remains under scrutiny, writing pedagogy and student writing practice are a historically neglected and under-researched area of English compared with reading (Australian Education Research Organisation [AERO], 2022; Christie et al., 2008; Heppner, 2017; Ortlieb et al., 2016; Woods, 2015). With writing and its associated dimensions such as grammar also identified as areas where teachers sometimes experience low degrees of confidence (Adoniou, 2018; Hsiang et al., 2020; Myhill, 2016), a teaching-to-the-test approach can become the unintended result (Higgins et al., 2006). There is also evidence of an undue emphasis on prescriptive informative writing over creative expressive forms since the introduction of genre approaches and NAPLAN were introduced in Australia (Ewing et al., 2015; Turbill et al., 2015). Teacher burnout related to high-stakes testing has also been found in several examples, especially in disadvantaged schools with ramifications for the climate of schools and learning environments (Barton, 2020; Comber & Cormack, 2013; Dulfer et al., 2012; Ewing, 2020; Gibson & Ewing, 2020; Ortlieb et al., 2016).

Australian composer Richard Gill (2018) has noted the unintended impacts of high-stakes testing, specifically NAPLAN, and its far-reaching impacts on creative pedagogies and the arts, describing that teachers now have to be brave to pursue creative pedagogies. At a political, policy, and school system level, he has argued that there seem to be forces that “conspire” against these. Beghetto (2019), on the other hand, has offered a more hopeful analysis, arguing that creativity continues to thrive under such constraints, and in fact, that creativity may indeed flourish even because of such uncertainties.

Shifts in Writing Pedagogy in the Middle Years and Writing Across the Curriculum

Each of these contributions to the writing education landscape in Australia have contributed to important understanding about writing. Balancing these as needed within the needs of a classroom context and interests and needs of students is crucial. However, while the codes of language have a place—through spelling, grammar, and technical literacy knowledge—it is important for school leaders and teachers to ensure that these are not emphasised at the expense of, or instead of, providing time for creative writing. Instead of nurturing the dynamic aspects of craft and artform, there may be the temptation to cradle the word-level, spelling, technical, and “literal” elements of writing. A narrowing of writing that does not include regular opportunities for creative writing is a missed opportunity to strengthen academic, engagement, self-efficacy, and wellbeing outcomes (Cambourne, 2017; Cremin & Locke, 2017; Dockrell et al., 2016; Gannon, 2019; Lingard et al., 2016; Zammit, 2022).

From the middle years of schooling, students spend large proportions of their day across a range of subjects, writing and notetaking in some capacity either by hand or in digital formats (Woods, 2015). In social settings, children also communicate with their peers outside school hours through a range of social and multimedia platforms (Marsh, 2018). Yet, there appears to be a decline in student interest, engagement, and achievement in writing from the middle years of schooling onwards (Wyatt-Smith et al., 2016). At the same time, creative and free choice writing is often rare in classrooms (Dyson, 2016, 2020a, 2020b; Ewing et al., 2015).

Those who do not develop adequate writing skills are likely to experience a distinct disadvantage in their social, schooling, and work lives (AERO, 2022; Dunn, 2021; Heppener, 2017; Thomas, 2019; UNESCO, 2017). Some suggest that time for writing every day in the primary school years is one of the most important aspects of fostering an interest and developing competence in writing (Coker et al., 2016; Wyse, 2017). Writing educator Ralph Fletcher (2017) champions the needs of the young writer to be given the space and time required to write meaningfully, and that the primary years are crucial. Wyse agrees that “a lack of time for

speculation, contemplation and incubation in formal education is one of the most troubling features of modern schooling” and a particular problem for the writer’s development (Wyse, 2017, p. 222). In the middle years of schooling, the importance of building “content-rich” environments for writing, as a thinking process within exciting learning environments is also proposed by others such as Freidus (2010).

Synthesising Writing Pedagogies

Strong writers possess a distinct advantage in life, and writing plays a pivotal role in our personal, social, academic, and work lives (AERO, 2022; Graham, 2019; Koster et al., 2015; Rietdijk et al., 2018; Thomas, 2019; UNESCO, 2017). Being a good writer has always required the ability to “juggle” a range of writing “demands”, including the rhetorical situation, audience interests, and writer’s purpose (Flower & Hayes, 1981, p. 369). Those who can develop a personal writing style and enjoyment of writing in their early schooling years have a distinct advantage. The primary years offer a rare opportunity to develop these skills, an opportunity that is not afforded in the same way in the early and middle secondary schooling years (Graham et al., 2012, 2016). We also know that the writing pedagogies employed in the classroom impact student achievement in writing (Beard et al., 2009). Underpinning these pedagogies are the dominant concepts held about what writing is, what makes a “good” writer, and how the value of writing is viewed (Cambourne, 2017).

Conceptualising writing within an arts–music frame offers an alternative to the “literacisation” approach (Hayes et al., 2017; Latham & Ewing, 2018; Zammit, 2022). Seeking to restore writing to its proper place as the most “potent” of creative artforms (Wyse, 2017) also means identifying that writing processes share many things in common with other artforms (Ewing et al., 2019a; Vass et al., 2014; Vaughan et al., 2011).

Similarly, “writers” can be conceived like other artists and musical composers involved in creative work (Barton, 2020; Ewing et al., 2015; Wyse, 2017, 2018). A young writer, like a young

composer in the Orff or Kodály music context, should be actively involved in the same or similar creative work. They should be guided to experiment with the forms, structures, sounds, and rhythms of writing and to develop a sense of their own aesthetic, stylistic, and subject interests (Barton & Le, 2022; Cremin & Locke, 2017; Feeney & Moravcik, 1987, Gannon, 2014). The young writer can also be taught to negotiate a range of discourses for various contexts and uses (Christie et al., 2010; Ivanič, 2004).

A Creative Rhythmic Pedagogy for Grammar and Metalinguistic Awareness

While it has been established that language and writing are connected to music, sound, and speech, there is evidence that these connections are still being explored and could be strengthened. A reframing that sees music and writing as connected also requires a reimagining of the writing classroom and the ways music, movement, sound, and speech could be incorporated (Barton & Noad, 2017; Halcrow, 2018; Niland, 2007, 2009; Riddle, 2016). What has been emphasised in multimodal studies thus far is that the writing classroom can include sound and music in a writing product—for example, for creating digital and film texts (Noad & Unsworth, 2007), as well as the important place that talk holds in the classroom (Edwards-Groves, 2014; Jones, 2010).

While writing and music have been reconceptualised over more than a century within a semiotic framing, in the last two decades the music–language connection has also been made with more specificity, as a music–*writing* (Wyse, 2017), and rhythm–grammar one (Fiveash, 2021; Gordon et al., 2015; Patel, 2007). Evidence for rhythm as an undergirding element of all symbolic acts of representation, as suggested by semiotic, cognitive science and literary theory studies, would then appear to have implications for education. Music and musical rhythm could be seriously considered as having a rightful place within other parts of the curriculum, especially for the language and writing classroom, rather than as a pedagogical novelty.

It may be that music and musical rhythm is a crucial missing element in language learning, for linguistic grammar, and for creative writing. Evidence that rhythm underpins everyday speech, that prosodic awareness supports reading and language development (Holliman et al., 2017; Sweeney, 2019) as an underlying basis for grammatical and metalinguistic patterning (Gordon et al., 2015; Rebuschat, 2015) and to support general child development and wellbeing (Matthews et al., 2016), has been explored in educational contexts.

The powerful benefits of music, singing, and music pedagogy for a broad range of other learning have been outlined in a broad field of educational research. In English and literacy, the inclusion of music and music training supports general literacy outcomes (Collins, 2021; Hallam, 2015; Hansen et al., 2015; Ibbotson et al., 2021). Music and music approaches in the classroom also support writing (Christianakis, 2011; Halcrow, 2018; Riddle, 2016; Watts, 2019), grammar (Gordon et al., 2016; Jentschke & Koelsch, 2009), and oral language and vocabulary (Smolej Fritz et al., 2019; Tamminen et al., 2017). Musical training has been shown to support reading, morphological, and phonological awareness (Eccles et al., 2021; Hansen et al., 2014), cultural and creative development (Love, 2015), fine motor (Martins et al., 2018), and social development and wellbeing (Acker et al., 2012; Collins, 2021). Music interventions can be used to benefit a range of literacy, speech, and language outcomes for socially disadvantaged, EAL/D students, and students with other learning needs including autism (Dwyer & Collins, 2022; Habib et al., 2016; Kraus et al., 2014; Schoepp, 2001; Senkal & Muhtar, 2021; Slater et al., 2014; Smolej et al., 2019).

Grammar in Writing Education

As students move through the school years, the grammatical demands of formal written language become more pronounced (Faulkner et al., 2009; Koster et al., 2015). The middle to upper years of primary school is a critical stage of writing development, as students who do not develop the necessary skills at this time are likely to struggle academically well into the future (Daffern & Mackenzie, 2015; Graham, 2019; Graham & Perin, 2006). If students at this stage of schooling are “caught in the middle” (Faulkner et al., 2009) between infants school where it is

acceptable to write as they speak and upper high school where control over formal written English is expected (Adoniou, 2014), then there is a need to think strategically about how teachers can effectively lead students to transfer between the two settings by nurturing confident, strong writers in these middle years, especially in the contextual teaching of linguistic grammar.

There is much debate surrounding the nature and place for the teaching of grammar in schools (Derewianka, 2012; Graham & Harris, 2008, 2015; Halliday, 1978b; Halliday & Matthiessen, 2013; Locke, 2017; Myhill, et al., 2012; Wyse, 2001; Wyse & Torgerson, 2017). A significant body of research including meta-analyses of writing pedagogy approaches have suggested that the discrete teaching of grammar is negligible, even counterproductive (Graham & Perin, 2016; Hillocks, 1986; Myhill et al., 2013). However, the contextual teaching of functional grammar has been shown to be more beneficial (Chen et al., 2012; Derewianka & Jones, 2012; Graham, 2019; Graham & Perin, 2008; Halliday, 2002, 2004; Jones et al., 2012; Myhill et al., 2013, 2018). Within this approach, an emphasis on the function of grammar within the context of a discourse is emphasised (Derewianka & Jones, 2012; Halliday & Matthiessen, 2013).

Grammar is treated as a unique problem that underlies student challenges in writing (Andrews, 2007; Berninger et al., 2011; Derewianka, 2010; Myhill et al., 2012). Some commentary indicates that teachers lack confidence and knowledge in grammar and writing (Adoniou, 2014; Gardner, & Kuzich, 2022; Hsiang et al., 2020; Koster et al., 2015; Jones & Chen, 2012; Myhill et al., 2013). Furthermore, there are challenges in understanding how to incorporate grammar contextually and meaningfully into the literacy classroom and of metalinguistic awareness (Harper et al., 2009; Jones et al., 2013; Myhill et al., 2013)

Rather than considering oneself a teacher of formal traditional grammar, Andrews (2007) advocates that teachers should teach students to be “language aware”, with an understanding of both the art and the science of language. It is at the textual, as well as at the word, phrase, and syntactical levels authors make creative choices. For instance, short, direct sentences can create a

“tense rhythm that leads the reader to expect something dramatic is going to happen” (Gleeson, 2014).

Grammar has recently been reconceived primarily in the work of U.K. educator, Debra Myhill (2023), as ‘metalinguistic awareness’, an awareness of the ways in which grammar, punctuation, vocabulary and textual design work together (Myhill et al., 2012). Myhill has also framed grammar as the agentic creative work of the writer, who works with grammar as an element of ‘design’ suggesting a creative process (2011). Grammar is repositioned as ‘a repertoire of infinite possibilities’ (Myhill et al., 2013). In these descriptions of the place of grammar, metalinguistic awareness is also empowering for the writer (2019). These descriptions might be further extended and described as a ‘metalinguistic creativity’, to describe the ways grammar, punctuation and vocabulary work together in aesthetic ways, and for which a musical sensibility may be instructive or to attune the ear to the ways the elements work together.

Potential for a Rhythm-Grammar Link in Writing Pedagogy

Grammar is often perceived as one of the most difficult areas to master in writing (Daffern et al., 2017; Faulkner et al., 2009; Koster et al., 2017; Mackenzie et al., 2015; Wyatt-Smith & Jackson, 2016; Wyatt-Smith et al., 2018). Yet, its aesthetic and cognitive complement, rhythm, is often considered a very natural human compulsion evident in infants and young children (Schögler & Trevarthen, 2007; Trainor & Trehub, 1992; Trehub & Thorpe, 1989; Trevarthen, 2005).

Some neuroscientific studies have found significant overlaps and parallel pathways shared between rhythm and grammar, including the hierarchical structural elements of music and language (Herdener et al., 2014). These have proved a breakthrough in understanding the links between music and language, with important implications since then. Music interventions that were conducted by Gordon and her team, (2015) first demonstrated that good rhythm awareness predicted grammar knowledge in 6-year-olds (i.e., being able to identify which were the complete

sentences). Furthermore, Chern and colleagues' (2017) follow-up findings have suggested that rhythm training improved sentence prediction, to identify where a sentence had ended or where it was incomplete.

Findings suggest that “music education assists in the understanding of musical syntax, which in turn assists in understanding language syntax” (Collins, 2014). Likewise, language and literacy pedagogies have been considered for what they may reveal about the sequential teaching of rhythm for young children in the music classroom (Burton, 2015). Locke (2020) observes that an arts and creativity emphasis in an Orff–Schulwerk music classroom can support students to “explore and appreciate language with a musical ear”. This supports students “to name the prosodic features and figures of sound in language and give each of these equivalences in musical terms” (p. 146).

Neuroscientific research has been able to identify important links between music and language, based largely on the important work led by Patel in a number of studies (2003, 2006, 2008), with implications for the two pedagogies. A music and literacy connection has also been the subject of study within music education. Hansen et al. (2014) have explored the scope for making pedagogical links between the two disciplines in primary classrooms from the perspective of music educators. Hansen and colleagues (2014) have spoken of the need for teachers of both disciplines to “develop skills, knowledge, and appreciation” among their students and to do this through “carefully chosen exemplars” (p. 172). Elements of a shared pedagogy are also suggested by Hansen and colleagues, with recognition that critical thinking and problem-solving are core to both disciplines, and as students consider part-to-whole interactions.

On the surface, language instruction is a more abstract and independent pursuit than music, with music being experienced as more tangible and concrete in nature. A music education framework may offer a vivid way to conceptualise other ways we might “model”, “scaffold”, and “guide” students for writing composition. It might be possible to think of music and literacy as more similar than we had previously considered and, therefore, of the need for teaching

approaches to also borrow from a similar pedagogical toolbox. Highlighting the patterns and rhythms (and musicality) of the English language—traditionally thought of as grammar—might be one way to do this.

A music–rhythm pedagogy may be another helpful way for teachers to conceptualise what could be done for the teaching and learning of grammar so that experimental, innovative, and improvisational approaches can be applied that would normally only be used for teaching music and rhythm. A music pedagogy could complement the innovation and play emphasised by Exley and colleagues (2016), offering a new perspective on the “playful” approach to the teaching of grammar. Music pedagogy provides a possible repertoire of new possibilities, to complement these others, for teaching grammar in context.

Neuroscientific research into the ways music impacts literacy learning provides one more way for us to see that the arts, far from being on the edges of the curriculum, can inform teaching and practice in the “core” subjects (Barton, 2018; Chan et al., 2011; Fiske, 1999; Ewing, 2010, 2018, 2019b; Meltzer, 2015). That music pedagogy can inform literacy education, much like drama and the visual arts can do (Ewing, 2020; Ewing & Saunders, 2016; Gibson & Ewing, 2020), speaks to the power of arts-based and creative curriculum approaches to change not only the way teachers teach, but, more importantly, the way students can experience learning (Greene, 1984, 1986, 1987; Ewing & Barton, 2017; Wyse & Dowson, 2008, 2015).

Both music and language depend on the brain’s capacity and preference for finding and decoding common patterns and underpins the close cognitive ties between rhythm and grammar (Gordon et al., 2013). Grammatical tense and syntax could be seen as akin to tempo and key, both of which provide the driving forces for a composition. Vogel and van de Vijver (2015) and other linguists have considered the close relationship between rhythm and language through linguistics in a range of languages. These explorations make the connection between rhythm and grammar particularly intriguing. A music-informed approach to writing instruction may expose a

more dynamic, experiential, and contextual way to teach the suite of skills expected for writing, including grammar. Vogel and Vijver (2015) have summarised these explorations, such that

There is growing interest in rhythm as a fundamental property of human cognition and in understanding linguistic rhythm in terms of this cognitive universal ... [and] operative [capacity] not only in phonology, but also in other linguistic domains such as morphosyntax. (p. 1).

Synchronising Rhythms? Implications of Music Pedagogy for Writing Education

Returning to a theme which has formed the basis of this chapter, a reconceptualising of music and writing composition as creative arts processes is vital in both contexts, and which compositional music strategies may be best poised to support. Orff seemed to have achieved this in the music context with an emphasis on music, movement, and speech conceived as connected aspects. This kind of pedagogy could be further reimagined for the writing context.

Some key parallels and shared challenges are evident across music and writing pedagogies in Australia when seen through the lens of the Orff–Schulwerk and Kodály approaches. First, there is evidence that creative compositional work may not be sufficiently emphasised in music or English contexts. The creative–exploratory and improvisational dimensions are sometimes viewed as time-consuming and more difficult to teach.

As a result of this perceived challenge, an emphasis on worksheets and technical skills or ‘drill practice’ is described in both primary music classrooms (Powers, 2019) and literacy–writing classrooms (Dockrell et al., 2016; Hayes et al., 2017; Zammit et al., 2022). This parallel could be summarised as a tension between the technical and the creative improvisatory or compositional. Drawing on Orff’s sentiments, there are contexts for both music and writing education in Australian where the imagination needs to be (re-)awakened.

Music is sometimes described as though it exists within a “flat ontology”—that is, as a pure form of expression that expresses itself beyond the limitations of culture, history, or particular perspectives. The framing of writing is similar, such that policy settings attempt to

detach literacy from literature and culture (as described by Kelly et al., 2020), as a set of cognitive skills. These perspectives ignore what is essential to both music and writing, that they are expressions of human life, culture and experience.

Music education is also given to non-essential framings, and to notions of elitism. These position music education outside the realms of core learning (Pascoe et al., 2005). For writing education, the idea that writing is simply a workplace skill, also places creative and literary writing as outside foundational notions of learning. Given that in many primary schools in Australia, writing and music are taught by the same generalist classroom teachers, conceptions about music and writing are critical. Both should be given the status of creative work and as essential to human flourishing.

Centring Creativity and Aesthetics: A Musical Writing Pedagogy

Conceptualising music primarily as a creative artform and as a creative process positions music pedagogy within the broader landscape of aesthetics education. When writing is seen within the same paradigm as artform, the links to music become clearer. A challenge for music education is that creative composing is either not featured or is given less time than the technical learning of musical elements (Powers, 2019) and appears to mirror issues in writing education, where more time is given to sound and word-level learning than to the creative and authorial dimensions (Zammit et al., 2022).

Where music composition is emphasised, it is rarely a silent or independent pursuit, but students create and compose musical work together, trialling invented patterns and sequences (Goodkin, 2001; Kaschub, 2016). The immediacy and transient nature of musical practice and rendition may allow students more room to experiment and therefore improve more readily than in the writing classroom. Creative music classrooms can provide environments for building student confidence and skills, which may allow music competence and skills to grow more readily (Goodkin, 2001; Southcott et al., 2013). The continuum from listening to composing is often

seamless in the music classroom, and there may be opportunities to capture a similar experience in the writing classroom. Borrowing instructional principles from the music classroom may be of benefit to the literacy teacher.

Reframing both writing and music at a national level within the creative arts and within an aesthetic education paradigm is needed, as proposed by Barton (2020), Sotiropoulou and colleagues (2019), Gibson and Ewing (2020), and Tønnessen and colleagues (2017). Further, music and writing can work together in the same space as symbolic languages, they can support early and middle years learning to make meaning more effectively.

Writing, like music, is depends on a range of compositional tools. In music, this might include song, instrumentation, movement, and musical notation to support composition. In writing, these include multimodal elements such as font, image, and sound. Furthermore, research has shown that there is a critical place for classrooms to be shaped by purposeful talk to support writing, especially in the early and middle years of schooling (Edwards-Groves, 2014; Jones et al., 2018). Oral language opportunities support students to internalise the rhythms and patterns of language, and through talk and close reading of texts, students begin to rehearse through spoken language and imitate through writing the more formal structures of written language. The importance of oral language in the literacy and writing classroom as has been reported through many studies (Beaumont, 2022; Britton, 1972; Cambourne, 2021; Freebody et al., 2008; Wilson, 2022).

Conclusion

A musical approach to writing in the classroom was explored in this chapter. It is based on the evidence that music and creative writing share many similar processes. Expert musicians such as Orff saw a natural connection between music, language, and literature and used this approach for classroom pedagogy. Similarly, Wyse (2017) found that literary writers often described the writing process in musical terms that flowed through to pedagogical approaches. A

music–writing approach makes links that can encourage students to read like potential writers or, in musical terms, to listen like potential composers (2014). Sharples (1999) explains,

There is much overlap between creativity as part of writing and creative thinking in other areas such as music. The underlying mechanisms of creativity—such as daydreaming, forming analogies, mapping and transforming concepts and finding primary generators (key ideas that can drive a generative act)—do not rely on language (although they may involve it) nor are they unique to writing. (p. 8)

Due to the shared nature of music and writing, young composers in the writing context should have similar educational opportunities as young composers in the Orff–Schulwerk or Kodály context do. For writing as for music there should be the opportunity to experiment and play with sounds and structures, to appreciate the aesthetic auditory and sensory dimensions and make aesthetic choices, to explore and master the elements of the artform within a rich and meaningful context, and to begin to develop an identity and voice as a young composer of writing, as with music.

Chapter 4.

Theoretical Framework, Research Methodology, and Design

“Sounding the Depths”

The subtle relations of language to feeling, and the high development of the senses ... to which written and spoken words appeal, lead to keen aesthetic appreciations [of] language.

—A. N. Whitehead

This chapter provides a description of the theoretical underpinnings, research methodology, and interdisciplinary framework design used for this study. The preceding two chapters outlined a review of literature that demonstrated a connection between music, language, and writing, with evidence provided from a range of disciplinary perspectives. It demonstrated that there is a semiotic basis for the origins of a music–language and music–writing connection as is being explored through biological, neurocognitive, and sociocultural perspectives. Music and language development are intertwined from birth, and the neural resources used for music and speech, particularly rhythm and grammar, are shared. Music and music pedagogies have been found to positively impact a range of English literacy and writing outcomes, especially in the early years. There is also the potential to reframe metalinguistic creativity as a musical-rhythm aesthetic and sound exploration, through a musical rhythm lens, through the foregrounding of multimodal audio and gestural processes for writing, rather than emphasis on a multimodal product.

The first section of this chapter provides an overview of the design-based study for an integrated music–language and music–literacy pedagogy for writing. The second section describes the key theoretical perspectives that have inspired and informed the framework design. The third section of the chapter presents the pedagogical frameworks that have informed the basis of the

LIRIC framework. The fourth section outlines the qualitative research methods used for the study, the process of data collection, and the iterative framework development. It includes the study's key aims, and significance. The chapter concludes with reflections on the possible outcomes and limitations of the study, envisaged at the outset.

Overview of the Study

This study sought to investigate the scope of a music and language-writing connection for the primary years writing classroom. Of particular interest was the connection between rhythm and grammar, a link outlined in the preceding chapters and one that is signposted in neurocognitive (Patel, 1998, 2003, 2007, 2012), social semiotic (Halliday, 1978a; Kress, 2010; Mead, 1972a, 1972b) and semiotic music–literary theory origins (Barthes, 1977, 1984, 1985; Langer, 1942).

This framework is based on evidence in the cognitive sciences and in sociocultural research that points to a semiotic basis for a music–language connection. Furthermore, the basis for their connection is not only semiotic, but also semio-aesthetic.

A design-based research intervention model was selected as a relevant mode of study given that a novel collaboration between music and literacy teachers would be featured. The research study included a pilot study conducted in my own classroom in two schools, while the main culminating study involved a specialist music teacher and three generalist teachers. The pilot study was conducted in a Year 6¹ class, and in a Years 3/4² composite class, while the main study involved students in a Year 1³ cohort. This means that over the full course of the study, the study involved primary school students in all key stages⁴ of primary school excluding kindergarten.

¹ Year 6 in Australia is the final year of primary school for students aged 11-12 years.

² Years 3 and 4 is referred to in Australia as Stage 2, the middle years of primary school, for students 8-10 years.

³ Year 1 in Australia is the second year of formal schooling for students aged 6-7 years.

⁴ Excluding the Foundation or Kindergarten year of schooling, Australian schools and curriculum content is organised into 3 key stages: Stage 1 (Years 1-2), Stage 2 (Years 3 and 4), and Stage 3 (Years 5 and 6). Some curriculum content applies to stage levels, to be learned over two years, such as in the Creative Arts: Music.

The study was also conducted in three different schooling systems, a co-educational government-funded school, an independent or private school serving families from a high socio-economic demographic, and finally, a low-fee independent school drawing in students from a diverse socio-economic area. The study also included schools in two Australian states, New South Wales and the Australian Capital Territory.

At the time of study, to my knowledge, no other framework existed that explicitly combined music and language approaches to support writing in the early or primary years. To my knowledge, at the time of writing, no similar study exists that has brought together music and literacy teachers to develop a framework, for the teaching of grammar and writing. Similarly, no study has set the conditions for music and English teachers to plan and teach in collaboration with a grammar and writing focus.

Given that design-based studies are aimed at “promoting, sustaining, and understanding innovation in the world” (Bell, 2004, p. 243), a design-based research study seemed most appropriate to the aims of this study. Furthermore, design-based studies are useful for trying to explain new experiences and ideas in education, not what education is or what it has been but “education as it could be or even as it should be” (Bakker & Akkerman, 2016, p. 3).

A Metalinguistic-Grammar Focus

I was focused on trying to create classroom environments where a common language would be developed to talk about music and language in ways that might even be interchangeable in some ways, to see what affect this would have on writing. The rhythm–grammar link as explored by Patel (1998, 2003, 2012; Patel & Daniele, 2003) has revealed deep-seated aspects of a music and language connection in a structural sense, not only on the phonetic surface of sound.

Therefore, rather than focusing on grammatical terminology that often has poor outcomes for students (Andrews et al., 2006; Graham, Kiuahara et al., 2012; Graham, MacArthur et al., 2019; Hillocks, 1986), I wondered whether the music connection might provide new

language and ways of thinking about metalinguistic and grammatical aspects in a structural way. I sought to further expand the more promising metalinguistic approaches that underpin “language aware” classrooms (Andrews, 2007) and where language is taught as an “infinite repertoire of choices” (Myhill, 2023, p. 3).

Rhythm and Sound as Material Qualities of Language

An awareness of language and the ‘repertoire of choices’ available to young writers would be tied to an aesthetic awareness of sound and rhythm. This would be captured through shared and choral reading, dramatic speech and peer writing experiments, oral/aural rehearsal of literary texts, conversations about writing, and peer editing wherever texts were being created. In this sense, texts would be the woven product spun from the talk, sound and language rhythms featured in the writing classroom.

Language is inherently rhythmic and is therefore also inherently musical (Magne et al., 2005; Patel, 2012; Patel, 2014a; Patel & Daniele, 2003; Patel & Morgan, 2017), so that the distinctions between language and music become problematic under scrutiny (Brandt et al., 2012; Brandt, 2021). For example, Chapter 2 explored the ways in which distinctions between song and speech are often illusory or culturally constructed (Trainor & Trehub, 1992; Vanden Bosch der Nederlanden et al., 2015, 2020). Oracy is an essential component in the early years literacy classroom, including for writing (Britton, 1970; Fox, 1993). Researchers, Trevarthen and Malloch (2017; also, Malloch & Trevarthen, 2018) would argue that there is a powerful underlying reason for this: an essential music and language connection evident from birth, wherein the musicality of language is ingrained in gestural and song-like experiences of language. Traced from these foundations, oral-aural experiences of language clearly continue to be essential to language and writing into the formal school years (Jones, 2010; Jones et al., 2018; Safford & Barrs, 2007; Wilson, 2022).

Susanne Gannon (2014) has also written about sound and music being embedded within the creative writing process. In a secondary creative writing class, emotive music was used to heighten the experience of writing through “the body itself, and those aspects of language that are associated with the body: breath, sound, rhythm” (p. 8). Drawing on the work of Misson and Morgan (2006), Gannon has articulated that it is “in our attention to conceptual and propositional aspects of language [that] we have become less attentive to the aesthetic and affective elements of texts” (cited in Gannon, 2014, p. 8). This highlights that music and rhythm provide a way to materialise this aspect of texts and the writing process.

The Rhythm of Speech and Sound in Writing Experiments

As much as possible, playing with language choices would be designed to be an analogous experience to the musical sound experiments of the improvising–composing music classroom. I would try to create conditions whereby a kind of formative aesthetic self- and peer-assessment would become an audible aspect of the creative writing classroom.

In this classroom environment, I hoped to hear children talk about themselves as composers in a musical as well as in a writing sense, even synonymously, wherein writing, especially creative writing, would be conceived as artistic work. Therefore, we would treat language at every turn, as we would, music and sound. Writing would seek to capture the pleasure of what was being produced in the oral–aural–gestural space.

In the commentaries about the formal written discourses children should learn (Derewianka, 2014; Derewianka & Christie, 2008; Ivanič, 2004), there has sometimes been an unintended downplaying of the important links between speech and writing. The expressive qualities of writing are located in the voice and can sometimes be lost in the formal writing classroom. Vygotsky described writing as “written speech” (1978) and Britton (1970, 1972) and also, Burgess and colleagues (2010) helped children to capture the qualities of speech in their writing.

There is evidence that writing, though often more contrived or more concentrated than natural speech, follows the same essential rhythms as natural language. Wiese (2016) has described that “in spite of the fact that spoken language is planned ‘on the fly,’ and may be subject to hesitations, interruptions and restarts, prosodic well-formedness is inherently more or even exclusively part and parcel of the realisation of *spoken* language” (p. 3). Drawing on research in linguistics and psychology (including, Ashby, 2006 and Schlüter, 2005) Wiese has explained that, though seemingly silent on the page, “prosodic features have been found to exist in writing” (2016, p. 3) and that higher degrees of prosody are related to the writer’s skill. He has described this as a “prosodic parallelism” across speech and written language. Theatrical and formal speech, lectures, song, chant and film dialogue, are examples of “speech” where such boundaries are also blurred.

Therefore, this study has sought to bring together what has been established about oracy, speech and writing, with the overlooked element of aestheticism and musical rhythm. Expressed out loud, students could be encouraged to think of about their writing and metalinguistic choices through an experience of sound and rhythm in their natural and dramatic speech, including cadence and timbre (fast, slow, soft, loud). I also hoped that in this way, they would see that writing began as soon as they began to think about and share their ideas.

Playful Interactions with Language

In these environments, the construction of meaning would also be playful, where the boundaries between the real and the imagined would be loose and where literary writing would be a source of inspiration to the writers. This was intended to work in a similar way to music exemplars used in Kodály and Orff-Schulwerk classrooms as a scaffold for improvisation. I wanted to see how we could make writing primarily about aesthetic coherence, rather than grammatical correctness. Throughout these experiences, it was hoped we might also build an iterative rhythm (or flow), a seamless movement between play and precision, and to creating.

The study ultimately sought to capture the key elements of such environments, and to build a framework with key principles that could guide similar explorations in other classrooms. The intention of the study was therefore to see what scope the approach might have for other teachers, and to evaluate the impact on students' writing development.

Theoretical Foundations for the Study

The imperative for the weaving together of music, sound, and speech within the writing classroom as the basis of this study is predicated on three important theoretical assumptions established in the preceding chapters. These are that

- a. there is a lost or unknown but essential connection between music and language that is especially needed to support young writers, which is underpinned by rhythm;
- b. due to the interconnected nature of semiotic resources and modes, interdisciplinary approaches are essential in pedagogical design, especially where a study of language is involved, such that a music–language link is viable, even valuable;
- c. aesthetic and creative processes underpin all learning.

Theoretical Concepts in the Work of Whitehead

Whitehead articulated a framework of processes that underpinned personal growth through education—romance, precision, and generalisation—in a philosophy of education that he called “The Rhythm of Education” (as described in 1929). In it, he applied with consistency the same theories he had applied to mathematical physics. For Whitehead, education is a creative process driven by the same creative vitality that underpins all physical processes.

Whitehead held a great interest in education. Both his grandfather and father were successful headmasters, and through his own experiences teaching in higher education, Whitehead formed detailed views on education. Yet the kind of education Whitehead advocated is not what might be expected from a professor of pure mathematics. His opening words in the first chapter of *The Aims of Education* (1929) are a call to an aesthetic and rounded education,

where “culture” refers to all intellectual development and where the appreciation of beauty and feeling are central. Whitehead (1929) explained that “culture is activity of thought, and receptiveness to beauty and humane feeling. Scraps of information have nothing to do with it” (p. 1).

By contrast, an education that is focused purely on inert theory is the antithesis of growth. Whitehead proposed that the alternatives to the natural rhythms of growth was like death, which could only produce “in education the dryness of the Sahara” (1929, p.17). Whitehead saw that education needed to teach students to engage with emotion and “aesthetic intensity” as a necessary complement to logic and reason (Haitos, 2019).

Whitehead’s Rhythm of Education

In a series of lectures given around 1917, which he later published as *The Aims of Education* (1929), Whitehead explored a framework for education. The lectures were primarily issued as “a protest against dead knowledge, that is to say, against inert ideas” (p. v). It is a protest he further punctuated ironically with the statements that “the students are alive” and so “teachers also should be alive with living thoughts” (p. v).

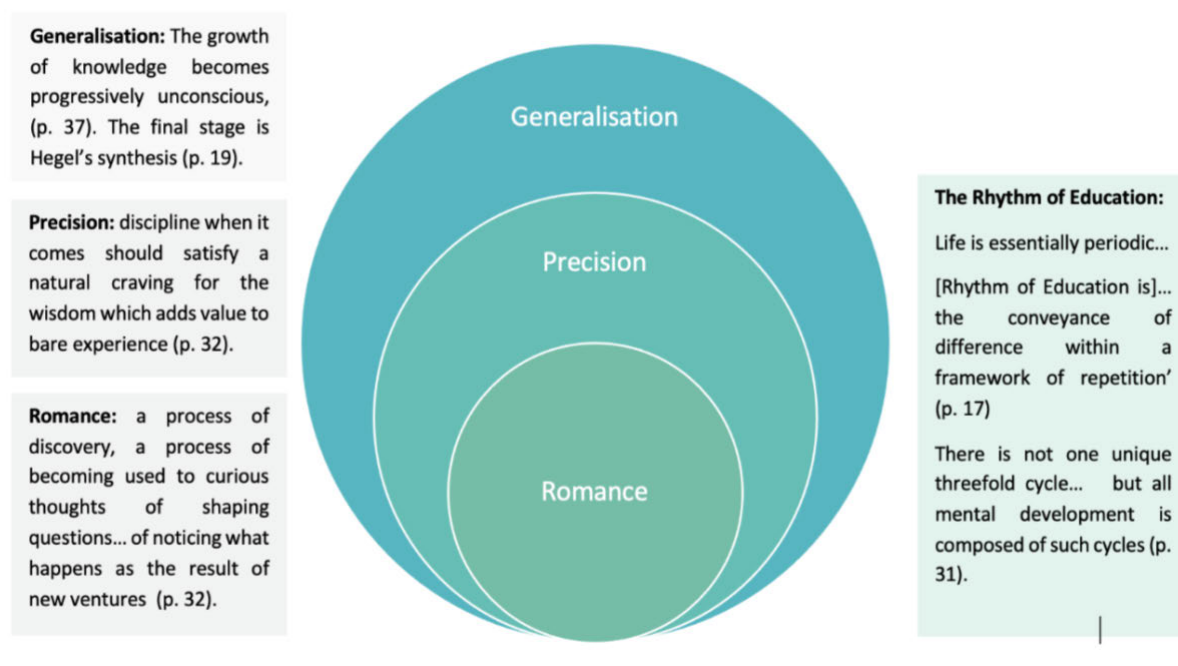
For Whitehead and others, like John Dewey, an industrialised education was a new phenomenon that they could see held dehumanising tendencies. A century later, their criticisms, and perhaps also their fears about where mass education could lead, continue to hold currency (Henning, 2019; Weber, 2019). In Whitehead’s view of education the three essential stages of learning—that is, “romance, precision and generalisation” (Whitehead, 1929)—were a statement of the organic necessities of personal growth.

As seen in Figure 4.1, Whitehead believed that education should include the *romance* of discovery and curiosity, the discipline and *precision* required for refining ideas, and *generalisation*, a period marked by creative application, or a “fruition of labours” that in turn gives way to further exploration. In this model, there is the influence of St. Benedict’s principles of discipline and

freedom (Caranfa, 2012). Whitehead explains generalisation in similar terms to Hegel’s notion of synthesis (Whitehead, 1967).

Figure 4.1

An Adapted Version of Whitehead’s Rhythm of Education

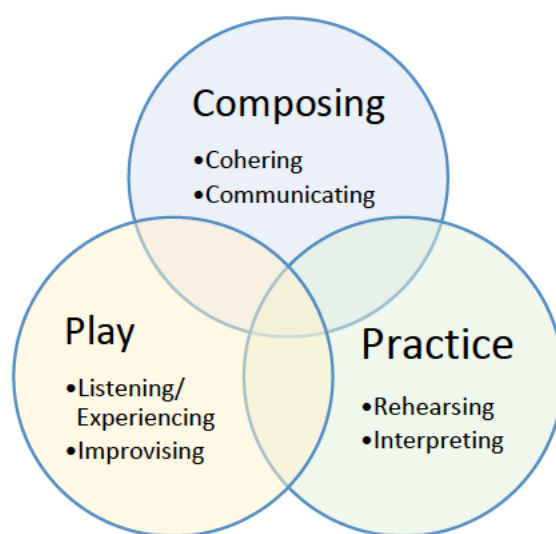


Note: Whitehead’s model highlights the rhythmic claims of freedom and precision. Direct citations are from Whitehead’s *The Aims of Education* lecture series (1929).

I have further reimagined Whitehead’s framework in Figure 4.2 where romance is reworked as “play”, a more contemporary articulation of what Whitehead seemed to suggest. From Whitehead’s descriptions, precision may also be described as “rehearsal” or “practice” of a discrete skill. Play and precision are complementary aspects in a rhythm-based composition classroom. Furthermore, “generalisation” in the writing and music classroom is interpreted as composing. Generalisation, like composing, is the creative fulfilment of preceding work; but is also the creative work in process as much as its culmination. I have also reworked the ideas of rhythm in the original Greek and, as Whitehead (1929) intended so that ‘rhuthmos’ as it relates to the word ‘rhein’ meaning *to flow*, is reinforced to refer to the iterative concept of recurrence.

Figure 4.2

Whitehead's Rhythm of Education (Updated)



Rhythm as flow is important. Whitehead (1929) emphasised that rhythm is the “conveyance of difference” (p. 17) rather than as being merely repetitive. Dewey also took up the idea of rhythm in *Art as Experience* in 1934 and would have been aware of Whitehead, both prominent contemporaries at Harvard University. Susanne Langer (1942, 1953) also emphasised rhythm as an underlying principle of aesthetics and the arts.

The tension between the romance of creativity and discovery and the discipline and refining process of precision is a key aspect explored through the LIRIC framework proposed in this study. Like “The Rhythm of Education”, the LIRIC framework is underpinned by the assumption that the successful tensioning between romance (or play) and precision is essential to successful generalisation or the “fruition” of labours in the form of composition.

Five Concepts From Whitehead Relevant to the Present Study

There are several key ideas that we can take from Whitehead to support pedagogical design in education, especially related to writing and music. These include concepts Whitehead explicitly explored: creativity and poiesis, process, rhythm, and aesthetics. In addition to these is

interdisciplinarity as exemplified in Whitehead's life work and his scholarly legacy in academia and in education more broadly today.

Creativity and Poiesis. A key example of the degree to which Whitehead's work was groundbreaking and boundary-crossing is his pioneering exploration of the concept of creativity in his works, first in *Process and Reality* (1929/1978) and then in later works including *Modes of Thought* (1938) and *Adventures of Ideas* (1933/1961).

Creativity, in Whitehead's explanations of the universe, is also associated with the word *novelty* (Ford, 1987 p. 179; Meyer, 2005, p. 2)—for example, in *Modes of Thought* (1933/1961).

Halewood (2011) explains that Whitehead sought to “develop a scheme of thought which would be able to encompass and account for new things, ideas, entities and processes being generated within existence” (p. 2).

What is important to this study regarding creativity is that, first, the scholar who brought creativity afresh into the 20th century also believed that creativity is teachable (Weber, 2019) and, second, the role of the teacher is as a kind of artist (Caranfa, 2016). Third, and most profoundly from a scientist and mathematician, is the point that creativity is intrinsic to everything and every subject and imprinted within all matter and living things.

Creativity is a metaphysical property of the universe and in this sense Whitehead's vision of creativity is antithetical to recent neoliberal framings of creativity as an economic opportunity (Weber, 2019). Creativity, in Whitehead's reckoning, is more profound, and as a way to save us from “dull materialism” (Weber, 2019, p. 41).

Furthermore, Whitehead often talked of creativity, the arts, and literature as the highest human attainments. Art is “a condition of healthy life. It is analogous to sunshine in the physical world” (Whitehead, 1929, p. 58). He wondered whether “in our modern education we emphasise sufficiently the functions of art” that would help us to acknowledge that our “aesthetic emotions provide us with vivid apprehensions of value” (Whitehead, 1929, p. 40). “It is our task”,

Whitehead argued, “without servile imitation, boldly to exercise our creative energies” (1929, p. 59).

Process. Rejecting rationalist notions of static matter, Whitehead challenged usual assumptions about “reality”, as Einstein had also begun to. Linked to creativity, process was Whitehead’s vision of a universe and natural world that is in a constant state of flux, a constant process of “becoming”. As recounted by a colleague at Harvard, Whitehead’s understanding of reality was of everything being under a process of constant rhythmic movement so that “reality is becoming; it is passing before one—a remark too obvious to make—it’s gone you know” (Hocking, 1961, p. 505).

The significance of Whitehead’s notion of process in education is that reality, creativity, and vitality are happening from moment to moment. Education needs to be an “alive” experience of movement and action, connected to the reality of the constant creative actions of the physical universe. An education fixed on the repetition of useless skills and “bits of information”, went against the grain of human and universal instincts. For Whitehead, learning has to be “enacted rather than memorised and examined” (Cole & Somerville, 2017, p. 78).

Whitehead’s views are akin to Mead’s phenomenological approach, where meaning is found in the vitality of the present and of the moment-to-moment experience, so that “we should banish the idea of a mythical, far-off end of education. The pupils must be continually enjoying some fruition and starting afresh” (Whitehead, 1929, p. 19).

Rhythm. Whitehead’s concept of rhythm is closely associated with creativity and process. It is Whitehead’s term for the recurring and generative patterns of nature, and in his theories of education, rhythm describes the development of the intellectual processes. As Lewis (2011) describes: “Rather than a linear, chronologically uniform, and sequential model of learning, Whitehead argues for a spiralling or cyclic model that involves a continual loop between past and present, emotion and reason, freedom and discipline” (p. 250).

As with the physical realities of the world, in education, new ideas and experiences will be born, will emerge, and will move things forward. Cole and Somerville (2017) suggest that this “non-linear, cyclic appreciation of education and learning has profound consequences for understanding the ways in which learning happens” (p. 77). This is because in Whitehead’s reconfiguration of reality, there is no hierarchy, only rhythmic process.

Aesthetics. Whitehead’s view of aesthetics transcends disciplinary lines as he ascribed a necessary “aesthetic intensity” to all disciplines rather than as the sole purview of the arts. Whitehead believed education is the “marriage of action to thought” that is a “pleasure yielded to the scientist and the artist” (Whitehead, 1929, p. 48).

The rhythm of education and growth that involved the three recurring stages was proposed with the ultimate aim being the “development of beauty and humane feeling”. Influenced by Kant (1790), Whitehead believed that moral and aesthetic intellectual development are entwined.

Whitehead, through his framework for education, demands that we see all of education as a development, of the emotional, moral, and aesthetic self and senses, not only of the rational. Whitehead articulated an inseparable nature of emotions and logic. Langer (1953) further explored that artistic work and aesthetic experiences involve both logic and feeling. Whitehead’s exploration was in part a reaction against the hard rationalism that seemed to define the time. The concept of aesthetics as it is explored in Whitehead’s work is relevant to this study as it points to an “alive” and processual experience.

Interdisciplinarity. Whitehead is relevant to this study as one who transformed the academic delineations between science, mathematics, literature, and art as well as being one who, while formulating some of the most profound mathematical, scientific, and philosophical thinking of the 20th century, also eschewed scientific positivism and viewed poetry as the highest form of thought (1929).

Interdisciplinarity as seen in the work of Whitehead is used as a means of understanding complex phenomena. Through mathematics, science, and philosophy, Whitehead explored complex questions about the realities of the universe, and as has been discussed, about aesthetics and education. As a revered mathematician, physicist, and philosopher, Whitehead is also one of the 20th century's greatest interdisciplinarians. He has become a guiding theorist for a broad range of academic fields, including ecologists (Duvernoy, 2020), theologians (Haitos, 2019), sociologists (Halewood, 2015), musicologists (Dohoney, 2021) educationalists (Lewis, 2011; Ugwuozor, 2019), philosophers (Allan, 1999; Armour, 2010) and for literary (Gaskill & Nocek, 2014) and music (Langer, 1942) scholars.

While interdisciplinarity has become ubiquitous in many ways, it is still viewed with some apprehension or suspicion. Locke (2009) simply describes interdisciplinary approaches as “the design of programmes where students approach topics, problems or tasks using the knowledge-producing methods of a range of subjects or disciplines” (p. 320). Bell (2004) describes that interdisciplinarity is particularly necessary for understanding the phenomenon of human learning: “Learning is too complex a phenomenon to be the sole province of any one discipline, theoretical perspective or research method” (p. 243).

Interdisciplinarity is relevant to this study, as described in Chapter 1, because it seeks to bring together disciplines that would not normally be considered side-by-side but whose connection is being re-established through well-founded research evidence. Interdisciplinarity serves three important functions: It highlights lost connections, produces innovative solutions to a dilemma, and may be the only means of properly understanding complex phenomena. Whitehead's work is evidence of the scope for all three aspects of interdisciplinarity.

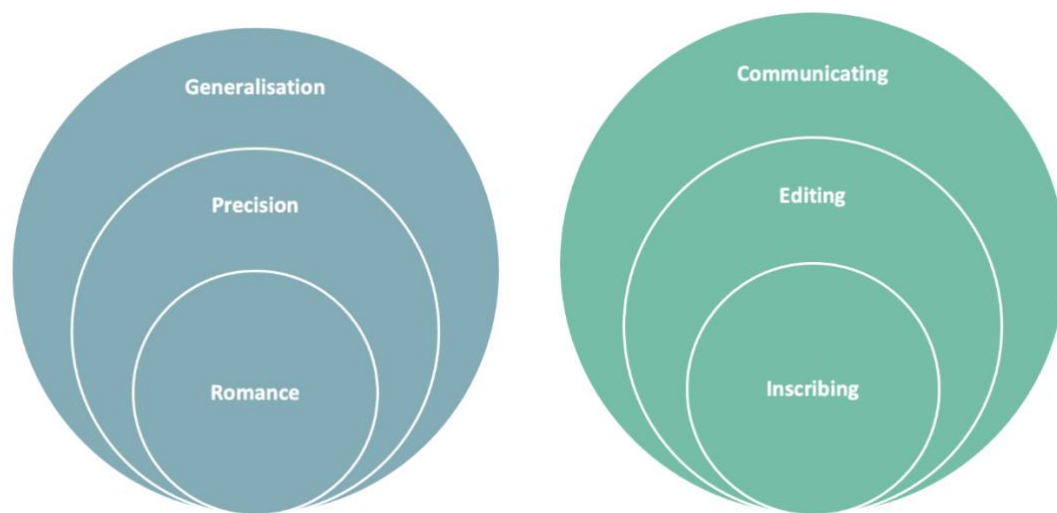
Underpinnings of a LIRIC Framework

The theoretical basis for the LIRIC framework is explained in this section, while the detail of the framework and examples of each of the principles is explained in further detail in Chapter

5. In addition to the framework for education presented by Alfred North Whitehead, the framework is informed and has been refined by the music pedagogy of Carl Orff and Elliot Eisner's theory of arts processes. Given their emphasis on interdisciplinarity and aesthetics, and in Orff's case rhythm, concepts from Orff and Eisner appear to complement Whitehead's framework. Consider Eisner and Whitehead alongside one another in Figure 4.3.

Figure 4.3

Whitehead's (1929) Rhythm of Education Framework Alongside Eisner's (2005) Process Arts Theory



The frameworks have some complementary and parallel dimensions. “Inscribing” in Eisner’s framework is any act of representation, not necessarily visual, including speech. Inscribing is the process of expressing something in its material form, including through impermanent materials such as sound and gesture. This idea of inscribing is enhanced when we couple it with Whitehead’s idea of romance or play. The first acts of inscribing are creative, playful, and exploratory (Eisner, 2005, p. 109). This is particularly important to the writing classroom, where students sometimes have anxieties about writing associated with notions of correctness and neatness. Inscribing should at first be playful.

The next stage “editing” is very similar to Whitehead’s “precision”, yet the words refining or cohering might also be considered. Eisner (2005, 2008) also uses sculpting or shaping. Here, it

is important to understand that Eisner, as a visual arts teacher and writer, believed “all forms of representation have a syntactical structure” (2005, p. 109). Eisner seems to be thinking in similar terms to Myhill (2013, 2023), where grammar is an exploration of “infinite possibilities”. Eisner (2005), declared that “The problem in our schools is that activities whose syntactical structure is rule-abiding dominate the curriculum to the virtual exclusion of figural or structure-seeking activities” (Eisner, 2005, p. 109).

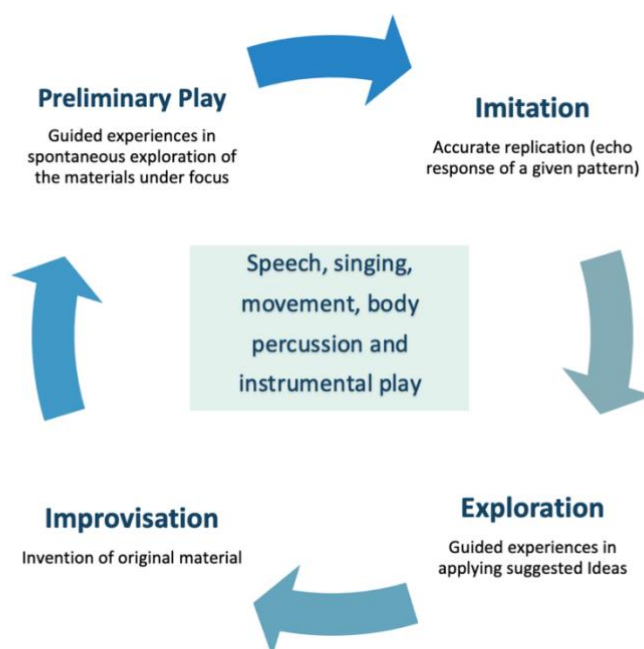
The framework also takes the aesthetic principles often attributed to music in popular music pedagogies such as Kodály and Orff–Schulwerk and applies them to language, grammar, and writing where such aesthetic awareness is more likely to be placed in subordination to notions of correctness. Music pedagogies place a focus on the aesthetics of sound, rehearsal, and improvisation, and Orff–Schulwerk pedagogy in particular places emphasis on speech, creativity, and movement.

In Orff’s *schulwerk*, music, movement, and speech are combined to develop music and language in social and creative processes. In words that are sympathetic with a Whiteheadian metaphysical view of things, Orff (1963) saw *schulwerk* as a “a work which is never quite finished, in flux, constantly developing” (p. 69). Master Orff instructor Doug Goodkin (2001) explained a deep-rooted link between Whitehead and Orff that ultimately saw that there is a seamless nature to learning.

The Orff model of music education emphasises the concepts of recitation and improvisation, as well as quality and authentic music exemplars (Wheeler et al., 1977). In this model for music learning, composition begins through recitation and improvisation upon “a skeleton structure”. It is used to invite students to artfully create compositions by playing on the provided structure. They do this “by increasing the rhythm or moving to the neighbouring notes ... learning the skeleton melody and improvising ornamentations” (Goodkin, 2001, p. 20), see Figure 4.4.

Figure 4.4

An Orff-Schulwerk Teaching Model



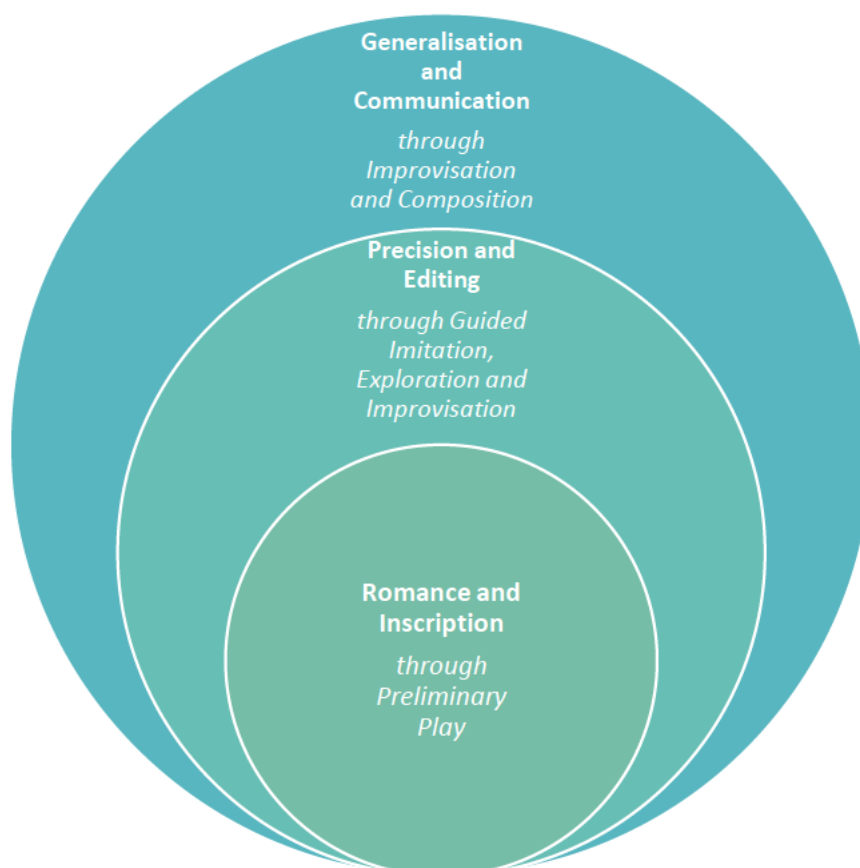
Note. Adapted from American Orff-Schulwerk Association (2023).

Like the Orff-Schulwerk approach, undergirding the LIRIC framework is a recognition that “the rhythms inherent in the child’s native language [are] an important resource” (Locke, 2009, p. 317). Similarly, music and writing have been conceived as sharing the same compositional processes as conceived in Eisner’s (2005) arts processes where he identifies the universal acts of inscription, editing, and communication.

A successful framework acknowledges a balance between “theoria” (theory), “techne” (skill), and “praxis” (practice) (Nielsen, 2016). The LIRIC framework attempts to express aspects of the Orff-Schulwerk approach, Eisner’s three arts processes, and Whitehead’s rhythm of education. Figure 4.5 represents a way we might conceive of the Orff, Whitehead, and Eisner frameworks brought together. They provide a guiding pedagogical framework that places arts processes in view, articulates a balancing of freedom and precision, and explicitly emphasises aesthetic elements. These explorations form the basis of the LIRIC framework.

Figure 4.5

A Rhythm of Composition



Note. Adapted from Whitehead (1929), Eisner (2005), and Orff (1963).

Research Methodology

This section provides an account of the research paradigm and methodology applied in the data collection and analysis. It identifies (a) the aims and features of the study (b) the research paradigm and qualitative design-based methods; and (c) data collection and analysis processes. The aim of the study was to develop an effective music pedagogy-informed framework (LIRIC) for writing instruction in the middle to upper primary English classroom, with particular attention to the technical aspect of metalinguistic awareness and grammar. The framework attempts to attend to a key dilemma for the writing teacher largely resolved in the music classroom—that is, the tensioning of skills instruction with meaning and context by attempting to

emulate key experiences of the music classroom—listening, interpreting, reciting, improvising, and composing—and in the same fluid manner. Grammar was a key aspect assessed in student writing artefacts, used to determine the success of the framework in addressing skills in context. The framework was developed, analysed, and refined through a design-based intervention model in my own classroom in two contexts and then in an in-depth study in another school with 3 classes and their teachers.

Aims and Features of the Study

Through this research project, I sought to discover the key elements or principles that should be included in a framework to integrate music and language in a pedagogy for writing. This would be particularly to explore a rhythm–grammar link and examples of what this could look like in the classroom.

Drawn from findings in the literature review, the study combined well-established, as well as novel, applications of music and literacy–writing pedagogies. Each of these were primarily selected to serve environments where “language as play” would be emphasised—that is, language as the object of play, as well as language played (or rehearsed and performed) aloud and in experimental ways. As an expression of these key aims, the research questions are as follows.

Primary research question

1. What insights might be gained from music pedagogy, inspired by the Orff–Schulwerk and Kodály philosophies, for teachers of linguistic grammar in the writing classroom?

Sub-questions

2. To what extent can the similar cognitive processes used for rhythm and grammar be extended to pedagogy and therefore be instructive for the teacher of writing and grammar?

3. Could common music education practices—particularly “recitation” and “improvisation”—be analogous for the writing classroom to lift technical aspects such as linguistic grammar?

The study was qualitative and iterative within a design-based intervention. The iterative dimensions of the study were further reinforced by the length of the study over three years in three locations. Qualitative analysis is a term that is usually used to describe research which seeks knowledge and insights about human experiences (Ward & Delamont, 2020; Sandelowski et al., 2009). In education, qualitative research analyses are important for understanding the complex nature of student experiences and the dynamic realities of unique contexts. Qualitative data is also relevant to policymakers in educational contexts. The NSW Department of Education in Australia, for example, explains that “qualitative data is data that is not easily reduced to numbers [and] tends to answer questions about the ‘what’, ‘how’ and ‘why’ of a phenomenon” (NSW Department of Education, 2023).

Qualitative research makes assessments of human experience that aim to provide descriptive insight for a phenomenon. A dominant view of the chief difference between qualitative and quantitative research is that quantitative research calls on numbers and statistics while qualitative research relies on descriptive and non-numerical assessment methods to capture rich and complex data. Yet, Creswell (2012) asserts that qualitative research just provides “depth of understanding” (p. 18). The key characteristics of qualitative research, according to Creswell (2012), include such aspects as “a detailed understanding of a central phenomenon” and an interpretation of “the larger meanings of the findings” (p. 16). Furthermore, qualitative report findings should also provide “flexible emerging structures and evaluative criteria” (p. 16).

While both quantitative and qualitative research methods involve human analysis and interpretation of data, making them equally vulnerable to subjective reflexivity and bias (Sandelowski, 2009), qualitative research has historically had more problems making claims about the validity and reliability of its findings. Attempts to overcome this have been explored,

including in a seminal critique by Lincoln and Guba (1985). They propose that by applying the same key criteria often attributed to quantitative assessment—that is, credibility, transferability, dependability, and confirmability—to qualitative research attempts could be made to try to match the claims of quantitative research.

Identifying a research paradigm and synthesising methodologies

Perhaps an inherent issue in claiming adherence to one methodological approach is the limitations this imposes on research methods, sometimes restricting opportunities for synthesis, reflexivity and cross-checking. Too often, the methodological dualisms invoked in descriptions of research—such as qualitative and quantitative, positivist and relativist, inductive and deductive analysis—are limiting and even inaccurate accounts of the multidimensional and practical realities of the iterative and reflexive stages of research. Even “mixed methods” analysis has become limited by certain orthodoxies.

A growing number of researchers have challenged the sharp distinctions implied by such terms. They argue that the processes applied in research are not always accurately described by them, but also that it is a synthesis of approaches that is needed to ensure robust outcomes (Borgstede & Sholz, 2021; Hyde, 2000; Kervin & Mantei, 2022; Proudfoot, 2022). The imprecision of sharp methodological distinctions has led Lincoln and Guba to speak instead of ‘research paradigms’ (Lincoln & Guba, 1994), where for the purposes of a particular study, “both qualitative and quantitative methods may be used appropriately” (p. 105).

Teacher-practitioner and researcher

The research paradigm of this present study is one of the inquisitive teacher practitioner-researcher. This practitioner-researcher paradigm draws on both theory and classroom realities while assuming a reflexive stance. It involves extended periods sitting within sites of study, yet through a particular theoretical perspective, a familiar problem can be perceived in new ways.

Within a teacher practitioner-researcher paradigm both qualitative and quantitative data are often synthesised within usual teacher practice, where observations, interpersonal insights as well as numerical and formal assessment information is synthesised. Devotion to one kind of data to the exclusion of others would be irresponsible to a teacher practitioner and data is always analysed alongside other information available. All data sets are valuable to the practitioner-researcher whose learned instincts are that a range of data approaches are valuable for communicating with colleagues, families, schools and school systems, and for student feedback.

Deductive and Inductive Processes

The practitioner-researcher paradigm begins ‘in situ’ within a particular context and begins as an inductive bottom-up strategy of generalization, indicative of qualitative analyses. Yet, the research process has been strongly iterative and conducted in stages over several years. This has allowed both deductive and inductive processes, so that top-down generalisations to the particular have been applied for the main study. Hyde (2000) also argues that “most research endeavours proceed by an iterative alternation of induction and deduction” (p. 2) but which is not often acknowledged in formal accounts of research processes applied. A number of studies have attempted to highlight the interrelations between inductive and deductive processes (Kervin & Mantei, 2022; Proudfoot, 2022).

Similarly, Borgstede and Sholz (2021) argue that the integration of these methods—for example, inductive processes, usually associated with qualitative studies, as well as deductive approaches favoured in quantitative analyses—can be beneficial. In fact, they even “stress the formal similarities between both approaches” (Borgstede & Sholz, 2021, p. 5) and show that they are inherently complementary and intersecting. Maxwell and colleagues (2015) strongly imply that deductive processes, which are used to support claims of generalisability, are often fraught. The inherent vulnerabilities of deductive research methods, often not explicitly recognised, are at the core of the so-called replication “crisis” found in the cognitive sciences, for example. Maxwell

and colleagues (2015) suggest that these vulnerabilities could be mitigated through the use of complementary inductive processes.

The in-school pilot studies allowed initial theories to be developed and are indicative of qualitative inductive processes. These were followed by the exhaustive literature reviews which were the basis of the deductive processes used in the main study and its key findings. The literature review has been an aspect of the research process, seeking to explore the basis for the connections made between music and language as well as music and writing. These ‘in situ’, as well as theoretical explorations have informed one another where the empirical research has started with the specifics of a situation which has been generalised but then tested in other contexts, and vice versa, so that the theoretical principles discovered in the literature review have also then been used to evaluate the empirical findings. These iterative stages of research have allowed inductive and deductive processes to work as complementary processes.

Crystallisation of perspectives and inclusion of numerical data

Qualitative researchers Richardson and St. Pierre (2008) have suggested using different data sources to crystallise a researcher’s findings where the complex reality of a phenomenon is clarified through multiple data “perspectives”. It is a rich view of data rather than a reductionist one, and eschews the “triangulation” approach, to locate one or two key idea or truths.

Richardson and St. Pierre (2008) suggest this does not have to be the aim of qualitative research; rather, a “crystallisation” process simply seeks to highlight various perspectives or valid claims. These are each acknowledged as important so that the truth being established is the fact of the complexity of a phenomenon, instead of one “truth” claim.

As an advocate for the valid place of numerical data in some instances of qualitative research, Maxwell (2010) has provided another distinction between qualitative and quantitative research methods. Drawing on Becker’s (1970) arguments, Maxwell (2010) has argued that qualitative researchers frequently invoke quantitative terms such as “many, often, typically,

sometimes” (Becker cited in Maxwell, 2015 p. 476) and suggests that qualitative researchers can use numbers to make these statements with added precision. Furthermore, Maxwell has provided a more helpful distinction between qualitative and quantitative research methods beyond the numbers/words distinction as thinking of the world in terms of events and processes versus variables and correlations (Maxwell, 2015, p. 477).

For this reason, the use of numbers in qualitative research has historically been an aspect of contention. Maxwell (2010) cautions that quantitative data should complement rather than overshadow qualitative findings. In using numerical data, there should be care taken to ensure it has not been selected as a means to legitimise findings: “They do this at the cost of stripping away everything but the quantitative information and are thus necessarily complementary to qualitative information rather than substituting for it” (p. 478).

The rich data and complex interpretations enabled through qualitative assessment might be served by complementary numerical data to confirm or support interpretations that have been made rather than to supersede them. Maxwell (2010) argues that numerical methods allow “internal generalisations” to be made where conclusions about a particular setting or context can be established so that “quantitative data can constitute an important check on such biases and can provide systematic evidence for diversity that may be overlooked by both the researcher and participants themselves” (p. 479).

Combining Creswell’s (2012) description of qualitative research as providing depth, and Maxwell’s description that qualitative research is interested in events and processes, the present study sought an in-depth view of the developing processes used by young students as they build their agency and identity as writers and how music pedagogy processes may support them to do this.

Furthermore, qualitative research tends to maintain its focus on a smaller research scope or case study, while quantitative assessment tends to favour larger participant numbers. The

number of participants in the main part of this design-based study (4 teachers and 25 students) allowed for this depth.

Design-Based Research Study

This design-based research began as an interest in an issue that had become apparent in my own classroom. Anne Brown (1992), the U.S. researcher to whom design-based research is often ascribed, refers to it as a particular kind of “intervention” that seeks to prove it can “migrate from our experimental classroom to average classrooms. Design-based research is operated by and for average students and teachers, supported by realistic technological and personal support” (Brown, 1992, p. 143).

The design-based intervention model is proposed as a recommended research model for higher degree researchers (Anderson & Shattuck, 2012; Bell, 2010; Reeves, 2005, 2006; Reiman, 2011; Stinson, 2008), often teacher–researchers who are primarily seeking to bring together theory and practice. Design-based studies have also formed the basis of investigations conducted in Australia and internationally over several decades to support or to understand creative pedagogies in the English primary classroom (Brosseau et al., 2020; Eady, 2008; Humphrey & Macnaught, 2016; Ivey, 2020; Jang et al., 2019; Lim, 2022; Philippakos, 2021). This study, then, is an attempt to translate a design that began as a series of experiments in my own classrooms and contexts. Therefore, I have brought the design-based model begun in my own classroom to this research context to see whether it can successfully ‘migrate’ or find a place in the practice of other classrooms and contexts.

Design-based research allows the researcher to

- “acknowledge and value the importance of context” (Stinson, 2008, p. 1);
- “[address the issue of] linking theory and practice in educational research” (Reimann, 2011, p. 37);
- “make learning research more relevant for classroom practices” (Reimann, 2011, p. 37);

- “conceptualise guiding principles for the design and implementation of ... learning tasks and to identify ways that teachers may operationalise them in their classrooms” (Mantei, 2008, p. 131).

Multiphase In-Depth Design-Based Research Study

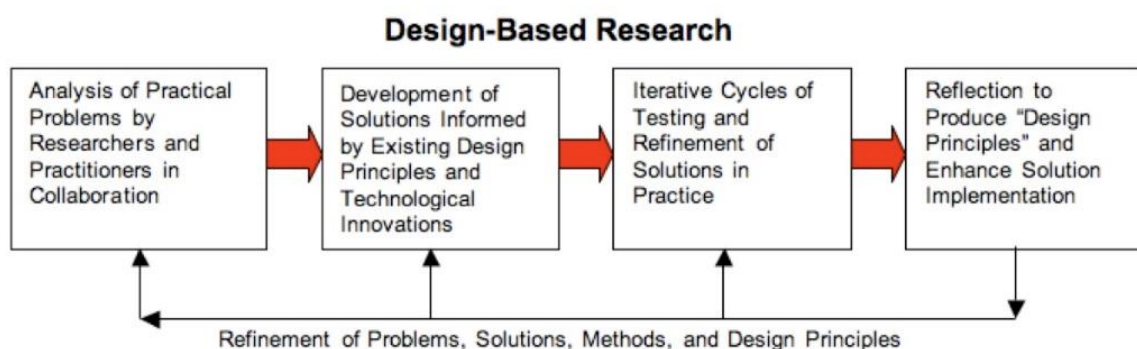
An evaluative and exploratory period involving iterative microphases was employed to design and refine a framework for teaching writing informed by music pedagogy. This phase was in depth and extended over a school term (or 2 months) with music and literacy teachers at one primary school.

Reeves’s Model for Design-Based Research

The design intervention template used in this study (Herrington et al., 2007) was based on Reeves’s (2006) model (see Figure 4.6). The model provided a way for the collaborating team to understand the overarching aims of the research and to understand the path forward.

Figure 4.6

Design-Based Research



Note. From Reeves (2006, p. 59).

Identifying the Problem

In this case, as outlined in earlier chapters, the dilemmas and challenges of teaching grammar to enhance writing composition have been a problem, demonstrated through many

studies conducted over several decades in Australia and internationally (Andrews et al., 2006; Derewianka, 2019; Derewianka & Jones, 2012; Exley, 2016; Harper & Rennie, 2009; Humphrey et al., 2012; Myhill, 2005, 2023; Myhill et al., 2012, 2013; Wyse, 2001; Wyse & Torgerson, 2017). Grammar or metalinguistic awareness has been established as the area of least confidence for literacy teachers (Adoniou, 2014; Jones & Chen, 2012). Issues surrounding the tensioning of skills with creative expression and engagement are often cited.

The school in focus has had varying literacy results, as identified through NAPLAN and by the school's leadership, with signs that spelling and grammar have been problematic over several years. The teachers involved in the study also expressed that grammar was an issue they wrestled with and wondered whether it should be taught at all in the younger years.

Identifying Solutions

The isolated teaching of metalinguistic awareness and grammar has been shown to be benign, inconsequential, and even detrimental (Graham, 2020; Graham et al., 2019; Hillocks, 1986; Jones et al., 2013; Locke, 2010; Macken-Horarik et al., 2018; Myhill et al., 2012) to the teaching of writing composition in English classrooms. Research over several decades has led to new understandings about grammar, that include a social and functional approach (Derewianka, 1990, 2019; Halliday & Matthiessen, 2013) and as an embedded approach in writing. These approaches also stress the importance of building a “metalinguistic” knowledge to support creative composition (Myhill et al., 2020; Myhill, 2023).

Neuroscientific findings over the last two decades (Cannon & Patel, 2021; Geambaşu et al., 2020; Gordon, Jacobs et al., 2015; Gordon, Shivers et al., 2015; Patel, 2003, 2014b; Patel & Daniele, 2003; Patel & Morgan, 2017; Peretz & Zatorre, 2003; Peretz et al., 2015) build a compelling case for the correlation between musical rhythm and grammar as parallel and overlapping cognitive processes. They also provide a new dimension for thinking about the “problem” of grammar in the teaching of writing. Within functional notions of language, but also

within literary and aesthetic contexts for writing (Locke, 2010), the firm basis for a new perspective on grammar means that we can plausibly consider grammar in the writing context like rhythm in music. It is plausible that grammar, or metalinguistic awareness, may now be proposed as an artistic and socially-constructed medium of both form and sound.

Music and English teachers were brought together to work in collaboration to explore these links with music–writing, but also rhythm and grammar in view. At first in my own classroom, in conversation with music teachers in my own school context, and then in another school context. Throughout the study shared approaches and common language for composition using a music-pedagogy-inspired framework was explored, developed and refined. It sought to test the theory that music pedagogy may hold some answers to challenges faced by writing teachers and their students, particularly for metalinguistic aspects such as grammar.

Phases of Data Collection and Analysis

As qualitative analysis is about establishing and describing depth about an experience or phenomenon, the process of data analysis involves iterative processes. The stages of qualitative assessment methods undertaken by a researcher, as identified by Creswell (2012), involves

1. collecting data;
2. preparing data for analysis;
3. reading through data;
4. coding the data;
5. coding the text for themes to be used in the research report (p. 236).

In this study, qualitative theme analysis was used as the primary method for assessing recorded interviews, film, and photographs. Australian Curriculum sample analysis was used to assess student writing samples. In addition to these approaches, an additional analysis method was used for the student writing samples: a writing tool developed for Australian Year 1 students.

As a complement to qualitative methods, some use of quantitative methods was used so that a numerical value was given in six dimensions of writing using a Writing Tool Instrument (Mackenzie et al., 2015) and which provided a means of comparing results with 75 other Australian Schools from a range of ICSEA contexts. I expected that this approach might reveal some unexpected aspects of the student writing, not obvious from the fine-grained qualitative analysis. In the process of this evaluation, I was also able to make some critical evaluations of the tool and to reflect on some assumptions made about writing and the relationship between punctuation, grammar, editing, and handwriting.

Data Collection Methods: Multifaceted “Crystallisation”

Through a range of data perspectives, the design study sought to test whether the LIRIC framework could support teachers and students in the writing classroom. An analysis of student data looked for student academic (grammar and text genre) and non-academic (writing identity and agency) outcomes. With grammar as a key assessment focus through external assessment measures, researcher analysis of student writing samples was supported by a writing tool instrument aimed at clarifying aspects of my own additional sample methods, which included Australian Curriculum writing sample analysis and other curriculum comparisons. Teacher and student interviews also highlighted attitudes towards grammar and rhythm and their relationship.

Artefacts

The LIRIC framework was a key design instrument used for instructional planning and evaluation of the music–literacy connection for the teaching of writing, with a focus on grammar. Artefacts for both phases included the framework design itself, lesson plans, and student writing samples.

The music and literacy teachers were to some extent, co-researchers as well as participants in that a key aim of the study was to determine whether the framework was useful as a planning tool for generalist teachers. The artefacts collected were curriculum and instructional planning

documents. In addition, teachers collected student writing samples which I analysed using an interpretive model I had designed drawing on curriculum indicators and ACARA sample analysis

Filmed Recordings

Filmed recordings used in Phase 2 were a key means for ascertaining effectiveness and viability of the music-informed framework. These were also used for gathering formative data to aid the development and refinement of the LIRIC framework.

Filmed recordings provided a means of analysing the academic and nonacademic student outcomes, particularly for grammar in writing. Films enabled careful observation of oral/aural confidence and their connection to written samples and the role oral/aural aspects play in a music-informed writing pedagogy. Two main aspects of grammar outcomes were ascertained through film recordings: adherence to formal rules and patterns and the orchestrated enabling of students to innovate on grammar patterns to achieve certain authorial purposes.

Teacher Interviews: Focus Group, One-to-One, and Zoom Interviews

In Phase 2, focus group interviews (with the music and literacy teachers) were “used to collect shared understanding” (Creswell, 2012), using open-ended questions to gain insights about the development of the framework and to inform refinement of the framework. Focus group interviews were undertaken before, after, and during the Phase 2 study. These interviews were transcribed and analysed through thematic analysis.

Data Analysis

Analysis for all data included processes of becoming familiar with data, which included listening to audio and film recordings several times, making transcripts as a gradual identification of key themes began to emerge using an adapted version of Braun and Clarke’s (2020) thematic analysis model. In-depth thematic analysis locates similar concepts or themes.

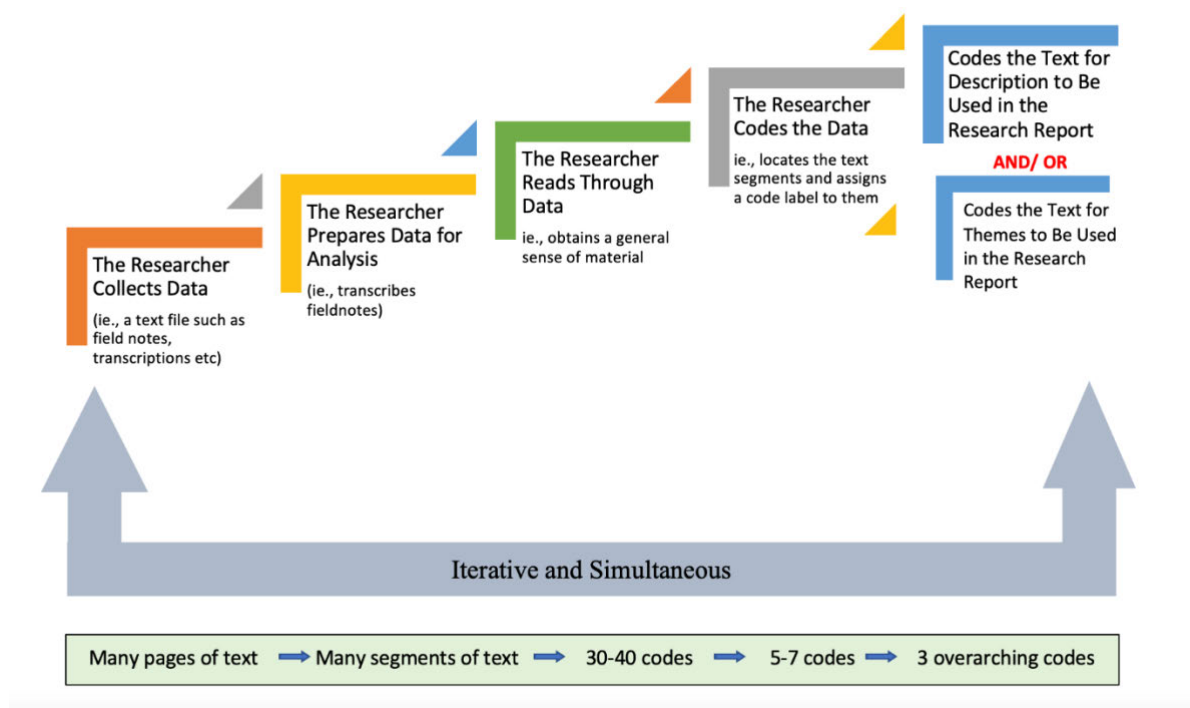
Thematic analysis involves “listening” to human survey, interview, or other data and making interpretative, thematic connections. While there are different perspectives on the

process of thematic analysis, Fugard and colleagues (2019) argue that thematic analysis is ultimately a process that involves “drawing connections at a deeper level, where two fragments of text using different words can be seen to be related at the level of meaning or [to] a common phenomenon” (p. 4).

Thematic analysis can include methods including framework analysis, discourse analysis, narrative analysis, and grounded theory. Qualitative approaches are inherently “reflexive” and involve finding “patterns of shared meaning, cohering around a central concept” (Braun & Clarke, 2020, p. 331) and is an iterative process. Braun’s (2006) model is widely used by qualitative researchers (Xu & Zammit, 2020), see Figure 4.7.

Figure 4.7

Qualitative Process of Data Analysis



Note. Adapted from Creswell (2012, p. 237, 244).

Sub-themes were first identified by reading each comment chronologically and found that some common concepts and ideas expressed by the participants began to “pool” or cluster together within recurring statements, synonymous words, and related ideas. As noted by Fugard and colleagues (2019), while a “few discrete themes may seem obvious in the data”, in other instances, “themes interrelate in complex ways and are intuited from what participants have said” (p. 4).

Writing Sample Analysis

Specific grammar outcomes were a key feature of assessment and were analysed using several key lenses. An ACARA curriculum student work sample comparison, a Writing Analysis Tool (Mackenzie et al., 2013), and an analysis which I had devised, from Australian Curriculum indicators (see Appendix Z) allowed multi-faceted insights on the student writing samples. These analyses, together with student interview data and my observations of students in the LIRIC lessons, allowed for a comprehensive view of student experiences and outcomes throughout the study.

A comparison analysis of student writing against sample exemplars provided by the Australian Curriculum and Reporting Authority [ACARA], version 8.4 was current at the time of the study. These analyses were further supplemented by a Writing Tool analysis. The tool, which was developed specifically for analysing Year 1 Australian student writing samples, was developed by Mackenzie and colleagues (2013). As writing is a complex craft, Mackenzie et al. (2013) argue that this “complexity ... poses particular challenges when researchers and teachers approach the task of analysing” (p. 1) student writing. Their tool offers one way to recognise student writing strengths and areas for development in a number of dimensions. Finally, my own analysis of the writing samples drew on curriculum descriptors which specifically highlighted aspects such as ‘innovation on a familiar text’ and grammatical components of writing. Using all three of these

lenses provided an effective way to “crystallise” the dimensions of writing complexity, which is to see the writing samples from several viewpoints (Richardson & Pierre, 2008).

Teacher Interviews and Analysis

Each teacher gave a one-to-one recorded interview with me before and after the study (see Appendix M). As described, within the broader qualitative approach, a six-step thematic analysis was implemented. Thematic analysis was applied to identify key messages and insights available from the structured and semi-structured recorded interview data gathered from participants before and after the study. To ensure further rigour in the six-step theme analyses, Nowell and colleagues (2017) provide an iteration that has built within it the transparent model proposed by Lincoln and Guba (1985; see Figure 4.8).

Figure 4.8
Establishing Trustworthiness in Six-Step Analysis

Phases of Thematic Analysis	Means of Establishing Trustworthiness
Phase 1: Familiarizing yourself with your data	Prolong engagement with data Triangulate different data collection modes Document theoretical and reflective thoughts Document thoughts about potential codes/themes Store raw data in well-organized archives Keep records of all data field notes, transcripts, and reflexive journals
Phase 2: Generating initial codes	Peer debriefing Researcher triangulation Reflexive journaling Use of a coding framework Audit trail of code generation Documentation of all team meeting and peer debriefings
Phase 3: Searching for themes	Researcher triangulation Diagramming to make sense of theme connections Keep detailed notes about development and hierarchies of concepts and themes
Phase 4: Reviewing themes	Researcher triangulation Themes and subthemes vetted by team members Test for referential adequacy by returning to raw data
Phase 5: Defining and naming themes	Researcher triangulation Peer debriefing Team consensus on themes Documentation of team meetings regarding themes Documentation of theme naming
Phase 6: Producing the report	Member checking Peer debriefing Describing process of coding and analysis in sufficient details Thick descriptions of context Description of the audit trail Report on reasons for theoretical, methodological, and analytical choices throughout the entire study

Note. From Nowell et al. (2017).

Therefore, dated journal notes were kept and archived throughout the thematic analysis process to maintain consistency in the evaluations made, and throughout the process. Email and Zoom interviews were also undertaken mid-way through the research, to overcome issues of distance between the school staff and me, but also afforded the opportunity to gather rich text data where more reflective answers could be garnered (Creswell, 2012). In total, four interviews were conducted with each of the participants in one before, two during, and one following the study.

Student Interviews: Focus Groups

I also interviewed the focus group of Year 1 students ($n = 25$) before and after the study. Students were interviewed to ascertain their experiences of the music-pedagogy-informed instruction. Interviews were conducted through open-ended questions to allow key themes to emerge (Creswell, 2012). Interviews were transcribed and analysed by thematic analysis (Braun & Clarke, 2006) in a similar way as was conducted for teachers.

Ethical Considerations

Ethical approval from the University of Sydney was gained (see Appendix L.2). As the proposed research involved working with classes of students in Australian Capital Territory (ACT) public schools, permission was sought from the ACT Directorate (see Appendix L.1), as well as from parents, the teacher, and school principal and from the participating students prior to the study commencement (see Appendices B-K).

As students were to be filmed and photographed, samples of their written work analysed and used as part of the data collection, this was explicitly communicated to students, parents, the class teacher, and principal. The consent and approval of all participants was gained ahead of, and throughout, the research periods, such as during interviews to ensure their voluntary participation throughout. The identities of the schools, teachers, and students are protected through the use of

pseudonyms to ensure anonymity throughout the proposed study, in the writing of the thesis, and in communication of thesis findings to other audiences in written or spoken form.

I had hoped to complete further research in another school setting but was impacted by Covid-19 lockdowns, ongoing between 2020 and 2022. However, the research data compiled from pilot studies and the main study were sufficiently rich to allow findings of the study to be made as outlined in Chapters 5 to 8.

Bias and Reliability

The pilot studies were conducted in two school settings, one in a Year 3 (8–9 years old) class and another in Year 6 (11–12 years old). Findings from the pilot study explorations were published (Halcrow, 2018) and which has outlined the beginning development of a LIRIC model, as is also described in Chapter 5. As the pilot studies were conducted in my own classroom, these were by their nature given to aspects of partiality. The literature review was able to clarify some of the key discoveries made in the pilot studies.

The main study setting involved the participation of three generalist teachers and a specialist music teacher. This study did not have the same issues of bias as I did not know the school staff prior to the study collaboration and acted as researcher-observer and critical friend in this study rather than as a participant. There were no financial gains or other incentives provided to the school that would impact the study's results.

The use of the Writing Tool (Mackenzie et al., 2013) as a tool for the analysis of student writing was only selected during the analysis phase after the time of the study, and which ensured that the main study would not be administered in such a way as to determine the outcome of the student writing samples using the tool. Furthermore, the Writing Tool largely identifies aspects of student writing that are evident or not, and in this sense does not provide scope for significant interpretative variations. The supervisory panel and one of the Writing Tool authors were also consulted to mitigate bias in the analysis of writing sample data.

Timeline

Two pilot studies were conducted in my own classroom over two years prior to the main study. The main study was conducted in Term 3, 2019. During the main study period, the design was refined through three mini-phases. A period of 6 months was dedicated to analysis of the data collected in the main study (see Table 4.1).

Table 4.1

Main Study Data Collection and Analysis: Timeline

Data collection and analysis timeline: 2019 to 2021	
Prior to Phase 1: May to July 2019	Collecting teacher and student permissions Pre-study preparation for participant staff
Phase 1: July to September 2019	Collecting interview, film, photo, and student writing samples data Storing iPad securely in school lock-up
Phase 2: 2020	Cataloguing interview, film, photograph, writing sample, and observation notes data Preparing data for Analysis: initial reading of writing samples; listening to and transcribing interviews and class lesson videos
Phase 3: January to July 2021	Closely reading and coding interview data
Phase 4: July 2021 to November 2021	Writing sample analysis
Phase 5: November 2021 to January 2022	Synthesising multiple data forms and finding overarching themes; writing the report

Iterative Cycles of the Framework Development

The teaching team began planning and teaching in Term 3, 2019, using the framework to guide practical applications of the theory principles. I proposed the LIRIC framework (listening, interpreting, rehearsing, improvising, and composing) as a broad framework lens through which the research would be carried out. As a teaching framework, it was refined through three iterative phases, the first two phases of which I conducted in my own classroom.

These five key elements guided the exploration of a music-based pedagogy to inform a revitalised approach for the teaching of grammar in the writing classroom and derive from shared

principles articulated in the Australian Curriculum for English and Music—that is, that “making in Music involves active listening, imitating, improvising, [and] composing” (ACARA, n.d.-f). This is further explored in Chapter 5. The LIRIC framework also expresses two fundamental aspects of the Orff–Schulwerk approach: improvisation and imitation (or recitation). Southcott (2012) calls improvisation the “heart” of the Orff method.

Participants and Setting

Marybank Primary School, the context of the intervention study, is an Australian public school in an above average socioeconomic setting. Despite this being the case, according to Australian Census data, the area represented some sharp wealth disparities at the time of study. The school also had a larger than average population of students with EAL/D backgrounds.

For the main study, four teachers took part: a music specialist teacher and three Year 1 generalist class teachers (see Table 4.2) with each of their (3) Year 1 classes. Twenty-five students became a focus group and provided pre- and post- writing samples. Of these, 14 students were interviewed, and 3 students’ writing samples were analysed more closely.

Teacher participants were voluntary participants and sought to be involved in the study after hearing the findings of the pilot study presented at an Australian literacy educators (ALEA) conference and were not actively canvassed.

Further details about the details of the main school study, the setting and context and the methods of seeking participants is provided in Chapter 6.

Table 4.2*Marybank Primary School Study: Teacher Participant Reference Guide*

LIRIC Framework Intervention Study at Marybank Primary School: participating teachers quick reference guide (note that all names provided are pseudonyms)	
Ms. Victoria Coffey Music specialist teacher	• Music specialist at MPS for 7 years • Experienced teacher (more than 10 years) with experience as a generalist primary teacher and across all grades • Literacy involvement (ALEA) • Kodály-trained music teacher • Made initial contact with the researcher • Role in the study: guiding music–literacy connections; filmed music composition lesson; co-teaching participant with Ms. Kelly
Ms. Danielle Kelly Year 1 teacher	• Year 1 generalist teacher • Experienced teacher (more than 15 years) with experience across all grades but mostly in early years primary contexts • Reading recovery (literacy support) teaching background • No music education training • Role in the study: co-teaching participant with Ms. Coffey; interpretation of the framework through lesson planning and contribution to LIRIC framework development
Ms. Laetitia Pickering Year 1 teacher	• Year 1 generalist teacher • Experienced teacher (more than 15 years) with experience across all grades but most recently in middle years primary classes • Recently returned to full-time teaching after years as a teacher covering a range of release from face-to-face teaching roles including teaching drama and music • No music education training but some singing experience • Role in the study: co-teaching participant with Ms. Pearn; interpretation of the framework through lesson planning and contribution to LIRIC framework development
Ms. Alicia Pearn Year 1 teacher	• Year 1 generalist teacher • Midcareer teacher (more than 5 years) with early years primary class experience • Literacy involvement (ALEA) • No music education training, limited childhood experience playing music • Role in the study: co-teaching participant with Ms. Pickering; interpretation of the framework through lesson planning and contribution to LIRIC framework development

Concluding Remarks

This chapter provided a description of the theoretical underpinnings of the study and contributing frameworks and concepts that have led to the development of the LIRIC framework. It also outlined the qualitative research processes used to explore, refine and test the framework in the main study. The following chapter describes the features of the LIRIC framework and the pilot study where the initial LIRIC design was developed in my own classroom practice, in two school contexts.

Chapter 5.

Explorations in Music and Writing

Developing a LIRIC Framework Design Through a Pilot Study

Music begins in the individual.

—Carl Orff

This chapter describes a pilot study conducted within my own classroom in two Australian school contexts which would inform the main in-school research study with other teachers in a different school as described in Chapters 6 and 7. Orff's comment that music begins in the individual points to the notion of the sense of music in the body, through the human heartbeat and perhaps to some element of the creative process—a thought, impulse, or interest. That it only begins there implies the social and shared dimensions that inevitably follow.

This chapter outlines the origins of this research which, while it began as an individual interest with my own class, depended on collaborations and connections made with music teachers, colleagues and students and ultimately cross-context collaborations. The first section of this chapter describes the LIRIC framework, with common concepts and language featured in the Australian Curriculum: Music and English. The second section presents the details of a pilot study conducted in two Australian settings in which a LIRIC approach was developed and explored. The chapter concludes with my observations and concluding thoughts about the pilot study and the implications for the design-based study.

Developing a LIRIC Framework: Pilot Study

The LIRIC framework, in part, arose out of these action research experiences. As someone interested in creative work and creative writing myself, I began to think about the

nature of “composition” as a general arts concept and the way this perspective might support, strengthen, or even transform the way I teach creative writing in the classroom.

A Framework Design for Teaching and Learning

Pedagogical frameworks are designed to reflect pedagogical theories of learning; they point to undergirding research evidence and identify the practical applications that can be used to shape learning. They are a useful way for teachers to conceive of the purposes and aims of their teaching and as a format for planning and reflection (Sellar, & Cormack, 2007).

Frameworks often express guiding principles so that these are at the forefront of teaching and learning practices while allowing scope for teachers to exercise their professional judgement about what the lessons should look like within their own context (Abramo & Reynolds, 2015; Mäkelä et al., 2022; Richardson, 2022; Sotiropoulou-Zormpala & Mouriki, 2020). Pedagogical frameworks communicate overarching aims while providing sufficient space for professional decisions to be made. However, Zhao (2023) warns against trying to teach creativity through hierarchical prescriptive frameworks that can inadvertently curtail and stymie creative development. This was just what Whitehead (1929) warned against in his proposed rhythm of education and is why creative frameworks typically provide broad overarching statements that are iterative rather than sequential. The LIRIC framework suggest key principles of invites classroom teachers to include the details of practice that best reflect the reality of their diverse learning contexts and their students’ diverse needs.

Frameworks provide a means of representing teaching practice and allow teachers to share essential principles of practice using a specialised metalanguage. In this way, frameworks are usually an attempt to distil pedagogical principles in transferrable terms. Grossman (2011) refers to frameworks as a work of “decomposition” of practice—that is, breaking down complex practice into its constituent parts (pp. 2839–2840).

The LIRIC Framework Design

The LIRIC framework is underpinned by core concepts and key features explained here to contextualise the study. The key aspects of the framework—listening, interpreting, rehearsing, improvising, and composing—are underpinned by common language expressed in each of the Australian Curriculum: English and Music curricula and by key music pedagogies, Orff–Schulwerk and Kodály.

Whitehead’s rhythm of education and Eisner’s process arts theory also underscore the framework. Recognising a balance between romance (or play) and precision, two elements vital for the fruition of generalisation, Whitehead’s three stages find a compatible connection with Eisner’s inscription, editing, and communicating. Orff’s framework for music learning and composition involving play, imitation, and improvisation through movement, music, and speech is also complementary to Whitehead’s general framework. These three frameworks were integrated in a proposed design, as explored in Chapter 4.

Whitehead envisioned education similarly, as an ever-transforming process from moment to moment. Almost spiritual in dimension, Whitehead (1929) described these moments of educational experience as “holy ground”, both precious and elusive. His theory of the “rhythm of education” was premised on the idea that humans have an appetite for rhythm. Inspired by Jean Jacques Rousseau, Whitehead argued that the natural, unfettered rhythm of education began in the pure joy or “romance” of discovery and involved repeating, recurring, and cyclic stages through romance, precision, and generalisation.

While recognising a necessity for precision, including the mastery of certain knowledge and skills, Whitehead believed these should be treated with utmost consideration and caution, having seen what the dulling effects of such an education produced in its students. This vision for education, understands that the essence of true education, and by extension all creative arts education processes, should transform all involved, both teacher and student.

In a similar way, then, the LIRIC framework is not a linear framework. It instead proposes recurring and interrelated processes through cycles that include listening, interpreting and responding, imitative rehearsal, improvisation, and an emphasis on shared as well as independent composition.

Writing as an Arts Process in the LIRIC Framework

The LIRIC framework is based on the essential premise that writing is an arts process. Foundational to the framework is the understanding that “creative composition” is a shared interest across all the arts. That examples of writing exist which are for functional or commercial purposes does not alter writing’s place within the arts. Similar functional and commercial uses of visual art, drama, and music do not question the legitimacy of those artforms.

Composition is a common interest across all artforms. While composition in any artform conveys something to an audience (e.g., an idea, a mood, or a sensation), the aesthetics of the artform, its elements and form, also carry value and are appreciated for their inherent aesthetic appeal. Through this framework, with the music perspective it offers, teachers and students have the opportunity to experience writing as a communicative artform that can also be appreciated for its aesthetic elements. Composition and the process of composing is understood within this framework as an exploratory process. Within this process, the playful and precision elements are enjoyed or deliberated upon within a classroom set-up for direct aesthetic and sensory experiences of language.

A Music Perspective Embedded Within the LIRIC Framework

In this framework, writing is considered through a music lens. While other artforms may also hold a legitimate claim to the connection with writing, music education offers the literacy teacher a unique perspective for a number of reasons, as outlined in previous chapters.

First, the oral–aural dimensions of music have important implications for language and literacy. Furthermore, the rhythm–grammar connection, a discovery that is relatively recent in

neuroscientific and cognitive studies, also warrants further investigation. The links between music and language have become of increasing research interest in recent years and the subject of study through creative arts and educational research. Discoveries in these research fields, which continue to point to a link between music and language and their implications for education, are increasingly essential for educators to understand (Collins, 2021; Hansen et al., 2014).

The particular music education approaches that LIRIC draws upon are the music pedagogies of Kodály and Orff–Schulwerk, both of which continue to inform the practice of music teachers in contemporary primary classrooms in Australia and internationally (Eccles et al., 2021; Power, n.d.; Samild, n.d.; Victorian Curriculum and Assessment Authority, n.d.; Sarrazin, 2016). Key terms and principles are common language used in both Australian Curriculum: Music and English content as explored in Chapter 4, and as shown in Appendices P and Q. The theoretical model that underpins the LIRIC framework is the process philosophy of Whitehead and his theory of education, as described in Chapter 4.

The LIRIC framework seeks not only to spotlight terms and concepts that are already familiar to educators within the disciplines of music and literacy, but also to illuminate the ways in which the terms identify similar processes. By applying a music education lens in the literacy writing classroom, this shared language helps students and teachers to take on a music-rhythm approach in which writers conceive of themselves as “composers”. In this way, students are guided to develop an ear and rhythmic feel for the aesthetic (sensory and prosodic) qualities of musical rhythm, movement, sound and speech. Taking on a music-rhythm in the writing classroom means that teachers and students actively view writing in a similar way to the composing process in a music (Orff- or Kodály-inspired) education classroom. Inspired by Orff and Kodály, the LIRIC framework is a process that involves cycles of imitative rehearsal, encourages active experimentation, and features strong oral and aural (or “sound-making”) dimensions, where processes of improvisation and composition take on a communal and shared dimension.

Listening or Experiencing. This principle is a shared concept expressed across the Australian Curriculum for English and Music, hereafter shortened to AC: E and AC: M. Listening, or perceiving, is associated with literary and music appreciation. Listening is also associated with precision, identifying key information in spoken texts in English, and improving aural sensitivity and discrimination in music. In both contexts, listening is a social skill, for interaction. In AC: E, listening complements speaking, and in music, playing; each depends on the other to be developed and improved.

In the context of LIRIC, I intended “listening” to be a term that encompassed all three intentions of the word: social interaction, aesthetic appreciation, and for refined precision. Listening is a significant act of social reciprocity, with its integrated complement *expressing*. Listening to one another and to the author or to the composer is a process of sensory appreciation, before intellectual interpretations or responses are made. The LIRIC application of listening is primarily associated with the romance stage of Whitehead’s rhythm of education. Listening, like looking, is a sensory experience that comes before interpretation. It is the concept of “prehension” in Whitehead’s thesis of aesthetics. Prehension arrives before *comprehension* and is a sensory and intuitive aesthetic experience. It is like the dimension of “immersion” in Cambourne’s (2015) conditions of learning for the English classroom, used as an activity for engagement and enjoyment before intellectualisations are made.

However, listening in the educational context can sometimes imply the submissive disempowerment of students. Another word better suited for the Australian context is *dadirri*. Brearly (cited in Korff, 2023) explains that the term, which comes from the Ngan’gikurunggurr and Ngen’giwumirri languages of the Daly River region in Central Australia, describes an education in which “We learnt by watching and listening, waiting and then acting” (Brearly cited in Korff, 2023, para. 8). It is “inner deep listening, still awareness ... something like contemplation” (para. 6). Ungunmerr-Baumann and colleagues (2022) explain that *dadirri* suggests a communal shared action, so that in an arts or literature context, this kind of listening means

that teachers and students give close listening attention to the voice of any work of an author or creator.

Interpreting. This principle is strongly represented across both curricula. Interpretation is the next stage of appreciation where we notice. Appreciation, a term heavily emphasised in the arts curriculum, is an aesthetic practice. It may begin simply as a gut reaction of enjoyment, indifference, or distaste. A teacher supports students to begin to justify their aesthetic judgements and may begin to teach students a vocabulary to express those judgements.

Interpretation is where a listener or viewer begins to consider what the text or song is composed of, the materials from which they are spun, and its affects. Interpreting meaning in music or text involves an awareness of the social and cultural contexts within which a text or artwork is made. Social and cultural connections begin to be made, and the relationship between the self and the community, the community and its history, begin to be understood.

Rehearsing. Rehearsing is a bridge between rehearsal and improvisation. In both curricula, rehearsing—also imitating, retelling, or replaying—rely on interpretations to be made. To play back or retell is a process of synthesis. What we actually heard and understood becomes clear in the replaying. In the rehearsal stage, we make aesthetic enactments. We can enact the parts we liked in what we heard, omit or lessen aspects we did not like, and we embody the actions of the composer or author. Aesthetic experience can be intensified at this stage so that that experiences of play and precision, including frustration and enjoyment, are elements of creative development within periods of flow where challenges and skills are aligned (Csikszentmihalyi, 1997a, 1997b). Yet rote rehearsal without the key aspect of improvisation can also lead to standardisation and stand in the way of creative development (Gravem Johansen et al., 2019; Nikolaou, 2023; Rebne & Sætre, 2019).

Improvising. This principle appears in English but is emphasised most in the AC: M. Improvising is not just a jazz concept. Improvisation—and its associated concepts exploring, innovating, and experimenting—is an approach to learning. Lines (2014), a jazz musician and

teacher, refers to an expanded “pedagogy of improvisation” that can be used to apply in any context and emphasises departure points from learned patterns. It is a development of mind where aesthetic sensibilities and discernments are developed. Improvisation is a critical key aspect of creativity and a component of what the U.S. creativity theorist Joy Paul Guilford (1984) calls “divergent thinking”. Improvisation requires dimensions of imprecision, inexactness, and messiness as the right notes or words, pleasing melodies or turns of phrase, rhythms, and grammatical structures can be found. It relies on trial and error and develops where there is the confidence to take risks. Lines (2017) explains that a pedagogy of improvisation “offers hope in [the midst of] an educational climate that is riddled with coded forms of existence that work to close down possibilities” (p. 58).

Improvisation is an essential element in creative composition, and yet there is evidence to suggest improvisation, or experimentation, are neglected in both English and music classrooms (in music see Larsson & Georgii-Hemming, 2019 and Gravem Johansen et al., 2019; in English and curriculum see Latham & Ewing, 2018; Gannon, 2014; Lähdesmäki et al., 2021; Wyse & Ferrari, 2015. Improvisation draws on what Craft (1999) would explain as “possibility thinking” and what Guilford (1984) described as “divergent thinking”. Csikszentmihalyi (1997a) also described these as the dimensions of discovery and invention. Craft (1999) explained that possibility thinking required imagination and “a knowingness that understands that the choices being made involve the agent being aware of the unconventionality of what they are doing/thinking” (p. 4). To be aware of unconventionality, patterns are learned first but quickly give way to experimentation.

Throughout her work in education and the arts, Ewing (2010, 2016, 2020) has also described that while the specific nature of arts disciplines is nuanced, creative processes share common traits. These processes include “risk taking”, “the aesthetic shaping of media” (Ewing, 2020, p. 76), and “experimentation and exploration” (Ewing, 2016, p. 99). Each expresses the essential features characterised by an improvisatory approach.

Improvisation is also an aspect that sets the Orff-Schulwerk approach apart from other music pedagogies. Orff (1963) intended that this would be expressed as “spontaneous improvisations in which a student could freely express himself” (p. 70). Orff practitioner Doug Goodkin (2001) has also described improvisation as “the process of creation” that is “transparent [and] available for all to participate and witness” (p. 20).

Composing. Composing or creating is emphasised in Music and English. Composing is a natural culmination of improvising, and there is often a narrow or imperceptible distinction between them. Composing does imply a complete product: a musical score, artwork, speech, script, film, or written text. It implies a process of editing or refinement—that it is ready to be shared or communicated to an audience. In the English curriculum, the term is often interchangeable with “create”. In curriculum statements in English where the term create is used, it is often in the sense of producing a product so that the term create is not necessarily a very creative process.

Composing in an arts sense is intended to involve all the prior stages. As in Whitehead’s rhythm of education, composition is the culmination of all that has come before it and requires listening, interpreting, rehearsing, improvising, and refining. It involves a process of evaluating one’s own creation. We may add, delete, reshape, include, or discard as we create something we can appreciate and share.

Musical composer Anthony and neuroscientist David Eagleman identify that all instances of creativity require a process of bending, blending, or breaking familiar patterns (Brandt & Eagleman, 2017). As socially and culturally connected beings, we express new ideas by innovating on these. Using similar models connects us and so that these are somewhat familiar to the hearer or viewer, but there is something new offered through this process.

Music and English in the Australian Curriculum

At the time of the pilot study, the Australian Curriculum (version 8.4) was current and thus a basis for the selection of some key principles of the LIRIC framework, see Table 5.1.

Alignment of these with Orff-Schulwerk and Kodály pedagogies was important to ensure the framework's legitimacy would extend beyond a particular curriculum iteration.

Table 5.1

Australian Curriculum: English and Music Rationale Wording Comparison

English	The arts and music	Common themes
Students engage imaginatively and critically with literature to expand the scope of their experience.	Music has the capacity to engage, inspire, and enrich all students, exciting the imagination and encouraging students to reach their creative and expressive potential.	Imagination and creativity
English plays a key role in the development of reading and literacy skills that help young people develop the knowledge and skills needed for education, training, and the workplace. Through the study of English, individuals learn to analyse, understand, communicate, and build relationships with others and with the world around them.	Music is uniquely an aural art form. The essential nature of music is abstract. Music encompasses existing sounds that are selected and shaped. Composers, performers, and listeners perceive and define these sounds as music.	Significance
English helps students to become ethical, thoughtful, informed, and active members of society. It plays an important part in developing the understanding, attitudes, and capabilities of those who will take responsibility for Australia's future.	Through performing, composing, and listening with intent to music, students have access to knowledge, skills, and understanding that can be gained in no other way. Learning to read and write music enables students to access a wide range of music as independent learners.	The place of interpretation and understanding
Australia is a linguistically and culturally diverse country. The AC: E values, respects, and explores this contribution. It also emphasises Australia's links to Asia.	Arts and music are distinctive in every culture and a basic expression of human experience. Students' active participation in Music fosters understanding of other times, places, cultures, and contexts.	Higher purpose claims Cultural diversity and expression

Note. All ACARA (see ACARA n.d.-c; n.d.-f) curriculum references refer to Version 8.4, current at the time of study.

The curriculum introduction and rationale statements for English and Music reveal some similarities and departure points. For example, both rationale statements use similar wording that emphasise the role of “imagination” in both subject areas. Both emphasise the role of building skills for understanding and communication and the importance of both subjects for developing independence. Finally, both Music and English curriculum rationales emphasise their role in supporting cultural diversity and expression.

Where the rationales vary is the nature of their claims about their uniqueness and higher purpose. The Music rationale makes the claim that music is fundamentally aural and therefore uniquely placed to build students’ skills for sound and perceptual awareness and its powers for beauty and transcendence. However, the English introduction lays claim to its central importance in the lives of students as a holistic skill: for building relationships, for education, and for the future workplace (Australian Curriculum, n.d.-b).

Australian Curriculum: English and Music

A closer analysis of the subject indicator and achievement standard wordings across the Years 1 to 6 English and Music curricula confirms elements of the LIRIC framework principles. Wording in the curriculum indicators reveals strong overlap between the two subject disciplines. An analysis of the wording highlights synonymous wording and disciplinary-specific anomalies.

Syllabus Wording and the LIRIC Framework

It is interesting to note how many music-related words appear in the English curriculum and vice versa. Words such as “sound” appear 57 times across the Years 1 to 6 curriculum and may not be surprising given the emphasis of that concept in speech, reading, spelling, and multimodal writing. However, collectively, the words “rhythm”, “dynamics”, “volume”, “pitch”, “loud”, “soft”, and “patterns” appear 62 times and is an example of musical wording found throughout the English curriculum.

Overall, “listening” and associated terms is emphasised in both curricula. In Music, a variety of wording is used in addition to listening, including “developing aural skills”, “discriminate/ing”, “recognise/ing”, and “identify/ing” (ACARA, n.d.-f).

Given that the volume of wording provided for the Music curriculum is proportionately less than for English, words associated with “interpreting”, such as “interpretation”, “understanding”, “identify/ing”, and “meaning” are emphasised. Given the emphasis on interpretation across both English and Music this is an important inclusion in LIRIC.

The wording “creating” and “composing” are used with similar meaning and intent in both curricula in reference to creating an original piece of work. Both curricula refer to creating and composing as verbal, sound and multimodal activities as well as formal or notated writing.

The LIRIC principle of rehearsing is expressed in similar ways across the two curricula, with associated words such as “play/ing”, “read/ing”, “rehearse/ing”, “echo/ing”, and “imitate/ing”. “Call and response” is specific to the music context, while “retell” or “retelling” is a related concept used only in the English curriculum.

Departure Points in the Australian Curriculum: Music and English

A key difference between the two curricula is the concept of improvisation, a concept heavily emphasised in the Orff-Schulwerk pedagogy and in the music syllabus. Yet the term improvising and its related terms, including experimentation, is poorly represented in the English curriculum compared to Music. As a point of comparison, improvising and similar words, “explore” or “experiment” are used in both Australian Curriculum: Science and Mathematics more frequently, proportionally speaking, than in the English curriculum.

It is also interesting to note that the balance between the aspects of knowledge, understanding, and skills are also not similarly emphasised in the Australian Curriculum for English and Music. A notable emphasis on knowledge, which suggests an emphasis on facts over

understanding or conceptual depth, places the English curriculum as an outlier when compared to Music curriculum but also to Mathematics, Science and Music.

While this analysis is indicative only (see Table 5.2), it seems to reinforce evidence, as explored in Chapter 3, that the study of English is becoming more constrained in its focus. An analysis of curriculum wording, alongside other measures, reinforces the finding that experimentation and innovation are not emphasised in English curriculum with important implications for the teaching of English.

Table 5.2

“Knowledge”, “Understanding”, and “Skills” in the Australian Curriculum

Frequency (number)	Knowledge	Understanding	Skills
English	83	34	35
Music	<u>1</u>	<u>9</u>	13
Mathematics	<u>4</u>	30	<u>0</u>
Science	34	43	13

Note. The Australian Curriculum (Version 8.4) Years 1–6: English, Music, Mathematics, and Science was analysed, including all curriculum indicators and achievement standards. The most emphasised aspect of each subject is given in bold, the least emphasised is underlined.

LIRIC Principles in Focus: Stage 2

My analysis of the Australian Curriculum: Music and English began with an assessment of the Stage 2 curriculum and was a basis for the study. Looking for common language and concepts, and informed by common music and English classroom practices, the LIRIC framework began to form around key pedagogical practices. These were principles I had seen presented in a number of music composition classes, where particular practices seemed transferrable to the writing classroom.

Notes From the Music Classroom. In one music classroom, with a group of Stage 2 students and which was a key catalyst for the Phase 1 study, I observed a music composition lesson. It was a half-day workshop where the students were introduced to the blues. Beginning with a simple 12-bar blues structure, students were invited to play along and experiment on a range of different instruments. There was a smooth rhythm to the day, not only to the music but in the progression from listening to improvising to composing, and back and forth.

Listening. As the students listened to the music, they were asked to follow along as they developed a feel for the groove. Through repetition, the students began to develop an instinct for the flow of the melody and the rhythms, the particular timbre, and the tone of their chosen instruments and to understand the feel and effect they could start to create when they played a certain way.

Interpretation. After some time simply enjoying the music, and as they were still playing along more quietly, the teacher began to explain the origins of the music and the original intentions of the music. The significance and appeal of the pattern through generations and across cultural settings was explained.

Recitation/Rehearsing. Following on from this, the students were invited to sing back to the teacher some impromptu blues lines and to suggest some of their own, in keeping with the meaning of the music. With opportunities to repeat small interludes back in a call-and-response style introduction to the music, they were listening to themselves, each other, and the teacher and learning to work in their sounds with the rest of the group. The teacher would occasionally call to someone to pull back, slow down, or try something a little differently.

The students began to be asked to evaluate the music, to interpret the effect of the music and the structure of the notes and rhythms. This began to provide students with a scaffold for understanding how they might achieve a particular effect rather than simply mimicking it.

Improvising. As the students became more confident with this, a flair for moving beyond the established patterns began to emerge. When the students seemed ready, the teacher

began to show the students some options for improvisation. Students seemed to especially enjoy the element of surprise in improvisation where possibilities that had at first been hidden to them—a possibility available right at their fingertips—emerges through small additions, deletions or a change of sequence.

Composing. This stage felt very playful and was established on a firm familiarity with the melody and rhythm scaffold. Eventually, students moved almost imperceptibly to themselves and to one another into original composing. Some were even ready to switch instruments and try their new invented patterns a completely different way.

The mini cycles of listening, interpreting, rehearsing, improvising, and composing flowed back and forth. While mini lessons were provided throughout the lesson, they seemed to come at the right moments when focus on an aspect of precision was needed. Generally, the workshop was marked by an environment of exploration and experimentation, with the starting exemplar music pattern providing a place of certainty to return to when experiments seemed to go awry. Throughout this, the teacher also modelled language the students could use to appreciate and evaluate each other's work: "The texture of that brush work on the snare drum sounds good, perhaps try it a little more like this [showing a different tilt of his hand]—what do you think?" or "You've established a nice unexpected off beat in there; it really works! Can you hear that? What's another option? What could you do next?"

As the full iteration of mini rhythmic cycles were demonstrated like this, and within the research context of thinking across the disciplines for answers, I could see immediate links to my writing classroom. I wanted to think about how each of these stages would look in a writing context. Like the music lesson I had watched, each of the LIRIC principles for the writing classroom is not discrete but interwoven.

Evidence for the validity of a LIRIC framework approach is apparent across a number of statements in the wording for Stage 2. This statement from English echoes the approach of the

music lesson just described and shows how the L-R-I-C elements can not only be woven together, but also implies interpretation:

Innovating on texts read, viewed and **listened to** by changing the point of view, revising an ending or **creating** a sequel (ACELT1601).

As with the music classroom, this experience might be applied by using an exciting, shared text which the students are familiar with and know well, and which can be read aloud with the teacher. An excellent text, like enjoyable music is key. Once the text has been read a few times, the meanings can be shared and discussed so that students soon feel comfortable to begin to innovate and play on the structures.

Like the music classroom, lots of things would be heard or shared out loud in a LIRIC classroom. This might mean perhaps reading a literary text with musical backing to get a feel for the words and their meaning, or using reader's theatre to practise and rehearse the kinds of characters' voices that might be used, the different expressions or sound effects that might work to create the scene, or to add a sense of place and mood.

A teacher may then talk with the students about what might happen if the story was just beginning where the ending is given. Students might brainstorm this together, and the teacher could show a way the new story could begin using patterns modelled in the text. What could happen next? Students may break into pairs and work on the next part by themselves, writing down their ideas on large paper where experimentation is encouraged and as a playful part of the idea generation process. The focus is on the oral–aural experience of the sounds of the words, , not yet on aspects of linguistic correctness.

Mini lessons might be used to show how to build a particular sentence using another pattern from the text, or an entirely new one, asking students to suggest alternatives and to read these using their dramatic voices, sound effects, and accompanied music to build the scene and to see whether their writing is having the desired effect. These sound elements are also used to add

colour and to inspire new ideas in the writing. The aim here is to capture the interesting sounds of new words, expressions, tones of voice, mood, and scene in the teacher's modelled writing or by students in their writing. Examples of each principle from the Australian Curriculum: English and Music are shown in Tables 5.3 and 5.4.

Table 5.3

Australian Curriculum: Music and English Connections—Stage 2

Principles identified	English	Music
Principle 1: Listening Related terms: Explore Discriminate Perceive Aural skills Enjoyment Read/view	Exploring how rhythm, onomatopoeia, and alliteration give momentum to poetry and prose read aloud , and enhance enjoyment (ACELT1600) Drawing on literary texts read, viewed, and listened to for inspiration and ideas, appropriating language to create mood and characterisation (ACELT1601)	Recognise and discriminate between rhythm and beat Learn to listen as performers and as audience Learn to discriminate between sounds and silence, and loud and soft sounds (AS)
Principle 2: Interpreting Related terms: Recognise Discuss/describe Respond Analyse Understand Connections Meaning	Interpret ideas and information in spoken texts and listen for key points in order to carry out tasks and use information to share and extend ideas and information (ACELY1687) Understand, interpret , and experiment with a range of devices and deliberate word play in poetry and other literary texts—for example, nonsense words, spoonerisms, neologisms and puns (ACELT1606)	Explore meaning and interpretation , forms, and elements including rhythm, pitch, dynamics and expression, form and structure, timbre and texture as they make and respond to music (AS) Identify intended purposes and meanings as they listen to music (ACAMUR087) Considering viewpoints—meanings and interpretations : for example, why was this music written? (ACAMUM085)
Principle 3: Rehearsing Related terms: Imitate Explore Retell Recreate Practise Echo	Plan, rehearse , and deliver presentations incorporating learned content and taking into account the particular purposes and audiences (ACELY1689) Exploring the effects of changing voice tone, volume, pitch, and pace in formal and informal contexts (ACELY1688) Retelling the story from other perspectives (ACELY1675)	Develop aural skills by exploring, imitating , and recognising elements of music including dynamics, pitch, and rhythm patterns (ACAMUM08) Rehearsing and performing music in unison and with accompaniment patterns (ACAMUM085)

Note. Curriculum codes are given in brackets. AS denotes wording from the Achievement Standard.

Table 5.4

Australian Curriculum: Music and English Connections—Stage 2

Principles identified	English	Music
Principle 4: Improvising Related terms: - Innovate - Patterns - Explore - Experiment - Play - Trialling - Offering an alternative	Innovating on texts read, viewed, and listened to by changing the point of view, revising an ending, or creating a sequel (ACELT1601) Drawing upon literary texts students have encountered and experimenting with changing particular aspects—for example, the time or place of the setting, adding characters or changing their personalities, or offering an alternative point of view on key ideas (ACELT1607) Experimenting with voice effects in formal presentations such as tone, volume, and pace (ACELY1792)	Improvising and trialling ideas to create compositions for specific audiences and purposes (ACAMUM086) Exploring given rhythm and pitch patterns, structures, or timbres to improvise and create music Practise singing, playing instruments, and improvising music using elements of music including rhythm, pitch, dynamics, and form in a range of pieces, including in music from the local community (ACAMUM085) Experimenting with ways of singing and playing expressively, such as learning and practising a song with different dynamics and tempo (ACAMUM085)
Principle 5: Composing Related terms: - Creating - Editing - Communicating - Combining - Re-read/review/consider	Create texts that adapt language features and patterns encountered in literary texts—for example, characterisation, rhyme, rhythm, mood, music, sound effects, and dialogue (ACELT1791) Creating multimodal texts that combine visual images, sound effects, music, and voiceovers to convey settings and events in a fantasy world (ACELT1791) Collaboratively plan, compose, sequence, and prepare a literary text along a familiar storyline using film, sound, and images to convey setting, characters, and points of drama in the plot (ACELT1794)	Create, perform, and record compositions by selecting and organising sounds, silence, tempo, and volume (ACAMUM086) Choosing and combining sounds to create compositions—for example, pitch and rhythm patterns Consider forms and elements—what sounds or musical phrases are in my composition?

Pilot Study Overview

The pilot study for this research was used to explore, discover, and identify what key terms might be used to express the overarching pedagogical principles that apply in both music and literacy–writing contexts for creative composition. The music principles were informed by Orff and Kodály pedagogies and by the Australian Curriculum. The literacy–writing principles were informed by well-established literacy–writing pedagogies and by the Australian Curriculum.

Pilot Study: Phase 1

The context in which the LIRIC framework began to be conceived was during my time as a middle years primary teacher for an auditioned music class in an independent boys school. The school had an ICSEA score that, as a socioeconomic category, placed the school well above the Australian average (ACARA, 2020).

The school was also well resourced and placed high value on the creative arts, with theatres, art centres, and large sculptures dotted throughout its lawns and gardens. The school proudly promoted the creative arts in a liberal and rounded view of an ideal education, which in this context meant giving its students all and every opportunity, including in the arts. The school principal purposely modelled an interest in literature and the arts as well as other pursuits.

The students in my class were in a composite Years 3 and 4, or Stage 2, class,⁵ and were highly capable. The parents of these students particularly valued the creative arts and were supportive of the extra allocation of music education. These students had twice as much allocation to music as other classes in the primary school as a means of supporting their musical interests and was an opportunity provided to students who were academically capable. These factors made this setting exceptional in a number of ways. See Table 5.5.

⁵ Stage 2 in the Australian setting refers to Grades 3 and 4 that cater for students aged 9 and 10 years of age.

Table 5.5*Two-Phase Pilot Study*

Two-phase pilot study	
Phase 1	• Australian independent boys' school in the ACT • Years 3 and 4 classes • The ICSEA for the school was well above the Australian average at the time of the pilot study. • 87% of students were in the top quartile of socioeconomic advantage with no students represented from the lowest quarter and 2% of families coming from families beneath the national average. • At the time of study, 22% of students were from language backgrounds other than English [EAL/D] (ACARA, 2020). Compared to other Australian schools this figure is slightly below the average, with 25% of all students in Australian schools being from EAL/D backgrounds (ABS, 2023). There were no Indigenous students at the school at the time of study. • The school is in an area of high socioeconomic advantage. • An extensive music program is offered at the school, including music classes, individual tuition, bands, and choirs. • Specialised music teachers are employed at the school.
Phase 2	• Australian coeducational school in NSW • Year 6 • ICSEA was above the Australian median but within the Australian average range, with more than 50% of students in the middle two quartiles of all Australian students at the time of the pilot study. • 5% of students were in the lowest quartile for socioeconomic advantage, and 26% were below the national average. • At the time of study, 16% of students were from language backgrounds other than English (ACARA, 2020), well below the national average (25%). 1% of the school population was Indigenous at the time of study. The region is in a state of flux, and since the time of study, the school population has changed dramatically so that both these figures have almost doubled in both respects. • The school is in a mixed area with above average socioeconomic wealth as well as pockets of social disadvantage. • An extensive music program is offered at the school including music classes, individual tuition, bands, and choirs. • Specialised music teachers are employed at the school.

Note. ACT = Australian Capital Territory; ICSEA = Index of Community Socio-Educational Advantage; ACARA = Australian Curriculum, Assessment and Reporting Authority; NSW = New South Wales.

As the core teacher, I taught literacy, maths, science, and history, and the students participated in extensive specialist music and choir lessons outside this core class time in addition

to other visual arts, language, and sports subjects. While the students were motivated and capable in music, they had a range of other interests and, like many students their age, particularly responded to hands-on experiences and active learning. I was able to accompany the students to some of their music classes and saw that they thrived in this context, including opportunities to actively participate, innovate, and create.

Meanwhile, there were challenges when it came to engaging and supporting a class of Stage 2 boys in writing, issues that have been reported elsewhere as common issues for boys in their writing. My experiences with these students confirmed what literacy and writing education research seemed to broadly indicate—that boys often struggle with writing in terms of engagement and academic outcomes and can disengage from writing as early as Year 3 (Collie et al., 2016; Maynard & Lowe, 1999; McFarlane, 2019; Thomas, 2020). Yet these same students were confident to express themselves in speaking, debating, and drama but struggled with domains of writing, such as handwriting and spelling.

Music pedagogy offered a promising new lens with which to attend to some of the dilemmas I continued to encounter and which other writing teachers seemed to share—that is, how to teach the skills and domains of writing while nurturing the creative process, how to use the innate or familiar experiences of spoken and oral language to support the more difficult and iterative experience of writing, and how to guide students from reading and enjoying a text to creating and composing their own.

The key questions that formed the basis of the pilot study were a starting point from which I was able to refine my focus for the main study. My interest was focused on both the work of the student and the work of teacher:

How are the processes used to create compositions in music and writing similar or different?

How are the processes for teaching creative composition in music and writing similar or different?

The LIRIC approach was formed through observing the needs of young students, including physically, socially, creatively, and academically. Silent, immersive independent writing has a place, of course, but in my experience, writing is better—in terms of both quality and enjoyment—when it emerges from interactive experiences when engaging in exciting literature, peer talk, and interaction and where personal connections have been made. I saw these being used throughout the composition process in the music classroom. Writing classrooms in several contexts in which I have worked, by contrast, seemed to be lack-lustre environments, underscored by anxieties about national writing test achievement and where whole-school approaches tended towards prescriptive scaffolds, checklists, and formula writing that seemed to guarantee disengagement in writing as a result.

The music classrooms I experienced, informed by Orff, Kodály, and other approaches, taught composition in a different way. Composition classes featured repeated exposure to music and melodies and supported student learning through guided instruction and student peer and independent experimentation and practice. Students were given opportunities to listen to, respond, and participate in recitation and imitation of melodic and rhythmic patterns and music. Simple music charts were used to support the music-making process, but music-making that was primarily experiential rather than abstract. Through embodied processes, which included appreciating the elements of music, students would be supported to create their own music compositions.

I recognised that the process of writing composition involved many similar skills to those used in music composition. Writing is often described as being complex (Cambourne, 2015; Graham & Harris, 2017; Graham & Perin, 2007; Koster & Bouwer, 2018; Mackenzie et al., 2013). This complexity includes the importance of students developing an “ear” for language. Like music, students of literacy and language need to be developing a sensitivity to and awareness of

not only the prosody of language and speech, but also the linguistic rhythms of words and sentences. Many of these aspects can be taught, but many are also learned intuitively through reading, interaction, and everyday use.

In my first planned experiment with the LIRIC model, I used *Where the Wild Things Are* (Sendak, 1963/2012) to build a listening-to-writing approach. The students had heard the book a few times before, and I decided we would use it to build a readers' theatre of the story to highlight sound and use the text as a scaffold for their own writing.

With simple instruments and percussion, I gave students some call-and-response parts of the text and invited students to suggest some and to add their own sound effects. As they decided what sorts of sound effects they might use or what sorts of expressions and voice tones they might rehearse, an interpretation of the book was needed. The book began as a scaffold for drama while it did not seem to be the right timing for writing yet. On another day, I thought we would link the story with visual arts, and working in pairs, giving the students a part of the story each, they retold the story in their own images and words and changed aspects of the action. They illustrated their pages to complement the drafted words they constructed in pairs, and slowly we created a new story, laying out the pages of our book on the walls around the room.

The process of writing their part of the story, though, took a couple of weeks. There was editing, drafting, and refining, and they were proud of their efforts. It was a process that involved rehearsing their parts aloud, making decisions about words that needed to be moved, and at the same time acting out their parts and trying out their characters' voices for the written speech.

The refining and editing of writing were still difficult, yet the writing took place within the context of sound and play which helped to oil the dry engines of precision. We soon changed the writing into a small play, and some students read their new story adaptations aloud, while others created sounds on violins, clapping sticks and other percussion to add a sense of mood and place.

As always, the writing process was not easy, and students worked hard to refine their work. In these writing experiments, the work was on refining small sections of writing rather than

long pieces of work. Students used the scaffold of the text, even closely aligned at first, to build an introduction to their own versions of the story. In this first experiment, the process of writing began in, and was surrounded by, the voice and the sounds of prosodic speech and music rhythms. Writing was a response to vocal play, rehearsal, and improvisation on the text—that is, inspired by rehearsal of a character’s part or acting out a scene with a peer. The link between the spoken—where they felt comfortable and where they felt like confident composers—and the work of their writing was a gap we were working to bridge. Eventually the writing developed into a short theatre piece lyrically, musically and linguistically composed by the students.

Taking on the approach more boldly in other follow-up English classes, I supported students to develop their writing in similar ways, often beginning with a prompting text, modelling those patterns, and giving students lots of opportunities to build on these through oral–aural rehearsal and dramatic play, and often writing with a peer. These experiences often led to independent writing through which I found students who were becoming more confident and expressive writers.

Key Practices

Several key practices arose from this first phase of the pilot study, recognising not only that these students were highly motivated music students, but also that many of them were reluctant writers. These practices came together in this writing exercise, but I had been exploring them in other writing previously. We had read short Shakespeare texts written and illustrated for children, and the students had adapted these into plays. During our English classes, in a school where the literacy block was considered time for hushed concentration, my students were having pretend sword fights shouting intermittently and pausing in between to write down the dialogue!

An Exciting Mentor Text as Creative “Cognitive Inquiry”

The mentor text was one the students were familiar with, and I was confident they liked it. It was exciting enough to be revisited, and it provided scope for reimagining. It was a perfect

text for improvisation. There was also some managing of this along the way, gauging whether the students were still interested and still engaged, then being confident it was the right text to stay with for a few weeks. The text itself also provided great scope as a model for the stage of student abilities. The text was quite simply written yet with inviting vocabulary. It involved speech that was also suitable for drama interaction and character play. The text taught us interesting metalinguistic and literary “tricks”. We learnt that you could have a long sentence with lots of “ands” where it had a purpose, in this case giving the sense of a long journey across the sea. We also did a fractions mathematics lesson focused only on the first few pages of the text to investigate how many of the words were devoted to description, how many to dialogue, and how many to relaying the action (about a third each). The mentor text provided the basis for what arts-based researcher Hanan Alexander (2003) would call a creative “cognitive inquiry”, in the sense that it provided the basis for an arts-based platform for play and precision in the process of composing.

Peer Experimental Writing (Talk in Creative Negotiation)

The phrases “high stakes” and “low stakes” writing are not ideal (Fletcher, 2017). Both use the word stakes and, whether high or low, suggest something dangerous about writing that is unhelpful. Rather, it is best to take on an “improv” mindset, borrowed from the jazz music or drama context. There, the stakes perhaps do not feel as intimidating because the “inscription” is delible. Pen to paper can sometimes be construed by young students as though they are inscribing on marble tablets, permanent and subject to scrutiny. The first element, then, was to make the initial inscription as much like the music classroom as possible. The students were working in peers with a different part of the model text. They were working with a small chunk of text, writing with felt tip pens on large paper, to feel like a brainstorm rather than a writing lesson. Students had their shoes off, lying on cushions, and most of all they were talking. The talk was marked by negotiations (“What about ...?” “Oh, I know, can we ...?”). The subject of

negotiation was metalinguistic creativity—metalinguistic because it involved words, punctuation, and sentences, a grammar that incorporated all three elements. This metalinguistic creativity was used with the aim of expressing an idea, a character, and an action and to tell the story.

An Audience and a Purpose (Dramatic Talking)

Further, it was playful, but it was also purposeful. The students knew they were rewriting and reimagining their part of a text to be put towards a new overall purpose. We were creating a new class story based on the bare bones of the old but with much scope to go to new places. This promise of an audience was key. It meant that the lessons did not feel like a writing exercise but creative work in progress, for a fruition that we could look for, to hear the new story retold and the excitement of what that might look like.

Dramatic Character Development (Still More Talking)

The writing developed into a short production we then took to the stage, including small pieces of music the students wrote to accompany the action. This became a clear aim of the writing quite early on, so this added another level of excitement and an audience to write for. Throughout the writing experiments, students were writing dialogue as well as description to be read as narration.

Extended Writing as a Culmination

While the class writing experiments and stage play performance were exciting and fun, it was not where the writing ended. This was all heading to a culmination, an extended writing of their own stories. Once students arrived at creating their own independent stories, a strong level of confidence had been developed. Through the listening, rehearsing, and improvising stages of writing, the students had developed important strategies for their independent writing.

Pilot Study: Phase 2

The second context for the LIRIC framework development was during my time as an upper years primary teacher in a coeducational Australian school. The school had an ICSEA score of 1,047, which as a socioeconomic category placed the school slightly above the Australian average. Some examples of LIRIC principles as they are expressed across the music and English curriculum for Year 6 are provided in Table 5.6.

Table 5.6

Australian Curriculum: Music and English Indicators Compared (Year 6)

Principles	English	Music
Principle 3: Interpreting Related terms: Recognise Discuss/describe Respond Analyse Understand Connections	Discuss how authors create characters using language and images (ACELT1581) Discuss a range of characters and events in literary texts, making connections with students' own experiences (ACELT1582)	Describing shapes, patterns, form, or mood of pieces of music using their own words and learnt music terminology Considering viewpoints, meanings, and interpretations—what did the music make you think about and why?
Principle 4: Improvising Related terms: Explore Experiment Innovate Patterns Play	Understand patterns of repetition and contrast in simple texts (ACELA1448) Innovate on familiar texts by using similar characters, repetitive patterns, or vocabulary (ACELT1832) Explore different ways of expressing emotions, including verbal, visual, body language, and facial expressions (ACELA1787)	Improvising patterns of body movement, such as clapping or stamping and creating Using voice and body percussion to experiment with the elements of music to identify same and different, sound and silence, fast and slow, long and short, high and low, loud and soft, happy and sad
Principle 5: Composing Related terms: Creating Editing Perform Communicating Combining Re-read/review/consider	Create short imaginative and informative texts that show emerging use of appropriate text structure, sentence-level grammar, word choice, spelling, punctuation, and multimodal elements (ACELY1661) Re-read students own texts and discuss possible changes to improve meaning, spelling, and punctuation (ACELY1662)	Create compositions and perform music to communicate ideas to an audience (ACAMUM082) Choosing and combining sounds to create compositions—for example, pitch and rhythm patterns Consider forms and elements—what sounds or musical phrases are in my composition?

Context

This time in a coeducational school, this was in a quite different educational context. English and mathematics classes were levelled, and as my class was the middle class, they had certain notions about themselves as writers. Some students had already decided they could not write. Unlike my Phase 1 class, the school day was very structured, and we had a certain time in which to get things done. For some Stage 3 students, writing felt laboured, an academic activity, and some expectations about being ready for high school were evident.

There were several key practices I wanted to apply, again from the Phase 1, considering the level of challenge required. The curriculum for Year 6 emphasises improvisation (or innovation) with a model text, reading over their texts, discussing characters and events, and experimenting with multimodal face-to-face gesture and facial expressions. This led me to take almost all the elements from the first phase of the study and to apply them (Halcrow, 2018).

Writing Approaches

This time, working with expressive informative texts, based on *Lonely Planet* texts, we worked towards a travel exposition in which we would create mini documentaries, short films with narration developed from our writing. Students worked in pairs, developed and edited their narration scripts in pairs, and then developed their multimodal film presentations to be presented at the travel expo.

Key Practices

Though in a radically different setting, grade setting, and “text type”, almost all the features were the same as the first phase yet realised in new ways.

An Exciting Model Text as Creative “Cognitive Inquiry”

The model texts we began with were Lonely Planet (2023) travel journalism texts that we had studied on the subject of Asia. Beginning with a particular text on China and using a guided

inquiry approach, I asked the students to notice aspects of the language that was appealing or effective. Though technically an “informative” text and not designed for advertising purposes, we detected a strong persuasive element in these texts. The language was richly descriptive, even ecstatic and much of the phrasing was evocative and vivid.

Peer Experiments

The students took short sections of the text that they would use to create their own texts about countries of their own choosing. With a focus on Asia (an interdisciplinary link to our geography studies), students took sections of the text to improvise on and to which they could use to create similar rhythms or to diverge from as they chose to. The language of the model text featured short and longer sentences, highly varied and rhythmically interesting phrasing, and with intriguing vernacular word choice and cultural references that were enjoyable to read aloud.

An Audience and a Purpose (Dramatic Talking)

Again, the writing here was for a purpose and not just for the teacher but a wider audience of their peers and family members. The text would be written but then read aloud and recorded as narration for their documentary films. The rehearsal was again dramatic in nature, where students studied the tone of documentary narration and the work of news readers. Selecting language and editing their writing was done with an acoustic sensibility. That is, that students made considerations about their writing and about their word choice according to what sounded “good”, “exciting”, or that had a pleasing rhythm, one that served their purposes for writing.

Film and Multimodal Development (More Talking)

The writing developed into a short film, where the narration was matched with images to tell the story jointly, and added a multimodal digital elements. There were negotiations about matching narration with image and supplementing with music. Linguistic writing was just one

element amid other materials being sculpted and refined to prepare a coherent and pleasing whole.

Extended Writing as a Culmination

Again, this writing led to extended independent writing. That feeling of being stuck, which sometimes students face when asked to just write on a topic, seemed hardly noticeable in these contexts. Much of the writing had already begun in the peer context—there had been a lot of time for “incubation” (Wyse, 2017)—and much work had already taken place in “building the field” (Rose & Martin, 2012). This section provided an overview of Phases 1 and 2 of a pilot study in my own classroom in two school contexts with Years 3, 4, and 6.

Conclusion

This chapter has provided an Australian Curriculum basis for the LIRIC framework and demonstrated the ways in which the music and English curricula share common features. I found that using the model across very different school and grade contexts was challenging but interesting, and the model looked very different in each setting. Yet the general principles of pedagogy were the same. Using the model, which I also, at times, articulated to my students, represented a physical shift in what we did in the classroom, compared to other models I have used in the past. At every turn, I was thinking about language as an aesthetic experience; the musical lens was vital to this. Sounds of the English classroom were focused on talking, experimenting, and borrowing from authors we admired. Language was material, aesthetic enjoyment was key, and an air of collaboration and experimentation were the vehicles we used for both play and precision for metalinguistic writing elements, including grammar.

Chapter 6.

A LIRIC Framework for Writing at Marybank School

Part 1: Teacher Experiences

Freedom and discipline are the two essentials of education.

—Alfred North Whitehead

Chapters 6 and 7 provide the findings from an examination of qualitative data drawn from an interdisciplinary music–language framework intervention in Australian primary writing classrooms at Marybank School. The LIRIC⁶ framework design, inspired by Orff and Kodály music pedagogies, was adopted and refined by music and literacy teachers in micro-iterative phases over the duration of a school term. The focus of this chapter is an analysis of teacher experiences at Marybank School,⁷ while Chapter 7 focuses on student experiences and an analysis of student writing data. In this study I was working with three Year 1 literacy teachers, a specialist music teacher, and 37 Year 1 students from August to September in 2019. The purpose of the study was threefold: (a) to discover the extent to which common terms and pedagogical principles could be useful for teaching “composition” in a musical sense for the literacy writing context, (b) to apply principles of music pedagogy to the early years writing classroom through the LIRIC framework, inspired by approaches used in Kodály and Orff music education, and (c) to explore what impact this framework would have on student outcomes in writing.

As outlined in Chapter 5, this research study sought to answer the following key and supporting research questions:

⁶ LIRIC (listening, interpreting, reciting, improvising, and composing) framework discussed and outlined in Chapter 5, “Methodology”.

⁷ A pseudonym has been used to anonymise the school and system involved in the study.

1. What insights can be gained from music pedagogy, inspired by the Orff and Kodály philosophies, to develop children’s engagement with and knowledge about language, including linguistic grammar and punctuation, as part of the writing process?
2. To what extent can the similar cognitive processes used for understanding music and language (particularly, the neuroscientific link between rhythm and grammar) be extended to writing pedagogy and therefore be instructive in the writing process?
3. Can music education practices—such as “listening”, “rehearsal”, and “improvisation”—assist children to develop their knowledge about language, including grammar and punctuation? If so, how?⁸

In the first section of this chapter, I describe the Marybank School context. In the second section, an outline of the research study is given, including the study timeline and a description of the intervention. The third section provides an analysis of teacher data, including the professional profiles of the participants and analysis of teacher experiences through a series of teacher vignettes, a description of key teaching practices that emerged through the study, and an outline of the framework’s development through the micro phases during the study.

Background for the Study

As the study’s main objective was to explore and identify a common music–literacy language as well as common pedagogical practices for the teaching of “composition” as a shared arts process, the study required a particular context. A cohort of participating literacy teachers would need to have the opportunity to regularly collaborate with a music specialist over the course of the 6-week study. In addition, the music teacher would need to have had training or expertise in the Orff or Kodály music pedagogies, as these are the principles upon which the LIRIC framework has been based. A context in which a collaborative relationship between music

⁸ Definitions of key terms (i.e., recitation, imitation, improvisation, and play) are provided in Chapter 1.

and literacy teachers had already been established prior to the study was important and where robust reflections on the framework would be more likely to emerge in the short timeframe. It was also best that the literacy teachers were not music specialists themselves, allowing the study to be indicative of the experiences of other generalist primary teachers.

School Context

Marybank School is a coeducational school in Australia's capital city, Canberra. An abiding feature of the school throughout its history has been its emphasis on music and arts education. Partnerships with Australian arts and higher education institutions continue to nurture a distinctive music education focus, including instrumental, band, and choir programs.

Another distinctive feature of the school is its complex socioeconomic profile. Indicative of the historical and cultural imprint of Canberra's urban design, town planners ensured public housing was evenly distributed throughout the territory (Canberra Community Law, 2017). At the time of study, Marybank was made up of affluent tertiary-educated families, living alongside a significant public housing presence. In comparison with other Australian schools, Marybank School's ICSEA score places it in a higher socioeconomic category, but as an overall score, it masks some anomalies within the school's profile.

The ICSEA, which is designed to contextualise NAPLAN data captured biannually in the formal schooling Years 3 to 10, is calculated using a combination of parent- and community-level statistics. Using information taken at enrolment—including the occupations and educational backgrounds of parents, geographical remoteness of the school community, language backgrounds, and Aboriginal heritage—ICSEA scores are calibrated with a national average around 900 to 1,000, and scores range between 500 and 1,300.

At the time of study, Marybank Primary School's ICSEA score was 1,137 and was considered above average. However, unlike many schools with a similar score, Marybank's population was highly varied, with families in the highest socioeconomic bracket as well as a

considerable proportion (14%) in the lowest socioeconomic categories. At the time of writing, the most recent census data showed that 20% of Marybank's households lived on a gross weekly household income of less than AUD650, an indication of those living in the lowest economic bracket. In addition to this, just under one third of the students were also from language backgrounds other than English, and 4% of the students were Indigenous. As such, the school caters to a range of student needs, with students who require significant academic support, including English language support.

At the time of the study, writing had been identified by the school's leadership team as an area of academic focus in response to in-school and national writing assessment data. The goal was made with a view to lifting student confidence and achievement. I have thus used this goal as one of the lens and key measures of the study's outcomes.

The Design-Based Study

This study sought to discover the potential for the music pedagogy-inspired LIRIC framework design in the Australian primary context and to develop a set of suggested practices that might inspire new possibilities for teachers of grammar and writing in the primary years. LIRIC, an acronym of the key music principles upon which it is based, seeks to create similar classroom conditions and practice that would be used to guide students to create original compositions in a good music classroom for the benefit of students in the writing context.

Design Intervention

An outline of the design-based intervention study conducted in August to September 2019 is provided in Table 6.1. The timeframe of the study was 6 weeks, which included the first demonstration lesson and five other weekly lessons. Teacher collaboration would be a key aspect of the research to encourage shared planning, peer observation, and reflection to take place. Timetables were amended so that a weekly lesson could be cotaught across two classes.

Table 6.1*Design-Based Intervention Study Schedule at Marybank School*

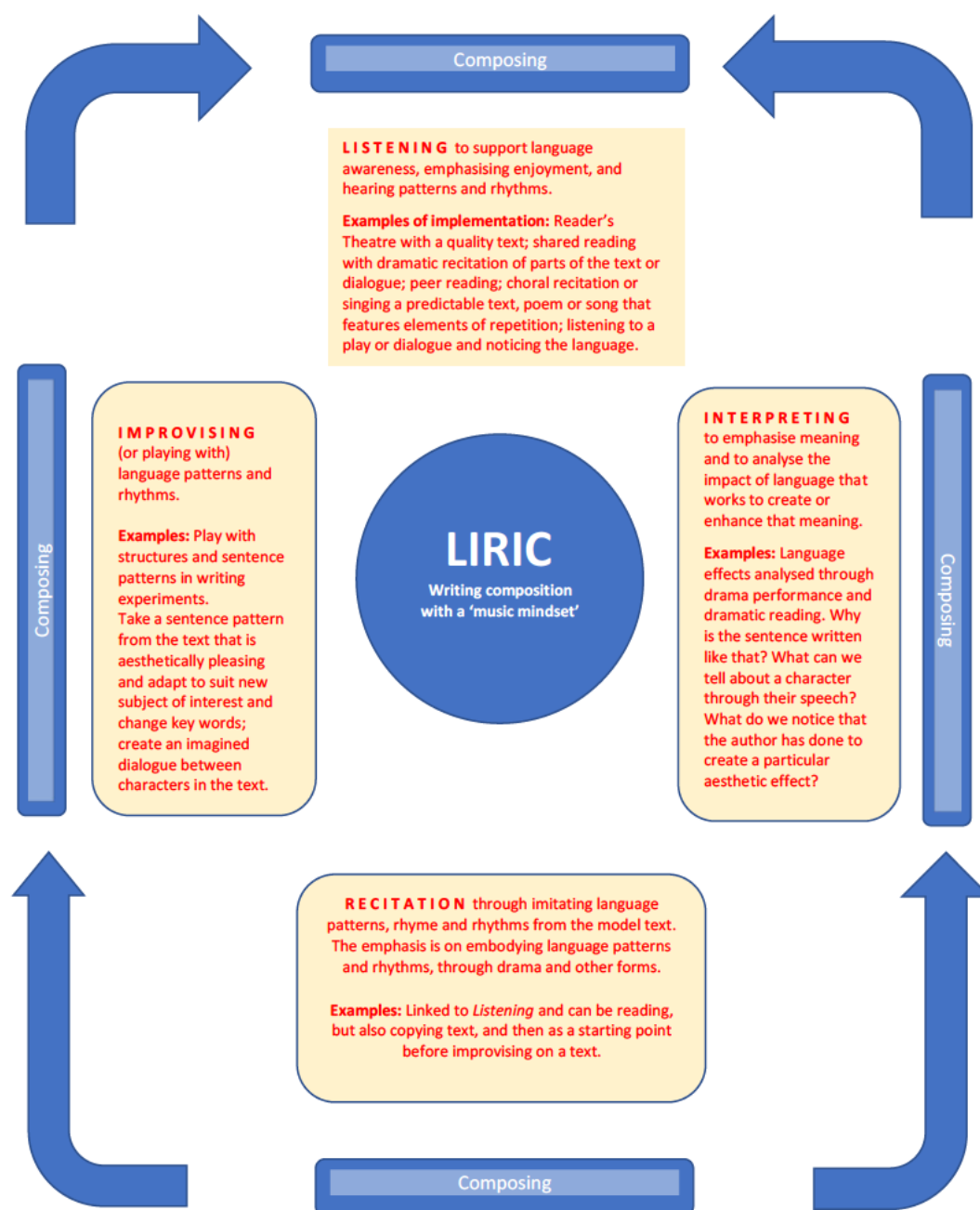
Design-based intervention timeline Marybank School, Term 3, 2019	
Weeks 1–3 Prior to in-class intervention	• Introduce framework: 2 x teacher workshop sessions • First framework iteration (August 2019): as shown in Figure 6.1 • Teacher interviews followed by research team meeting • Semi-structured teacher interview questions: Appendix M • Tag: [Pseudonym].TI1.2019 • Filmed music composition lesson • Music demonstration lesson: Appendix N
Week 4 In-class intervention introduction	• Pre-study student writing sample (26/08/2019) • Writing sample conditions: Appendix R • LIRIC demonstration lesson (26/08/2019): overview in Figure 6.2 • Pre-study open-structured student interviews (26/08/2019). Tag: [Pseudonym].SI1.2019
Week 5–9 In-class intervention underway	• Weekly music–literacy lessons and reflections: Appendix V • Lessons filmed and photographed throughout; see figures provided in Section 6.3 • Mid-study student writing samples; see examples in figures provided in Chapter 7 • Mid-study Zoom meeting to review and refine framework: Appendix W
Week 10 In-class intervention ends	• Final open-structured teacher interviews. Tag: [Pseudonym].TI2.2019 • Final open-structured student interviews • Tag: [Pseudonym].SI2.2019 • End of study review. Teaching research team with lead researcher in an informal open-ended discussion to review final framework amendments (17.9.2019)
Week 11 Following in-class intervention	• Final student writing samples (22.09.2019–23.09.2019); see examples in figures provided in Chapter 7
Post-study framework design iterations	• Final framework iterations are provided in the findings Chapter 8

Note. Tags denote pseudonym, student or teacher interview (SI/TT), number of interview, year.

The first iteration of the framework was presented in two professional learning sessions for teacher participants (see Figure 6.1). The research underpinnings for the framework were also explained.

Figure 6.1

First Iteration of the Framework Introduced by the Researcher (August 2019)



To begin to consider the music–literacy link, a music class composition lesson was filmed and shared with the teaching team (see transcript provided in Appendix N). This lesson would be used as a provocation to prompt the team to begin to identify key features of a music composition lesson and to consider similarities and possible applications for the teaching of writing. I invited the teachers to view the lesson using a reflection tool provided by the researcher, with the LIRIC framework used as a lens (see Appendix O).

Semi-structured interviews were conducted with each of the four participating teachers prior to the study. These were designed to gain insights into the teachers’ professional experience and teaching philosophy and to understand teacher approaches to teaching composition and writing. This included perceptions about the potential links between music and writing and the LIRIC framework elements. The post-study interviews were open-structured and designed to be a discussion inviting teachers to comment on experiences working with the framework, its strengths and limitations, student engagement, and outcomes. As aspects were raised, interview questions were used to gain a clearer understanding of emerging themes related to the key research questions. In addition to these interviews, I met with the teaching team several times for a first meeting to introduce the structure of the study, the two professional learning sessions, class observations, a Zoom catch-up to reflect on developments of the framework, and at the end of the study to consider final refinements.

With the research teaching team, we discussed a writing genre that would form the focus of the LIRIC writing intervention. Until this point in the year, recount genres had been the focus of daily journal writing. Students used their daily writing to reflect on “investigations”, which were student projects of personal interest, or they could write on free-choice topics.

However, teachers commented that this writing lent itself to writing predominantly in the recount genre. Teachers determined they would like to shift their writing focus to literary forms, with the genre and literary descriptions selected as part of an integrated learning theme entitled “Where will we go? Who will we meet?”

A model exemplar of a quality literary text would also be selected to provide a scaffold and creative prompt for students' writing compositions. This sought to emulate the way an exemplar piece of music would be offered in a Kodály or Orff music classroom. The literary text would also be a basis for imitative oral and written rehearsal, and as a creative scaffold for writing experiments. This approach sought to emulate the Orff approach where deep engagement with carefully chosen rich material may yield opportunities for diverse learning pathways.

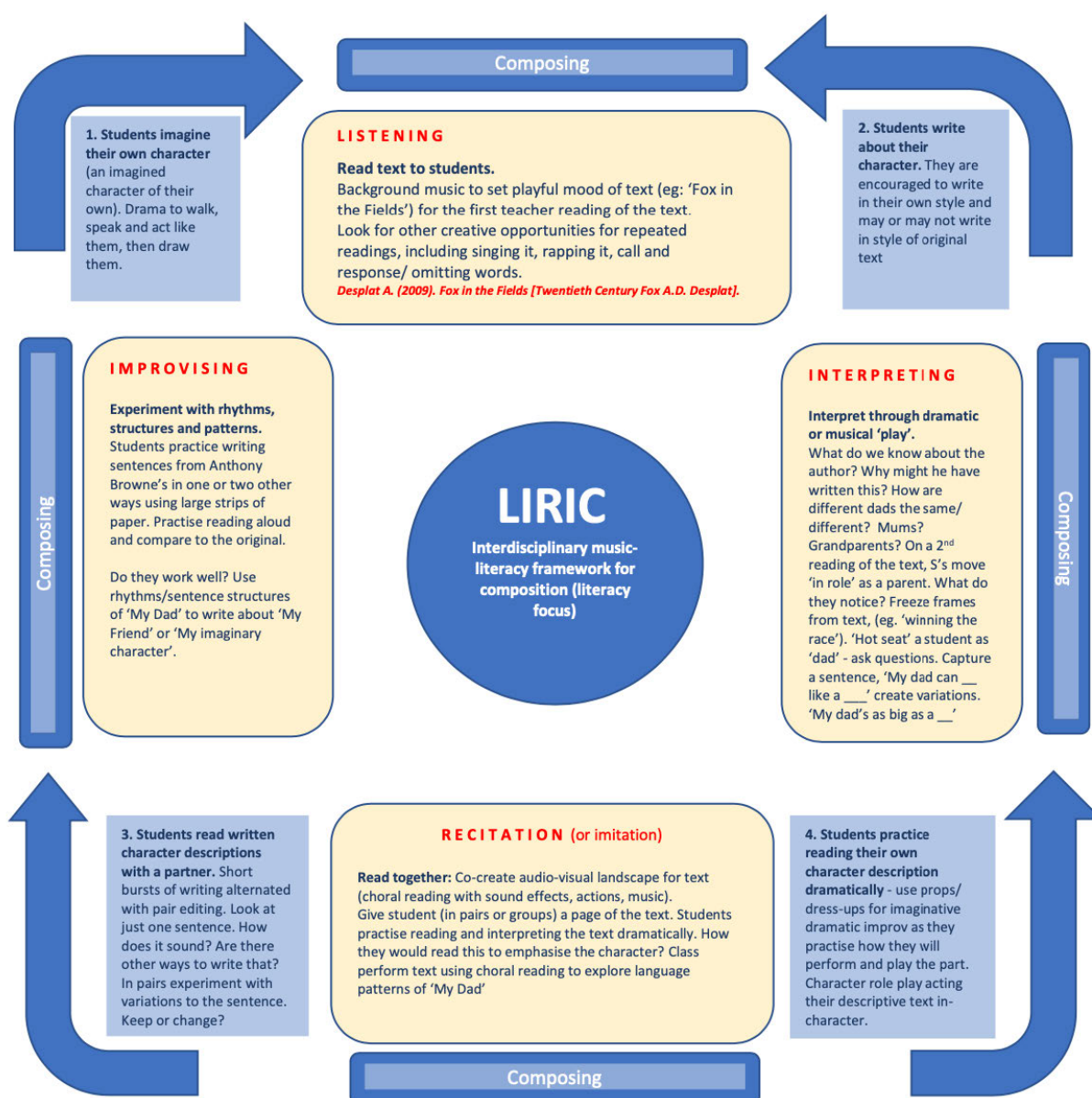
Relevant writing, grammar, punctuation, and vocabulary content descriptors taken from the Australian Curriculum: English were selected. The selected descriptors were ones that used LIRIC music terms and concepts, as well as language common to both Music and English curricula. It is interesting to note that these common terms and concepts already exist, making the music–literacy connection more clearly identifiable (see Appendices P and Q).

The model text *My Dad* (Browne, 2003) was introduced to students by their class teachers and led into a pre-study descriptive writing sample. The conditions for these pre- and post-study writing samples are provided in Appendix R.

Following the pre-study writing data collection, I presented a demonstration LIRIC lesson for Year 1 cohort teachers and students with this text as a focus. An overview for a suggested LIRIC lesson was provided and which I provided in an extended demonstration lesson with the whole Year 1 cohort (see Figure 6.2). The teachers understood that the lesson provided one example of how a “music mindset” might be applied in a writing classroom but were also invited to interpret the framework in other ways, as required in their context. Teachers were invited to contribute to the framework and to suggest amendments and these are represented in the findings presented in Chapter 8.

Figure 6.2

LIRIC (Lesson Example) Provided by the Researcher



Note. This lesson focuses on the literary description subgenre and supports students to build a description of a character using the model text *My Dad*.

Model Text

In discussion with the teaching team, we selected the model text *My Dad* by Anthony Browne (2003), an extended literary description. The teachers had already decided they would like to focus on descriptive writing and as we knew the text would be a model and scaffold for the students, this text seemed best-suited for Year 1. Repeated interactions with one featured model text, therefore, became a feature of the study.

The author, Anthony Browne, is an award-winning British children's book writer who has won many awards over his long career which began in the 1970s, including the Kate Greenaway and Hans Christian Andersen awards (British Council, 2023). It contains many of the elements that have been considered important for children by leading authors and educators in Australia. These elements include layers of meaning, authenticity, emotion and humour (Gleeson, n.d), those that develop sensory awareness (Saxby, 1993) and that build a "positive sense of identity" (Niland, 2023, p. 4). Browne's books, including *My Dad* (2003), have been translated into 26 languages for more than two decades and are therefore considered quality literature for children internationally.

The text, told through the voice of a child narrator, mimics the rhythms of childlike speech, including playful asides and exuberant declarations. A number of child readings of the text clearly demonstrate the childlike quality of the rhythms of the speech captured in the language (My Five-a-Day, 2016; Reading Joy, 2022). The prosodic, musical qualities of the text have also allowed it to be successfully adapted for song (TinaClassroom, 2021)

From the opening sentence, "He's alright, my dad" (Browne, 2003, p. 1), a mood of playful affection is established. The language of the text, like the illustrations, adopt a naïve style which relies on a range of figurative language forms including hyperbole, simile, contrast, humour, and emotive language. Traditional children's nursery rhymes are referenced throughout, including "Hey Diddle Diddle" (Ker, 1837) and the fable "The Three Little Pigs" (Halliwell-Phillips, 1886). These references, as well as the use of common similes and idioms, create a sense

of the mythical or heroic qualities of the father character, while exaggeration and contrast also create humour in the text: “wise as an owl, and daft as a brush” (Browne, 2003, p. 14-15). The language features provide an artful balance of sentence structures, with longer complex and compound sentences placed alongside shorter declarative statements—“He loves me. A lot”—to create textual rhythm (Browne, 2003, p. 22-23).

Though the text is not obviously rhythmic on first reading, not like a nursery rhyme or syllabic verse, the linguistic rhythms of *My Dad* come to the fore through repeated readings. Through looking at one model text, both teachers and students expressed appreciation for the artistry of the work of the author, again in a similar way as they might do in a music classroom, noticing the various elements of music created by a composer and then seeking to emulate them.

Teacher Participants and Their Experiences Working With the LIRIC Framework

This section examines teacher data collected throughout the study. The analysis begins with a holistic examination of teacher experiences through a series of vignettes. These vignettes bring together teacher responses to semi-structured and open-structured interview questions; teacher lesson transcripts; my lesson observations including artefacts I collected such as class film and photos; and teacher lesson reflections. An awareness of particular teaching philosophies and past teaching experiences helps to contextualise each teacher’s experiences of each, working with the framework. The analysis then provides an outline of the key features of teaching practice identified throughout the music mindset lessons conducted at Marybank School.

Participating Teachers

As an early indicator of the school’s interdisciplinary leanings, the school’s music specialist teacher, Victoria Coffey, and one of the school’s Year 1⁹ teachers approached me after my presentation at the Australian Literacy Educators Association (ALEA) 2018 annual

⁹ In most states in Australia, Year 1 is the second year of formal schooling and caters for students aged 6 and 7 years.

conference in Perth. In the presentation, I had outlined preliminary explorations of the LIRIC framework in my own classroom and the proposed research collaboration to follow. The teachers were enthusiastic about the nature of the project and indicated that they believed the research was in line with their school's priorities, which included a focus on writing for the upcoming 2019 academic year. The teachers indicated they would be interested in being a part of the proposed study, with two of their Year 1 cohort colleagues.¹⁰

The key participants of the study, the specialist music teacher, and three Year 1 literacy teachers represented a range of teaching backgrounds and teaching philosophies, and apart from the music teacher, the three literacy teachers had no formal training in music. With minimal training in music, apart from various experiences of learning an instrument as children and experience of the school choir, the Year 1 literacy teachers expressed some sense of uncertainty about their capacity to be a part of the project as music was not an area of “expertise”. However, they were nevertheless interested and curious about what would be discovered. For this reason, Victoria would play a key role in supporting LIRIC planning and would coteach some writing classes.

Teacher Participant Vignettes (Pre- and Post-study Interview Data)

Teachers were interviewed twice over the course of the study: prior to the study and again at the conclusion of the study. An interview schedule is provided in Appendix M1. The pre-study interviews were semi-structured and designed to gain an understanding of teaching backgrounds, attitudes to writing composition, and what scope they could see for a music–writing link in order to gain a holistic picture of what each teacher's experience of working with the LIRIC framework had been.

Post-study interviews were open-structured to allow participants to direct the conversation to aspects they thought were of most importance in their experiences working with

¹⁰ Details of the human ethics process and school participation for this study were outlined in “Research Methodology”, Chapter 4.

the framework. However, some common questions regarding the study's key research interests were addressed to all participants. These questions included the music–writing link, the viability of the framework, and about the teaching of grammar and other linguistic and language features.

The teacher interviews revealed the diverse backgrounds and teaching philosophies of the participants. Teachers articulated a range of approaches including “inquiry-based” or “play-based” learning, a “social–emotional” and wellbeing emphasis, and “explicit teaching” as self-professed models of classroom practice and teaching focus. All teachers were committed to and supportive of the school's ethos as well as the academic focus for 2019, “writing with agency and impact”. Each teacher also articulated an openness to new approaches and what might be found from the study.

Over the course of the study, the teachers' personal teaching philosophies had some bearing on interpretations of the framework and the emphases that were made throughout the lessons. Close collaboration among the team mitigated against any one prevailing approach becoming dominant. The strength of the co-teaching model was that it allowed for a variety of teaching approaches to be considered throughout the study, from what might be termed more “explicit” approaches to more “naturalistic” approaches being implemented. Most importantly, these approaches were agreed upon among the team in response to students' needs, as these varied throughout the various stages of the writing process. The appetite for cycles or “rhythms” of education, as Whitehead would call it, was evident throughout the process of learning and as the iterations of the framework seem to exemplify.

Common phrases and recurring themes in the teacher responses were coded as they emerged throughout the study, through teacher interviews, teacher lesson transcripts (Appendices S and T), teacher lesson reflections (Appendix U), and in other team conversations I had with the teachers (Appendix V).

First, teacher responses provided a common view that there was benefit in employing a range of teaching approaches for writing. Second, teacher responses often indicated a particular

teaching philosophy or teaching background regarding teaching writing and its domains. Third, teacher comments revealed a common sense of hesitancy regarding the teaching of grammar more than any other linguistic or writing domain. Fourth, comments that revealed a sense that the teaching and learning of writing was difficult or challenging were noted. And last, teachers' views regarding the viability and experience of working with the LIRIC framework were coded to reflect a range of teacher views regarding the framework's successes, challenges, and perceptions regarding its viability.

Vignette 1: Marybank Music Teacher Victoria Coffey

Victoria Coffey,¹¹ the school's specialist music teacher, was trained in Kodály music education but also drew on Orff music teaching practices. Victoria held a trusted place within the school community teaching music classes, leading choirs and bands, and coordinating the school's instrumental program.

Victoria's background included several years in bands and ensembles and, though initially training to teach music in a secondary high school context, found she preferred the primary school context. Victoria taught as a generalist teacher in the Catholic school system for 7 years before becoming the music specialist at Marybank Primary School. Victoria's dual understanding of specialist music and primary literacy contexts meant she could make a unique contribution to the development of the LIRIC framework, which included being able to coteach writing classes and to model music pedagogy approaches.

Victoria described her teaching philosophy as "student centred" and valuing a "real-world" approach. In answer to how she would describe her teaching style and what mattered in her classroom, she expressed a preference for student-centred learning and wanted to provide authentic experiences in her classroom to help young students link learning to the real world: "Particularly for music and literacy, there's a purpose for what we do, understanding why we do

¹¹ Pseudonyms have been given to all teacher and student participants in this study.

things a certain way. Arts is so important because it is essential to what it means to be human” (Coffey.TI1.2019)¹².

Of her music training and approach, Victoria explained that her training was in Kodály music pedagogy and that Marybank was a Kodály school but qualified this by mentioning other influences:

I am also influenced by Orff and other theorists. Musically, it’s Kodály—and then Orff—it’s kind of a blending ... we use the physical representation of sound. Orff is all about movement, Kodály is all about hand signals ... we use that language.
(Coffey.TI1.2019)

Victoria explained further how Orff and Kodály pedagogies were related: “Movement is important in [both] Orff and Kodály. Kodály [also emphasises] tapping rhythmically” (Coffey.TI1.2019).

Victoria described the way music was emphasised through the school choir and the way teachers and students shared the experience of music as a school community: “The whole community learn the songs—[they] learn different parts” (Coffey.TI1.2019).

When asked about the teaching of composition in the music context, Victoria seemed to apply her personal teaching philosophy that emphasised “authentic” experiences. In line with this philosophy, she articulated a preference for using real-world examples of music in the classroom as a scaffold for students’ composition work:

We start with a core concept or idea. We will have a listen to some examples of compositions. We will break down what is involved in a composition. [Asking] what do you think they’ve [the composer has] done? What else could we do?

¹² Interview Tag: Pseudonym, T/S (teacher or student), I (Interview) and 1 or 2 (No. of interview 1st or 2nd), year.

So, you look at an example, you break down what's in the example ... let's write those important things we think we hear and experiment with those.

(Coffey.TI1.2019)

This was then compared with the LIRIC framework processes for supporting composition. Victoria identified that the framework closely resembled the composition process as it would take place in a Kodály music classroom.

With regard to the music domain of rhythm, and attempting to give a picture of the treatment of rhythm within her music classes, Victoria described,

Rhythm is taught very physically. It's done in short, sharp, little sections of things that they're singing or learning ... so it's completely in context ... the whole school does this. It's very much differentiated into how in-depth we go. [Being] physical is central to the [music] classroom. Rhythm in the music class [means we try to] break down the composition. (Coffey.TI1.2019)

Victoria further explained that this “physicalising” approach to rhythm would provide a beginning point for how she intended to work with Year 1 teachers and students to explore rhythm through the LIRIC framework.

A question posed to all the teachers was about the challenges of teaching composition. The answers revealed that there were challenges for both music and literacy teachers, though the nature and degree of these challenges differed.

For Victoria, the main challenge for teaching composition was that there were many “poor” examples of music prevalent in popular culture that tended to dominate students' thinking about music: “[Students have] preconceived ideas of what something should sound like because of the radio. Preconceived ideas of what a composer is and what that actually looks like” (Coffey.TI1.2019).

Another question to teacher participants was about their perceptions of the potential for a music–literacy connection and whether they thought that link might prove useful in the writing classroom. For Victoria, having a generalist primary teaching background with specialist music knowledge, the music–literacy connection was easy to conceive of, and she was confident about what might be discovered.

Throughout the study, Victoria was a co-teacher of the LIRIC lessons with Ms. Danielle Kelly. With her dual music–literacy background, she was able to suggest and model Kodály approaches such as rhythmic clapping and solfège-style gesture to help the students vocalise and physicalise linguistic rhythms and notation (punctuation) used through the text.

In an open-ended structured interview at the end of the study, Victoria provided her observations about the way the LIRIC approach was received particularly by students: “I think it’s more natural. For the kids, absolutely, they’re ... ‘yep, we’ve got this’” (Coffey.TI2.2019).

Victoria had noticed how naturally the students had embraced and understood a language–music and, particularly, rhythm–language connection. However, Victoria also commented that Year 1 teachers were not always conscious of their linguistic rhythm awareness. She noted that Danielle, her co-teaching partner, had often unconsciously used rhythm approaches throughout their lessons:

She [Danielle] would walk to the words, that is, walking on the rhythm ... she’d also slow down to emphasise quieter words and then speed up to emphasise some more frantic [parts] of the sentence. You’re doing a crescendo or a decrescendo there. What she didn’t realise is that she has a lot of music in there ... maybe if you don’t have that really strong music background you mightn’t see it, but that doesn’t mean you’re not doing it. (Coffey.TI2.2019)

Victoria’s comments indicate that this “rhythmic” awareness seemed to come naturally for teachers, without them even realising. With these experiences of the framework, Victoria’s

comments regarding the viability of the framework for use with other generalist primary teachers, even without musical training, clarified that

We don't need to absolutely know everything, but as long as we're aware enough to know that there is rhythm in words and there is rhythm in grammar and that music and grammar are linked, we as teachers can facilitate that ... how it's unpacked. (Coffey.TI2.2019)

When asked to make some final concluding comments about the study's impact, Victoria described how the study had further highlighted how the rhythms and sounds of language were inextricably linked to meaning and expression rather than a distinct function of language.

Victoria also noted that the Year 1 teachers had found the framework approaches quite different to their usual practices. In particular, she responded to the class teachers' hesitation about the reduced time for extended independent writing. The lack of actual extended writing had caused other teachers to make predictions that the post-study writing samples may consequently be quite short. Victoria's response to this clarified other considerations that needed to be taken into account: "There's another aspect to be explored about what's high quality and what's being produced. If compared, could it be that we've got beautiful language and grammar and not as evident in other writing?" (Coffey.TI2.2019).

For Victoria, the study, which had provided a musical emphasis in the literacy writing classroom, had made a direct impact on students, with an increased sense of the musical aesthetics of language. Victoria observed that the students' writing had translated into "beautiful language and grammar".

Vignette 2: Marybank Year 1 Teacher Danielle Kelly

Danielle Kelly, a Year 1 literacy teacher, had recently returned to full-time teaching at the time of the study but had taught for many years as a learning support teacher and was trained in Reading Recovery, an intervention program for students experiencing reading difficulties.

Danielle had spent most of her teaching years working in early years classrooms. She described her approach as having an emphasis on “explicit teaching” that she explained was informed by those years as a learning support teacher.

Danielle spoke of this approach as an important aspect that informed her teaching of writing and her emphasis on text genre features:

[I focus on] explicit teaching through a genre approach. “To compose texts with agency and impact” is the key intent of the school but it doesn’t always lend itself to focusing on one writing style at a time, so I have become a lot more fluid in my teaching. (Kelly.TI1.2019)

In the teaching of language and grammar elements in writing, all teachers expressed hesitance about either what or how they should teach this in the younger grades. For Danielle, grammar was an aspect that she also did not feel entirely comfortable with:

So, I don’t use grammatic jargon per se. It’s more at this stage, it’ll be more like questions, “Is that how we say it?” “Is that how you would hear that if you were talking to someone?” ...

There are quite a few children with an ESL [English as a second language] background who leave off the endings of verbs, then that becomes an explicit lesson because even when they speak, they’re not going to hear that [correctly]. (Kelly.TI1.2019)

When it came to grammar, Danielle expressed that it was occasionally an embedded aspect within her class guided reading group work: “We might pull out verbs from the text. Like jump, jumped, jumping, you know past tense and future tense and we might experiment with that verbally, but as a whole class we haven’t actually taught [grammar] explicitly that way” (Kelly.TI1.2019).

Danielle's views regarding grammar reflect a common traditional view of grammar (Adoniou, 2014; Myhill et al., 2013) and were similar to the views of grammar held by the other Year 1 teachers in the study—that is, a view that grammar is about teaching the rules of language and is predominantly about understanding traditional grammar terminology for the class of words and the parts of a sentence. This traditional view of grammar resulted in teachers either rejecting the notion of teaching grammar to Year 1 students, embracing the traditional view in explicit teaching, or being uncertain about how to teach it. For Danielle, there was uncertainty.

In the post-study interview, Danielle's views about teaching grammar had transformed. Using a model text to teach grammar was a highlight, which Danielle spoke about at length. What was most noticeable was her added confidence in talking about how grammar could be taught in Year 1: "Doing this has really helped me think about the way I teach grammar using picture books, certainly grammar. I think I could use this" (Kelly.TI2.2019).

Danielle also remarked on some of the key benefits of the framework for students in terms of engagement. She particularly identified the introduction of drama and the writing experiments as highlights, with an emphasis on working with sentences from the text, as standout aspects: "The actual experience for the children has been very engaging. So, the element of the drama and the pattern work has been really good for them. They were creating characters" (Kelly.TI2.2019).

Danielle's lesson transcript (Appendix T) also reveals the ways Danielle was able to use the LIRIC framework to build oral language peer experimentation and composition. She and her teaching partner Victoria led the students through a process of building powerful similes to describe a partner. In the lesson, the two teachers were leading the students to compose texts without yet having lifted a pencil. Yet students were constructing complex sentences and thinking specifically about vocabulary choice and sentence structure with a view to writing character portraits.

Danielle described these experiences as “important groundwork” for writing, and the writing sample analysis, as explored in Chapter 7, demonstrates the impact of this groundwork. Danielle also relayed the positive impacts of the study in terms of the particular improvements made for individual students in her class, one with an EAL background. Noelle’s mother had been in contact to note the growth that had been noticeable to her as a result of the study:

A mother has told me that she thinks her daughter’s [Noelle’s] writing has improved. I don’t know if it’s the grammar. Noelle is a confident writer, but it’s not [usually] creative. It’s very literal. So, this has given them a more literary approach. The actual process and the type of text, it’s a literary text rather than a factual text. In a nutshell the children have had a lot of fun because they have more opportunity to perform and act out. (Kelly.TI2.2019)

However, Danielle also had concerns about the lack of extended writing opportunities within the model and within the limited timeframe. In particular, Danielle wondered what impact the high emphasis and time given to oral–aural music-inspired lessons would have on the post-study samples: “We haven’t had enough time to work through the whole process including writing. It will be interesting to see what they do in their final sample, and whether they can elaborate” (Kelly.TI2.2019).

On reflecting upon the further need in the development of the LIRIC framework for other teachers, Danielle thought that further lesson examples could be developed. Danielle could see further potential for music-inspired teaching and learning applications:

It would be great to have a smorgasbord of activities of composing. Little activities that I could use to make that comparison [between music and language].

[For instance], what is your voice doing when you read it back to yourself?

When your voice comes down is that where the full stop goes? (Kelly.TI2.2019)

Vignette 3: Marybank Year 1 Teacher Alicia Pearn

Alicia Pearn, who I had also met at the ALEA literacy conference and another Year 1 teacher at the school, had been employed there for 8 years. This school was her first teaching appointment. Literacy was a particular area of interest for Alicia who was involved in the local literacy teachers' network. Most of her experience had been working in early years classrooms, Kindergarten to Year 2, which in Australia are the first 3 years of formal schooling. Alicia articulated a strong commitment to play-based and experiential learning approaches.

Her commitment to play-based pedagogy and “using play experiences to inform the rest of the day, as much as you can with the Australian curriculum” (Pearn.TI1.2019) meant that in her approaches to teaching writing, she devoted time to “Using play experiences to inform the ... writing experiences—you have to give them experiences—that comes from the play” (Pearn.TI1.2019). Alicia also noted the LIRIC approach had an in-built emphasis on peer learning through oral-aural experiences: “I really believe in giving kids freedom to make choices but also having the time when they don't make choices. For them to learn off each other” (Pearn.TI1.2019).

Also consistent with her teaching philosophy to emphasise play-based learning, Alicia believed that students needed to write from their experiences, which seemed to emphasise the existing practice at the school that was daily journal writing used to reflect on learning investigations:

I really do lots of writing based on the play experiences, so we're often writing about what they did in investigations or, as well as giving them chances to do free writing, so they choose their own. And I guess my experiences with that has been that they broaden their own horizons by just having the freedom to make the choices themselves and the kids who aren't ready yet will just do investigations writing because it's comfortable and then, you know, the ones who want to go

further, can. And then, you know, if time permits, some sort of sharing and reflection (but often time doesn't permit), and then throughout the lesson going around and noticing different things and doing "loud noticing" which you hope that others will pick up on, I guess. (Pearn.TI1.2019)

On the teaching of grammar, Alicia had some serious misgivings and personal concerns, which became a theme throughout Alicia's comments:

This is where I'm not so great at it, but I'm at a point where I battle within myself, with little kids ... is it something that is so important? And I really find that when you put on too many constraints and rules, it often makes kids shy away from even having a go. So, I must say, I don't make it the "be all" and "end all" of things. So, if they put a full stop, or they do whatever, that's great, but that's not my main focus. And it's only because I don't want them to think that writing is about rules. (Pearn.TI1.2019)

I was curious that Alicia had naturally associated grammar with rules and asked whether the word "grammar" was synonymous with "rules". Alicia seemed to believe that grammar was a potential enemy to creative writing in the classroom:

Yes ... it takes away from the flow, I think ... and I think when you're just learning to write, and it really is a flow of ideas and if they get them down without anything there, I still think that's really great. You know, you're still reminding them and working out when it's good for them to do that. (Pearn.TI1.2019)

Alicia's commitment to student wellbeing and freedom of expression was important and admirable, but I was curious about the perceived tension that she saw existing in the teaching of writing. I was curious about what the word "grammar" meant to her, even in terms of the way it was expressed in the Year 1 curriculum. There seemed for Alicia an antithetical relationship between creativity and elements such as grammar, even when I put to her that linguistic or

language awareness was another way to view what might be traditionally thought about as grammar and that thinking about it like rhythm in music, she was not easily persuaded:

Maybe more around the balance of giving kids the freedom to be creative and do their own thing but, you know, slowly introducing those, like spelling and grammar and that kind of stuff where it's about the technical elements of writing, not the actual process. (Pearn.T11.2019)

For Alicia, grammar, like spelling, was a “technical element” of writing and not the “actual process”. Grammar denied children the freedom to be creative, and she had quite negative concepts of what grammar was and what a grammar lesson looked like. Recognising that such views are dominant and unhelpful, Andrews (2007) offers another way to think about grammar. That is, as “language awareness” (Andrews, 2007), a compositional and aesthetic device or creative tool like line on a canvas, or rhythm in a musical phrase, he described it as the means by which we can create compositions in predictable, interesting, or innovative ways, rather than as a limiting set of rules. Views like Alicia's is common among educators (Adoniou, 2014; Locke, 2015; Myhill, 2013), and underlies a reluctance to teach it. According to Locke (2015), such reluctance might be admired, especially where grammar is believed to be synonymous with rules given what we know about the effectiveness of that kind of grammar approach (Graham et al., 2012; Hillocks, 1986; Loudon et al., 2005).

When the conversation turned to discussing the potential of a music–literacy link, Alicia described having had some limited experience with music as a child but, though she did not feel confident of a connection between music and writing, began to contemplate its scope:

Definitely. Well, I think it's ... in terms of like, what I've explored in the past is around the singing and reading ... I can see with the sounds, like you know, [Victoria] talks about that all the time, the sounds and how she chooses

particularly songs, and that kind of thing. Yes, I can see the potential but I'm not sure how I would describe that. (Pearn.TI1.2019)

Alicia then described that she saw potential in the improvisation, listening, and recitation elements of LIRIC:

I guess with stories, often kids will experiment with a familiar story and start to play with it ... I suppose like with songs, everything needs to be repeated. Specifically with grammar, they need to hear it, see it and they need to have a go. (Pearn.TI1.2019)

By the end of the study, Alicia had enjoyed aspects of the framework and could see benefits for the students in having repeated opportunities to interact with the text: "I enjoyed doing it and looking at the book and I think the kids loved *My Dad*. They still love reading it" (Pearn.TI2.2019).

In identifying aspects of the framework that she considered to be of most use to students, Alicia identified that the structure of the model text was beneficial for some students who struggled in writing: "The kids really liked it, because in our investigations, [Stella] did her own one, she chose to write [within] that [structure]. Stella obviously felt really comforted by having this structure that she could now write with" (Pearn.TI2.2019).

Alicia also identified that the rhythmic clapping and gesture had supported some students to be aware of the linguistic rhythms of the text and the structure of sentences: "Some kids really got it, and others didn't, but I guess throughout the time, I felt like they got really good at that and they noticed the rhythm of the text" (Pearn.TI2.2019).

Alicia had also made a shift in her attitude to teaching grammar in Year 1. Instead of seeing it as something that should be avoided in the early years, she accepted that the LIRIC approach to teaching grammar was a naturalistic and, by implication, enjoyable approach. When asked in the end if she thought you could teach grammar in Year 1 using the model, Alicia

commented: “Yes. I think you can [but] you should [teach it] without saying the [grammatical] parts. It should be a very natural, free aspect” (Pearn. TI2.2019).

Alicia remained convinced that young students would be better off without grammar:

When kids go to write they have so much that they’re thinking about. Where does it start, where does it finish? I don’t know these words; I’ve got to sound these out. You know, and I think the grammar things come last, if at all.

(Pearn. TI2.2019)

Finally, when asked about her predictions about the final writing samples and what outcomes these might show, Alicia had misgivings: “I’ll be interested to see what the kids... what the results show because I just don’t know if there will be [an improvement] in such a short time” (Pearn. TI2.2019).

Overall, Alicia’s comments about the teaching of grammar and her views that grammar equated to a set of language rules was a key finding among the teachers. For Alicia, grammar was characterised as a dichotomy, or enemy to, play. However, there were signs throughout the study that a ‘language awareness’ was beginning to develop as an alternative for teaching this aspect of writing. By the end of the study, each of the teachers would articulate a similar message—that the concepts of grammar could be taught, not in the traditional sense but as an aesthetic compositional device, without using traditional grammar terms. These kind of framings of grammar have been explored by Myhill (2012, 2023), Locke (2015) and Andrews (2007).

The music approach seemed to have provided a new way (and a new language) with which to hear and identify linguistic patterns and rhythms in a more intuitive and aesthetic way. For Alicia, the element of playfulness or experimentation which is especially important in the early learning context, but arguably throughout all schooling, could accommodate an equally playful approach to language awareness. In this sense, the teachers were moving closer to some

linguists' ways of seeing language, for its "combinatorial possibilities" (Mannheim, 1986, p. 67)—essentially, the creative capacity of language rather than its so-called rules.

It is interesting to note that there can be a similar rejection of similar formal music terms and "jargon" among practising musicians. There are sometimes perceived connotations of cultural and educational elitism that are viewed as barriers to creativity, for inclusiveness, and to enhance diverse community music (Saunders & Welch, 2012; Veblen, 2007).

Vignette 4: Marybank Year 1 Teacher Laetitia Pickering

Laetitia Pickering, also a member of the Year 1 teaching team, had recently returned to full-time teaching but had been teaching for many years in various full-time, casual, and co-teaching contexts. Laetitia had a special interest in social–emotional learning and student wellbeing and had taught music, dance, and drama as a part-time "release from face-to-face" teacher. She had most recently taught across early and middle primary years classrooms. Her mother who had been a high school English teacher had instilled a love of literature and reading.

Laetitia described herself as a teacher who loved collaborating with other people and learning new things, which was why she was interested in being a part of the research project. In answer to what matters in her teaching practice, she answered,

Relationships. Relationships with the kids in my class but also with other teachers.

Primarily, I want children to want to come to school, to be busting through the door. Obviously, I want kids to be learning on whatever trajectory they're on at the time. I think it's important to make sure that a lot of the teaching centres around their interests and their needs, so there's a bit of a balance there.

(Pickering, TI1.2019)

Laetitia's approach to teaching writing also seemed consistent with her teaching philosophy, which was focused on the importance of relationships. Her approach was centred on the personal one-to-one support and guidance she could provide as the teacher:

I'm doing my own personal inquiry on feedback and giving kids good feedback to move them to the next level. So, what I'm working on with writing is to really give them a goal for writing, not just say, "You're free writing today" for example, or "You're writing a story". But I might give them a goal for whatever the topic is. So, talk to them about the goal of capital letters at the beginning and full stops at the end; it might be a grammar related thing. It might be words to describe your character if it's a story. (Pickering, TI1.2019)

Laetitia expressed a sense of feeling overwhelmed by the needs of a younger class. She said she had never had to teach a younger cohort as "a whole class" before recently returning to full-time teaching. She described the younger age group and diversity of needs as "a constant battle".

The variations in students' abilities. To cater to the needs of those kids who need a lot of support and find writing challenging but then also having the time for the other kids who deserve your attention as well and to push them to the next level, given that you are having to work with kids who don't have as much independence. (Pickering, TI1.2019)

To deal with this demand, she structured her writing classes as an introductory "mini lesson" for the whole group and then worked closely with the "struggling" writers: "I do find that a lot of my time is taken with sitting with those children who do need a lot of that one-on-one support" (Pickering, TI1.2019).

One outcome of the study was that in post-study interviews, some teachers spoke of grammar more confidently:

Our [grammar] outcome [prior to the study] is generally just sentence boundary punctuation but we did so much more. They're using that metalanguage of

grammar. We were talking about that all the time. They were talking about commas, apostrophes, adjectives and nouns. (Pickering.TI2.2019)

Laetitia, who had learned a “tiny” amount of piano, played “a little” clarinet as a child, and felt comfortable enough to sing at choir, saw the potential of a music–literacy connection:

I think it sounds fabulous. I can definitely see, you know ... I wish I was already doing it. It just reminds me ... all that poetry and rhythm and rhyming, and all that kind of stuff that you do, I just wish I did more of it. It [this study] might stimulate some more ideas. (Pickering.TI1.2019)

When asked if there was anything the teacher of literacy might learn from the music teacher, she said, “There are lots of opportunities for rhythm and rhyme and playful songs. Just incorporating music into the day. There might be all sorts of spelling links too” (Pickering.TI1.2019).

In the post-study interview when reflecting on the framework, Laetitia mentioned that the model text had been an aspect that was beneficial for students and in perceiving a music–language link:

It was a great opportunity to focus on one text. It was good to consider the text at the word level and sentence level and really introduce some things I hadn’t had the opportunity to do this year ... really being cognisant that there is that pattern that there’s a melody to it and then really drawing out all of the different elements. I did that more in this activity than I do, and that I have done [previous to the study] this year with Year 1s. (Pickering.TI2.2019)

Laetitia also expressed that drama had been a key aspect of benefit for the students in terms of drawing out student development of their vocabulary for writing:

I think if you use this framework over and over, they will become better at really focusing in, like, “How do I want my character to move?” They didn’t know how

to say it. We were trying to get them to be as specific as they could be.

(Pickering.TI2.2019)

On whether she felt there was a language–rhythm connection and whether this could be applied by generalist primary teachers, Laetitia commented, “There is definitely the connection there” (Pickering.TI2.2019).

On experiences working with the framework overall, Laetitia commented that time was needed to adapt to the framework and to incorporate the elements rather than to treat them separately: “We were possibly trying to do too much and think about writing as the end product” (Pickering.TI2.2019).

For Laetitia, the strength of the framework was the engagement of students and, like Alicia, the sense of play that was inherent in the approach. The drama elements were a key element of this, and it was noted that this element helped to lift domains of writing such as vocabulary:

I did enjoy the children experiencing a more active component of the lesson. It added another dimension and made them more playful about writing because a lot of times when you say you’re going to do writing, they groan. It was fun to watch, and it was fun to see how they incorporated that sort of dramatic element to it and they liked working, they were collaborating to begin with, so they enjoyed that. (Pickering.TI2.2019)

When reflecting on differences to their usual approach to writing, there was a concern that the students had not written as much as they usually would:

In terms of quantity of writing ... that’s something you couldn’t sort of compare with your normal writing lesson I suppose, because you were only looking at a sentence, and then innovating on that. We weren’t writing a chunk or a page. The first and second lessons, we got a sentence and that was a collaboration, really

working on the patterns. The second lesson was a short character paragraph. For the final writing piece, we're expecting four or five sentences. (Pickering.TI2.2019)

Summary of Teacher Vignettes

Through an analysis of teacher interviews, teacher lesson planning, lesson transcripts, and a review of teacher lesson reflections, several themes emerged. These included an increased variety of approaches.

First, teacher responses illuminated a common view among teachers that there was benefit in employing a range of approaches in the writing classroom. The view was that writing experiences should be varied and should attend not only to the diverse needs of students, but also to the various stages of the writing process and development.

Prior to the study, the writing practices that were common to all Year 1 literacy teachers included teaching mini lessons, student conferencing, and daily independent recount writing. By the end of the study, teacher practice in teaching writing had expanded to include teaching writing using a model text, sentence construction, peer writing experiments and feedback, rhythmic clapping to highlight syntax and linguistic qualities of the text, shared choral reading to focus on vocabulary, punctuation markers, and drama through readers' theatre and peer character development used to develop writing ideas and to expand vocabulary.

The view that a variety of quality approaches used in the teaching of writing is beneficial is supported by a number of research findings (Graham et al., 2007, 2012; Hillocks, 1986; Loudén et al., 2005). For all the teachers, particularly Laetitia, Danielle, and Victoria, the mid-phase practices were "important groundwork" (Kelly.TI2.2019), but the teachers also saw the need to move on as students were ready for the next cycle of learning. This may seem to confirm a Whiteheadian view that as we learn, we have an "appetite" for recurring and ever-shifting cycles or rhythms as we discovered in the study.

Second, some teacher responses suggested a particular teaching philosophy or teaching background and experience regarding teaching writing and its domains. In particular, a key tension between “play” and “competence mastery” was observed; however, interestingly, all the teachers expressed a kind of joy in watching the children engage and enjoy the music-inspired writing approaches. There was also a recognition that playful approaches could in fact be a key way to support students to build their confidence, competence, and mastery of writing.

Third, teacher comments revealed a common sense of hesitancy regarding teaching grammar more than any other linguistic or writing domain. Teachers tended to have a traditional view of grammar as being a set of rules only, although by the end of the study, there were signs that a “metalinguistic awareness” (Myhill, 2012) or “language awareness” (Andrews, 2007) view of grammar was emerging.

Fourth, comments revealed a sense that the teaching and learning of writing was difficult or challenging. And last, teachers’ comments revealed their views regarding the viability and experience of working with the LIRIC framework.

There is another lens that could be applied here in thinking about the way teacher views are discursively constructed. Locke (2015) suggests four categories that dominate the ways teachers view English pedagogy and the role of teachers in writing education. Locke’s four categories each feature a particular emphasis: a “cultural heritage” view, a traditional view that values “precious texts” and specialist literary knowledge; a “personal growth” or progressivist view that emphasises the individual’s interaction with literature as a way to make sense of the world; a “rhetorical or textual competence” view emphasises mastery of forms and textual practices; and “critical practice”, a view that emphasises the ways language positions oneself and others in the world, within particular roles and structures of society.

Locke’s stated categories (2015) provide a general orientation to a particular set of observed practices and suggest that even though teachers may draw on a range of discourses, one or two discourses will tend to be more prominent in their approach to literacy. Seen in this light,

teachers involved in this study tended to express either a “personal growth” or “rhetorical competence” discourse. However, their stated aims began to blur and adapt as they navigated through the study as a collaborative team, and as they influenced one another in pedagogical negotiations. Even though their statements regarding personal pedagogy seemed to be incompatible in some ways, in practice, there was general agreement on what their students needed within each iteration and about what was needed next. They seemed to be conscious of a need for balance.

One discourse category that might also be considered as an addition to the perspectives Locke provides might be an “aesthetic view”—that is, a sensory discourse about composition across the arts. This view appeared to be expressed by the music teacher, who described the grammar and language of the students throughout the study as ‘beautiful’, associating these gains with the music-inspired approach. In music education, the concept of “music for music’s sake” relates to the idea of enjoying music purely for its aesthetic qualities and is a discussion particularly pertinent to the early years setting (Barrett et al., 2018; Bautista et al., 2022; Kirby et al., 2022).

This view appears to be relevant to this study as it was evident that, through the course of the study in using a music lens to explore writing, an aesthetic discourse emerged. It was articulated most by Victoria and by Laetitia, but also by the students. The aesthetic view emphasises the sensory elements of the artform, enjoys the scope of what the tools of the artform can create, and views the composer/artmaker as one who experiments with these aesthetic tools to construct meaning, to convey an idea, or to produce an emotive impact. An aesthetic view sees the aesthetic materials and elements as being pivotal to the intended message. Furthermore, the composer makes aesthetic choices with the tools available. The composer’s choices are not right or wrong but are often a matter of taste, or viewpoint, and are concerned primarily with which approaches may be most effective in achieving a sensory response.

This idea seems to relate back to Whitehead's observation of the central place of what he called "romance"—a state of joyful exploration—to the educational process. The themes emerging from the teachers' experiences of using the music-inspired LIRIC approach for writing highlighted that beauty and joy (aesthetics) and of play (creative exploration and experimentation) were the most valuable elements. It could be argued that these elements were made possible primarily because of the music-rhythm perspective.

Conclusion

Through an analysis of teacher experiences working with the LIRIC framework at Marybank—including teacher pre- and post-study interviews, teacher lesson planning and lesson reflections, lesson observations and framework iterations—a picture of the scope and legitimacy of the framework began to emerge. Key practices to emerge from the study are outlined in Chapter 8. The teacher implementation, planning examples, and interview comments suggest that the design has merit. Viewed together with students' results, as outlined in Chapter 7, these confirm the potential of the LIRIC design for other contexts.

Chapter 7.

A LIRIC Framework for Writing at Marybank School

Part 2: Student Experiences

Children can play with language like a musical theme;
they can transform its tempo, melody, volume, or medium.

—Anne Haas Dyson

In addition to understanding the teacher participant experiences of the LIRIC framework, as outlined in Chapter 6, an examination of a range of student outcomes was important to understanding its potential value and impact. Chapter 7 provides an analysis of a range of student data designed to give a holistic view of student experiences and outcomes. Using several lenses, the analysis includes an examination of pre- and post-study interviews and mid-study lesson observations, an in-depth analysis of some students' writing samples collected throughout the study, and an assessment of comparative growth determined from pre-, mid-, and post-study writing samples.

Background

Thirty-seven Year 1 students participated in the study at Marybank Primary School. Twenty-five students provided both pre- and post-study writing samples. Of these, 13 students were also available to give student pre- and post-study interviews. The selection of participants was determined by the number of students who were present at school on days when the study samples were collected and whose parents had given their permission for each of these aspects to be provided. Students were taught across four classes taught in two larger joined classes. The teachers included one music teacher and three generalist class teachers. The Year 1 teachers cotaught five writing lessons across 6 weeks, using repeated interactions with a model text *My*

Dad by Anthony Browne and music-inspired pedagogical practices adapted for the writing classroom.

The practices, as outlined in Chapter 5, included a number of key elements. First, there was an emphasis on oral–aural listening and responding activities through imitation or rehearsal of the text, through readers’ theatre and other experiences where an appreciation for the linguistic musical and prosodic qualities were emphasised; even so, students were able to recite the text “like a rap” (Kelly.TI2.2019). Second, embodiment (Orff) or physicalising (Kodály) through drama, gesture, and clapping were features that were used to again make oral language a key feature of the writing classroom where linguistic rhythms could be appreciated specifically to encourage experimentation and which led to signs of more confident writing. Third, experimentation and play were also emphasised through these processes as a means of developing student confidence and agency also experienced through writing experiments, where student peer writing pairs played with sentence models taken from the model text.

Teacher Predictions

I explored the framework in a series of microphases as the teachers refined the emphases they thought were best suited to the student needs at each stage of the research. As the timeframe for the research was very short, teacher participants predicted that any observable or measurable student outcomes were likely to be limited. In addition, as outlined in the description of this study, interaction through listening, oral language, and experimentation were key features of each framework iteration designed to emulate the principles of Orff and Kodály music composition classes. As such, while it was anticipated that oral language and language awareness would contribute to longer term writing and grammar improvements, immediate signs or leaps in improvement in the short term were not necessarily expected in the timeframe.

Choral readings, readers’ theatre and pair writing experimentation activities meant that lessons did not feature extended individual student writing. For literacy teachers, it was a

counterintuitive way to conduct writing lessons and, as outlined in their interview responses, teachers commented that the interactive aspects, while enjoyable for the children, were a departure from their usual writing lessons. They also expressed that the approaches used had been particularly useful for some students but were not sure about the impact on all student participants.

Teachers expressed a concern that students were not completing as much extended writing as they normally would, and it led them to doubt whether substantial growth could be demonstrated in the post-study samples. In other words, while the teachers acknowledged that the LIRIC elements as they had been explored in the study were “fun” and “interactive” for students (Pickering.TI2.2019), teachers held an underlying belief that because repeated opportunities for extended independent writing had not been provided, as would normally be the case, this might lead to less improvement demonstrated in the final writing samples.

Teachers further commented that the experiential and oral–aural nature of these approaches meant teachers had limited visible evidence of writing progress, usually gained through analysis of extended writing pieces. These would usually enable teachers “to track” student development (Pearn.TI2.2019). Therefore, teachers were particularly curious to see what the pre- and post-study writing samples would show as important markers of progress. However, it would also be important to examine a range of mid-study writing samples and student interview responses to build a picture of student experiences throughout the study and to track student development, so that in addition to the pre- and post-study samples, a clear picture of what gains and how these may have been acquired could be understood.

Student Data Analysis

To determine specific domains of writing that were impacted in the study and the degree to which this may be the case, student data were examined using a range of measures. Students’

writing identities as well as their writing capacities were examined and discussed through several lenses to provide a basis from which qualitative interpretations can be made.

The first lens, a qualitative and appreciative lens, provides an in-depth, holistic analysis of a small focus group of three students. It gives an in-depth view of student outcomes and experiences of the LIRIC framework and provides insights into the nature of the development of students' writing identities over the course of the study, as it examines a number of the students' writing samples, student interview responses, and teacher and researcher observations.

Within the study of focus group students, three data analysis approaches are used: first, an analysis of student interview responses to determine patterns, categories and then themes or “aggregate dimensions” (Braun & Clarke, 2006, 2012, 2020; Wæraas, 2022) a process that was described in Chapter 5. As described in the previous chapter, an analysis of the students' developing sense of agency was also key. Second, a moderation of writing samples using Australian Curriculum writing portfolio samples in the ACARA-prescribed categories (“below”, “satisfactory”, and “above”) allowed comparisons to be made against multiple year-level samples. Finally, by applying Australian Curriculum: English indicators to both the focus student writing samples and interview responses in order to determine the curriculum levels achieved as observed prior to, during, and following the study.

The second lens, the Writing Analysis Tool (Mackenzie et al., 2013), was used to analyse 50 pre- and post-study writing samples at Marybank from 25 participating students. This assessment tool was selected for its capacity to provide a fine-grained analysis of aspects of writing and because it is specifically designed for use with Year 1 students in Australia.

The tool has been favourably reviewed by other researchers, including Canadian researchers, Friedrich and colleagues (2019), who have shared a similar interest in creating an assessment tool, to review the growth of oral language in play-based settings Ontario. Unlike some standardised test tools, Mackenzie and colleagues' (2013) Writing Tool instrument was developed in a grounded theory approach to identify common features of writing in Year 1.

Furthermore, because of the nature of the tool's use in subsequent research studies (Mackenzie, Scull & Bowles, 2015; Mackenzie, Scull & Munsie, 2015; Mackenzie & Scull, 2016, 2018; Scull & Mackenzie, 2017; Scull et al., 2020), Marybank's results can be contextualised within broader Australian data, to include ICSEA and EAL/D¹³ considerations. Furthermore, the tool provides a means with which to measure not only aspects of interest in this study, such as linguistic grammar, but also what unintended impact the design intervention may have had on other aspects of writing.

While numerical data from the Writing Analysis Tool provide a panoramic view of apparent student gains achieved over the course of the study, the data provided by the tool is indicative only. In each domain section, a discussion of the results gives greater clarity and context so that the significance of the results can be understood. The tool was also not useful for analysing formative mid-study "writing experiments", where textual and other features could not be determined in the same way as extended pre- and post-study writing samples.

Student Participants

Thirty-seven students participated in the study's weekly writing lessons over the 6-week study duration. Weekly lessons were 45 min each, with some lessons requiring additional time to allow students to complete extended writing activities. Participating students were taught across two classes by the co-teaching partners. Students in this broader group were observed, photographed, and filmed during lessons by the teachers, and some active student writing samples or "writing experiments" were gathered to build an overall picture of student experiences of the LIRIC framework study.

Due to factors such as participation consent constraints and absence on the day of sample capture, the total number of students who provided the pre- and post-study samples for

¹³ EAL/D is an acronym used to refer to English as an additional language or dialect, a term used in the Australian Curriculum.

analysis was 25, which included 13 girls and 12 boys. Of the 13 interviewed a closer in-depth analysis of the responses and writing samples of three of these students.

Around 20% of the students overall were from language backgrounds other than English, indicative of the proportion of EAL/D students in the broader school population (27%).

Language origins included Thai, Filipino, Japanese, and Chinese. The school's emphasis on music meant that all students had some experience in learning music. This included experiences with school choirs and in instrumental and band opportunities.

Focus Group Students

Eleven focus group students were selected by Marybank teachers to reflect varying abilities and backgrounds. These 13 students participated in interviews as well as providing pre-, mid- and post-study writing samples.

Of these students, six were female and five were male. Students with significant learning needs, which included students with exceptional literacy strengths, were not included in the focus group to ensure results would be indicative of a range of similar Year 1 students elsewhere. However, students from language backgrounds other than English and who were not considered to have significant literacy needs were included among the focus group.

All students in the focus group made gains according to the writing tool results. Overall, across all dimensions measured by the writing tool, two students from the focus group made limited gains (fewer than 3 points), four students made moderate gains (above 3 points but less than the average), and five students made substantial to significant gains (more than 5 points across the six domains). This means that among the focus group, more than half the group made moderate to significant gains.

In initial interviews, focus group students often described writing as a “thinking” task that supported their learning and may have been a reflection of writing practice at Marybank, where writing in Year 1 was mainly practised through a daily journal used to reflect on personal free-

choice investigations. Yet in the students' interview responses towards the end of the study, there was a shift so that rather than seeing writing as a tool to assist other learning, students became focused on the process of writing itself and on their choices as authors. A sense of developing agency was expressed as they articulated a sense of control and choice over the elements of the writing process and the various aesthetic effects they had the power to create.

Three students from the 13 were further selected by for closer writing sample and interview analysis. These students were selected using the following criteria: to provide a gender mix, to represent a range of students who had made limited to substantial gains identified through the Writing Analysis Tool (henceforth WT) results, and students for whom mid-study writing samples were available, where possible. Mid-study samples provided a clearer picture of writing development throughout the study.

Analysis of these three students' work across the study revealed beyond grade outcomes. Furthermore, these aspects were indicative of other students in the focus group. These features were also evident in writing samples across the wider cohort of students, and are indicative of the LIRIC teaching approaches used in the study as evidenced in lesson plan notes and reflections.

Accelerated curriculum aspects included metalinguistic elements, including text genre awareness, grammar (syntax variation), punctuation, self-editing, and vocabulary. The WT analysis showed moderate to significant gains in these areas. All focus group students identified music and language links and expressed or demonstrated awareness of the link in interviews.

Focus Student 1: Noelle¹⁴

Noelle was a Year 1 student with a language background other than English who made significant gains in her writing over the course of the study. Her post-study writing demonstrated a text length gain that was ninefold the original pre-study sample. However, her development in writing, as charted through samples gathered over the study, also demonstrated noticeable gains

¹⁴ All students have been anonymised through the use of pseudonyms.

in handwriting fluency (smaller script, signs of greater ease of style), complexity of language, varied sentence structure, imitation of literary and punctuation features exemplified by the model text, increased instance and apparent control of text through self-editing, and experimentation with features of the model text.

Noelle made substantial gains as identified through the WT results, where she lifted her results by 11 points over all six dimensions. The two most improved aspects of writing according to the Writing Analysis Tool results were in sentence-level grammar and punctuation. Noelle also made substantial improvement in text structure, vocabulary, and spelling.

In the post-study interview with her teacher, Danielle, Noelle was identified as a student who was predicted to make significant gains due to class observations. Noelle's mother had also contacted Danielle during the study to comment on Noelle's gains and increased interest in writing at home. Noelle's mother recognised features of the LIRIC writing approach in her daughter's free choice writing at home.

Noelle's writing samples, when analysed in comparison with Australian Curriculum portfolio samples, lifted from a "below satisfactory" standard for her pre-study sample to an "above satisfactory" Year 1 level standard in the post-study sample. The post-study sample also compared favourably to "satisfactory" and "above satisfactory" Year 2 portfolio samples.

Overall, Noelle articulated that vocabulary, punctuation, and text length had improved in her writing, which was confirmed from an analysis of her writing samples. Her teachers also confirmed that Noelle's writing had significantly improved and that vocabulary and punctuation were aspects where the most gains had been made across the cohort.

Interviews: Noelle. Noelle was quite shy in interviews and answered with one-word answers or short phrases. However, Noelle was clear when expressing her ideas and described herself as a "strong" writer in the first interview.

Noelle explained that she liked writing and mostly liked to write about daily "investigations", free-choice student learning explorations (Noelle.SI1.2019). When asked about

her usual topic for writing, she answered that she liked to write “about [her] week”, which suggests that her writing usually took the form of a factual recount. In response to a question about what helped her most when she was writing, Noelle responded that it was “Talking with [her] teacher about [her] weekends” that helped her most (Noelle.SI2.2019.)

Noelle also commented that she liked writing because she used it “to help [her] think” when reflecting on investigations. When first asked about the model text, she was keen to offer her own variations on the text: “We’re as big as a giraffe and we can eat like a giraffe” (Noelle.SI1.2019.). Evidence of Noelle’s awareness of language features from the text were also demonstrated as she suggested she could write “Brave as a bird” to describe her friend. (Noelle.SI1.2019).

In the post-study interview, Noelle was descriptive about what she had learned and how she thought she had developed in her writing. When describing what the class had been doing in the LIRIC writing lessons, Noelle said,

A: We’ve been writing about our own characters. ... Punching out the full stops.
(Noelle.SI2.2019)

Q: How did that help you? What did that help you understand about full stops?

A: When a sentence makes sense. (Noelle.SI2.2019)

Q: Did it help you with your writing?

A: Yes. (Noelle.SI2.2019)

Q: Do you think you’ve improved your writing?

A: Yes. Writing more, by thinking about more stuff to write. (Noelle.SI2.2019)

Q: What do you feel more confident with now?

A: The words. (Noelle.SI2.2019)

Noelle's responses offer insights about her developing strengths as a young writer and her developing writing identity. First, it was clear that while the factual recount was a genre most familiar to her, Noelle was quickly able to imitate and adapt literary features from the model text for her writing. It was clear from her mid-study samples and from writing she was doing at home that the model text offered a helpful tool to give her ideas to help her structure and format her writing ideas. As in Orff and Kodály approaches, the imitation of patterns and models allows them to be internalised and can guide explorations and improvisation (Sarrazin, 2014).

Learning about punctuation from the text had also helped Noelle to connect punctuation with grammatical aspects, particularly for syntax. However, in the final writing sample, Noelle was also able to use these patterns when it suited her purposes but could move beyond these to write in her own style and format.

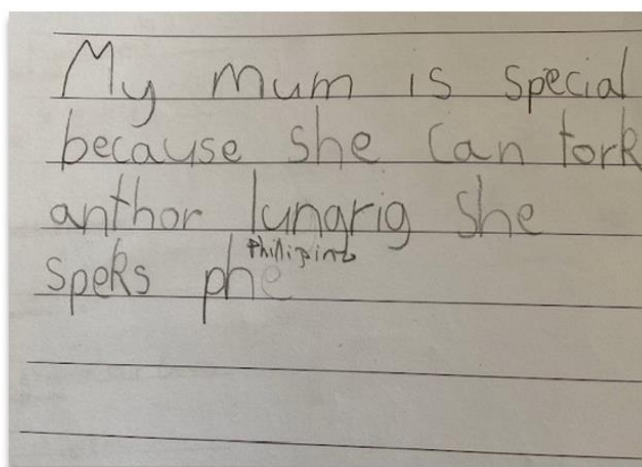
In interviews, the student demonstrated that she had achieved and was beginning to move beyond Year 1 level achievement standard aspects. Noelle was demonstrating a Year 2 achievement standard, including being able to “listen for and manipulate sound combinations and rhythmic sound patterns” as well as “identifying text structures and language features” both from the model text and in her own writing (ACARA, 2014b).

Writing Sample Analysis: Noelle. This first study sample was gathered after the first demonstration lesson which I had provided to the cohort and after a reading the text. These conditions were the same for all cohort ‘pre-study’ samples.

Noelle's Pre-study Writing Sample. This is 12 words long (see Figure 7.1). Though the text is short, it demonstrates some of the student's developing strengths. The text demonstrates an awareness of complex words, and Noelle attempts unknown spellings, making close approximations.

Figure 7.1

Australian Curriculum Writing Work Sample Analysis: Noelle (Pre-study)



Text: My mum is special because she can tork anthor [another] lungrig [language] she speks [speaks] phe [Filipino].

Text structure: Creates a brief text to convey ideas. Presents a fact to support her description.

Sentence-level grammar: There is noun–verb agreement. The text uses a complex sentence to link ideas and support a claim. Uses conjunction “because”.

Vocabulary: Attempts specific terms, “language” and “Filipino”.

Spelling: Spells high-frequency words “my”, “mum”, “she”. Accurately spells complex words “special” and “because”.

Punctuation: There is one sentence boundary marker in the text with the capitalisation of the word “My”.

Handwriting: Neat, evenly spaced, consistently sized letters. Forms unlinked lower- and upper-case letters correctly.

Overall: The text has the features of a “below satisfactory” to “satisfactory” Year 1 writing sample.

Note. This text was moderated using Australian Curriculum: English Year 1 work sample portfolios.

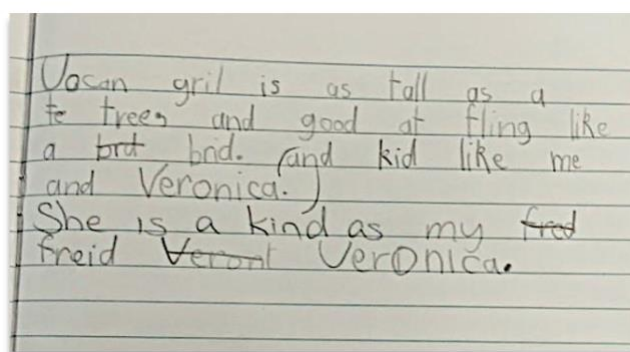
Noelle pays close attention to neatness. However, the writing appears laboured, with large lettering and instances where letters have been rubbed out. These aspects may have made writing quite a slow process and is perhaps a reason the text is quite short. It appears that the word “Filipino” was difficult and instead of having a go, she has languished on the word and run out of time. Overall, Noelle’s pre-study writing sample is cautious, and she has not yet acquired fluency.

In a comparison of this sample with Australian Curriculum writing portfolio examples, the text demonstrates features aligned to a “below satisfactory” level but also has some emerging features indicative of a “satisfactory” level. The text’s length has not provided enough information to grade the text more highly. A key area for development appears to be fluency.

Noelle's Mid-study Writing Sample. Noelle's mid-study writing sample is an increased word length, double the length of the first sample. A notable shift in the text is the emergence of literary features where the student writer describes an imagined character and uses figurative language, including simile and hyperbole. These features demonstrate awareness of techniques used by the model author, Anthony Browne, but also demonstrates the student's capacity to adapt the technique for the purposes of her own writing, which she also shared in my interview with her (see Figure 7.2).

Figure 7.2

Australian Curriculum Writing Sample Analysis: Noelle (Mid-study Sample)



Text: Uocan [unicorn] gril [girl] is as tall as a tree, and good at fling like a brid [bird]. (and kid [kind] like me and Veronica.) She is a [as] kind as my freid [friend] Veronica.

Text structure: The text sustains a description of the subject, providing four ideas in support. The text combines factual aspects with a more literary style to write about an imagined character.

Sentence-level grammar: Similes are used to build a vivid description. The writing features compound sentences.

Vocabulary: Verb tenses are used appropriately ("flying"). A complex word, "unicorn", is used. Proper nouns are apparent as are figurative language features such as similes.

Spelling: Uses a range of high-frequency words "good", "tall", "like", "she". Awareness of common morpheme ending "-ing".

Punctuation: Several sentence boundary markers are used as well as a range of other punctuation, such as commas and brackets.

Handwriting: Unlinked lower- and upper-case letters are formed correctly. There are several examples of self-correction.

Overall: The text has the features of a "satisfactory" Year 1 sample.

Note: This text was moderated using Australian Curriculum: English Year 1 work sample portfolios.

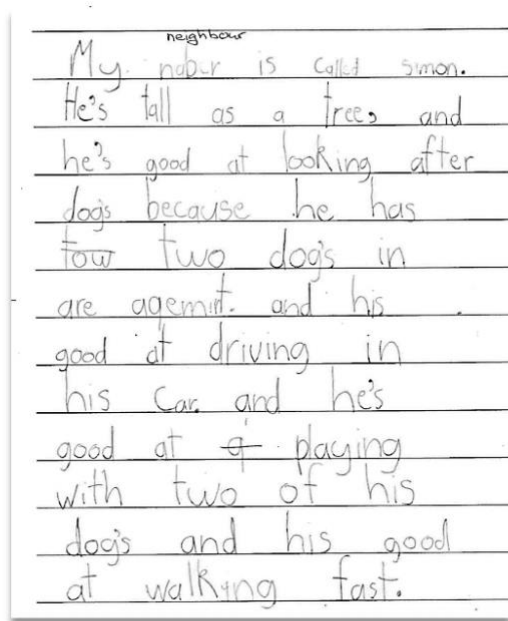
Another shift in this text from the pre-study sample is the emergence and variety of punctuation. As well as capitals and full stops, a comma and brackets are used. These changes are likely to have resulted from an explicit emphasis on punctuation features in LIRIC writing classes, as noted by teachers (see Appendices S–V). Furthermore, punctuation is used artfully, such as brackets used for a narratorial aside. This appears to be another example of the student’s adaption of a feature from the model text. For example, in *My Dad* (2003), the child narrator uses several narratorial asides to add the sense that there is some secretive or special information they are sharing with the reader. For example, the sentences “and walk on a tightrope (without falling off)” and “He loves me (and he always will)”. This feature also demonstrates a sense that the writer is aware of the audience and can speak “directly” to them.

Finally, there is added fluency in the student’s writing, with smaller lettering and more attempts at difficult spelling. Self-corrections are done through crossing out this time, and she has had time to complete her ideas. The inclusion of self-corrections may be the result of in-class writing experiments where teachers actively encouraged this, as noted in teacher lessons and reflections (see Appendices S–V).

Noelle’s Post-study Writing Sample. This is only an excerpt of the full text (see Figure 7.3.). It was approximately 115 words long, almost nine times the length of the first sample. This text sustains a lengthy description of the subject in sentences that build a portrait of the character to indicate both the seen and unseen characteristics and qualities of the character and is also an explicit aspect of the teachers’ lessons (see Appendices T and U). The text incorporates facts about the subject but also uses literary features, such as “tall as a tree”. The student has not overused this aspect and, while she has imitated some features of the text, has also written in her own style and structures.

Figure 7.3

Australian Curriculum Writing Analysis: Noelle (Post-study Sample—Excerpt)



Text: My naber [neighbour] is called Simon. He's tall as a tree, and he's good at looking after dog's [sic] because he has two dog's [sic] in are [our] aqemint [apartement]. And his [he's] good at driving in his car. and he's good at playing with two of his dog's and his [he's] good at walking fast.

Text structure: The text demonstrates awareness of the audience and demands of the genre using a topic sentence to introduce the character. The text explains the writer's relationship to the character. The text sustains a long description, providing at least eight connected ideas. The student combines factual and literary features to build a portrait of a real character.

Sentence-level grammar: The writer uses a mix of simple, complex, and compound sentences. Ideas are connected with conjunctions, e.g., "because".

Vocabulary and spelling: The writer uses sophisticated figurative language extensively such as simile comparisons. Specific vocabulary is used ("apartment", "neighbour"), and there is inclusion of a proper noun for specific people and places.

Punctuation: Sentence boundaries are correct and experimentation with others (apostrophes, contractions, commas, proper nouns).

Handwriting: Handwriting appears to be quite fluent, is smaller, but still neat. The writer self-corrects for punctuation, pronouns, and verb tense.

Overall: The text is indicative of an "above satisfactory" Year 1 sample, with features of "satisfactory" and "above satisfactory" Year 2.

Note. This text was moderated using Australian Curriculum: English Year 1 and Year 2 work sample portfolios.

Noelle's most improved domain according to the post-study WT results was "sentence structure and grammar". In the student's post-study sample, there is evidence of control over a mix of simple, complex, and compound sentences as would be indicative of a Year 3 standard, expressed in the curriculum descriptor code ACELY1682, "using appropriate simple, compound and complex sentences to express and combine ideas" (ACARA, n.d.-c).

The other most improved domain, punctuation is evident through a significant increase in the instance and scope of punctuation, including a comma at the end of a phrase.

There are many instances of experimentation of punctuation, showing a strong awareness of this writing feature. Word-level punctuation is evident, with apostrophes used correctly for contractions, for example, “he’s” but also incorrectly in plurals, for example “dog’s”. The contraction “he’s” imitates the model text where Anthony Browne uses it to create a sense of informality and the tone of a child narrator and also to create a sense of rhythmic flow to the sentence, which was discussed in LIRIC writing classes (see Appendices S–W).

The student’s use of contractions is a feature not described until Year 3 in the Australian Curriculum, where the content descriptor states that students will “Know that word contractions are a feature of informal language and that apostrophes of contraction are used to signal missing letters” (ACELA1480). By taking a rhythm approach to the linguistic features of the text, students like Noelle understood that there was a less formal and more appealing sound to the sentence with the contraction than “He is alright” would have created.

Another feature of Noelle’s mid-study and post-study samples is self-editing. This is not an aspect identified or measured through the Writing Analysis Tool; however, self-editing indicates that this writer is reading over her work and is beginning to understand that writing is an iterative process. This aspect of the text sample demonstrates several aspects of the Year 2 achievement standard, including the ability to “monitor meaning and self-correct using context, prior knowledge, punctuation” (ACARA, 2014b). It is also an aspect featured in the Year 3 content descriptor that students learn to “Re-read and edit texts for meaning, appropriate structure, grammatical choices and punctuation” [ACELY1683] (ACARA, n.d.-c). In addition to these aspects, the student’s repertoire of vocabulary has increased, with five times the instance of a range of verbs, adjectives, and nouns counted in the post-study sample compared to the first.

These features of Noelle’s samples where significant gains have been made—text length, sentence structure and grammar, punctuation, vocabulary, and self-editing—are indicative of increased competence as a writer but also of a developing sense of confidence and authorial agency. Overall, the post-study sample is exemplary of an “above satisfactory” Year 1 writing

sample when moderated by Australian Curriculum writing portfolio samples, with emerging signs of features of a “satisfactory” and “above satisfactory” Year 2 sample.

Focus Student 2: Dom¹⁵

Dom is a male Year 1 student with no significant language background or learning issues. Overall, Dom made limited to moderate gains overall according to the WT results, and yet a qualitative analysis of pre- and post-study writing samples shows that some features clearly developed over the course of the study.

A significantly improved dimension of Dom’s writing, according to the WT results, was text structure. Dom also made moderate gains in sentence-level grammar and vocabulary. Dom’s post-study text is also approximately three times longer than the first sample, and the increased text length is accompanied by an increased complexity, including in sentence structure and literary features. Dom did not score more highly in the sentence-level domain through the WT analysis as he did not always use correct sentence boundary markers. However, Dom showed a level of control over this aspect and experimented with a range of punctuation, a sign of the more advanced writers according to the WT criteria descriptions.

There was also an added sense of fluency in the handwriting of the post-study sample, with less laboured double markings and smaller text, and these may have contributed to the increase in text length. Overall, the post-study text demonstrated an added sense of confidence and flair with the text genre. The qualities of the post-study sample are also indicative of a more imaginative and literary style and has evolved beyond merely providing factual statements.

The text also uses features from the model text, using simile and contrast as exemplified by “as brave as a bear and as soft as my teddy”. Similar contrasting phrases appear throughout the student’s writing to mimic patterns from the text, which demonstrate his confident grasp of

¹⁵ Pseudonym.

the Year 2 content descriptor: “Innovate on familiar texts by experimenting with character, setting or plot” [ACELT1833] (ACARA, n.d.-c).

Interviews: Dom. Dom’s interview responses demonstrated a particular awareness of the linguistic rhythms of language, and he provided his insights about a music–language connection. He showed he could clap out sentences and could show that a sentence could be read differently to emphasise words in a certain way. He also made confident links between notation and terminology used in Kodály music classes and the terminology and punctuation used in writing.

Q: What have you been doing in class this week?

A: We had to do our own, like, *My Dad* thing, and me and George did it together. It’s a robot duck. (Dom.SI2.2019)

Q: Did you try to borrow any ideas from the text?

A: He’s a good break dancer. [Borrowed from the model text “He’s good at dancing”]. (Dom.SI2.2019)

Q: Do you think language is like music? And does language have rhythm, do you think?

A: Yep [confidently, and then thinking] because it sort of goes ... in a pattern, kind of. (Dom.SI2.2019)

Q: Can you show me the rhythm from a sentence in the book? Perhaps clap it out like you have been doing with your teacher.

A: [Clapping and saying the words] And as soft as my ted-dy [making the last two syllables skip more quickly, identifying that “teddy” was a “faster” beat]. (Dom.SI2.2019)

Q: What about the sentence you created? Can you clap that one out? [The student had more trouble doing this and demonstrated that applying the rhythm to a new situation was difficult.]

A: He's a great break dancer. (Dom.SI2.2019)

Q: Does punctuation create rhythm?

A: Kind of [pause to think]—Like [pause to think] the full stops are szas in music [a Kodály term] because it doesn't really say anything once we've stopped.

(Dom.SI2.2019)

Dom also identified that the “commas” inside a word (referring to the apostrophes) make the words and the rhythm shorter. Like Noelle, Dom demonstrated an attainment of Year 2 achievement standards in the interviews and writing samples to show that he could “listen for and manipulate sound combinations and rhythmic sound patterns” but could also “[identify] text structures and language features” in the model text and apply them to his own writing (ACARA, 2014b).

Like Noelle, Dom appeared to find the model text a helpful support to build his ideas and from which to build his own writing. In the final sample, this writer was also able to experiment with his own writing style and used the model patterns only to suit his purposes.

The text demonstrates some of the writer's strengths, including making sense and sustaining a description of the subject to support meaning. There is an expressive writer's voice in this text, with clarification provided in the last sentence, to imitate a structure from the book. In terms of grammar usage, there is correct noun–verb agreement and correct use of singular and plural nouns, and indicates a possessive noun with an “-s” ending. The student pays close attention to punctuation and correctness, with some signs of rubbing out. The student has made an attempt with a lesser known difficult word, including “neighbour's”, and high-frequency

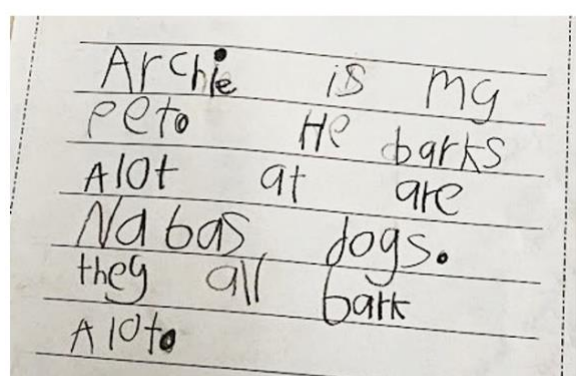
words are spelled correctly. The experience of writing appears quite laboured, though neat, with rubbing out and colouring-in of the full stops and dots.

Writing Sample Analysis: Dom. As for other pre-study samples, this sample was written after a first reading of the text and demonstration lesson.

Pre-study Writing Sample. This is 16 words in length. Dom's pre-study sample already demonstrates an awareness of the model texts. Dom is already improvising with patterns in the text such as the repetition for emphasis. For example, "He barks at our neighbour's dogs. They all bark a lot" (see Figure 7.4).

Figure 7.4

Australian Curriculum Writing Sample Analysis: Dom (Pre-study Sample)



Text: Archie is my pet. He barks A lot at are [our] Nabas [neighbour's] dogs. they all bark A lot [sic].

Text structure: The text sustains description of a subject, providing three ideas. Simple fact statements are given.

Sentence-level grammar: The text uses mainly simple sentences. Noun and verb agreement are correct: "He barks" and "they all bark".

Vocabulary: A proper noun is used as well as an attempt at a complex word "neighbour's".

Spelling: Spells a range of high-frequency words, "my", "dogs", "barks", 'they'. A sensible approximation for an unknown spelling.

Punctuation: Several sentence boundary markers are used correctly.

Handwriting: Unlinked lower- and upper-case letters are formed correctly. Writing appears laboured with signs of rubbing out and heavily coloured-in dotted "I"s and full stops.

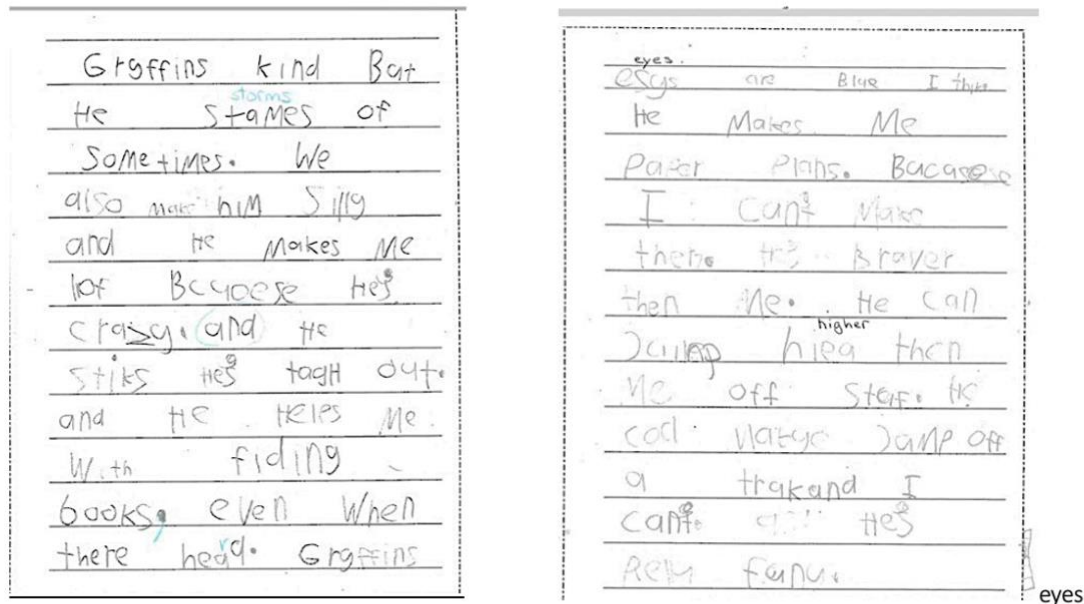
Overall: The text has the features of a "satisfactory" Year 1 sample.

Note. This text was moderated using Australian Curriculum: English Year 1 work sample portfolios.

Dom also demonstrates some attempts with a difficult word, i.e., "neighbours". Yet, Archie's first writing sample also seems laboured. Like Noelle, the pencil is applied heavily and the full-stops and dotted "I's" are coloured in, perhaps indicating there is not yet an easy 'flow' or fluency in his writing.

Figure 7.5

Australian Curriculum Writing Sample Analysis: Dom (Post-study Sample)



Text translation: Gryffin's kind but he storms off sometimes. We also make him silly, and he makes me laugh because he's crazy and he sticks his tongue out and he helps me with finding books, even when there [they're] heard [hard]. Gryffin's

are blue, I think. He makes me paper planes because I can't make them. He's braver than me. He can jump higher than me off stuff. He could maybe jump off a truck and I can't. He's really funny.

Text structure: The text sustains description of a subject, providing at least eight supporting statements.

Sentence-level grammar: The text uses a mix of simple, compound, and complex sentences. He justifies statements with conjunctions "because" and "even when".

Vocabulary: A proper noun is used, as well as attempts at more complex and specific words ("paper planes", "tongue"). There are also emotive phrases such as "storms off" and evaluative words such as "crazy" and "kind". Words to provide justification such as "even when" and "because" are also used. The text draws upon a far greater range of descriptive phrases and vocabulary to describe the subject.

Spelling: Spells a range of high-frequency words ("my", "dogs", "barks", "they"). A close approximation for an unknown spelling.

Punctuation: Several sentence boundary markers are used correctly.

Handwriting: Letters are mostly correct with some capitals used in place of lower case. Writing more fluent with smaller lettering.

Overall: The text has the features of an "above satisfactory" Year 1 sample with some features of a "satisfactory" Year 2 sample.

Note. This text was moderated using Australian Curriculum: English Year 1 and Year 2 work sample portfolios.

Dom's Post-study Sample. This is approximately 72 words in length. It is four and a half times the length of the original pre-study text. The text structure is quite clear and maintains meaning. This domain was identified as the most improved aspect according to the WT analysis. The text includes an orientation with a topic sentence, and there is a sense of audience. The structure also provides sequence and development of the subject.

Perhaps the most significant aspect of the text evident is an increase in the instance and scope of emotive and figurative language used in the post-study sample. Though these are described as features of Levels 5 and 6 in vocabulary through the WT analysis, the use of proper place names is required to score 3 or higher. Yet in this sample (see Figure 7.5.), the language creates a strong sense of the author's relationship with the subject and demonstrates a confident grasp of the Year 1 achievement standard, to "understand how characters are developed", and the capacity to "make connections to personal experience when explaining characters" using appropriate "language features and vocabulary ... to describe characters" (ACARA, 2014a).

The text also demonstrates features emphasised in the Year 2 content descriptors, including "exploring how language is used to construct characters ... including choice of nouns and choice of adjectives" [ACELA1462] (ACARA, 2014b).

The writer uses language of comparison—for example, "braver" and "higher"—to describe the character. He uses precise nouns such as "paper planes" and uses a metaphor when describing that his character sometimes "storms off". The writer also uses a range of modal auxiliaries such as "maybe", "sometimes" and "really".

The writer also takes risks with the spelling of more complex words, and he makes reasonable approximations with difficult words like "tongue" and "higher". Furthermore, the writer demonstrates the use of more complex and compound sentences indicative of a Year 2 level with the capacity to "understand that simple connections can be made between ideas by using a compound sentence with two or more clauses usually linked by a coordinating conjunction" [ACELA1467] (ACARA, 2014b).

Another key feature of the text is that punctuation is significantly increased with the introduction of contractions “he’s” and “can’t”, which also imitate the model text. Like Noelle, Dom is operating within the Year 3 curriculum indicator: “Know that word contractions are a feature of informal language and that apostrophes of contraction are used to signal missing letters” [ACELA1480] (ACARA, n.d.-c).

In the post-study text, the student exercises considerable control within his developing powers as a young writer to build a more complex and vivid description of his subject. He seems to have become aware that he has choices available to him as an author.

Focus Student 3: Jack¹⁶

Jack presented as a confident Year 1 male student who did not experience any significant literacy challenges. Jack’s spoken English revealed an extensive vocabulary and became more evident in his final writing samples. He identified a preference for using drama to help him “think”, and he could see a link between writing and music from the outset, especially in the link apparent through rhyming and poetry.

Jack’s pre-study writing sample was an above average text when analysed according to WT results, and also according to a moderation of the text against Australian Curriculum writing portfolio samples for Year 1. Yet Jack still made substantial gains overall throughout the study according to Writing Analysis Tool results. His overall gain of 5 points was indicative of average gains (5.16) made by students across the cohort. Jack made significant gains in the domain of punctuation but also made substantial gains in text structure and spelling, and moderate gains in sentence structure and vocabulary. Jack’s post-study writing sample also increased in text length threefold in comparison to his pre-study sample.

¹⁶ Pseudonym.

Interviews: Jack. In interviews, Jack appeared to enjoy writing and seemed to have a ready grasp of a language–music connection. He also seemed to find the features of the model text were helpful to gain ideas as a writer.

Q: How would you describe yourself as a writer?

A: I'm quite fast. (Jack.SI1.2019)

Q: Do you like writing?

A: Yes. I like how you can turn poems or basically any kind of writing into a rhythm. I just listen to the way that they're speaking and try to get a rhythm on the drums. (Jack.SI1.2019)

Q: Do you hear rhythm in the text?

A: Sometimes you stop and then you read the next part of it. "He's alright my dad." He's as big as the Earth and everything else. (Jack.SI1.2019)

Q: What helps you the most when you're writing?

A: Sounding out the words. I look at something and I try to draw it. So, I look back in my head and I see what I was trying to write, and I write about that. (Jack.SI1.2019)

Q: Did you find it helpful to act things out to help you with your writing?

A: Yes. It makes it understandable. I can look at something and try to make it funny like a comedian, I can do that to it. [Without drama] I might get a bit stuck and confused. I like to read poems and rhyming stories. They're inspirational to me, like I said I can make a beat. I don't like to write them [poems] but my brother does. (Jack.SI1.2019)

Q: Was *My Dad* like a poem?

A: Some of it was but not all. (Jack.SI1.2019)

Q: Can you finish these sentences from the text?

Prompts with responses:

He's alright ... *"my dad"*. He's as daft as a ... *"brush"*. He's as wise as ... *"an owl"*.

He's as strong as ... *"a gorilla"*. He can swim like a *"fish"*. He eats like a *"... horse"*.

"He's as big as a house." (Jack.SI1.2019)

Q: Can you create your own ending?

Prompts with responses:

He's as strong as ... *"a crocodile"*. (Jack.SI1.2019)

Q: What have you learned from reading *My Dad*?

A: I've learned some ways of describing people. I find I use a lot more punctuation. The pattern that I usually find is ... I use "and" and then I usually use another one and then I use "and" again [laughing]. (Jack.SI2.2019)

Q: Have you become better at creating longer sentences?

A: I already was good at that. Sometimes I made mistakes, and do you know what I did, instead of putting in full stops for really long sentences, I just kept putting in "and" and it would just keep getting longer [using a tone of playfulness]. (Jack.SI2.2019)

Q: Is it good to have short sentences sometimes?

A: Short sentences ... you do that when you're thinking, "What should I do?" and then you can just make ... you can cut your sentence short. And that's helpful for you ... to think. (Jack.SI2.2019)

Q: Does writing have rhythm?

A: I usually, I usually, put some rhythm into sentences, especially when it's rhyming. That's what I do. (Jack.SI2.2019)

Jack spoke about his writing with a clear sense of his own agency as a writer. He knew he had some metalinguistic writing powers, like deciding to extend a sentence and not put in a full stop. The manner in which he spoke about this indicated some manner of deliberation and authorial control. He also made a link between creating sentences to the art of making sandcastles and to conversations with his friend in the playground where he sometimes accidentally rhymed words.

Q: Do you have an example of rhythm in the text?

A: Yes. My dad isn't afraid of anything, even the big bad wolf. It gets louder, and sometimes you say it faster. Also, a bit of punctuation [makes different] sounds out a lot. (Jack.SI2.2019)

Writing Sample Analysis: Jack. This sample was provided after first reading the text.

Jack's Pre-study Sample. This is around 36 words long. An expressive writer's voice is used, and the writer does not merely provide facts but qualifies his statements. For example, in the statement "we do swordfights together which is fun", the writer also evaluates this and acknowledges "but sometimes we hurt each other". Descriptive language is evident with the use of adjectives—"silly" and "funny"—with repetitions, "fun" and "funny".

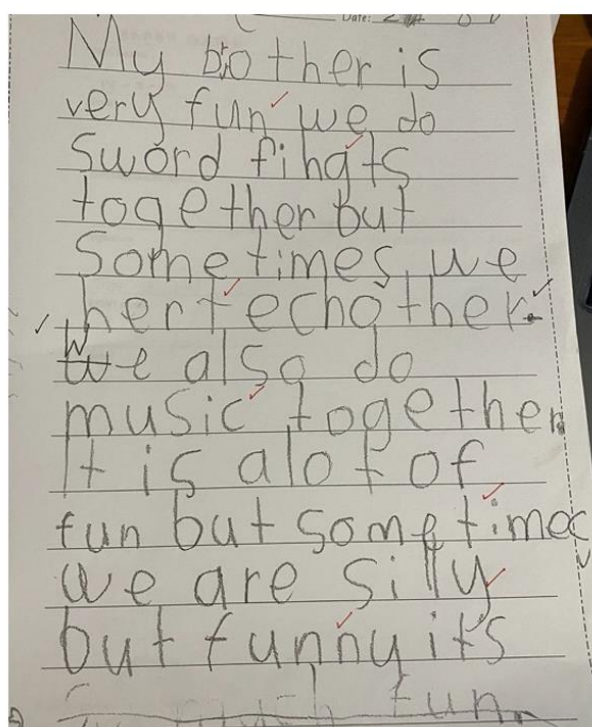
This sample reveals that Jack is confident in his use of some complex vocabulary (i.e., "swordfights"). He can also spell high-frequency words such as "big" and more difficult words such as "Earth", "else", and "music". In interview, Jack revealed that the last part, "And everything else", was added later, having been encouraged to extend his idea and knew he could use this word (i.e., "and") to make his sentences "longer and longer".

In interviews, Jack communicated the developing sense that he had choices as a writer and that he often asked himself the question, "What should I do?" as he writes. He also giggled

when he relayed that his teacher does not like him using lots of “ands” in sentences, but that he quite likes making his sentences longer and longer. The way Jack articulated this was an expression of his authorial agency. He seemed aware already that writers have agency and that these choices were a matter of preference and that writers had choices to make, see Figure 7.6.

Figure 7.6

Australian Curriculum Writing Sample Analysis: Jack (Pre-study sample)



Text translation: My brother is very fun we do swordfights together but sometimes we hurt each other. We also do music together. It is a lot of fun but sometimes we are silly but funny.

Text structure: The text sustains a description of the subject, providing at least four supporting statements. There is some awareness of an audience. The writer makes evaluative statements as well as statements of fact.

Sentence-level grammar: The text uses a mix of simple, compound, and complex sentences. He qualifies statements with the conjunction “but”.

Vocabulary: Complex and specific words “swordfights”.

Spelling: Spells a range of high-frequency words (“my”, “we”), and also several complex spellings (“brother”, “together”, “music”).

Punctuation: Several sentence boundary markers are used.

Handwriting: Unlinked lower- and upper-case letters are consistently sized and clear.

Overall: The text has the features of “satisfactory” and “above satisfactory” Year 1 samples. There are also some features indicative of a “satisfactory” Year 2 sample.

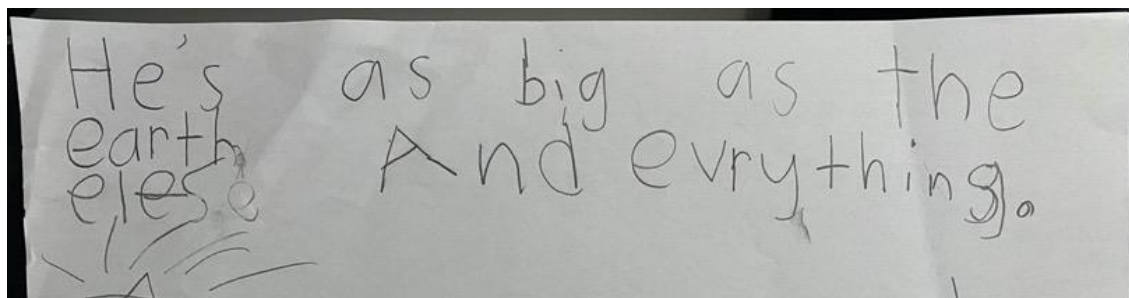
Note. This text was moderated using Australian Curriculum: English Year 1 and Year 2 work sample portfolios.

An Early Week 1 Writing Experiment. In this sample (see Figure 7.7), the writer has begun to borrow patterns from the text, with the use of “He’s” and a simile “He’s as big as ...”. This capacity to borrow from and imitate the text was evident from the first interview, conducted

after the first demonstration lesson. In this mid-study sample, Jack is playing with the idea of hyperbole, with an exaggeration of size: "... as big as the Earth and everything else".

Figure 7.7

Australian Curriculum Writing Sample Analysis: Jack (Beginning Study Sample)



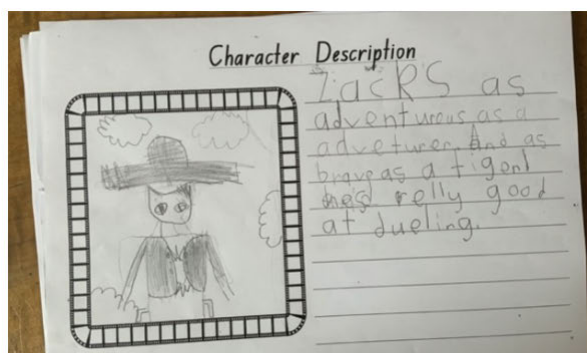
Mid-study Writing Sample. Jack demonstrates his continuing capacity to achieve the Year 2 content descriptor, that students “Innovate on familiar texts by experimenting with character, setting or plot” [ACELT1833] (ACARA, n.d.-c).

Jack explained in interviews that drama had helped him to create characters and that his writing was not as good without acting out the characters. He described that this helped him to be more “imaginative” in his writing.

Opportunities to practise characters in acting and to use verbal, spoken opportunities, enabled Jack to confidently create a vivid character (see Figure 7.8). He has applied the Year 1 achievement standard which is to “understand how characters are developed” and the capacity to “make connections to personal experience when explaining characters” using appropriate “language features and vocabulary ... to describe characters” (ACARA, 2014a). Jack was also demonstrating the Year 2 content descriptor - “exploring how language is used to construct characters ... including choice of nouns and choice of adjectives” [ACELA1462] (ACARA, n.d.-c).

Figure 7.8

Australian Curriculum Writing Sample Analysis: Jack (Mid-study Sample)



Text: Zacks as adventurous as a [an] adveturer [sic]. And as brave as a tiger! He's relly [really] good at dueling [sic].

Text structure: The text sustains description of a subject, providing at least four supporting statements.

Sentence-level grammar: The text uses simple and compound complex sentences.

Vocabulary: A proper noun is used, as well as more complex words "adventurous" and "duelling". Similes are used.

Spelling: Spells a range of high-frequency words, "good", as well as accurate and close approximation for complex spellings, "adventurous", "brave", and "really".

Punctuation: Some sentence boundary markers and a contraction are used correctly.

Handwriting: Unlinked lower- and upper-case letters are correct. Writing is quite fluent, and there is evidence of self-correction.

Overall: The text has features indicative of "satisfactory" and "above satisfactory" Year 1 portfolio samples.

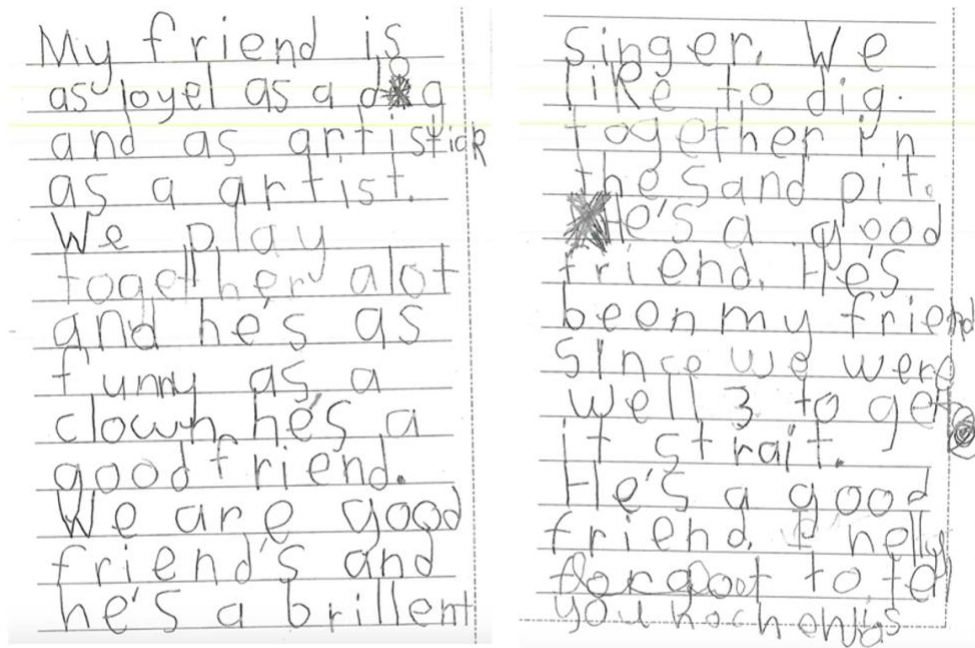
Note: This text was moderated using Australian Curriculum: English Year 1 work sample portfolios.

Post-study Writing Sample. Here, Jack innovated on the model text extensively. He is able to experiment with, and adapt, the features for his own writing purposes. The writer is beginning to develop a unique writer's voice: "He's been my friend since we were, well 3, to get it straight". There is a distinct increase in the use of full stops that were not apparent in the first example, but also includes several examples of apostrophes for contractions.

Compared to the first sample, there is also a marked increase in the variety of descriptive language. There is less reliance on the repetition of a word, as was made with "fun" and "funny" in the first sample. He has only used "funny" once in this sample and seems to have a greater repertoire of vocabulary to choose from. Jack spoke about this being the most improved aspect

Figure 7.9

Australian Curriculum Writing Sample Analysis: Jack (Post-study Sample)



Text translation: My friend is as loyal as a dog and artistic as an artist. We play together a lot and he's as funny as a clown. He's a good friend. We are good friends and he's a brilliant singer. We like to dig together in the sandpit. He's a good friend. He's been my friend since we were, well 3, to get it straight. He's a good friend. I nearly forgot to tell you who he was.

Text structure: The text sustains description of a subject, providing at least eight supporting statements. The text demonstrates clear awareness of the demands of the genre, and audience, even seeming to speak to the audience ("since we were, well, 3, to get it straight").

Sentence structure and grammar: The text uses a mix of compound and complex sentences. He also uses various sentence beginnings and adds detail with the use of a conjunction "since".

Vocabulary: The writer uses a greater range of specific adjectives and nouns, "brilliant" borrowed from the model text but also "loyal", "funny", "clown", and "artistic". There are a number of examples of figurative and emotive language, not only a number of similes, hyperbole, and contrast but also a tone that makes it feel that the writer is talking to the reader, "since we were, well 3, to get it straight".

Spelling: Spells a range of more difficult high-frequency words, "friend" and "been", and gives accurate and close approximation difficult words, "brilliant", "singer", "together", "straight", and "artistic".

Punctuation: Several sentence boundary markers are used correctly, but also several contractions.

Handwriting: Unlinked lower- and upper-case letters. Writing is fluent, consistently sized, and the writer appears to write with relative ease. There is evidence of self-correction in a couple of instances and suggests the writer reads over the text.

Overall: The text has the features of an "above satisfactory" Year 1 sample with some features of a "satisfactory" Year 2 sample.

Note: This text was moderated using Australian Curriculum: English Year 1 work sample portfolios

of his writing. The WT domain results might have been marked higher in the vocabulary domain if he had included proper nouns. However, Jack is clearly demonstrating language indicative of the highest criterion description for “vocabulary” through the extensive use of simile, metaphor, and emotive language (see Figure 7.9).

Focus Student Analysis Summary

An analysis of focus group students revealed that teaching approaches used through the LIRIC approach impacted on student writing outcomes, including evidence of beyond grade achievements in self-editing, awareness of rhythms and sounds of language, punctuation, innovations on text structure, and character development, as outlined in Years 2 and 3 curriculum descriptors and achievement standards.

The students also demonstrated an awareness of the model structures but not a dependence on these. This developed over the writing samples, which suggests they used these more while they were gaining familiarity with the literary form and only used them when they needed to as an accommodated part of their repertoire by the end of the study.

An impact on student writing is evident across the focus group whether they scored below average, average, or above average in their pre-study sample results, as identified by the Writing Analysis Tool. These features, which indicate common areas of growth and that appear in mid- and post-study samples, suggest that the teaching approaches used through the LIRIC model intervention positively impacted a range of students.

Writing Analysis Tool Results: An Overview

The two main writing samples were collected in mid-August (around the midpoint of the school year) and again 6 weeks later at the end of September. Writing samples in the study were examined using the Writing Analysis Tool (referred to throughout this chapter as WT), a tool designed “for the purpose of research” to analyse the growth of young children’s writing and “to map shifts over time”. The tool identified six elements of writing from a close analysis of 210

student writing samples taken from a much larger database of Year 1 student writing samples representing 75 schools in the Australian states of NSW and Victoria. Samples in the original study were collected in July to August 2010 and in November to December 2010. The description of attainment in each category is outlined (see Appendix X). Writing samples are analysed according to levelled criterion description statements in each writing dimension and are interpreted through a comparison to Year 1 writing exemplars provided within the tool.

The designers of the tool sought to create a tool that would acknowledge both the “process and product” (Mackenzie et al., 2013, p. 3). Process is acknowledged through signs of innovation and authorial control as characteristic of more advanced writing.

Follow-up research by Mackenzie et al. in 2015 also used the tool and database samples to conduct a comprehensive analysis of samples across three ICSEA-determined categories, “below average”, “high average”, and “above average”. The follow-up study and its findings allow a more robust comparison for this study’s analysis.

The WT is useful for this study in a number of ways. The WT tool assessed the writing development of Year 1 students in the Australian context with “Time 1” samples taken at the same time of year as the pre-study samples at Marybank (July–August). The 2015 study findings also allow a “like school” (above average ICSEA) comparison, and provides insights regarding EAL/D students among its cohort, an important aspect of the Marybank context.

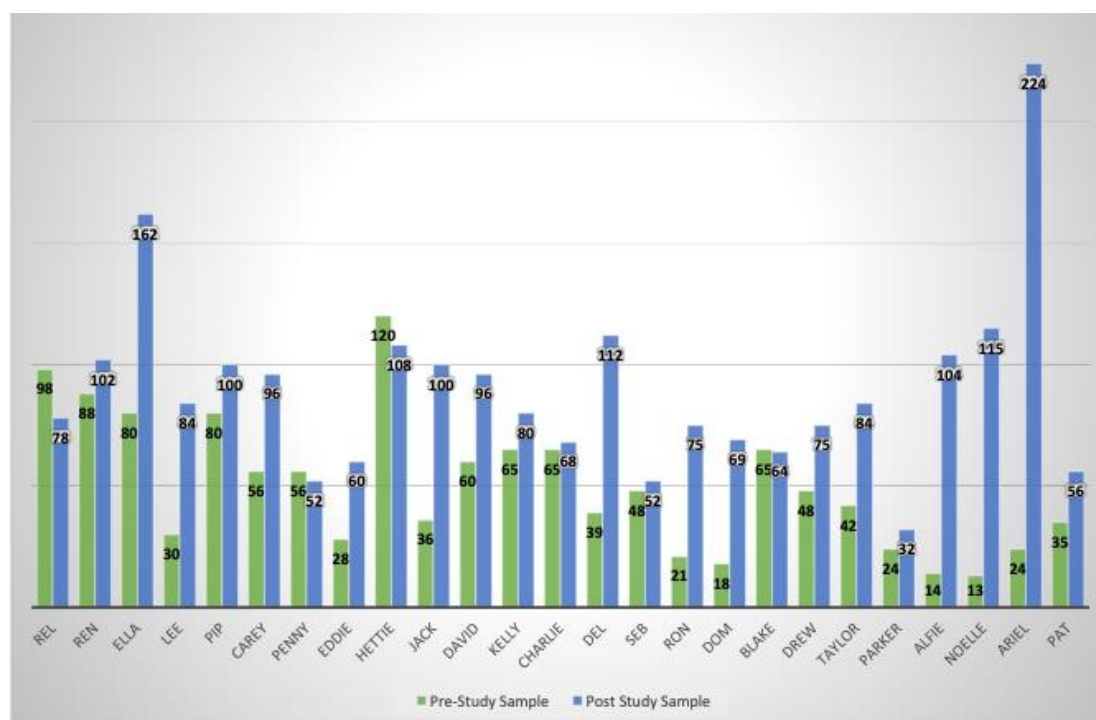
Ultimately, the WT provides a basis from which to make interpretations of student growth and to confirm or to challenge predictions of student outcomes which I had made with the teaching team and with some specificity.

Teachers predicted that final student writing samples would be short, no more than “four or five sentences” long (Pickering.TI2.2019) due to the lack of extended writing opportunities within the LIRIC design approach. However, counter to these predictions, all but four of the 25 focus students increased their text length, measured by word count (see Figure 7.10). One third

of the students more than doubled the text length, with some of these students tripling or quadrupling their original text length and suggested an increased writing ease and fluency.

Figure 7.10

Word Count Comparison at Marybank School: August to September 2019



Text length as a measure of student gains on its own may be problematic if analysed in isolation. However, when viewed alongside elements such as the smaller handwriting and increased self-editing evident in the same samples, the text length might reasonably be interpreted as a sign of increased writing fluency. Familiarity with the text genre gained throughout the study might also account for the increased fluency and text length. The increase in word length could also be viewed as an observable measure of increased writing confidence which student interviews suggested is the case.

It is interesting to note that researchers from the 2015 study did find “a relationship between the volume of writing and increased complexity” (Mackenzie et al., 2015, p. 585) but also hypothesised that this might be an aspect that tends to “spike” in the early years of

schooling. What is noteworthy about the increase in text length is that it was a result that ran counter to teacher predictions and despite the lack of opportunities for in-class extended writing practice. The increased text length was achieved after weeks of predominantly oral–aural language experiences and mostly short (sentence-long) writing experiments.

Noelle and Dom, who were predicted by their teachers to demonstrate significant growth, were not necessarily those students who demonstrated the most significant growth according to the overall WT results and many students from the sample group fared just as well or better in terms of gains.

The teaching team and I also wondered whether the LIRIC approach would assist students who were already strong or competent writers, and the WT results show that both low and higher scoring students in the pre-study samples appeared to have made notable gains. This is demonstrated in samples provided from students David and Seb who were high-achieving writers in the pre-study sample, as well as from students Alfie and Ron¹⁷ who did not score highly in the pre-study samples but made similar or greater gains across several domains.

Lower scoring, particularly EAL/D, students were among those who made the greatest gains at Marybank and is consistent with findings from the 2015 study. In their study, EAL/D students were lower scoring on average than non-EAL/D students but made greater gains, particularly in the text structure and sentence structure and grammar dimensions (Mackenzie et al., 2015, p. 581).

Writing Analysis Tool Analysis: Marybank Student Results

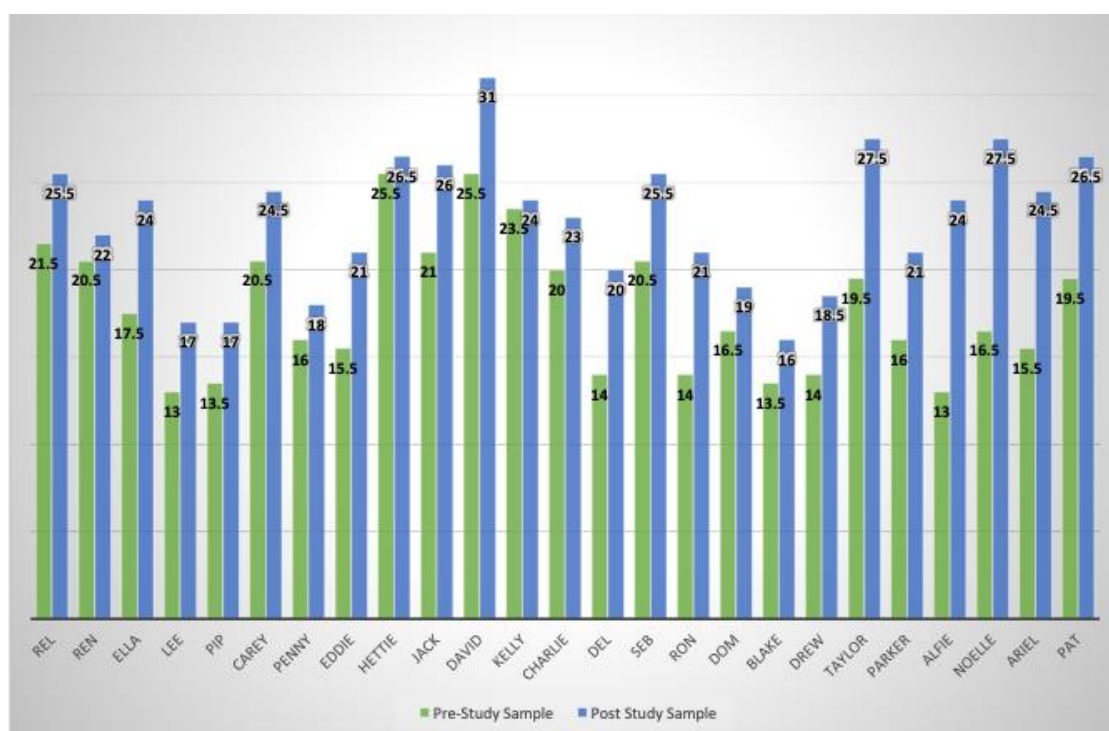
The WT (Mackenzie et al., 2013), which gives a score out of 6 in each of six categories providing a total of 36 points, showed significant growth for Marybank students overall (see Figure 7.11) as well as in a number of key areas. If 18 of 36 points is indicative of an average Year 1 writing sample from the samples taken across 75 schools, with a score of 3 (or close to) of 6 in

¹⁷ All students' names provided are pseudonyms.

each category, of the 25 students more than half (14) of Marybank students were below the average score in the pre-study sample. However, at the completion of the study, all but three students were the equivalent of a “pass” or higher.

Figure 7.11

Writing Analysis Tool: Assessment at Marybank Primary—Total Score



Overall, Marybank Primary students made an average gain of 5.16 points, and every student improved, according to the tool’s final scores. Half marks were given for several students in some domains, as was endorsed by the authors of the tool who found that many samples “cross-over descriptions” (Mackenzie et al., 2016) and “rarely fit neatly into all categories” (p. 36). As a half mark scoring was applied to both the first and second samples, a fair comparison is provided.

The pre-study average score for Marybank students was 16.46, categorised as a “below average” score, while the post-study average was 22.82, or “above average” grade. In the pre-study sample, only three students were in the top three categories, or the equivalent of an “above

average” and “well above average” score. At the end of the study, more than half the students (13) were in those categories as shown in Table 7.1.

Table 7.1

Writing Tool Analysis: Proportion of Student Growth Below to Beyond Scores

Grade	D Below Year 1 average < 18	C Average Year 1 range 18–23	B Above Year 1 average 23.5–26.5	A Well above Year 1 average 27–30.5	A+ Beyond Year 1 level 31–36	Proportion of average to beyond grades
Pre-study sample (1) # students	14	8	3	0	0	44%
Post-study sample (2) # students	3	9	10	2	1	92%

Of the 15 students who made the greatest gains, seven were boys and eight girls. Of those in the top seven students for most gain, an even gender ratio is again apparent, with four girls and three boys, suggesting that the intervention did not favour a particular gender, especially given there was one more girl than boys involved in the writing sample analysis overall. A comparison of Marybank’s results to students from 75 schools across “low”, “high average”, and “above average” ICSEA groupings from the Mackenzie et al. (2015) study gives further clarity.

It is important to note that to ensure an even scoring throughout, a student could not be marked as having attained a level in a domain unless their writing demonstrated achievement of each criterion preceding and including it. This became problematic for the vocabulary domain where significant achievement was obscured by this method of analysis, as discussed further within the category results below.

Pre-study writing samples provided by Marybank in August 2019 received scores considerably below the mean of similar, above average ICSEA schools at the same time of year in their Time 1 samples. The results were also below the mean of schools in the “below average” category in four domains (Mackenzie et al., 2015, p. 579): sentence structure and grammar,

vocabulary, spelling, and punctuation (see Table 7.2). However, the mean score results of Marybank’s post-study writing samples show that writing scores had improved to eclipse “high average” ICSEA schools, but also to considerably exceed the “above average” ICSEA schools’ mean score in the domains of text structure, sentence structure, punctuation, and handwriting. Results improved so that they were also on par with the mean for “above average” ICSEA schools in sentence structure and spelling in the post-study samples.

Table 7.2

Writing Analysis Tool (Mackenzie et al., 2013): Marybank School August to September 2019

Writing Analysis Tool gains	Marybank Sample 1 mean score (August 2019)	Marybank Sample 2 mean score (September 2019)	Pre- to post-study overall gain	Marybank student mean gain
Total score	17.84	22.82	4.98	5.16
Text structure	3.86	4.82	0.96	1.08
Sentence structure and grammar	3.14	3.98	0.84	0.84
Vocabulary	2.96	3.82	0.86	0.86
Spelling	2.96	3.62	0.66	0.66
Punctuation	2.12	3.14	1.02	1.02
Handwriting	2.82	3.16	0.34	0.4

The gains for Marybank students in handwriting and spelling are broadly consistent with Mackenzie study findings, which found that growth in these domains was relatively small compared to others. The domains of text structure, vocabulary, and punctuation showed moderate to significant signs of growth at Marybank and are again consistent with the 2015 study where moderate gains were charted. However, the degree to which gains were made at Marybank are generally more significant, which is noteworthy given the shorter timeframe.

One aspect that is distinct from the 2015 study findings is Marybank’s results in the sentence structure and grammar domain. For 75 schools in the 2015 study, this was the least improved area of all six categories. In contrast, the dimension of sentence structure and grammar

was the fourth most improved at Marybank over just 6 weeks (see Table 7.3). The authors of the 2015 study discuss possible reasons for the low level of improvement in sentence structure and grammar across 75 schools and hypothesise that it is because it is more “difficult than the other dimensions” to teach (Mackenzie et al., 2015, p. 583). If we accept this argument, this makes the Marybank findings all the more significant given not only that this “difficult” domain was moderately to significantly improved, but also that this was achieved in a much shorter timeframe than the 6 months dedicated in the Mackenzie study.

In the domain of vocabulary, where Marybank had scored considerably below the “below average” ICSEA schools in the first samples, there was considerable growth. However, they did not yet meet the high average ICSEA schools’ mean score in that category. Nevertheless, the growth gain was similar to growth in other categories. Moreover, there were issues encountered in the analysis of samples for vocabulary using this instrument, which are discussed within the “Writing Analysis Tool Results: Vocabulary” findings later in this chapter.

Table 7.3

Writing Analysis Tool Results Comparison

Writing Analysis Tool: Student gains (<i>Most</i> = 1 to <i>least</i> = 6)		
Domain	Overall gains at 75 schools (Mackenzie et al., 2015)	Marybank Primary School
Text structure	2	1 (most growth)
Sentence structure	6 (least growth)	4
Vocabulary	3	3
Spelling	4	5
Punctuation	1 (most growth)	2
Handwriting	5	6 (least growth)

To validate the WT results, which found that Marybank students seemed to improve from a “below average” ICSEA school score in the pre-study samples to meet or eclipse the “above average” ICSEA schools in the second sample, NAPLAN writing scores from Marybank

were used for comparison. NAPLAN, which requires students to write in a particular text genre in a 40-min period, provided another picture of school achievement at Marybank over several years. The results for Year 3 students year on year from 2017 to 2019 in writing, and in the related domains of spelling and grammar, are below the Australian average and well below results expected for an above average ICSEA school. The school's Year 5 NAPLAN writing results also demonstrated a weakness in writing within the same time period. These results, while not those of the same Year 1 students who participated in the study, may indicate a weakness in writing at the school given the results are consistent across years and cohorts. The results seem to be consistent with and therefore confirm the WT results from Year 1 pre-study samples.

One reason for the low pre-study results may be attributed to the relatively high number of students from language backgrounds other than English. The proportion of EAL/D students overall in the Mackenzie et al. (2015) study was 16% (p. 581), while 27% of Marybank's students had an EAL/D background at the time of the Phase 1 study. A high EAL/D proportion could also form part of the reason for the strong gains demonstrated over the 6-week study at Marybank, as noted for the EAL/D cohort in Mackenzie et al.'s (2015) study.

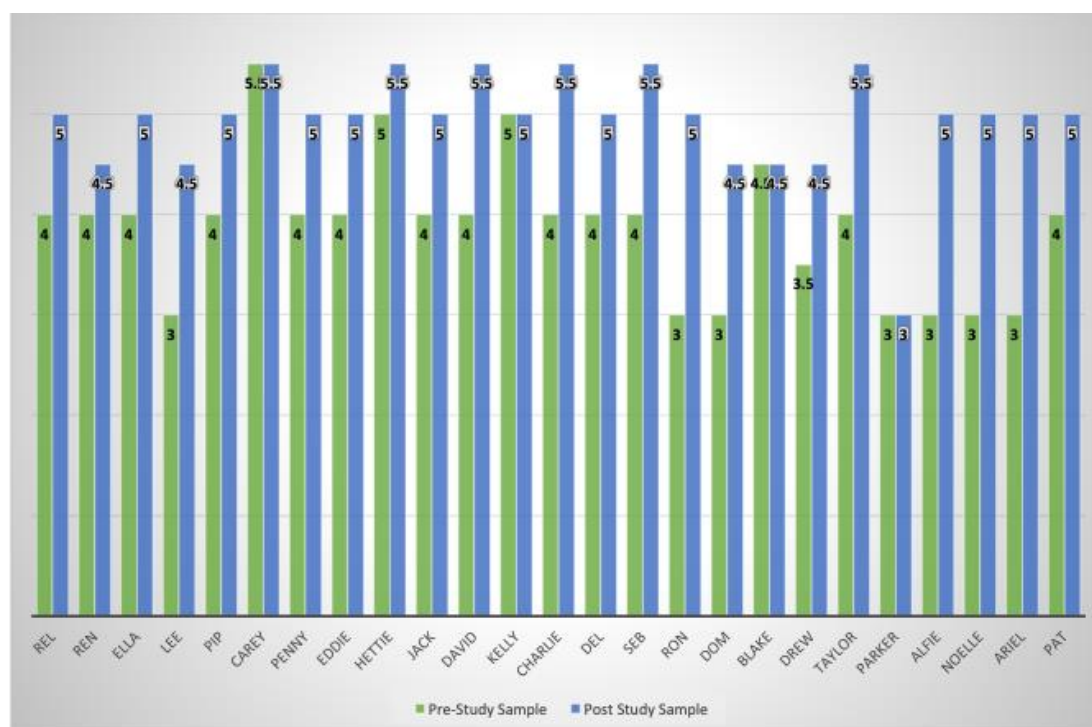
Writing Analysis Tool Results: Text Structure

It should perhaps have been an expected outcome that the domain of text structure would see significant improvement, as indicated by results using the WT (see Figure 7.12). The instruction provided to students for both samples at Marybank was that students write in the genre of a description following the reading of the model text (see Appendix R). By contrast, the students who provided writing samples for Mackenzie's WT research were given freedom to write about anything they liked and in any genre. This meant students were able to choose a genre they felt comfortable with. This may have disadvantaged Marybank students in the pre-study writing task as the description genre was new. However, it is significant that by focusing on

the genre throughout the 6 weeks, Marybank students were able to improve and even to eclipse the above average ICSEA school results in this category by the end of the study.

Figure 7.12

Writing Analysis Tool (Mackenzie et al., 2013): Assessment at Marybank Primary School—Text Structure



Though all students demonstrated competence in text structure in the first sample scoring 3 or above, 19 of the 25 students made substantial to significant gains of 1 full level or more. Four students improved by two full levels, with both mid-scoring students and higher scoring students from the pre-study samples improving substantially.

An analysis of text structure for Marybank School suggested that focusing on one genre, especially interaction with a rich literary model, was beneficial. Students became keenly aware of the demands of the genre and its features. The results suggest that through repeated interactions with a model text over an extended period, text structure can be substantially improved. It is important to highlight that teachers did not teach a formula for the text genre but instead pointed

to features of the genre through the model text in a naturalistic manner and that the text became the subject of teacher lessons and class discussion (see Appendices S–W). Furthermore, students across the spectrum of lowest to highest achievement in the pre-study writing sample benefited from the LIRIC framework approach with respect to the text structure domain.

Features of the higher scoring student samples for this domain are notable: the addition of an introduction to the character being described and an increase in orientation markers that provide clarity for the reader throughout the text. In essence, the students wrote for an audience not just for themselves. It should be added that it is not clear whether students were always conscious of this or just mimicking aspects of the text that achieved this effect.

In pre-study writing samples, students tended to launch into a description of characters without an orientation or explanation, assuming knowledge of their subject as though writing only to themselves, while in the post-study samples, many students consciously took time to introduce their characters and to explain the context. It could reasonably be concluded that a close reading of Anthony Browne’s book, which demonstrates these aspects, contributed to the students’ inclusion of orientations and introductions in their post-study samples. Encouragement by teachers to emulate Anthony Browne’s model may also mean that these aspects became a part of student writing without students necessarily realising their significance.

Writing Analysis Tool Results: Sentence Structure and Grammar

Sentence structure and grammar was the fourth most improved domain at Marybank and is distinct from results gathered from 75 schools in Mackenzie and colleagues’ (2015) research study. Grammar was a key area of focus highlighted for this study.

Given the cognitive link between grammar and rhythm, as discussed in Chapter 3, this was seen as a core aspect of interest. While grammar was highlighted as an area of focus, it was also an area that perplexed literacy teacher participants. Teachers were either not sure that

grammar or grammar “rules” should have a place in Year 1 (Pearn.TI1.2019) or were not sure how it should look in the classroom in the early years (Pickering.TI1.2019 and Kelly.TI1.2019).

Grammar was commonly associated with rules and was either rejected or embraced as such. As described in teacher interview responses, teachers either sought to teach grammar rules or largely left grammar out altogether. Teachers also described that the aspect of sentence boundaries was the one area of grammar they explicitly taught.

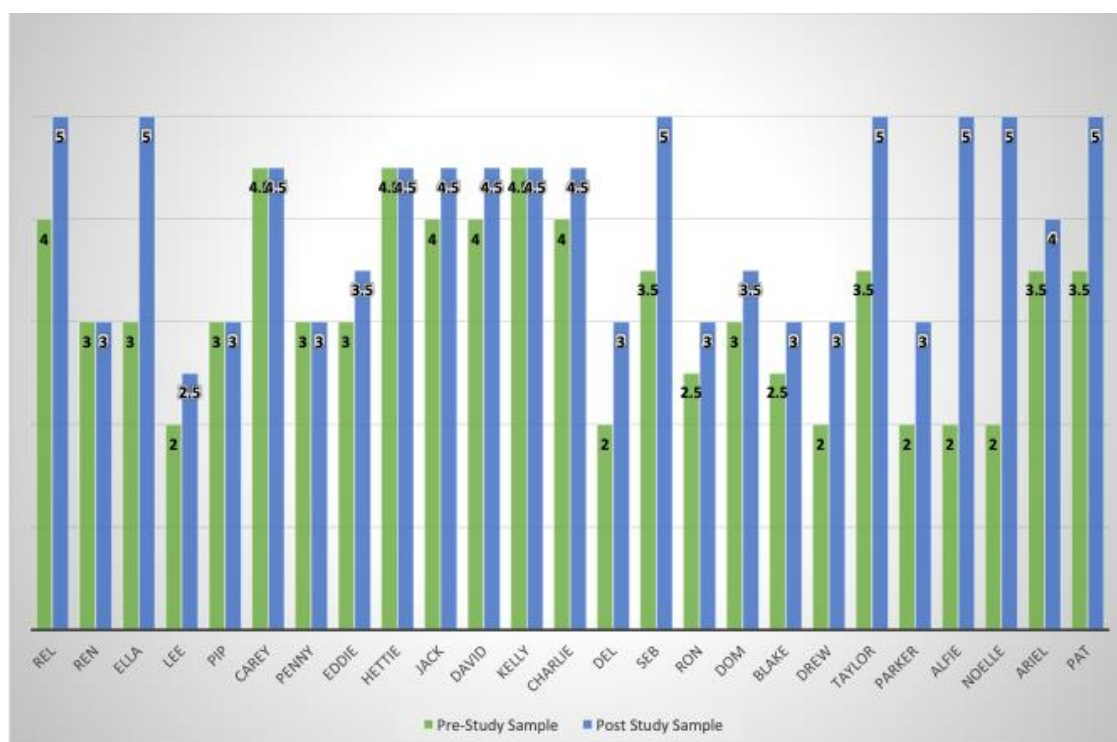
Though punctuation is related to grammar, it is not usually seen as a grammar outcome, and so general confusion about what grammar is and what it consists of was a potential obstacle. For example, one teacher believed that teaching grammar had the potential to negatively affect students’ confidence at a critical time of their writing development (Pearn.TI1.2019).

The WT does mark grammar “correctness” to some degree, but the top levels of achievement (Levels 5 and 6) are awarded to writing that demonstrates “a variety of sentence structures”, noting that the description does not award students for writing in more complex sentences. The descriptions of top levels of achievement in this dimension of the tool suggest that the more capable writers identified through the original study were those who exercised the authorial control that using a mix of structures may indicate. It also seems to acknowledge that a mix of sentence structures, while not a rule of grammar, is a sign of excellent writing. When artfully controlled, a mix of sentence structures can create aesthetic impact, pleasing rhythm, or syntactical flow.

The Marybank students’ post-study writing samples show that many students were able to demonstrate sentence structure and grammar awareness (see Figure 7.13). This was also noted in student interview responses. Students did not talk about grammar rules, nor necessarily about grammar terms at all. Students talked about sentence variation quite simply as “short sentences” and “long sentences”. Furthermore, they noted that a mix of different sentence lengths could have a pleasing effect on the overall rhythm of the text and was an aspect for consideration by writers (Ariel.SI2.2019).

Figure 7.13

Writing Analysis Tool: Assessment at Marybank School—Sentence Structure and Grammar



What is particularly interesting is that students took a musical approach to sentence structure and viewed the use of varying sentence lengths as an aesthetic consideration. Guided by their teachers, students clapped out sentences from the model text and from their own writing, in this way developing an appreciation for the impact that the difference in length could make.

Interestingly, through the LIRIC or music mindset approach to writing, sentence-level grammar was taught as rhythm and as a matter of the composer–writer’s or listener–reader’s taste. Furthermore, students came to understand grammatical correctness in terms of identifying a sentence and therefore about where the sentence boundary markers should go, through a developing sense of rhythmic intuition (Kelly.TI2.2019).

Writing Analysis Tool Results: Vocabulary

Vocabulary was an area that participating teachers identified as an area they thought might be most improved through the study. Teachers noticed this in their classes and through

formative student work samples, attributed it to the language modelled by Browne's text and his use of "specific" and "beautiful" language (Kelly.TI2.2019 and Coffey.TI2.2019). Teachers also attributed vocabulary improvement to drama experiences used to build student language (Pickering.TI2.2019).

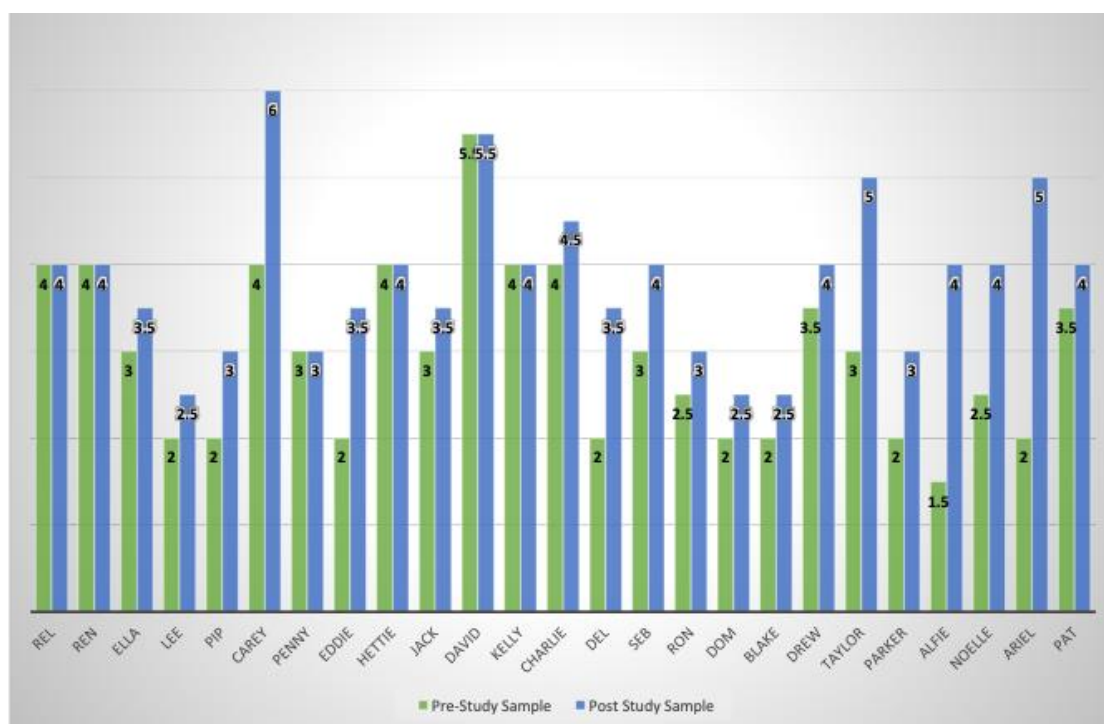
However, some problematic aspects emerged within the tool through the analysis of writing samples, which impacted results in vocabulary at Marybank. The WT identifies the use of figurative language, including similes and emotive language, as evidence of a top score. Marybank students' post-study samples demonstrated strong evidence of this with similes and emotive language used across the writing samples gathered (see Appendix Z).

All but five students improved in the vocabulary domain, with five students improving by more than one level. According to the original and follow-up studies by Mackenzie et al. (2013, 2016), vocabulary is a common domain for improvement. Across 75 schools and at Marybank, vocabulary was the third most improved dimension of writing. For this reason, a qualitative analysis of interview responses and writing samples in the "Focus Group Students" section (earlier in this chapter) allowed a more nuanced understanding of gains made in vocabulary.

However, the WT, at least in the way I applied it, required students to have attained all preceding aspects to achieve a particular grade level. This was not necessarily the way the designers of the tool had intended its use and meant that some students who clearly demonstrated the highest level of vocabulary by using similes and specific and emotive language, but did not use proper nouns, could only achieve a 2 or 3. However, given that this study featured a specific teaching emphasis on similes, which provided an uneven advantage to students in this study over those in the general Mackenzie et al. (2013) study, this was perceived as a way to level out the scores for comparison's sake (see Figure 7.14).

Figure 7.14

Writing Analysis Tool: Assessment at Marybank School—Vocabulary

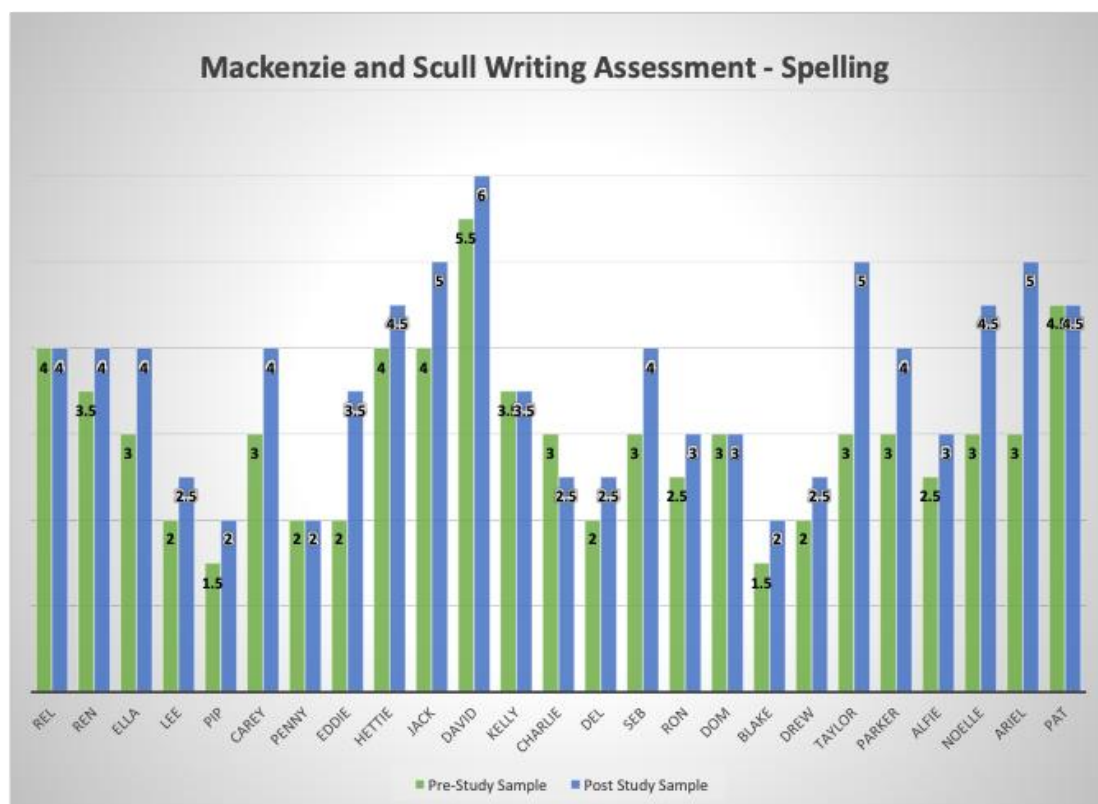


Writing Analysis Tool Results: Spelling

The WT identified that the dimension of spelling was the second least improved aspect and showed less improvement than text structure, punctuation, vocabulary, and sentence structure. The 2015 study placed spelling as its fourth most improved aspect. However, many students still improved their score, with 18 of 25 students demonstrating improvement and only one student appearing to regress, marginally (see Figure 7.15). Of the students who improved, half made limited gains of 0.5. However, nine students made moderate to significant gains, and all these students also improved their vocabulary scores, indicating a possible correlation. Of these students, four students improved their score by more than one level.

Figure 7.15

Writing Analysis Tool (Mackenzie et al., 2013): Assessment at Marybank School—Spelling



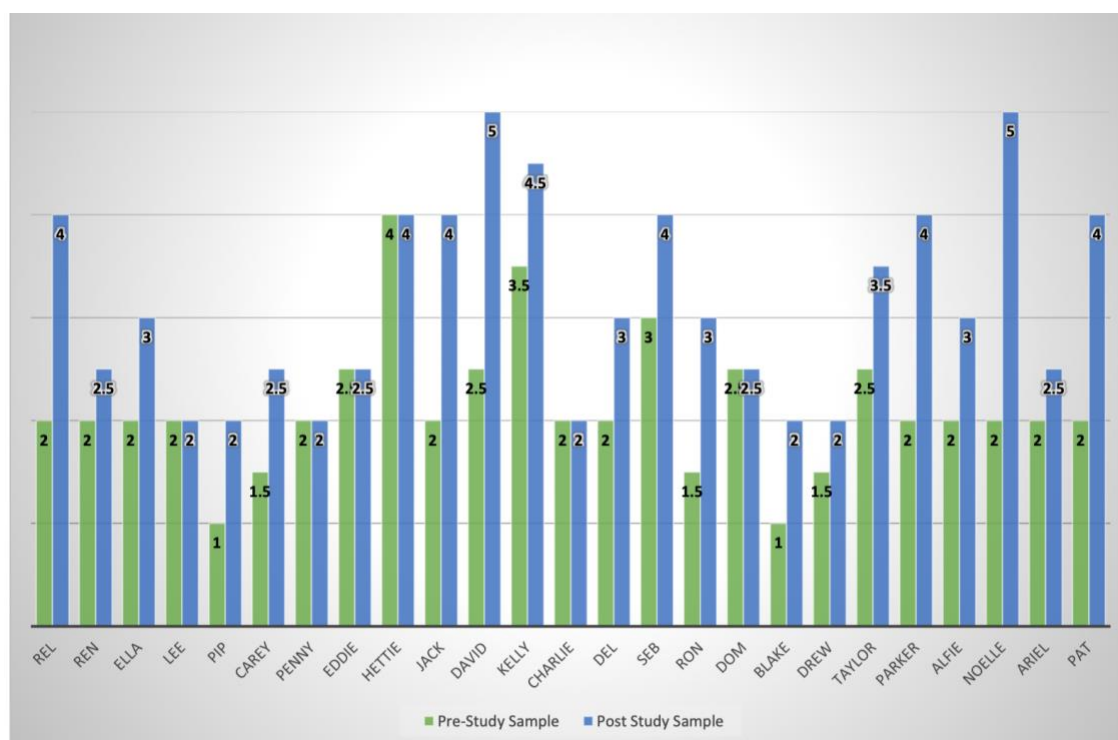
Writing Analysis Tool Results: Punctuation

Punctuation was identified as the most improved aspect for Year 1 students in the 2015 study, while this was the second most improved domain at Marybank. At Marybank, interviews conducted indicated a strong awareness of punctuation among students. In addition, an awareness of punctuation was closely linked to an awareness of sentence structure, and the results confirm this correlation.

Of the 19 students who moderately or significantly improved their score in punctuation, 15 also made moderate to significant improvements in sentence structure and grammar. And of the six students who improved their score for punctuation by more than one level, all showed similarly moderate to significant results in sentence structure and grammar (see Figure 7.16; refer to 7.13 for comparison readings).

Figure 7.16

Writing Analysis Tool: Assessment at Marybank School—Punctuation



The participating Marybank teachers spoke of the rhythm approach to teaching punctuation as an aspect that helped students become aware of when a sentence was “unfinished”. For instance, when a sentence extended over the page in the model text, students recognised the sentence was left mid-air until the teacher turned the page and kept reading. This became an explicit aspect of lessons and class discussion (Kelly.TI2.2019). Students also talked of punctuation, particularly full stops, as being linked to meaning and indicating the end of an idea (Noelle.SI2.2019).

Marybank students demonstrated experimentation and increased control over the aspect of punctuation and imitated these features from the model text, as noted in interviews. Students spoke about using punctuation to achieve effects in their writing, particularly for the aesthetic consideration of linguistic rhythm and as a key part of the choices a writer can make (Ariel.SI2.2019). An analysis of writing samples overall provided examples of punctuation used consciously and artfully, not just to satisfy grammatical correctness but to include capitals to

communicate an emphatic declaration, contractions to create greater rhythmic flow, brackets to create an authorial aside, and full stops to indicate emphasis, as used in the text “He loves me. A lot” (Browne, 2003). These uses of punctuation suggest level 6, authorial “control”.

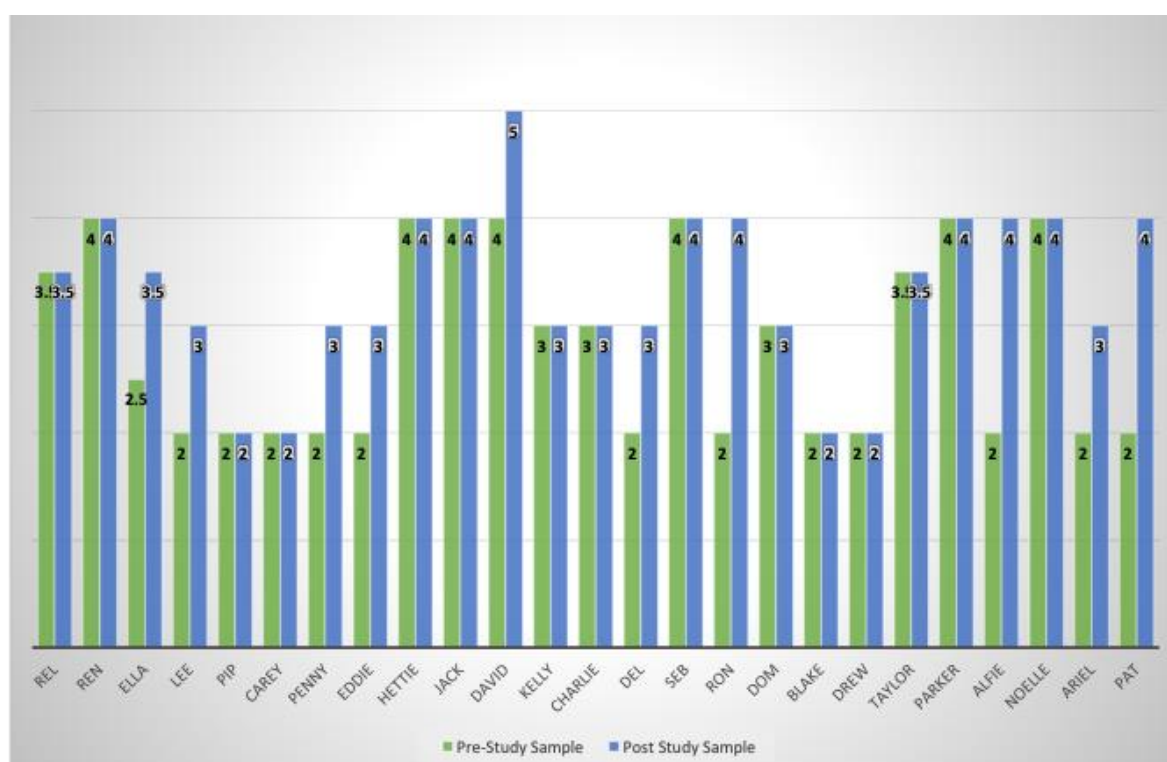
Marybank students demonstrated this control even if sentence boundary markers were not always correct, which prevented some student from scoring higher than a 3 or 4 in the WT results. The qualitative analysis of focus group student writing samples provided a nuanced examination of these features.

Writing Analysis Tool Results: Handwriting

While handwriting showed the least gain among students at Marybank (see Figure 7.17), no students declined. The tool did not seem to adequately identify aspects of the students’ writing that demonstrated greater fluency and metalinguistic agency. These aspects were indicated by two key features: smaller text and an increased instance of self-correction and changes to vocabulary.

Figure 7.17

Writing Analysis Tool (Mackenzie et al., 2013): Assessment at Marybank School—Handwriting



Handwriting improvement might also be measured by apparent increased fluency, as can be gathered from the increase in word count. In the first sample, the word count mean score was 50.12 words. In the second sample, the word count mean score was 89.92 words given the same writing timeframe. The average student gain was 38.12 words, with an average increase of 179%.

A reason for the smaller size of lettering evident in many post-study samples is not clear, especially given that writing experiments on cardboard strips were often “oversized” to allow a focus on aspects of sentence construction. This would seem to have encouraged larger script, although the opposite seemed to be true in practice.

An emphasis on writing experiments did seem to lead to the other key feature of the second writing samples, an increased incidence of self-editing, which would tend to allow for faster self-correction than rubbing out. The less laboured writing evident in the post-study writing samples, through the smaller sizing of letters, lighter pencil application, and less erasure of errors, may have been the result of the writing experiment approach. Editing and self-correction was not an aspect included in the WT analysis and yet seemed to be an important feature that had emerged in Marybank writing samples. Self-editing suggests increased authorial agency and is described within the discussion of focus student samples.

Conclusion

The hypothesis underpinning the LIRIC framework and the design-based study at Marybank School, is that writing classroom experiences and outcomes can be enhanced through principles borrowed from music education philosophies, particularly those of Orff and Kodály. These were further highlighted through an emphasis on musical rhythm, movement, sound and speech. The study appeared to confirm that there is distinct value in adopting a music-informed framework, such as LIRIC, in the writing classroom as convincingly indicated by a review of the range of outcomes measured and described in this and the preceding chapter.

Chapter 8.

Study Findings

[They] would walk to the words, that is, walking on the rhythm ... maybe if you don't have that really strong music background you mightn't see it, but that doesn't mean you're not doing it.

—Music Teacher, Marybank Primary School

This chapter presents findings from an analysis of teacher and student data from the design-based study at Marybank School. Overall, the findings show that there is a legitimate place for metalinguistic explorations through musical rhythm, movement, sound and speech in the primary writing classroom through the LIRIC framework model. The first section of this chapter provides an overview of experiments with the LIRIC framework and the key practices that emerged. The second section outlines the evolution of the LIRIC design through each micro-iteration of the study. The third section outlines findings from the student study. The chapter concludes with some final comments about the study and its implications.

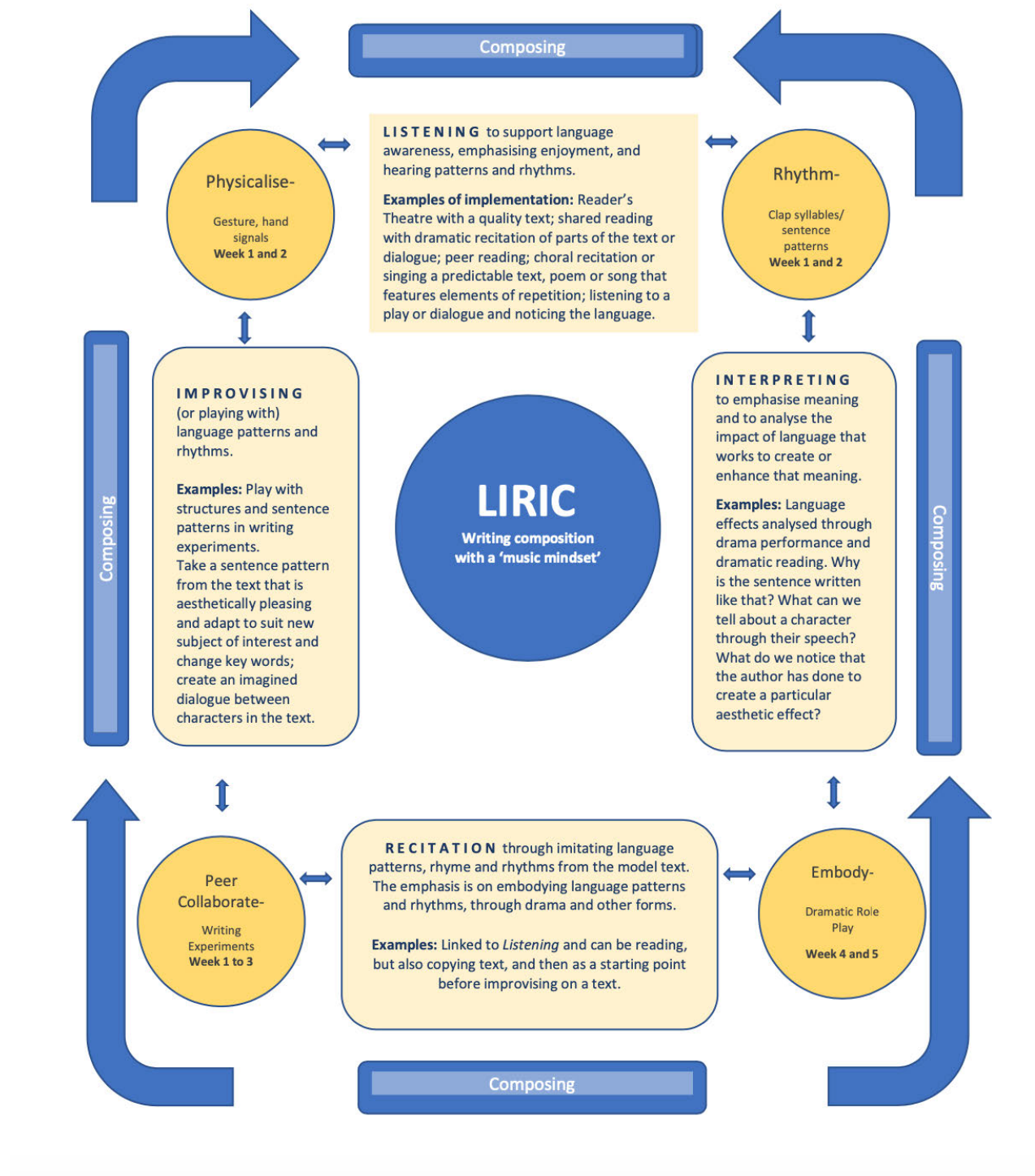
Key Practices to Emerge From the LIRIC Design Implementation

As indicated in the mid-study framework design, several key music-inspired practices emerged. Reflections on each practice are provided through teacher interview responses and through my own reflections provided in this chapter.

Each practice was introduced by the teaching team as they explored the framework's use in six weekly writing classes. Each practice was borrowed and adapted from a repertoire of music-inspired practices and introduced as teachers saw the needs of students shifting at various stages of their writing development, or as students gained confidence aspects of the text. The key pedagogical features introduced in the study as shown in Figure 8.1.

Figure 8.1

Mid-study Framework (Elements of 2nd and 3rd Iterations, September 2019)



Note. The yellow circles are examples of practice that have emerged as key features throughout the study.

These elements were, first, repeated interactions with a model exemplar (or text) and, second, rhythmic clapping and gesture to highlight linguistic elements, rhythms, and prosody through shared readings of the model text. A third aspect was embodiment through drama, with oral language featured like a musical “instrument” in the LIRIC classroom, and finally, writing experiments were used to improvise on sentences from the model text.

Teacher Experiences of Repeated Interactions With a Model Text

The use of a quality model exemplar was designed to emulate the Orff and Kodály practice of playing or improvising on familiar structures and is a key feature of the writing intervention and of the LIRIC model. Using a model text is not a new concept for literacy teachers, and teachers drew parallels to other literacy models but noted the different emphasis when a music lens was applied. In speaking of the particular qualities of the text that were beneficial for the students, teachers said, “It’s very visual. What *My Dad* has done is give the children sentences [to work with]” (Kelly.TI2.2019).

All teachers agreed that there were notable benefits in using a model text. One element that teachers perceived was that through teaching through a model text, a more natural, integrated, and effective approach for teaching grammar was afforded. Some teachers reflected that the LIRIC framework had specifically supported the teaching of grammar, language, and vocabulary awareness through the use of a model text.

The teachers explained that by paying attention to the linguistic structures of language through repeated interactions with the text, students made discoveries about complex grammatical aspects that were not usually a curriculum focus until later school years (Year 2 or Year 3). As interview responses are provided by all four teacher participants in this section through the discussions of each feature, a “quick reference guide” in Table 8.1 provides a way for readers to orientate themselves throughout.

Table 8.1*Marybank School Study: Teacher Participant Reference Guide*

LIRIC Framework Intervention Study at Marybank School: participating teachers quick reference guide	
Ms. Victoria Coffey Music specialist teacher	• Music specialist at Marybank for 7 years • Experienced teacher (more than 10 years) with experience as a generalist primary teacher and across all grades • Literacy involvement (ALEA) • Kodály-trained music teacher • Made initial contact with the researcher • Role in the study: guiding music–literacy connections; filmed music composition lesson; co-teaching participant with Ms Kelly
Ms. Danielle Kelly Year 1 teacher	• Year 1 generalist teacher • Experienced teacher (more than 15 years) with experience across all grades but mostly in early years primary contexts • Reading Recovery (literacy support) teaching background • No music education training • Role in the study: co-teaching participant with Ms. Coffey; interpretation of the framework through lesson planning and contribution to LIRIC framework development
Ms. Laetitia Pickering Year 1 teacher	• Year 1 generalist teacher • Experienced teacher (more than 15 years) with experience across all grades but most recently in middle years primary classes • Recently returned to full-time teaching after years as a teacher covering a range of release from face-to-face teaching roles including teaching drama and music • No music education training but some singing experience • Role in the study: co-teaching participant with Ms. Pearn; interpretation of the framework through lesson planning and contribution to LIRIC framework development
Ms. Alicia Pearn Year 1 teacher	• Year 1 generalist teacher • Midcareer teacher (more than 5 years) with early years primary class experience • Literacy involvement (ALEA) • No music education training; limited childhood experience playing music • Role in the study: co-teaching participant with Ms. Pickering; interpretation of the framework through lesson planning and contribution to LIRIC framework development

Note. ALEA = Australian Literacy Educators Association.

In describing how a teacher could help students become aware of more complex grammar aspects without necessarily using complex grammatical terms, Danielle commented,

[In terms of explicit terms] I haven't even touched verbs, nouns ... we haven't even touched that. But [through] *My Dad* they can see and hear [it]. The sentences go across pages, so we've talked about full stops and done modelled writing on the board [which I hadn't] done with this age group; I haven't yet talked about longer sentences and compound sentences. (Kelly.TI2.2019)

It is important to remember that prior to the study, the teacher participants had either not been teaching grammar at all or were teaching grammar in a limited way through a focus on word class (nouns, verbs, etc.) but overall were not confident with what aspects of grammar they should teach and how to teach it in Year 1.

Teachers had not used a model text to teach grammar before, and this approach seemed to allow a breakthrough. By the end of the study, using a model text for explicit linguistic inquiry was viewed by all three Year 1 teachers as a more acceptable and more effective approach for teaching grammar in Year 1, regardless of their teaching background and philosophy.

For Alicia, the teacher who had been opposed to teaching grammar in Year 1 and who remained hesitant about it at the end, using a model text allowed a more “naturalistic” approach for this domain. Though Alicia continued to wonder whether grammar had any place in the Year 1 classroom, she could see that grammar aspects could be emphasised in this way, through listening for linguistic rhythms and structures, without using grammar terms, in a way that was not overwhelming for young students who were only just beginning to discover writing.

For the other two teachers, Danielle and Laetitia, who had been supportive of teaching grammar but unsure how to do so and who had taught grammar as word class (nouns and verbs), this approach provided a more effective way to explain how grammar worked and was more enjoyable for students:

Certainly, it's made me rethink how I teach grammar. Certainly grammar, but even a lesson. Really thinking about breaking the lesson up into little components, with sentences. The teachers using picture books to teach grammar. Using cut-up sentences. I have never used cut-up sentences with a whole group. It's usually been with a small group. But I can see I need to do more of this; it's been very useful. (Kelly.TI2.2019)

Another aspect of the study that emerged was the repeated interaction with one text, which came to be seen as beneficial. The benefits of this approach with young readers have been noted in other studies (Maynard et al., 2007; McGee et al., 2011). All teachers also noted that there had been a marked improvement in the vocabulary used by students who were emulating the language and structures used by Anthony Browne. I clarified with teachers whether they were observing that students had become more “word aware” throughout the course of the study and what they attributed that to: “I would put that down to the word work that we did and exposing them to the rich language, I suppose” (Pickering.TI2.2019).

While it was generally noted that there were various benefits in using the model text to help students structure their ideas, some limitations of using a model text were also perceived by Alicia: “We found that by sticking to the text that was a bit restricting, for kids who naturally had that ... they were too focused on trying to fit their ideas down to the structure” (Pearn.TI2.2019).

None of the teachers commented on what possible impact the repeated reading of a text might have on students' development in text type or genre writing, although Danielle did note that students continued to enjoy the text and came to be able to recite it “like a rap” (Kelly.TI2.2019). Examples of repeated interactions with a model text are provided in Figure 8.2. Overall, there was a sense from students and teachers that through a study of the model text, they were able to sit together at the feet of the author to wonder at and appreciate the use of language and the “beautiful grammar”.

Figure 8.2

A Model Text Used to Show Structure and Language Patterns (Akin to Exemplars in Kodály or Orff)



Teacher Experiences of Movement (Gesture) and Sound

In a Kodály school, “physicality” through gesture is an aspect that would need to be explored. However, the research team also wanted to provide opportunities for both Kodály (gesture) as well as Orff (movement and drama) elements throughout the study as useful tools to emphasise language and linguistic rhythms and patterns. In the first few weeks of lessons, specific gestures were created by teachers and students together to highlight rhythms, and patterns, but especially punctuation aspects of the text (see Figure 8.3).

Figure 8.3

LIRIC Classes Created Gestures to Symbolise Punctuation in a Choral Reading of the Text



The teachers felt there were benefits to this approach, including syllable, language, and punctuation awareness, as identified by Danielle:

I've also noticed that in other activities they'll have a long word and will attempt to clap out the syllables so that's a positive. We hadn't done a lot of work on syllables. They created symbolic gestures to represent the punctuation and they've loved that. (Kelly.TI2.2019)

Laetitia also found that gestures provided a way to show rather than simply to tell students how to use punctuation:

Other than to tell children in my classroom what a comma is and what you could do with it, I hadn't really explored that so much as I did this time. Doing the actions, I hadn't explored. I suspect that their use of punctuation and language will have improved. (Pickering.TI2.2019)

Again, gestures allowed an awareness of linguistic structure and grammar without always needing to use the technical and grammatical terminology.

They're really aware of full stops because doing the full stop, the sound effects and all that sort of stuff, it made them aware of the sentence and they were able to understand, they were able to actually hear where it has to go. (Pearn.TI2. 2019)

Victoria described the way that students were

physicalising the apostrophe and the full stop in the sentences and ... now actually translating that onto written. They've actually taken it and are applying it. It comes from that rhythm and that pause to show a comma or full stop [and that] has helped them to translate that. Even the ones who can't necessarily articulate that, they're still doing it. (Coffey.TI2.2019)

For Victoria, clapping or gesture emphasised meaning. The musical aesthetics of language including dynamics, pace, and rhythm create mood and meaning:

The more kids can physicalise the words, the more you will get that narrative sense, rather than just being a string of words. Music is a narrative. It's designed to tell a story. The drama of it is used in dynamics—so the louds and softs and the pauses—all that is individual to the player and individual to the experience. (Coffey.TI2.2019)

In identifying the limitations of the approach, Alicia commented,

At first, we were just clapping syllables, and then that was a hinderance. We then moved away from that. I liked the structure of it, but then the composing at the end, the freedom to take it where I want to go. (Pearn.TI2.2019)

Teacher Experiences With Drama

I introduced drama as a specific strategy for highlighting prosody in language in my demonstration lesson at the beginning of the study. The lesson exemplified the way characters as well as vocabulary could be developed. Drama was picked up as a strategy later in the study.

Teachers commented that by embodying their characters, students seemed to be able to find specific words more readily, and could emulate the stylistic literary features modelled by the author this way. Through drama, students were inspired to bring their characters to life and the development and use of specific language was associated with the building of characters.

The teaching team integrated drama halfway through the study to complement the improvising and composing elements of the LIRIC study.

Students and teachers spoke positively about the element of drama:

I did think that that really focusing on the rhythm and that drama did help some children, who, I think it really gave them something, and translated into their writing. To be able to model the rhythm and with that language really helped the children. (Pickering, TI2.2019)

The teachers commented that drama brought a playful interactive element to the writing classroom and connected drama elements to oral language and vocabulary development:

Talking it out, it came out naturally. (Pearn, TI2.2019)

Doing a bit of readers' theatre ... The kids do it naturally with you ... exploring it together, inquiring together. (Coffey, TI2.2019)

For Alicia, for whom play-based learning was particularly central to her classroom philosophy, drama provided an opportunity to emphasise play in the writing classroom. For other teachers such as Laetitia, drama was also a key to heighten children's attention to vocabulary. For all teachers, using drama brought a sense of joy, collaboration, and engagement they (and their students) did not usually associate with the writing classroom. See examples of rhythm, movement, speech and sound in the oral-aural, drama-based LIRIC lessons shown in Figures 8.4 and 8.5.

Figure 8.4

Drama Experiences: Students Prepare for Descriptive Writing (Moving as Their Character)



Figure 8.5

Drama Experiences: Students Develop Vocabulary “in Character” With Their Partners



Teacher Experiences With Writing Experiments (“Recitation” and “Improvisation”)

In the initial demonstration lesson, I had asked students to innovate on phrases and sentences borrowed from the text. In this approach, students work with one phrase or sentence from the text on long strips of paper and imitate and improvise on sentences. Texts are created in pairs and involves students reading these aloud to one another to evaluate the rhythm and vocabulary created and amend and improve them.

When describing the way “writing experiments” were received by students, a teacher commented,

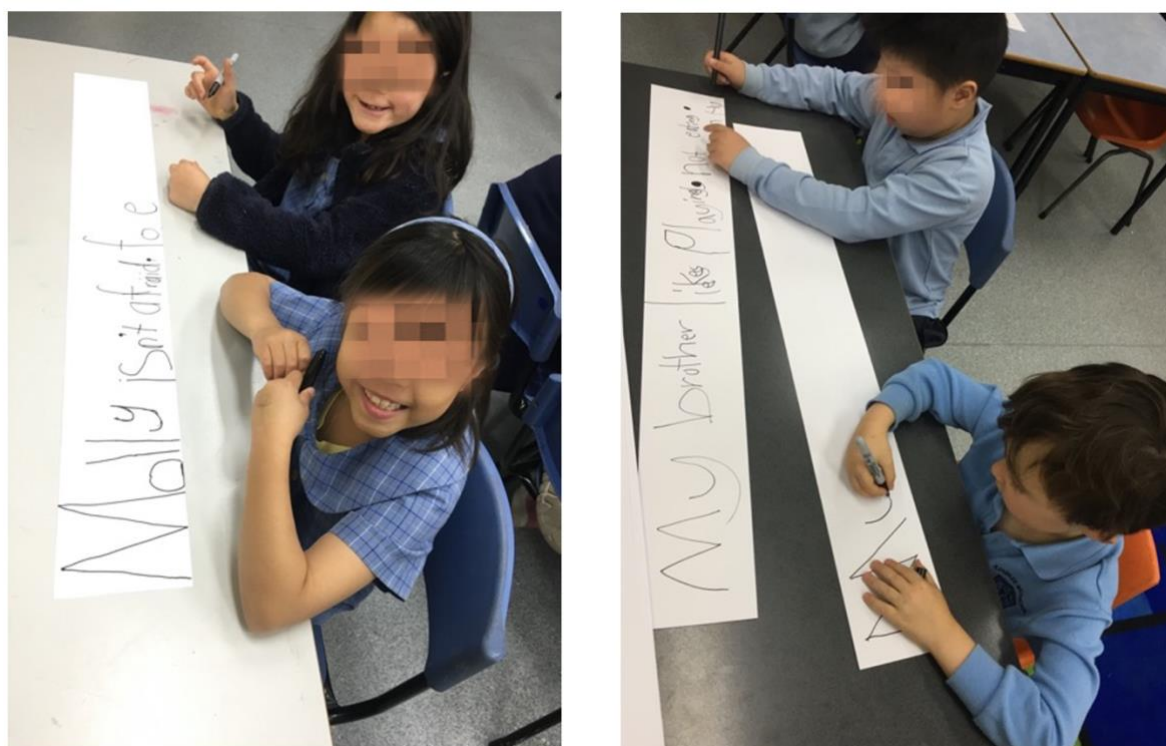
They really love showing their writing. [There is] ... less time to actually sit down and write the sentences but it's more creative. [So, for example] can they transfer what they've done and transfer to their writing and make it longer?

(Kelly.TI2.2019)

Writing experiments used rhythm, movement, sound and speech to support attention to linguistic writing elements. For examples of writing experiments in action see Figure 8.6 and 8.7. The writing experiments also provided a way to introduce writing as an iterative process and introduced children to an early kind of editing process. This, too, was playful and involved a mood of experimentation, oral rehearsal, aesthetic appreciation where students “language awareness” and metalinguistic skills were developed.

Figure 8.6

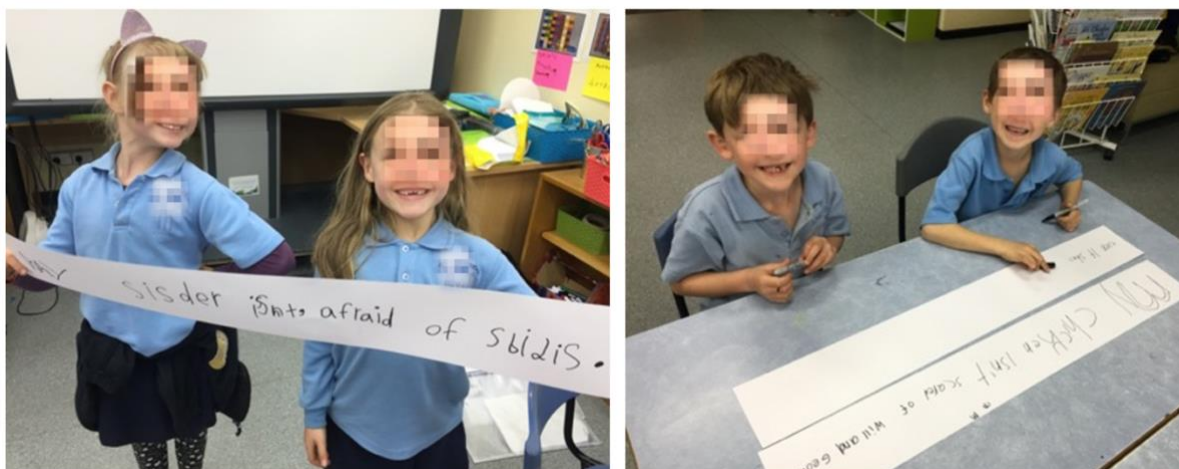
Key LIRIC Lesson Feature: Writing Experiments



Note. Students work in pairs with sentences from the text to create improvised sentences. An aesthetic conversation: “I like that word, it sounds good”. Writing feels like drawing, a pleasing artful process.

Figure 8.7

Key LIRIC Lesson Feature: Writing Experiments



Note. Writing experiments encouraged natural editing processes. Language was the material of play in oral/aural negotiation. The large natural script evoked a sense of the performative quality of the spoken word and the linguistic as performance and play. A sense of joy in creativity was evident.

Summary of Key Practices

As will be demonstrated through the various stages of the framework iterations, teachers found various practices to be useful throughout the Phase 1 study. Some of the initial approaches, more closely linked to Kodály approaches, were seen as “important groundwork” but for some also became a “hinderance”. The more naturalistic approach of the Orff-inspired drama approaches allowed more creative improvisation and for the students to move away from the models. This may be an example of what some educators, who blend both approaches, would call “KodOrff-ing” the classroom (Pretty-Norbury et al., 2018). Perhaps it is a way to realise a bringing together of various approaches in harmony to satisfy the “rhythmic” appetite of learners, which Whitehead talks about in his ‘rhythm of education’ model (explored in Chapter 11, see ‘Aims of Education’, 1929).

LIRIC Music-Inspired Framework for Writing: Iterations at Marybank School

Over the duration of the study, three iterations of the framework resulted in the introductory iteration which I had provided; a mid-study iteration, determined by the teaching participants; and two final iterations, which I created in response to this study's overall themes and findings.

First Framework Design Iteration

The framework introduced into this study's context at Marybank School placed an emphasis on (linguistic) rhythm, (language) patterns, and (textual) structures inspired by a model "composition" so that through listening, interpretation, recitation, and improvisation, students experienced language and writing composition in new ways within a classroom informed by music pedagogy principles derived from Kodály or Orff classroom practices.

Drama experiences, explicitly in the framework from the outset, as explored in my own classroom practice, provides a way to "play" with and through language like an instrument or singing does in a music classroom. In the "music-rhythm" writing classroom, drama is used to draw students' attention to the natural linguistic rhythms of language.

Furthermore, dramatic role play is also used to heighten oral–aural language experiences and encourages students to build their ideas for writing their own literary descriptions. Though drama was not immediately introduced in lessons at Marybank School, when it was finally incorporated in the third and fourth week of the lessons, students and teachers commented that this was an effective method for supporting vocabulary and to develop "more ideas" for their writing (SI2.2019 and TI2.2019).

Second Framework Design Iteration

The second iteration of the LIRIC framework was made in response to the music and demonstration lesson. Influenced by these, the teachers wanted to explore three main aspects. The first two aspects were taken from the music lesson to address the "listening, reciting, and

interpreting” aspects of the framework. The third aspect addressed the elements of “improvising” and “composing” adopted from my lesson demonstration.

The three aspects added in the second iteration of the framework were physical gesture (gestural symbolism), derived from a Kodály music approach and used to accompany shared class recitations of the model text; rhythmic clapping, used to accompany choral reading of a sentence from the model text that would focus on syllables, phrases, and sentence patterns; and finally, student pair “writing experiments”, written on strips of cardboard to give students the opportunity to improvise or adapt a sentence from the model text.

The first aspect, gestural symbolism, was borrowed from the Kodály music classroom and is usually referred to as “solfège”. Solfège supports students as they sing when learning a piece of music. These gestures are used to symbolise pitch and intervallic (pitch–chord) relationships and are designed to “physicalise” or make visible certain abstract musical concepts. They might help students visualise a deeper or higher note, for example, and are used to assist memory.

In a similar way, the music teacher supported the literacy teachers to explore what analogous aspects of writing could be supported. Teachers found that students who found it difficult to identify a sentence and to hear where a sentence ended could be supported to physically note where sentences ended in a similar way. Students invented their own gestures during this study to symbolise punctuation as they read the model—for example, “punching the air” for full stops or a curl in the air with their fingers to indicate a comma. Punctuation aspects, including their purpose and effect, were also explained by teachers in the context of reading the book and were likened to notation in music. In this way, teachers and students were noting punctuation, not as rules of writing but as sound elements.

The second aspect common to Orff and Kodály classrooms—clapping words, phrases, and sentences as might be used in a music classroom to highlight the rhythm of a musical piece or song—was used to appreciate and understand the linguistic language structures and to reinforce syntax. Clapping the linguistic rhythm of a sentence was understood by students to

appreciate the aesthetic choices made by the author and for assessing and appreciating their own writing. For example, several students commented on aspects such as contractions that created a “smoother” rhythm in the text (SI2.2019): “He’s alright, my dad” instead of the more “robotic” sound of “My dad is alright” or “He is alright” (Browne, 2003), and many students emulated this use of contraction in their own writing for this reason.

Linguistic rhythm also affected vocabulary choices so that by clapping out a phrase or sentence, students noticed and described that single-syllable words could create a bolder impact, while multisyllable words might provide flow or a faster rhythm—for example, the difference in rhythm of “small like a rock” compared to “miniscule like a tiny pebble”. Students spoke of these choices as aesthetic ones, where deciding which was better was a matter of what “sounds good” to the writer, a matter of authorial agency.

The third aspect included in the mid-study framework iteration was writing experiments. The writing experiments were closely linked to the first two aspects and involved students working in pairs to innovate on a sentence structure from the text, adapting it to create their own sentence about their own characters. These writing experiments, designed to emulate a music classroom where students might innovate on a sound pattern or musical phrase, involved testing the new sentence aloud and collaborating with a partner to create pleasing variations.

These writing experiments naturally drew out such features as student talk, an emphasis on playing with sentence structure, and word choice, and students tended to become free in their writing style, preferring to write in big bold lettering using coloured pens. Through these experiments, crossing out and drafting practices emerged. These aspects made the writing classroom feel tangibly different to a usual lesson, as reflected in comments made by the teachers. Through writing experiments, there was direct imitation of features of the text and playful writing sparked by peer interaction and an environment of experimentation. As students were focused on just one sentence rather than a whole text; there was also an increased attention given to the language aspects such as sentence structure, punctuation, and vocabulary.

All three aspects used in the second iteration of the framework impacted the domains that were most improved, as an analysis of student writing samples were to show. When teachers reflected on these activities, they saw great benefits in using these three aspects as important “groundwork” for writing (Kelly.TI2.2019).

Third Framework Design Iteration

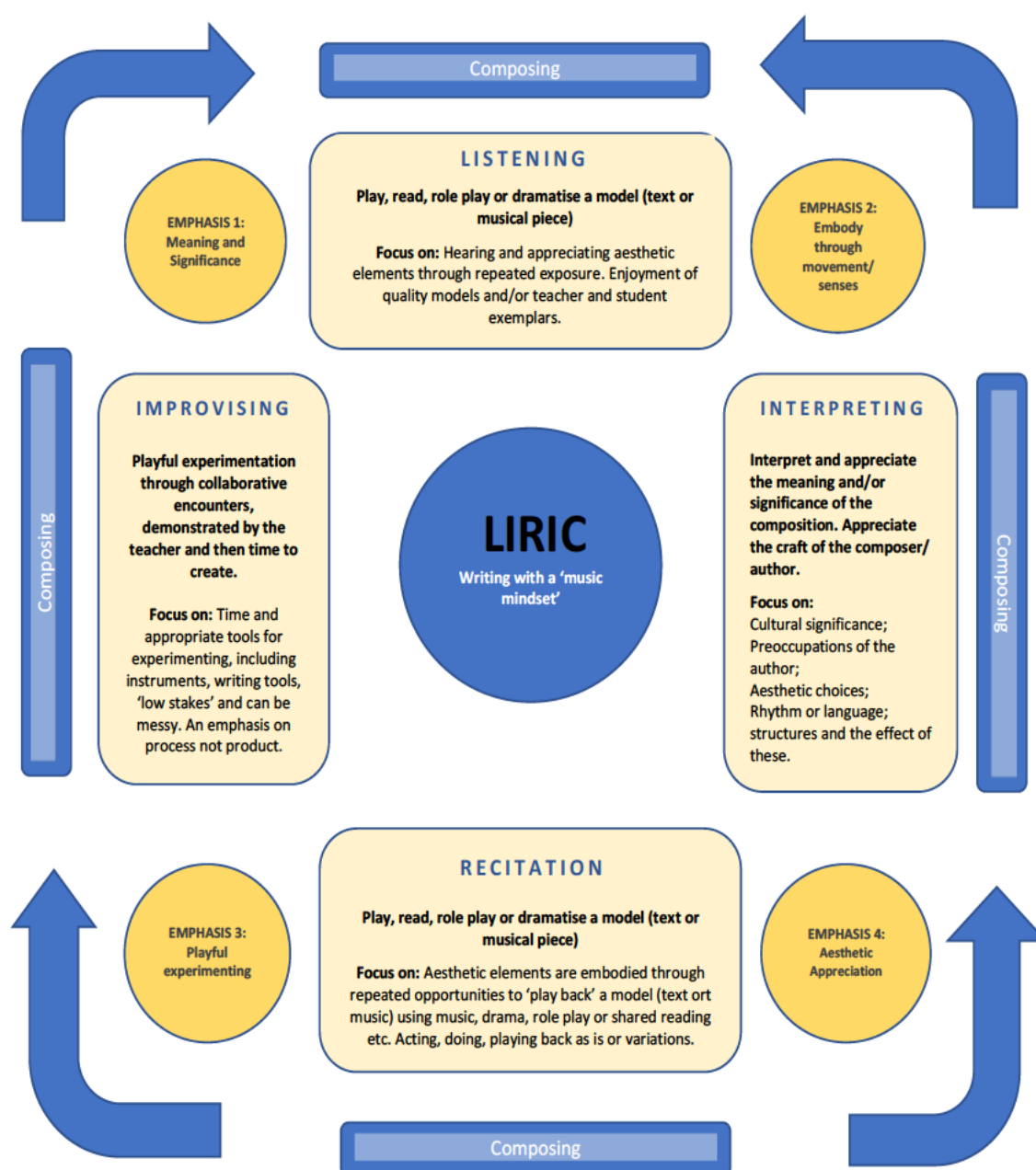
By the fourth week of the study, teachers identified limitations with the three key aspects explored within the second iteration. Where there had been benefits to these three aspects (i.e., linguistic rhythm and syllable clapping, use of gestures, and writing experiments), there had also emerged a sense of their limitations and that they were becoming a “hindrance” (Pearn.TI2.2019), especially to extended writing of the text genre that teachers felt was an important next step for students. At this point, teachers wanted to focus on the “improvising” and “composing” elements of the framework. At this stage of the study, teachers chose to introduce drama as had been exemplified in the demonstration lesson which I had provided. This was seen as a way to provide opportunities for students to explore the “improvising” element of LIRIC. Extended independent writing time was also given to immerse students in the “composing” element. Drama, specifically role play, was used to build vivid characters and descriptive language to support students in their writing. In interviews, teachers highlighted drama as an effective way to develop vocabulary, writing ideas, and language structures (TI2.2019), which they observed was particularly suited to some students.

A key aspect of this stage of the study was that in these lessons, teachers felt there was room to give less focus to key text. While still mindful of the model text, students were encouraged to explore and create their own language structures, which some students could do more boldly than others. Teachers made some references to Anthony Browne’s techniques, but the emphasis was on original student composition. A key aspect of this phase of the study was that less time was given to teacher reading and instruction, and more time was given to group and

pair drama (oral experimentation of ideas for writing) and extended writing. Iterations of the framework were created post-study to capture these experiences (see Figures 8.8, 8.9 and 8.10).

Figure 8.8

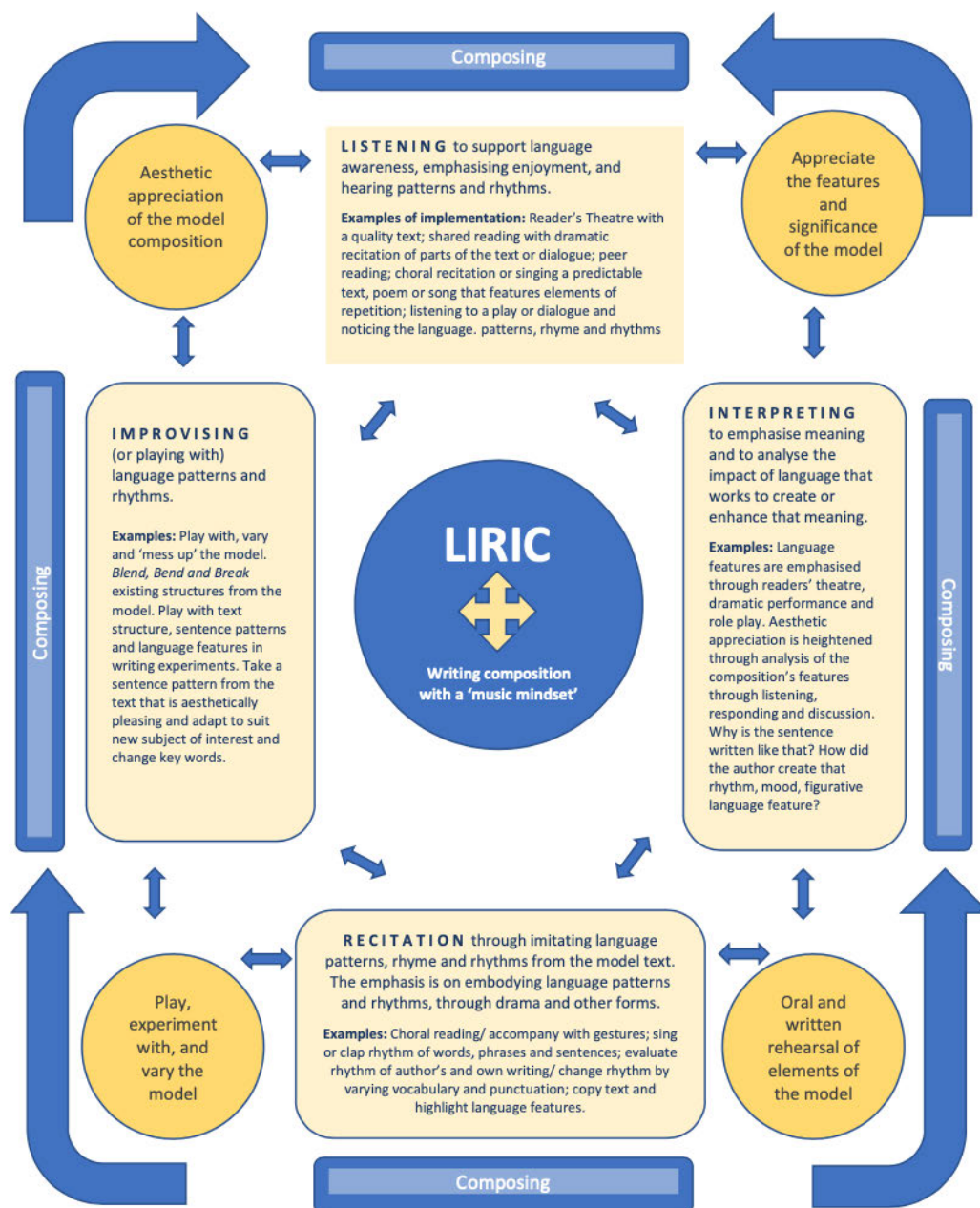
Post-study Framework Iteration (Version 1)



Note. Yellow circles indicate emphases that have emerged as key features. Activities used in the study are implied through the concept circles (e.g., gesture in “Emphasis 2: Embodiment through movement”).

Figure 8.9

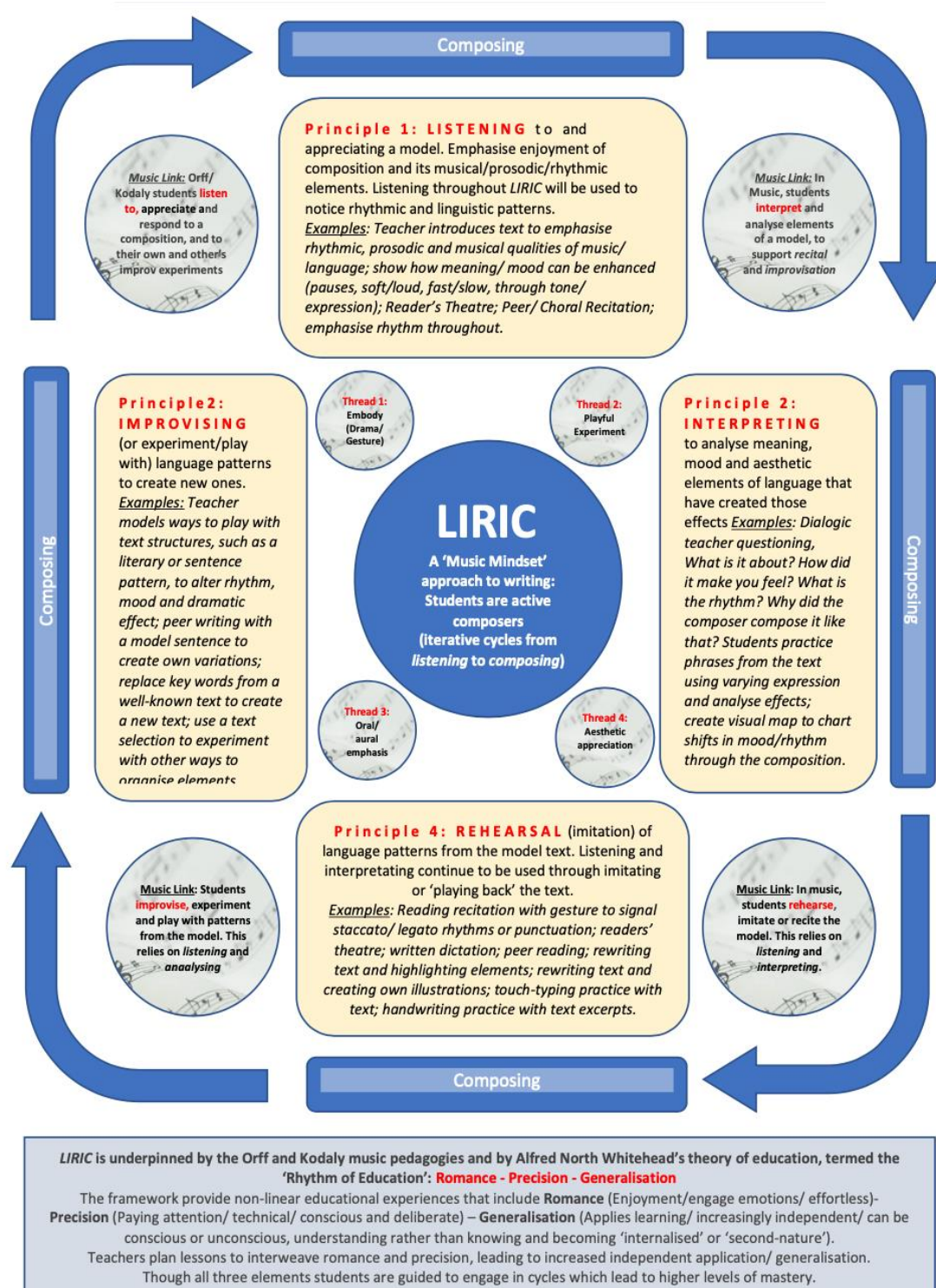
Post-study Iteration (Version 2)



Note. The yellow circles represent emphases that operate through all elements and emerged as key features of the LIRIC approach through the study. Specific lesson implementation used in the study are provided as examples.

Figure 8.10

Post-study Framework Iteration (Version 3)



While an analysis of mid-study writing experiments and in-class text samples showed that students could replicate language structures from the model text, the final writing samples

demonstrated the extent to which students played with but also abandoned the model text structures for their own writing innovations. This varied between students so that some preferred to remain within the bounds of the modelled patterns, while it was evident that many other students felt confident to write beyond those.

Final Study Framework Iterations

On reflecting on the design intervention, and through examining teacher and student data from the study, several framework iterations are offered as shown in this chapter. Overall, it appeared throughout the study that different emphases were needed to suit the needs of Year 1 writers at various points of the writing process. In assessing the framework, and in considering future implementations, it is important to consider that various elements of LIRIC can be helpful, depending on student needs and stages of the writing process.

Teacher Pedagogy Findings

Teacher responses regarding the scope and benefits of the model fell within four themes. First, teachers were generally positive in their affirmation regarding a music–literacy and rhythm–grammar link. Second, it was recognised that there were benefits of the music-inspired LIRIC framework for student engagement and other student outcomes. Third, there was a recognition that the writing classroom is benefited by several music-inspired approaches and that the framework has the potential to offer this through its iterative cycles. Finally, there was consensus between the teachers that the elements of the framework were interrelated and that various iterations of the framework were needed to attend to students’ needs and varying creative and learning “appetites” (Whitehead, 1929) at different stages of the composition and learning process.

Each of these aspects is described in the following ways. First, with regard to the rhythm–grammar link, generally, it was accepted that the “music mindset” approach allowed a more engaging and interactive way to attend to grammar with Year 1 students, and teachers could see

that using a music lens had helped students to conceive of the linguistic structures of text in more creative and effective ways than a traditional grammar lesson might have.

Linking music to writing seemed to illuminate for teachers another way to conceive of the teaching of writing, particularly grammar, and some teachers began to conceive of “grammar” as something that could be viewed as an aesthetic linguistic compositional tool. Conceiving of grammar as something that creates linguistic rhythm allowed teachers to conceive of grammar (or, language structure and patterns) as having the capacity to be “beautiful” and, therefore, to be appreciated in purely sensory terms.

Second, throughout their responses, teachers agreed that the LIRIC intervention approach was a more interactive and more enjoyable experience of writing for the students and noted the strengths of various elements for different stages of the writing process. Third, a review of teacher lesson data, lesson observations, and teacher interviews also confirmed that a number of new music-inspired practices, not normally used in the writing classroom at Marybank, were able to be implemented for the benefit of students.

While in initial teacher interviews, teachers had expressed a spectrum of philosophical approaches, from “naturalistic” to “explicit” teaching approaches, in practice, as was articulated in the final interviews, there was consensus that a variety of approaches in the writing classroom were beneficial. While favoured elements had formerly included student conferencing one-to-one, mini lessons and extended silent writing, teachers expanded their repertoire for writing through the study. Teacher approaches by the end of the study included teaching genre, grammar, and vocabulary through a model text; embodying practices through gesture, clapping, and drama; peer writing experiments; and rhythmic awareness approaches to emphasise linguistic and grammar elements.

Last, in terms of the LIRIC framework itself, teachers said that they were at first focused on each LIRIC element separately. However, after experiencing and teaching with the framework for a few weeks, the teachers found that trying to focus on all the elements individually was a

challenge: “We were possibly trying to do too much and think about writing as the end product. I think given practice, it’s worthwhile” (Pickering.TI2.2019).

They found that the elements were so interrelated that there could be an unhelpful artificiality in planning for the elements separately:

Especially knowing that I don’t need to do each of those steps in one lesson, that actually feels very natural and a very good way of introducing and making connections and building all that groundwork before composing. There’s a lot of groundwork that happens ... before they go off and write independently. Doing this has really helped me think about the way I teach and I don’t think teachers naturally do this. I think I could use this. (Kelly.TI2.2019)

Teachers’ comments in planning notes (see Appendices S–U), show that teacher approaches to planning quickly evolved to a more fluid approach, noting, “The framework is not linear-hierarchical. We dip in and out of all elements all the time because they are all interrelated aspects” (see Appendix V).

Overall, teachers commented on the short timeframe of the study that they felt did not allow for the framework to become “natural” practice yet, though they could see the potential for this. In addition to the study’s timeframe, some teachers commented that a broader repertoire of suggested lesson ideas and activities to support class application of the approach would have been useful. In addition to these reflections, teachers found that the model needed to clearly express the interrelated nature of the LIRIC elements.

It should also be noted that the teachers and I made some predictions about the improvements we thought would be evident in student writing in the final writing samples. The key improvement predicted by me and by the teachers was that punctuation and vocabulary would be the most likely elements to have noticeably improved in the final writing samples.

The teachers also noted that the LIRIC approach, with its inherent focus on oral language, was a good way to provide important groundwork for writing, but also limited the time spent on extended independent writing. This reflected an assumption from the teachers that oral language activities, with less time spent on extended silent writing time, would perhaps have a negative impact on their writing quality and perhaps result in very short post-study writing samples.

An analysis of student writing would prove a critical aspect needed to determine the outcome of these predictions. A careful analysis of student writing samples would be an indication of whether (a) the absence of regular extended writing would appear to negatively impact student writing and (b) an added emphasis on oral language would appear to have a demonstrably negative impact on the quality of student writing. Both elements were expressed as diversions from the usual approaches used in the classroom and were viewed as having some impact on the quality of final student writing.

Student Findings

This study's findings, though gathered within a prohibitive 6-week timeline, addressed the three objectives of the study. First, a common language to describe the composition process for music and writing was discovered through curriculum descriptors and through the LIRIC model; second, music pedagogy principles were successfully applied and shown to have potential, though a greater repertoire of class applications needs to be further explored; and finally, even while the framework was in its first iterations, the impact of the framework on student outcomes appeared to be promising, with signs of moderate to significant gains in writing for most students. These objectives have not been completely satisfied and further examination of these would be useful for providing further clarification of common terms. A broader repertoire of class applications of a music–language model for musical rhythm, movement, sound and speech are also needed for determining whether the promising student outcomes found here can be replicated elsewhere.

However, there is enough that is promising about the student outcomes indicated in this study to indicate significant potential for further studies.

One key objective of the outcomes of the study at Marybank School, ‘Writing with agency and impact’, was set by the school’s leadership team prior to and separate from the study’s aims but was nevertheless used as a lens for assessing student gains, in keeping with the school’s aims. It was found that a greater degree of agency and impact was expressed by many students through their interview responses and through writing samples. Students described their developing understanding of the process of writing, seemed to take greater risks and to speak authoritatively about the aesthetic choices they could make as writers.

The key features of the study that replicated the Orff-Kodály music classroom and which showed the most significant potential for the writing classroom were the aspects of *listening and interpreting* through repeated interactions with a model text, *recitation (imitation) and improvisation* through short peer writing experiments using borrowed sentences from the model text to heighten an environment of a “low-stakes” environment of play and exploration, and *recitation (imitation) and improvisation* through experiences such as drama, role play and gesture, where the opportunity to hear and “play” language out loud provided opportunity for students to embody the patterns of language in a model text and to develop an ear for the linguistic rhythms of language.

While not always unanimous and with some degree of uncertainty at times, as might be expected in the pioneering stages of a framework development, ultimately, teachers and students confirmed that there was a plausible link between writing and music. Furthermore, teachers and students saw that using an interdisciplinary music–literacy approach provided unique benefits and supported enhanced teaching approaches and learning outcomes in writing. The interdisciplinary “music mindset” nature of the study seemed to illuminate for teachers another way to conceive of the teaching of grammar and language aspects and for students, a more intuitive way to think about writing.

Chapter 9

A Music Pedagogy for Writing: Conclusions and Implications

Assessment of a LIRIC Framework for Writing in the Classroom

The most characteristic principle of all vital activity is rhythm.

- Susanne Langer

This study has explored a lost connection between music and language, and between music and writing and that there is distinct value in recapturing this connection for the benefit of young writers. The dimensions of the LIRIC framework—for listening, interpreting, rehearsing, improvising and composing—have been an important lens through which a classroom for writing has been not only envisaged but brought to life in several Australian school settings and contexts. As Langer (1942) points to, rhythm in its original sense of flow and form, is essential to all creative life and work and which has been highlighted by the music perspective.

The framework draws on musical rhythm, movement, sound and speech and has been used to reconceive the pedagogy for teaching a range of genres, narrative, descriptive and informative forms of writing in several diverse classroom contexts. Firstly, the framework was used across a range of ages, in early years, middle years and upper primary years classrooms in two Australian states—a public government-funded school in a mixed profile suburb, a low-fee independent school in a lower socio-economic school and an independent school in a high socio-economic independent school.

This research confirms a rhythm-grammar link as indicated in cognitive psychology findings outlined in the literature review. The treatment of the metalinguistic compositional

elements, such as text structure, punctuation, vocabulary—and particularly, grammar—were enhanced through a music-rhythm aesthetic approach drawing on rhythm, speech, movement and sound.

This chapter summarises the theoretical and research evidence presented throughout this paper. It synthesises the significance of the findings from the empirical explorations discovered in 3 Australian settings; explains the limitations of the study and finally, outlines several implications of the study and the scope for further explorations of music and writing, for metalinguistic creativity and grammar.

Summary of Theoretical and Research Evidence

This study was based on the premise that music and language are connected, as signposted in the field of semiotics. The interdisciplinary research underpinnings are derived from three schools of thought: a social semiotic, multimodal framing; a phenomenological aesthetics framing and from cognitive psychology. From a phenomenological aesthetics perspective, a rhythm–language link was made (Barthes, 1984, 1985; Langer, 1942), and in the cognitive sciences, a rhythm–*grammar* link has been pinpointed (Patel et al., 2003, 2007, 2012). The combination of semiotic perspectives converges around rhythm and grammar. In recent multimodal explorations, music, sound and speech are being explored in the context of writing (Noad & Barton, 2020; Noad & Unsworth, 2007). With the rhythm-grammar underpinning as a basis, exploring the natural and creative instincts for speech and rhythm as a way to support the more ‘difficult’ aspect of metalinguistic grammar appeared promising.

To date, educational and neuroscientific researchers have explored what impact music instruction can have on outcomes in literacy—including for speech, reading, grammar, and phonological and morphological awareness—as well as the benefits of using music directly in the literacy classroom. However, until now, research had yet to explore what potential scope and value there may be in adopting and applying the underlying principles of music pedagogy for an

enhanced grammar (or metalinguistic) awareness. Grammar is a relatively under researched aspect of primary literacy education and often considered the most difficult of the writing sub-strands.

Summary of the Study

A comprehensive literature review and an exploration of the implications of these findings led to the development of an iterative design-based LIRIC framework, refined in three contexts. The review and empirical research established that music and language do share a link, that can be drawn upon to support learning in the grammar–writing classroom. Further, music, rhythm and gesture are strongly implicated in the music–language connection.

The key aims of the study were largely fulfilled. The LIRIC framework proved a viable approach, which enabled teacher creativity, and which could be flexible to allow various approaches, that were responsive to the needs of students at various stages in their learning. The rhythm-grammar link was the most uncertain aspect of the framework, yet through the pilot and main studies, this emerged as a vital element. As the framework was refined, the LIRIC framework demonstrated how the elements could sharpen oral language and grammar awareness to support metalinguistic creativity for writing. Each element of the LIRIC framework appeared to be important in the iterative and recurring cycles of implementation with the dimensions of rehearsing and improvising as most vital for developing metalinguistic creativity and grammar awareness. The framework has the potential to be considered as a model for the English classroom generally.

Revisiting the Research Questions

The key and supporting questions have been explored with several valuable important findings. First, the viability of a music-language—as well as a music-writing connection—has been established through the literature review. It drew on a range of interdisciplinary evidence, but which pointed to a common origin in the field of semiotics and linguistics. Through evidence found in cognitive science, social semiotics and phenomenological aesthetics examples of

potential classroom practice have been established and explored in this study. In particular, the cognitive science findings that there is a connection between beat perception and language-grammar (syntax and punctuation) outcomes for young children has been explored in a classroom context for the first time, with promising implications for children and their writing. Second, the viability of these as an underpinning for the LIRIC framework has been explored in three empirical studies. These appear to confirm the findings of the literature review that musical and natural speech rhythm can be used to support writing, including the technical aspects of grammar and punctuation.

The study showed that oral language, gesture, speech and sound were pivotal to linguistic grammar awareness. From Kodály, the use of model exemplars and gesture was useful for developing an oral/aural and rhythmic sense of the rise and fall in intonation that marked a sentence beginning and end. From Orff, the use of improvisation through writing experiments and drama experiences were important for supporting the metalinguistic elements of vocabulary, punctuation and grammar.

Of all the strategies explored, oral/aural rehearsal through choral reading and drama, as well as improvisation through peer writing experiments supported by classroom talk, were pivotal to the success of the framework model. An exploration of the research questions through the research questions have highlighted that music pedagogy, through an emphasis on oral language (including musical and prosodic rhythm), gesture and improvisatory musical strategies heightened the elements of both play (experimentation and risk-taking) as well as precision (technical aspects, such as grammar and punctuation).

Key Findings

An assessment of the research literature and of the in-school explorations, reveals several key aspects that have been highlighted through a LIRIC framework study.

Rhythm

Rhythm emerged as a key concept, in a musical sense for drawing out the prosodic elements of speech and to draw students' attention to the aesthetic qualities of language. Musical rhythm, through gesture, speech prosody, drama, and other shared oral-aural experiences seemed to provide a powerful basis for gaining confidence with language. The interactive elements which were predicted by the teachers to have perhaps undermined writing advancement, instead ensured a swifter path to grammatical awareness and progress.

This enabled significant progress to be made so that by the end of the study, some students were demonstrating writing competence that was beyond grade expectations, using features in their writing that would normally be considered too complex for Year 1. Examples of this included the extensive use of contractions, brackets, full-stops and commas throughout their writing which had not been present in their first writing samples and which are usually taught in grades 3 or 4. These elements were directly related to the students' developing instincts for the rhythms of language and the connection of writing to speech, which they sought to capture in their notation on the page. A distinct attention to rhythm in the design of lessons allowed students to grasp difficult language aspects through the affordances of speech and sound, and as exemplified in the model text.

Furthermore, *rhuthmos* as flow was also a key aspect of the framework implementation. The cyclic iterations between play and precision provided the context for students to continue developing and allowed for variety. This was reliant on the teachers' attunement to the "natural cravings of the human intelligence" which Whitehead articulated was a central aspect of a rhythm of education (Whitehead, 1929, p. 32). For this study, both in the pilot and main studies, a balance between play and precision were needed to ensure students were developing their confidence, and sense of agency over the compositional arrangement of their writing.

Speech, Gesture and Movement

The LIRIC framework was refined in two key aspects. Firstly, the aspect of recitation was revised as “rehearsal”. Rehearsal flows naturally into improvisation where the rehearsal of an idea, speech pattern, literary device, new vocabulary or sentence structure can be both playful and precise. Rehearsal attends to matters of refinement, but this refinement takes place through peer interactions involving aesthetic decisions about writing and linguistic aspects. Rehearsal was something the students were motivated to do as a creative act, rather than as rote learning, as they developed a character through drama rehearsal, or developed expressive reading through choral interactions with the text, and through writing experiments. In this sense, rehearsal, unlike rote repetition, involved student agency, whereby students developed an idea or shaped a sentence with refined word choice or punctuation.

Movement was another unexpected aspect that was added to the LIRIC framework by the teachers. Gesture through hand signals was a successful way to visualise and emphasise the notational elements that provided the rhythmic cues in the text. Students demonstrated a significant lift in their flair for punctuation, which they used to give their writing a more expressive quality. They used punctuation almost like script cues to an actor, indicating the way a line might be read. Further to gesture, movement was also added in the form of drama and which the teachers noted provided an uplift in attention to their vocabulary, as they refined their characters.

Grammar as metalinguistic creativity

As has been expressed by Myhill (2019), the development of linguistic grammar expressed in the notion of playing with “endless possibilities”, is empowering to students. It also emphasises the true nature of the writing process. They are also at the discretion of the author who can make choices about the kinds of language effects they would like to achieve.

Through this lens, students developed a sense of their creative control and the language choices that could be made as aesthetic considerations. Play and improvisation were foregrounded, and students made determinations about the precise elements of language choice and punctuation through a creative authorial lens. This approach appeared to remove students' laboured approach to writing, and a fluidity became apparent throughout the study. A metalinguistic approach through writing experiments also encouraged students' self-editing approaches so that this flowed through quite naturally to their independent writing.

Play and Improvisation

A key finding in the research literature and in the study was the place of play and improvisation. Each of these aspects have specific connotations in the music context, where playing music and improvising require technical skill, and suggest some aspects of precision. Play, through peer writing experiments, drama, and oral-aural experiences proved essential to the writing and linguistic development of the students, where playfulness in a novelty and creative sense was used to support technical detail.

Play and improvisation also appear to be undervalued in the English curriculum, though they are strongly emphasised in the Music and other Arts subjects. This is an aspect that could be further explored in the literacy classroom, that is, the place of experimentation for lifting aspects of grammar.

Research Methodology

There are some decisions I have made in the research methodology employed in this study, which some would consider unorthodox. These decisions have been necessary in exploring the implications of a music-language link and for exploring the implications for education. Disciplinary siloing persists in educational contexts which operate within too limiting educational policy paradigms. However, the limiting paradigms also exist in traditional scholarly academic research approaches.

As a new researcher, I attribute my courage in making these decisions to the unorthodox, yet highly respected, scholars and practitioners whose work I have closely followed throughout this study. These scholars and practitioners have forged new paths for theory and practice, and have influenced others working to forge similar connections. These include the work of Michael Halliday, Leonard Bernstein, Margaret Mead, Susanne Langer, Roland Barthes and—chief among these as the key theoretical framing used in this study—the work of Alfred North Whitehead.

Interdisciplinarity has undergirded this research study through all aspects of the literature review, theoretical framing and empirical studies. Through an exhaustive literature review process, exploring a range of multidisciplinary and interdisciplinary studies regarding the music-language phenomenon, I was able to establish some common principles or generally agreed ‘truths’ underlying the connection. Furthermore, I was able to see how the various disciplines connect and intersect, and to locate a common research basis in semiotics.

The empirical study was also interdisciplinary in the sense that teachers usually working in disciplinary silos have worked together and shared insights. Music teachers have been a source for guidance for literacy teachers, and which music teachers have told me is their first experience of this. The teachers have also been encouraged to see two seemingly different classroom activities (music composition and writing) as similar and even as having the potential to be more closely aligned.

Promising findings in the cognitive sciences, regarding rhythm and language, have also been explored in a literacy classroom for the first time. These include that musical beat perception have a direct impact on both simple and complex grammar outcomes. There has been much interest in the cognitive sciences, especially in the past decade. The direct application of cognitive science findings in educational contexts has become commonplace, often without adequate studies first being conducted into what their practical applications in educational contexts might look like (Seidenberger, 2023; Weinstein et al., 2018). This study has sought to apply cognitive research findings to show ways in which these could be applied in a school context. The findings that rhythm training lifted children’s

perception of syntax had previously only been undertaken in scientific laboratory settings,. The study has been able to explore some uses of this finding in a classroom setting. The results are promising rather than conclusive, and further explorations and iterations of the study are needed to advance the use of these methods for the classroom.

The Significance of Arts-Based Education for Policymakers

This research has also highlighted some key considerations for policymakers. Arts-based instruction has been shown to have important impacts on educational and well-being outcomes. However, this study has pinpointed a specific application of musical processes and rhythm-based strategies for one of the most perplexing core skills, one that has been the subject of controversy and debate, that is in the aspect of grammar and writing. It highlights the need for policymakers and curriculum writers to look more closely at what arts-based approaches can offer for those core subjects. The arts has the potential to support even the most perplexing aspects of those subjects which are often treated with special weight and which have assessment implications through basic skills testing in literacy and numeracy.

Problems and Limitations

This study has sought to develop a framework for the teaching of writing underpinned by music pedagogies, featuring rhythm. There are some aspects of the research methods which may have contributed to the framework's successful implementation in three contexts with implications for certain claims about generalisability.

Overall, three schools were involved in the study: two for the pilot studies and one for the main design-based intervention. The schools represented a range of socioeconomic contexts but in each school, music programs were offered to all students. This may have meant that to some degree a culture of music learning allowed students and teachers to conceive of a musical and rhythmic-based approach for writing in ways that may be more challenging in schools without music programs offered in the school. Many Australian schools currently do not provide

music programs (Collins & Dwyer, 2020). It also means that some schools without music, music teachers and music resources, may find it less feasible to use a framework such as this one.

While the framework offered a legitimate and valuable way to teach writing, as noted by the teachers in the study, including as a way to explicitly foreground oral language, sound, speech and grammar, further investigation is needed to ascertain to what degree this is the case. Also, whether this can be sustained over a longer period of time, and how other worthwhile approaches to writing might be accommodated alongside or integrated with it.

The interdisciplinary nature of the model presented some challenges. In my own pilot studies, I forged good connections with music teachers at my school, and have had music training and experiences in my own background. This gave me some degree of natural ease with the model. While the main study involved the music teacher in some of the lessons and planning, the classroom teachers felt hesitant about taking on a music model and continued to feel somewhat out of their depth with the music concepts. However, while the teachers felt uncertain, the music teacher often noted how the teachers naturally incorporated rhythm in their teaching without noticing it. The students, however, took to the process quite readily and universally saw the connections from language to music, and to rhythm. Generally, interdisciplinary approaches like this would require support for teachers and for teachers to gain confidence in their natural abilities for rhythm, movement, sound and speech.

Limitations of a teacher researcher-practitioner approach are that the research is at first bound to a particular context. In this study, inductive approaches were dominant in the first two phases of the pilot studies. In these phases, a bottom-up case-specific basis for developing a theory and design, or generalisation about a broader problem was applied. Later phases of the research, including explorations of the key questions through the literature review mitigated this somewhat, so that top-down deductive approaches could be applied in the main study.

Limitations inherent within the analysis of writing are that they are given to varying evaluations of what is the criteria understood to describe what are “quality” characteristics. The

writing sample analysis also represented a small sample of 25 students. The use of ACARA sampling and the Writing Tool allowed some external objective criterion aspects to be applied. However, the analysis of the writing samples was mainly conducted by one researcher, albeit with additional cross-checking from the research supervisory team. A few things helped to mitigate this. Firstly, that the Writing Tool elements are concrete identifiable aspects such as the instance of punctuation, spelling, similes, specific vocabulary and other features. I also consulted with the architect of the tool to ensure the robustness of my analysis.

Furthermore, while the Writing Tool enabled comparison with 75 other schools, there were some significant points of departure. The 75 schools collected their pre- and post- samples over 6 months instead of 6 weeks. The samples in the 75 schools were collected as naturalistic examples of writing over 6 months. However, the teachers in our study were specifically focused on a particular text and genre, and grammar was also a specific aspect of interest. The constrained period of 6 weeks may also have been an added advantage in the case of the main study at Marybank with the students highly focused on textual features. Mitigating these limitations is the fact that the tool was not selected prior to the collection of samples but was discovered in the analysis phase where I was looking for another tool to clarify aspects of the writing samples I felt I may have been missing. This means that the neither the researcher nor the participants could have ‘taught to the test.’

Significance of the Research

The research evidence reviewed across a number of fields suggested there was promise in pursuing this present study. It had been shown, for example, that the brain processes and learns music and language using similar cognitive pathways, and that grammar has a particular kinship to rhythm. Experiments with music in the literacy classroom in other studies had also demonstrated that there was value in bringing music, song and musical instruments into the English classroom, particularly for reading. The empirical findings in this study show there is value in taking a

musical approach not only for reading but for writing, and as the research had suggested, for grammar.

However, this study has delivered more than intended. The study found that the impacts could be seen not only for grammar, but for what I have coined as “metalinguistic creativity”. That is, for grammar, punctuation, and other literary elements which work together to create compositional coherence. It was a musical lens that meant that the metalinguistic elements of writing were treated as aesthetic materials.

This study also explored a more underlying premise; that music and writing composition are essentially based on similar human creative processes, and that music pedagogies have something new to offer to the writing teacher as they give us the means to conceive of language as it is, and which has been forgotten. Music pedagogies provided special insights into what was meant by music. Through an Orff lens, music was broadly applied not only as music but *rhythm*, movement, sound and speech. This provided a firm basis for making the links to writing.

Furthermore, rather than treating music and rhythm as purely surface oral/aural aspects, the study sought to gain clarity about the fundamental relationship between music and language, and for rhythm and grammar. This fundamental or essential understanding of music and language draws us back to educational pedagogy with a clearer vision for what writing pedagogy can be.

Rhythm was identified as the core attribute of music, language and by extension, writing. Rhythm is the essential organising element for achieving coherence in any aesthetic and creative work. Rhythm is the underlying, sometimes unnoticed, fabric of which language, writing and music are formed. Rhythm is not only a sound principle but a semiotic principle.

Further to this is the insight that rhythm, *rhuthmos*, is also flow. Through this study it has been shown that creative pedagogies require an organic *rhuthmos* or iterative synthesis between play and precision. It is a harmony which should be consciously attended to by educators in response to their students, and as was described by the teachers at Marybank Primary. Freedom

and play, tensioned by precision and refinement, brings to fruition the satisfaction of a final form, and is at the heart of human creative work.

Cross rhythms that were set in place by the industrial mechanisms that were baked in to a western-influenced Australian education system at the turn of the twentieth century, continue to impact on the cultural and creative contexts for education in Australia, especially for music and writing. These cross rhythms often place creative education in subordination to educational efficiencies that can deny the flow or *rhuthmos* required for creative work to flourish. Through explorations with the LIRIC framework, this study has confirmed and ‘connected the dots’ between discoveries made previously which had: (a) emphasised oral language in the writing classroom, (b) found benefit in rhythm approaches for grammar development, and (c) demonstrated the value of arts-based practices in the literacy classroom.

This study has demonstrated that making the connections between musical rhythm and language, that link writing to the voice, are essential for young writers to develop their metalinguistic creativity. Barthes (1985) claimed that without rhythm there is no language. This research demonstrates that the inclusion of rhythm, through a collaboration of voices, can develop metalinguistic creativity and a confident grammar awareness.

References

- Abdulla, H., Wahab, N., Zain, M., & Muzhafar Idrus, M. (2020). A process approach in the teaching of writing: Saving 21st learners from writer's block. *Universal Journal of Educational Research* 8(12), 7160–7174. <http://www.hrpub.org> DOI: 10.13189/ujer.2020.081283
- Abramo, J. M., & Reynolds, A. (2015). “Pedagogical Creativity” as a Framework for Music Teacher Education. *Journal of Music Teacher Education*, 25(1), 37-51. <https://doi.org/10.1177/1057083714543744>
- Abril, C. R. (2011). Music, movement, and learning. In R. Colwell, & P. Webster (Eds.), *MENC Handbook of Research on Music Learning/ Volume 2: Applications* (Online Edition, pp. 92-129). Oxford Academic. <https://doi.org/10.1093/acprof:osobl/9780199754397.003.0003>.
- Acker, A., Nyland, B., Deans, J., & Ferris, J. (2012). Young children and singing: Music as a language that encourages home/centre understanding in early childhood. *Victorian Journal of Music Education*, 12–21. <https://link.gale.com/apps/doc/A322563078/AONE?u=usyd&sid=bookmark-AONE&xid=66e5ba1e>
- Adoniou, M. (2014). Grammar matters and should be taught – differently. SBS News. <https://www.sbs.com.au/news/article/comment-grammar-matters-and-should-be-taught-differently/mx4h2xtqd>
- Albaladejo, S., Coyle, Y., & de Larios, J. R. (2018). Songs, stories, and vocabulary acquisition in preschool learners of English as a foreign language. *System (Linköping)*, 76, 116–128. <https://doi.org/10.1016/j.system.2018.05.002>

- Alexander, H. A. (2003). Aesthetic inquiry in education: Community, transcendence, and the meaning of pedagogy. *Journal of Aesthetic Education*, 37(2), 1–18.
<https://doi.org/10.2307/3527451>
- Alexander, R. (2003). *Talk in teaching and learning: International perspectives*. New Perspectives on Spoken English in the Classroom: Discussion Papers. London, England: Qualifications and Curriculum Authority.
- Allan, G. (1999). Seeking the common good: A report from the Third International Whitehead Conference. *Sounding: An Interdisciplinary Journal*, 82(3-4), 311-338.
- Amabile, T. M. (1996). *Creativity in context: Update to the social psychology of creativity*. Westview.
- American Orff-Schulwerk Association. (2023). *The teaching process*.
<https://aosa.org/about/what-is-orff-schulwerk/the-teaching-process/>
- Anderson, T., & Shattuck, J. (2012). Design-based research: A decade of progress in education research? *Educational Researcher*, 41(1), 16–25.
<https://doi.org/10.3102/0013189X11428813>
- Andrews, R., Torgerson, C., Beverton, S., Freeman, A., Locke, T., Low, G., Robinson, A., & Zhu, D. (2006). The effect of grammar teaching on writing development. *British Educational Research Journal*, 32(1), 39–55. Doi:10.1080/01411920500401997.
- Andrews, S. (2007). *Teacher language awareness*. Cambridge Language Teaching Library. Cambridge University Press. doi:10.1017/CBO9780511497643
- Anstey, M., & Bull, G. (2010). Helping teachers to explore multimodal texts. *Curriculum Leadership Journal*, 8(16), 1.
- Armour, L. (2010). Looking for Whitehead. *British Journal for the History of Philosophy*, 18(5), 925–939. <https://doi.org/10.1080/09608788.2010.524768>

- Ashby, J. (2006). Prosody in skilled silent reading: Evidence from eye movements. *J. Res. Read.* 29, 318–333. doi: 10.1111/j.1467-9817.2006.00311.x
- Australian Broadcasting Corporation. (2023, June 1). *A brief history of Australia's songbook program*. Australian Broadcasting Corporation.
<https://www.abc.net.au/listen/programs/melbourne-breakfast/abcs-singing-songbooks/13954754#:~:text=ABC%20Radio%20used%20to%20broadcast,the%201940s%20until%20the%202000s>.
- Australian Bureau of Statistics. (2001, January 25). *Australian schools: Participation and funding 1901 to 2000*. Australian Bureau of Statistics.
<https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/A75909A2108CECAACA2569DE002539FB>
- Australian Bureau of Statistics. (2023, February 15). *Schools*. Australian Bureau of Statistics.
<https://www.abs.gov.au/statistics/people/education/schools/latest-release>
- Australian Curriculum, Assessment and Reporting Authority. (n.d.-a). *The Arts: Introduction*.
<https://www.australiancurriculum.edu.au/f-10-curriculum/the-arts/introduction/>
- Australian Curriculum, Assessment and Reporting Authority. (n.d.-b). *English: Rationale*.
<https://www.australiancurriculum.edu.au/f-10-curriculum/english/rationale/>
- Australian Curriculum, Assessment and Reporting Authority. (n.d.-c). *English* (Version 8.4).
<https://www.australiancurriculum.edu.au/f-10-curriculum/english/>
- Australian Curriculum, Assessment and Reporting Authority. (n.d.-d). *Grammar*.
<https://www.australiancurriculum.edu.au/resources/national-literacy-and-numeracy-learning-progressions/national-literacy-learning-progression/writing/?subElementId=50945&searchTerm=grammar#dimension-content>

Australian Curriculum, Assessment and Reporting Authority. (n.d.-e). Literacy (Version 8.4).

<https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/literacy/>

Australian Curriculum, Assessment and Reporting Authority. (n.d.-f). *Music*.

<https://www.australiancurriculum.edu.au/f-10-curriculum/the-arts/music/>

Australian Curriculum, Assessment and Reporting Authority. (n.d.-g). *Music: Rationale*.

<https://www.australiancurriculum.edu.au/f-10-curriculum/the-arts/music/rationale/>

Australian Curriculum, Assessment and Reporting. (n.d.-h). Search by keyword or content:

“aesthetic” <https://www.australiancurriculum.edu.au/Search/?q=aesthetic>

Australian Curriculum, Assessment and Reporting Authority. (n.d.-i). *Key Ideas: Texts*.

<https://www.australiancurriculum.edu.au/f-10-curriculum/english/key-ideas/#:~:text=Texts%20include%20all%20forms%20of,experience%20and%20about%20aesthetic%20value.>

Australian Curriculum Assessment and Reporting Association. (2014a). Work sample portfolio summary: English (Year 1).

https://docs.acara.edu.au/curriculum/worksamples/Year_1_English_Portfolio_Satisfactory.pdf

Australian Curriculum Assessment and Reporting Association. (2014b). Work sample portfolio summary: English (Year 2).

https://docs.acara.edu.au/curriculum/worksamples/Year_2_English_Portfolio_Satisfactory.pdf

Australian Curriculum Assessment and Reporting Association. (2014c). English as an Additional Language or Dialect – Teacher resource.

- https://docs.acara.edu.au/resources/EALD_Overview_and_Advice_revised_February_2014.pdf
- Australian Curriculum, Assessment and Reporting Authority. (2020). *My School*.
<https://www.myschool.edu.au/school>
- Australian Curriculum Assessment and Reporting Association. (2021). *Structure: Strands, sub-strands and threads*. <https://www.australiancurriculum.edu.au/f-10-curriculum/english/structure/>
- Australian Curriculum, Assessment and Reporting Authority. (2022). *NAPLAN achievement in reading, writing, and numeracy: National report for 2022*. ACARA: Sydney.
- Australian Education Research Organisation. (2022). *Writing and writing instruction: an overview of the literature*. Edresearch. <https://www.edresearch.edu.au/sites/default/files/2022-02/writing-instruction-literature-review.pdf>
- Baber, K. (2019). *Leonard Bernstein and the language of jazz*. University of Illinois Press.
<https://doi.org/10.5406/j.ctvfjd0pd>
- Bailes, S. J., & Till, N. (2014). *Beckett and musicality* (1st ed.). Routledge.
<https://doi.org/10.4324/9781315568812>
- Bailey, A. (2018). “Man himself is a sign”: Emerson, C. S. Peirce, and the semiosis of mind. *ESQ*, 64(4), 680–714. <https://doi.org/10.1353/esq.2018.0023>
- Baker, W. J., & Harvey, G. (2014). The collaborative learning behaviours of middle primary school students in a classroom music creation activity. *Australian Journal of Music Education*, 1, 3–14. <https://doi.org/10.3316/aeipt.206061>
- Bakker, A., & Akkerman, S. (2016). The learning potential of boundary crossing in the vocational curriculum. In L. Unwin, & D. Guile (Eds.), *Handbook on vocational education* (pp. 349-372). Wiley.

- Barham, L., & Everett, D. (2021). Semiotics and the origin of language in the lower palaeolithic. *Journal of Archaeological Method and Theory*, 28(2), 535–579.
<https://doi.org/10.1007/s10816-020-09480-9>
- Barnard, A. (2012). *Genesis of symbolic thought*. Cambridge University Press.
- Barrett, M. S., Flynn, L. M., & Welch, G. F. (2018). Music value and participation: An Australian case study of music provision and support in early childhood education. *Research Studies in Music Education*, 40(2), 226–243.
<https://doi.org/10.1177/1321103X18773098>
- Barrett, M. S. & Zhukov, K. (2022). Choral flourishing: Parent and child perspectives on the benefits of participation in an excellent youth choir. *Research Studies in Music Education*.
<https://doi.org/10.1177/1321103X221115080>
- Barrett, P. H., Gautrey, P. J., Herbert, S., Kohn, D., & Smith, S. (Eds.). (1987). *Charles Darwin's notebooks, 1836--1844: Geology, transmutation of species, metaphysical enquiries*. Cambridge University Press and British Museum (Natural History).
- Barthes, R. (1977). The grain of the voice (S. Heath, Trans.). In R. Barthes, & S. Heath, (Eds.), *Image – Music – Text*, (p. 179-190). Fontana Press.
https://monoskop.org/images/0/0a/Barthes_Roland_Image-Music-Text.pdf
- Barthes, R. (1984). *The rustle of language*. University of California Press. [Accessed through Monoskop online].
https://monoskop.org/images/8/8a/Barthes_Roland_The_Rustle_of_Language_1989.pdf
- Barthes, R. (1985). *The responsibility of forms: critical essays on music, art and representation* (R. Howard, Trans.). University of California Press.
<https://www.academia.edu/32031590/>

- Barthes, R. (1999). From science to literature. In J. Wolfreys (Ed.), *Literary theories* (Chapter 1.1). <https://doi-org.ezproxy.library.sydney.edu.au/10.1515/9780748672776>
- Barton, G. M. (2014). The arts and literacy: Interpretation and expression of symbolic form. In G. M. Barton (Ed.), *Literacy in the arts: Rethorising learning and teaching*, (pp. 3–20). Switzerland: Springer International Publishing.
- Barton, G. M. (2018). Learning in and through the arts for primary years students. In D. Pendergast & K. Main (Eds.), *Teaching Primary Years: Rethinking Curriculum, Pedagogy and Assessment* (Chapter 13). Australia: Allen and Unwin.
- Barton, G. M. (2018). *Music learning and teaching in culturally and socially diverse contexts: Implications for classroom practice*. London: Palgrave Macmillan.
- Barton, G. M. (2020). *Developing literacy and the arts in schools* (1st ed.). Routledge. <https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9780429316067>
- Barton, G. M., & Ewing, R. (2017). Encouraging a dynamic relationship between the arts and literacy. In G. Barton and M. Baguley (Eds.), *The Palgrave handbook of global arts education* (pp. 221–243). Palgrave Macmillan UK. https://doi.org/10.1057/978-1-137-55585-4_14
- Barton, G. M., & Le, A. H. (2022). A survey of middle years students' perceptions of aesthetic literacies, their importance and inclusion in curriculum and the workforce. *The Australian Journal of Language and Literacy* 45, 71-84. <https://doi.org/10.1007/s44020-022-00006-2>
- Barton, G. M., Lemieux, A., & Chabanne, J.-C. (2018). Exploring the arts and literacy in curriculum: A cross-cultural comparison of Australia, Canada and France. *Art Education Australia*, 39(1), 50–68.

- Barton G. M., & Riddle S. (2019). Planning for literacies learning in the arts: A dual view. In R. Henderson (Ed.), *Teaching literacies: Pedagogies and diversity* (2nd ed., pp. 120–134). Oxford University Press.
- Barton, G., & Riddle, S. (2022). Culturally responsive and meaningful music education: Multimodality, meaning-making, and communication in diverse learning contexts. *Research Studies in Music Education*, 44(2), 345–362. <https://doi-org.ezproxy.library.sydney.edu.au/10.1177/1321103X211009323>
- Bauer, W. I. (2014). *Music learning today: Digital pedagogy for creating, performing, and responding to music*. Oxford University Press.
- Bautista, A., Yeung, J., McLaren, M. L., & Ilari, B. (2022). Music in early childhood teacher education: Raising awareness of a worrisome reality and proposing strategies to move forward. *Arts Education Policy Review*. doi: 10.1080/10632913.2022.2043969
- Beard, R., Myhill, D., Riley, J., & Nystrand, M. (2009). *The Sage handbook of writing development*. Sage.
- Beaumont, N. (2022). Poetry and motion: Rhythm, rhyme and embodiment as oral literacy pedagogy for young additional language learners. *Education Sciences*, 12(12), 905.
- Becker, H. S. (1970). *Sociological work*. Aldine Publishing Company.
- Beghetto, R. A. (2018). *What if? Building students' problem-solving skills through complex challenges*. ASCD.
- Beghetto, R. A. (2018). From static to dynamic: Toward a socio-dynamic perspective on creativity in Classrooms. In I. Lebuda, V. P. Glăveanu (Eds.), *The Palgrave handbook of social creativity research* (pp. 473–485). Springer International Publishing. https://doi.org/10.1007/978-3-319-95498-1_29

- Beghetto, R. A. (2019). Structured uncertainty: How creativity thrives under constraints and uncertainty. In C. A. Mullen (Ed.), *Creativity Under Duress in Education? Creativity Theory and Action in Education* (Vol. 3, pp. 27-40). Springer. https://doi.org/10.1007/978-3-319-90272-2_2
- Beghetto, R. A., & Kaufman, J. C. (2007). Toward a broader conception of creativity: A case for mini-c creativity. *Psychology of Aesthetics, Creativity, and the Arts*, 1, 73–79.
- Bekius, A., Cope, T. E., & Grube, M. (2016). The beat to read: A cross-lingual link between rhythmic regularity perception and reading skill. *Frontiers in Human Neuroscience*, 10(425), 425–425. <https://doi.org/10.3389/fnhum.2016.00425>
- Bell, J. (2010). *Doing your research project*. McGraw-Hill Education.
- Bell, P. (2004). On the theoretical breadth of design-based research in education. *Educational Psychologist*, 39(4), 243–253. https://doi.org/10.1207/s15326985ep3904_6
- Berninger, V. W., Nagy, W., & Beers, S. (2011). Child writers' construction and reconstruction of single sentences and construction of multi-sentence texts: Contributions of syntax and transcription to translation. *Reading and writing*, 24, 151-182.
- Bernstein, B. (2003). *Class, codes and control*. Routledge.
- Bernstein, L. (2001). *Leonard Bernstein at Harvard: The unanswered question, Norton lectures 1973*, Vol. 1973 [video]. Kultur. (Original work published in 1973)
- Bernstein, L. (1976). *The unanswered question*. Harvard University Press.
- Berwick, R. C., & Chomsky, N. (2016). *Why only us: Language and evolution*. The MIT Press. <https://doi.org/10.7551/mitpress/10684.001.0001>
- Besson, M., Faïta, F., Peretz, I., Bonnel, A.-M., & Requin, J. (1998). Singing in the brain: Independence of lyrics and tunes. *Psychological Science*, 9(6), 494–498. <https://doi.org/10.1111/1467-9280.00091>

- Besson, M., & Schön, D. (2006). Comparison between language and music. *Annals of the New York Academy of Sciences*, 930(1), 232–258. <https://doi.org/10.1111/j.1749-6632.2001.tb05736.x>
- Besson, M. R., Jäncke, L., Elmer, S., Nan, Y., Tervaniemi, M., & Dittinger, E. M. (2016). Language, music and the brain: From theoretical to clinical approaches. *International Journal of Psychophysiology*, 108, 45–45. <https://doi.org/10.1016/j.ijpsycho.2016.07.150>
- Besson, M. R., Dittinger, E., & Barbaroux, M. (2018). Music in the brain: Music and language processing. *L'année Psychologique*, 118-3, 273–316.
- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts. *Written Communication*, 25(2), 166–.
- Bezemer, J. J., & Kress, G. R. (2015). *Multimodality, learning and communication : a social semiotic frame*. Routledge. <https://doi.org/10.4324/9781315687537>
- Bharuscha, J., Curtis, M., & Paroo, K. (2012). Musical communication as alignment of brain states. In P. Rebuschat, P. Rohrmeier, J. A. Hawkins, & I. Cross (Eds.), *Language and music as cognitive systems*, (Chapter 16). Oxford University Press.
- Biesta, G. (2013). *The beautiful risk of education*. Paradigm Publishers.
- Biesta, G., Cole, D. R., & Naughton, C. (2017). *Art, artists and pedagogy: Philosophy and the arts in education*. Taylor and Francis. <https://doi.org/10.4324/9781315143880>
- Bloom, E. & VanSlyke-Briggs, K. (2019). The demise of creativity in tomorrow's teachers. *Journal of Inquiry and Action in Education*, 10(2), 90-111.
- Bloome, D. (2004). What should the arts education community know about literacy? A panel representing the reading and literacy community responds. *Arts Education Partnership, Forum report: June 18-19, 2004*. Washington, DC: Arts Education Partnership.

- Bloome, D. (2023). *CDaveBlog: On languaging*. CVEDA: The Ohio State University.
<https://cdave.ehe.osu.edu/2022/04/18/on-languaging/>
- Boden, M. A. (1998). Creativity and artificial intelligence. *Artificial Intelligence*, 103(1-2).
[https://doi.org/10.1016/S0004-3702\(98\)00055-1](https://doi.org/10.1016/S0004-3702(98)00055-1)
- Boden, M. A. (2004). *The creative mind: Myths and mechanisms* (2nd ed.). Routledge.
<https://doi.org/10.4324/9780203508527>
- Boe, L. J., Sawallis, T. R., Badin, P., & Fagot, J., Badin, P., Barbier, G., Captier, G., Ménard, L., Heim, J.-L., Schwartz, J.-L. (2019). Which way to the dawn of speech? Reanalysing half a century of debates and data in light of speech science. *Science Advances*, 5(12), 3916. doi:10.1126/sciadv.aaw3916
- Bolhuis, J., Beckers, G. J., Huijbregts, M. A., Berwick, R. C., Everaert, M. B. H. (2018). Meaningful syntactic structure in songbird vocalizations? *PLoS Biology*, 16(6), e2005157–e2005157. <https://doi.org/10.1371/journal.pbio.2005157>
- Bolhuis, J. J., & Everaert, M. B. H. (2016). *Birdsong, speech, and language: Exploring the evolution of mind and brain*. The MIT Press.
- Borgstede, M., & Scholz, M. (2021). Quantitative and qualitative approaches to generalization and replication: A representationalist view. *Frontiers in Psychology*, 12, 605191.
<https://doi.org/10.3389/fpsyg.2021.605191>
- Bowman, W. (2012). Music's place in education. In G. McPherson, & G. Welch (Eds.), *The Oxford Handbook of Music Education*. Oxford University Press.
- Bracknell, C. (2014). Kooral Dwonk-katitjiny (listening to the past): Aboriginal language, songs and history in south-western Australia. *Aboriginal History*, 38, 1–18.
- Bracknell, C. (2017). Conceptualizing Noongar song. *Yearbook for Traditional Music*, 49, 92–113.
<https://doi.org/10.5921/yeartradmusi.49.2017.0092>

- Bracknell, C. (2019). Connecting Indigenous song archives to kin, country and language. *Journal of Colonialism & Colonial History*, 20(2).
<https://doi.org/10.1353/cch.2019.0016>
- Bracknell, C. (2020). The emotional business of Noongar song. *Journal of Australian Studies*, 44(2), 140–153. <https://doi.org/10.1080/14443058.2020.1752284>
- Bradford, H., & Wyse, D. (2013). Writing and writers: The perceptions of young children and their parents. *Early Years (London, England)*, 33(3), 252–265.
<https://doi.org/10.1080/09575146.2012.744957>
- Brandt, A. (2021). Defining creativity: A view from the Arts. *Creativity Research Journal*, 33(2), 81-95. doi: 10.1080/10400419.2020.1855905
- Brandt A. K. & Eagleman D. (2017). *The runaway species : How human creativity remakes the world*. Catapult.
<https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1578113>.
- Brandt, A., Gebrian, M., & Slevc, L. R. (2012). Music and early language acquisition. *Frontiers in Psychology*, 3, 327–327. <https://doi.org/10.3389/fpsyg.2012.00327>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Braun, V., & Clarke, V. (2020). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18(3), 328–352.
- British Council. (2023). *Literature: Anthony Browne*. British Council.
<https://literature.britishcouncil.org/writer/anthony-browne>
- Britton, J. (1970). *Language and learning*. University of Miami Press.

- Britton, J. (1972). The present state of theory and knowledge relating to English teaching. *English in Australia*, 22, 9-24.
- Brosseau, D., Exley, B., & Neumann, M. (2020). “You know, I could trip and fall onto the track!”: Inspiring text production. *The Reading Teacher*, 73(4), 453–460.
<https://doi.org/10.1002/trtr.1865>
- Brown, A. L. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *The Journal of the Learning Sciences*, 2(2), 141–178. Taylor & Francis, Ltd. <http://www.jstor.org/stable/1466837> .
- Brown, S. (2001). Are music and language homologues? *Annals of the New York Academy of Sciences*, 930(1), 372–374. <https://doi.org/10.1111/j.1749-6632.2001.tb05745.x>
- Brown, S. (2017). A joint prosodic origin of language and music. *Front. Psychol.* 8:1894. doi: 10.3389/fpsyg.2017.01894
- Browne, A. (2003). *My Dad* (A. Browne, Illus.). Random House.
- Brownell, C. J. (2019). Sound the alarm! Disrupting sonic resonances of an elementary English language arts classroom. *Curriculum Inquiry*, 49(5), 551–572.
<https://doi.org/10.1080/03626784.2019.1671137>
- Buch, B., & Callow, J. (2020). Making meaning using a metalanguage: Grammar and international curricula. *The Reading Teacher*, 73(5), 669–677.
<https://doi.org/10.1002/trtr.1889>
- Bull, G. & Anstey, M. (2018). *Elaborating multiliteracies through multimodal texts: Changing classroom practices and developing teacher pedagogies*. Routledge.
- Burgess, T., Ellis, V., & Roberts, S. (2010). ‘How one *learns* to discourse’: Writing and abstraction in the work of James Moffett and James Britton. *Changing English*, 17(3), 261-274. doi: 10.1080/1358684X.2010.505443

- Burke, H. (2014). Influential pioneers of creative music education in Victoria, Australia. *Australian Journal of Music Education*, 2, 23-35. Gale Academic OneFile, <https://link-gale-com.ezproxy.library.sydney.edu.au/apps/doc/A427665931/AONE?u=usyd&sid=bookmark-AONE&xid=16b6fca5>
- Burn, A., & Kress, G. R. (2018). Multimodality, style and the aesthetic. In E. S. Tønnessen & F. Forsgren (Eds.), *Multimodality and aesthetics* (pp.15-36). Routledge.
- Burnard, P. & Younker, B. A. (2002). Mapping pathways: Fostering creativity in composition. *Music Education Research*, 4, 245–261.
- Burton, S. L. (2015). Making music mine: The development of rhythmic literacy, music education research. *Music Education Research*, 19(2), 133–142.
<https://doi.org/10.1080/14613808.2015.1095720> doi: 10.1080/14613808.2015.1095720
- Busse, V., Jungclaus, J., Roden, I., Russo, F. A., & Kreutz, G. (2018). Combining song—and speech-based language teaching: An intervention with recently migrated children. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02386>
- Calkins, L. (1994). *The art of teaching writing*. Heinemann.
- Callen, D. M. (1985). Moving to music: For better appreciation. *Journal of Aesthetic Education*, 19(3), 37–50.
- Callow, J. (2005). Literacy and the visual: Broadening our vision. *English Teaching: Practice and Critique*, 4(1) <http://education.waikato.ac.nz/research/files/etpc/2004v4n1art1.pdf>
- Callow, J. (2008). Show me: Principles for assessing students’ visual literacy. *The Reading Teacher*, 61(8), 616–626. <https://doi.org/10.1598/RT.61.8.3>

- Callow, J. (2016). *The shape of text to come: How image and text work*. Primary English Teaching Association Australia (PETAA).
- Callow, J. (2023). *The shape of text to come : How image, text and other modes work* (2nd ed.). Primary English Teaching Association Australia PETAA.
- Callow, J., & Buch, B. (2020). Making meaning using a metalanguage: Grammar and international curricula. *The Reading Teacher*, 73(5), 669–677.
<https://doi.org/10.1002/trtr.1889>
- Callow, J. & Zammit, K. (2002). Visual literacy: From picture books to electronic texts. In M. Monteith (Ed.), *Teaching primary literacy with ICT*, 188–201. Buckingham: Open University Press.
- Cambourne, B. (2015). Understanding writing and its relationship to reading. In J. Turbill, G. Barton & C. Brock (Eds.). (2015). *Teaching writing in today's classroom: Looking back to look forward*. Australian Literacy Educators Association: Adelaide.
- Cambourne, B. (2017a). What I've learned in 25 years. *Literacy Learning: The Middle Years*, 25(3), 11–15. <https://doi.org/10.3316/aeipt.133627>
- Cambourne, B. (2017b). Reclaiming or reframing? Getting the right conceptual metaphor for thinking about early literacy learning. In R. J. Meyer & K. F. Whitmore (Eds.), *Reclaiming Early Childhood Literacies : Narratives of Hope, Power, and Vision*. Taylor & Francis Group. *ProQuest Ebook Central*, <https://ebookcentral-proquest-com.ezproxy.library.sydney.edu.au/lib/usyd/detail.action?docID=4662741>.
- Cambourne, B. (26 May, 2021). A brief history of the reading wars. *EduResearch Matters*. Australian Association for Researchers in Education (AARE).
<https://www.aare.edu.au/blog/?p=9488>

- Cambourne, B. (2021). *Oral language learning: a stunning intellectual achievement and what it reveals about human learning*. Bring Me a Book National Collaborative.
https://foundationforlearningandliteracy.info/wp-content/uploads/2021/06/BMAB_RESEARCH-ROUNDUP_Cambourne_v4lb.pdf
- Campbell, P. S. (2016). World music pedagogy: Where music meets culture in classroom practice. *Teaching General Music: Approaches, Issues, and Viewpoints*, 89–111.
- Canberra Community Law. (2017). *Overview of public housing in the ACT*.
<https://www.canberracommunitylaw.org.au/public-housing-overview-1.html>
- Cannon, J. J., & Patel, A. D. (2021). How beat perception co-opts motor neurophysiology. *Trends in Cognitive Sciences*, 25(2), 137–150.
<https://doi.org/10.1016/j.tics.2020.11.002>
- Caranfa, A. (2012). Whitehead's Benedictine ideal in education: Rhythms of listening, reading and work. *Educational Philosophy and Theory*, 44(4), 386–402.
<https://doi.org/10.1111/j.1469-5812.2010.00716.x>
- Caranfa, A. (2016). Learning to see: Art, beauty, and the joy of creation in education. *The Journal of Aesthetic Education*, 50(2), 84–103.
<https://doi.org/10.5406/jaesteduc.50.2.0084>
- Carey, M. D., Davidow, S., & Williams, P. (2022). Re-imagining narrative writing and assessment: A post-NAPLAN craft-based rubric for creative writing. *The Australian Journal of Language and Literacy*, 45(1), 33–48. <https://doi.org/10.1007/s44020-022-00004-4>
- Carlile, R. E. (1968). Musical analogues in Thomas Wolfe's, "Look Homeward, Angel". *Modern Fiction Studies*, 14(2), 215–223. <http://www.jstor.org/stable/26278784>

- Carroll, C. L. (2020). Seeing the invisible: Theorising connections between informal and formal musical knowledge. *Research Studies in Music Education*, 42(1), 37–55.
<https://doi.org/10.1177/1321103X18824641>
- Carruthers, M. (2010). Rhetoric beyond words: Delight and persuasion in the arts of the middle ages. *Forum for Modern Language Studies*, 48(3), 360. Cambridge University Press (Cambridge Studies in Mediaeval Literature).
<https://doi.org/10.1093/fmls/cqr057>
- Casasanto, D. (2009). Review of Aniruddh D. Patel: Music, language, and the brain, Oxford University Press, 2008. *Language and Cognition*, 1(1), 143–146.
<https://doi.org/10.1017/S1866980800000399>
- Cazden, C., Cope, B., Fairclough, F., Gee, J., Kalantzis, M., Cook, J., Kress, G., Luke, A., Luke, C., Michaels, S., & Nakata, M. (1996). A pedagogy of multi- literacies: Designing social futures. *Harvard Educational Review*, 66(1), 60–92.
- Cekaite, A., & Aronsson, K. (2005) Language play: A collaborative resource in children's L2 learning. *Applied Linguistics*, 26(2), 169–191.
- Chan, J., Gonsalves, R., & Metcalfe, N. (2011). Bridging the two cultures: The fragility of interdisciplinary creative collaboration. In G. Fischer & F. Vassen (Eds.), *Collective creativity collaborative work in the sciences, literature and the arts* (pp. 159-176). Rodopi.
- Chandler, D. (1997). *An introduction to genre theory*. University of Washington.
https://faculty.washington.edu/farkas/HCDE510-Fall2012/Chandler_genre_theoryDFAnn.pdf
- Charron, N., Fenton, M., & Harris, M. (2017). *Reading with writing in mind: A guide for middle and high school educators*. Rowman & Littlefield Publishers.

- Chase, E., Morabito, N. P., & Schamroth Abrams, S. (2020). *Writing in education: The art of writing for educators* (Vol. 8). BRILL.
- Chaseling, M., & Boyd, W. E. (2014). The decline and revival of music education in New South Wales schools, 1920-1956. *Australian Journal of Music Education*, 2, 46-61.
- Chee-Hoo Lum, & Campbell, P. S. (2007). The sonic surrounds of an elementary school. *Journal of Research in Music Education*, 55(1), 31–47.
<http://www.jstor.org/stable/4494329>
- Chern, A., Tillmann, B., Vaughan, C., & Gordon, R. L. (2018). New evidence of a rhythmic priming effect that enhances grammaticality judgments in children. *Journal of Experimental Child Psychology*, 173, 371–379.
<https://doi.org/10.1016/j.jecp.2018.04.007>
- Chiang, J. N., Rosenberg, M. H., Bufford, C. A., Stephens, D., Lysy, A., Monti, M. M. (2018). The language of music: Common neural codes for structured sequences in music and natural language. *Brain and Language*, 185, 30-37.
<https://doi.org/10.1016/j.bandl.2018.07.003>.
- Chomsky, N. (2005). Three factors in language design. *Linguistic Inquiry*, 36, 1-22.
<https://doi.org/10.1162/0024389052993655>
- Chomsky, N. (2015). *The minimalist program* (20th ed.). The MIT Press.
<http://www.jstor.org/stable/j.ctt17kk8xd>
- Chomsky, N. (2016). *What kind of creatures are we?* Columbia University Press.
- Chomsky, N., & McGilvray, J. (2012). *The science of language : Interviews with James McGilvray*. Cambridge University Press.
- Chow, I., & Brown, S. (2018) A musical approach to speech melody. *Front. Psychol.* 9:247. doi: 10.3389/fpsyg.2018.00247

- Christianakis, M. (2011). Hybrid texts: Fifth graders, rap music, and writing. *Urban Education (Beverly Hills, Calif.)*, 46(5), 1131–1168. <https://doi.org/10.1177/0042085911400326>
- Christie, F. & Derewianka, B. (2008). *School discourse: Learning to write across the years of schooling*. Continuum Discourse. London: Continuum International Publishing.
- Cicco, I. (2020). Reimagining pedagogical possibilities in the Schulwerk: Intersections of critical pedagogy for music education and Orff. *Visions of Research in Music Education*, 35. Retrieved from <http://www.rider.edu/~vrme>.
- Clark, I. L., Bamberg, B., Edlund, J., Griswold, O., Klein, S., Neff-Lippmann, J., & Sheppard, J. (2019). Concepts in composition: Theory and practices in the teaching of writing (3rd ed.). Routledge. <https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9780203728659>
- Coalter, F., & Taylor, J. (2001). *Realising the potential of cultural services: The case for play (Research Briefing 12.6)*. Centre for Leisure Research at the University of Edinburgh. Local Government Association publications.
- Cogo-Moreira, H., Andriolo, R. B., Yazigi, L., Ploubidis, G. B., Brandão de Ávila, C. R., & Mari, J. J. (2012). Music education for improving reading skills in children and adolescents with dyslexia. *The Cochrane database of systematic reviews*, (8), CD009133. <https://doi-org.ezproxy.library.sydney.edu.au/10.1002/1465>
- Cohrdes, C., Grolog, L., & Schroeder, S. (2016). Relating language and music skills in young children: A first approach to systemize and compare distinct competencies on different levels. *Frontiers in Psychology*, 7, 1616–1616. <https://doi.org/10.3389/fpsyg.2016.01616>

- Coker, D. L., Jr., Farley-Ripple, E., Jackson, A. F., Wen, H., MacArthur, C. A., & Jennings, A. S. (2016). Writing instruction in first grade: An observational study. *Reading and Writing*, 29, 793–832. <https://doi.org/10.1007/s11145-015-9596-6>
- Cole, D. R., & Somerville, M. (2017). Thinking school curriculum through Country with Deleuze and Whitehead. In C. Naughton, G. Biesta, & D. Cole (Eds.), *Art, Artists and Pedagogy: Philosophy and the Arts in Education* (1st ed.). Routledge. <https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9781315143880>
- Collie, R. J., Martin, A. J., & Curwood, J. S. (2016). Multidimensional motivation and engagement for writing: Construct validation with a sample of boys. *Educational Psychology (Dorchester-on-Thames)*, 36(4), 771–791. <https://doi.org/10.1080/01443410.2015.1093607>
- Collins, A. (2013). Neuroscience meets music education : Exploring the implications of neural processing models on music education practice. *International Journal of Music Education*, 31(2), 217–231. <https://doi.org/10.1177/0255761413483081>
- Collins, A. (2014). Music education and the brain: What does it take to make a change? *Update: Applications of Research in Music Education*, 32(2), 4–10. <https://doi.org/10.1177/8755123313502346>
- Collins, A. (2021). *The music advantage: How learning music helps your child's brain and wellbeing*. Allen & Unwin.
- Collins, A., Dwyer, R., & Date, A. (2020). Music education: A sound investment. Alberts, The Tony Foundation.
- Collins, A., Hay, I., & Heiner, I. (2013). Start with the end in mind : Experiences of accelerated course completion by pre-service teachers and educators. *The Australian Journal of Teacher Education*, 38(10), 1–20. <https://doi.org/10.14221/ajte.2013v38n10.4>

- Collins, D. (2006). Acoustic journeys: Exploration and the search for an aural history of Australia. *Australian Historical Studies*, 37(128), 1–17.
<https://doi.org/10.1080/10314610608601216>
- Collins, S. G., Durrington, M., & Gill, H. (2017). Multimodality: An invitation. *American Anthropologist*, 119(1), p 142-153. <https://doi.org/10.1111/aman.12826>
- Comber, B. & Cormack, P. (2013). High stakes literacy tests and local effects in a rural school. *Australian Journal of Language and Literacy*, 36(2), 78-89.
- Cope, B., & Kalantzis, M. (2012). *The powers of literacy : A genre approach to teaching writing*. Routledge. <https://doi.org/10.4324/9780203149812>
- Cope, B., & Kalantzis, M. (2015). *A pedagogy of multiliteracies: Learning by design* (1st ed.). Palgrave Macmillan UK. <https://doi.org/10.1057/9781137539724>
- Corballis, M. C. (2009). The evolution of language. *Annals of the New York Academy of Sciences*, 1156(1), 19–43. <https://doi.org/10.1111/j.1749-6632.2009.04423.x>
- Corballis, M. C. (2011). *The recursive mind: The origins of human language, thought, and civilization*. Princeton University Press.
- Craft, A. (1999) Creative development in the early years: some implications of policy for practice. *The Curriculum Journal*, 10(1), 135-150.
- Craft, A. (2003). The limits to creativity in education: Dilemmas for the educator. *British Journal of Educational Studies*, 51(2), 113-127. doi: 10.1111/1467-8527.t01-1-00229
- Craft, A. (2005). *Creativity in schools: tensions and dilemmas*. Routledge. <https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9780203357965>
- Craft, A., Cremin, T., Burnard, P., & Chappell, K. (2007). Teacher stance in creative learning: A study of progression. *Thinking Skills and Creativity*, 2(2), 136–147.
<https://doi.org/10.1016/j.tsc.2007.09.003>

- Craft, A., Cremin, T., Burnard, P., Dragovic, T., & Chappell, K. (2013). Possibility thinking: Culminative studies of an evidence-based concept driving creativity?, *Education 3-13*, 41(5), 538-556, doi: 10.1080/03004279.2012.656671
- Cremin, T. (2015). Exploring teachers' identity positions as teacher-writers and writer-teachers in the classroom. In J. Turbill, G. Barton, & C. Brock, (Eds.), *Teaching writing in today's classroom: Looking back to look forward*, (pp. 51-68). Australian Literacy Educators Association.
- Cremin, T., & Chappell, K. (2021). Creative pedagogies: A systematic review. *Research Papers in Education*, 36(3), 299–331. <https://doi.org/10.1080/02671522.2019.1677757>
- Cremin, T., Lillis, T., Myhill, D., & Eyres, I. (2017). Professional writers' identities: The perceived influence of formal education and early reading. In T. Cremin & T. Locke, (Eds.). (2017). *Writer identity and the teaching and learning of writing*, (pp. 19-36). Routledge. <https://doi.org/10.4324/9781315669373>
- Cremin, T., & Locke, T. (2017). *Writer identity and the teaching and learning of writing*. Routledge. <https://doi.org/10.4324/9781315669373>
- Cremin, T., & Maybin, J. (2013). Children's and teachers' creativity in and through language. In K. Hall, T. Cremin, B. Comber & L. C. Moll, (Eds.), *International Handbook of Research on Children's Literacy, Learning, and Culture* (pp. 275–290). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118323342.ch20>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*, (4th ed.). Pearson.
- Cross, I. (2012). Music as a social and cognitive process. In P. Rebuschat, M. Rohrmeier, J. A. Hawkins & I. Cross, (Eds.), *Language and Music as Cognitive Systems*, (Chapter 33). Oxford University Press.

- Cross, I., Laurence, F., & Rabinowitch, T. C. (2012). Empathy and creativity in group musical practices: Towards a concept of empathic creativity. In G. E. McPherson & G. F. Welch (Eds.), *The Oxford Handbook of Music Education, Volume 2*, (pp. 337-353).
- Cross, I., & Woodruff, G. E. (2009). *Music as a communicative medium*. Oxford University Press.
<https://www.music.org/pdf/summit/2014medium.pdf>
- Csikszentmihalyi, M. (1997a). Finding flow. *Psychology Today*, 70(1), 46-48.
- Csikszentmihalyi, M. (1997b). *Creativity and flow and the psychology of discovery*. Harper Collins
- Cummins, J. (2019). *The “imagined sound” of Australian literature and music*. Anthem Press.
- Cunha, J. C. R., & Carvalho, S. (2012). Experienced emotions through the Orff-Schulwerk approach in music education- a case study based on flow theory. *Conference Paper: 12th International Conference for Music Perception and Cognition, 8th Conference of the European Society for the Cognitive Sciences of Music*. Thessaloniki, Greece, 23-28 July 2012.
- de Abreu Malpique, A., Pino-Pasternak, D., & Roberto, M. S. (2020). Writing and reading performance in Year 1 Australian classrooms: Associations with handwriting automaticity and writing instruction. *Reading and Writing*, 33(3), 783–805.
<https://doi.org/10.1007/s11145-019-09994-z>
- de Abreu Malpique, A., Valcan, D., Pino-Pasternak, D. & Ledger, S. (2022). Teaching writing in primary education (grades 1–6) in Australia: A national survey. *Read Write*.
<https://doi.org/10.1007/s11145-022-10294-2>
- Deacon, T. (1997). *The symbolic species : The co-evolution of language and the brain* (1st ed.). W. W. Norton.
- Deleuze, G. (1995), *Negotiations: 1972–1990*, (M. Joughin, Trans.). Columbia University Press.
- Deleuze, G., & Guattari, F. (1994). *What is philosophy?* Verso.

- Derewianka, B. (1990). *Exploring How Texts Work*. Rozelle, N.S.W. : Primary English Teaching Association.
- Derewianka, B. (2012). Knowledge about language in the Australian Curriculum: English. *Australian Journal of Language and Literacy*, 35(2), 127-146. Gale Academic OneFile. link.gale.com/apps/doc/A292853329/AONE?u=usyd&sid=bookmark-AONE&xid=c93f4d8b.
- Derewianka, B. (2014). Supporting students in the move from spoken to written language. In A. Mahboob, L. Barratt (Eds.), *Englishes in multilingual contexts* (pp. 165–181). Springer Netherlands. https://doi.org/10.1007/978-94-017-8869-4_10
- Derewianka, B. (2019). A relevant pedagogic grammar for today's classrooms. In X. Gao (Ed.) *Second handbook of English language teaching* (pp. 821–845). Springer International Publishing. https://doi.org/10.1007/978-3-030-02899-2_43
- Derewianka, B., & Christie, F. (2008). *School discourse: Learning to write across the years of schooling*. Continuum.
- Derewianka, B., & Jones, P. (2012). *Teaching language in context*. Oxford University Press.
- Dernikos, B. P. (2020). Tuning into 'fleshy' frequencies: A posthuman mapping of affect, sound and de/colonized literacies with/in a primary classroom. *Journal of Early Childhood Literacy*, 20(1), 134–157. <https://doi.org/10.1177/1468798420914125>
- d'Errico, F., Henshilwood, C., Lawson, Graeme ; Vanhaeren, M., Tillier, A., Soressi, M., Bresson, F., Maureille, B., Nowell, A., Lakarra, J., Backwell, L., Julien, M. (2003). Archaeological evidence for the emergence of language, symbolism, and music—An alternative multidisciplinary perspective. *Journal of World Prehistory* 17, 1–70 (2003). <https://doi.org/10.1023/A:1023980201043>

- Derrida, J., & Ronell, A. (1980). The law of genre. *Critical Inquiry*, 7(1), 55–81.
<http://www.jstor.org/stable/1343176>
- Derrida, J., & Stocker, B. (2007). *Jacques Derrida : Basic writings*. Routledge.
- de Saussure, F., & Harris, R. (2013). *Course in general linguistics* (R. Harris, Trans.). Bloomsbury Academic, An imprint of Bloomsbury Publishing Plc. (Original work published in 1922)
- Dewey, J. (1900). *School and society*. University of Chicago Press.
- Dewey, J. (1929). Nature, communication and meaning. In J. Dewey (Ed.), *Experience and nature* (pp. 166–207). W W Norton & Co. <https://doi.org/10.1037/13377-005>
- Dewey, J., & Simon, H. F. (1989). *Art as experience*. Southern Illinois University Press.
(Original work published 1934)
- Dittinger, E., Chobert, J., Ziegler, J. C., & Besson, M. (2017). Fast brain plasticity during word learning in musically-trained children. *Frontiers in human neuroscience*, 11, 233.
- Dockrell, J. E., Marshall, C. R., & Wyse, D. (2016). Teachers' reported practices for teaching writing in England. *Reading and Writing*, 29(3), 409-434.
<https://doi.org/10.1007/s11145-015-9605-9>
- Dohoney, R. (2021). A. N. Whitehead, feeling, and music: On some potential modifications to affect theory. In J. Lochhead, E. Mendieta & S. Smith (Eds.), *Sound and affect: Voice, music, world* (pp. 268-286). University of Chicago Press.
<https://doi.org/10.7208/9780226758152-014>
- Douek J. (2013). Music and emotion-a composer's perspective. *Front Syst Neurosci.*, 7, 82. doi: 10.3389/fnsys.2013.00082. PMID: 24348344; PMCID: PMC3832887
- Duff, F. J., Reen, G., Plunkett, K., & Nation, K. (2015). Do infant vocabulary skills predict school-age language and literacy outcomes? *Journal of Child Psychoogy and Psychiatry*,

- 56(8), 848-56. doi: 10.1111/jcpp.12378. Epub 2015 Jan 4. PMID: 25557322; PMCID: PMC4674965.
- Dulfer, N., Polesel, J., & Rice, S. (2012). *The experience of education/ The impacts of high stakes testing on school students and their families : An educator's perspective*. Whitlam Institute within the University of Western Sydney.
- Dunn, M. (2021). The challenges of struggling writers: Strategies that can help. *Education Sciences*, 11(795). <https://doi.org/10.3390/educsci 11120795>
- Dunsby, J., Goldman, J., Whittall, A., Delième, I., Molino, J., Agawu, K., Meeùs, N., Boulez, P., Dalmonte, R., & Arom, S. (2018). *The dawn of music semiology: Essays in honor of Jean-Jacques Nattiez* (NED - New edition, Vol. 137). Boydell & Brewer.
<https://doi.org/10.7722/j.ctt2111f25>
- Durst, R. K., & Newell, G. E. (1989). The uses of function: James Britton's category system and research on writing. *Review of Educational Research*, 59(4), 375–394.
<https://doi.org/10.2307/1170204>
- Duvernoy, R. (2020). Climate change and the everyday: Becoming present to precarity. *Ethics and the Environment*, 25(2), 73–95. <https://doi.org/10.2979/ethicsenviro.25.2.04>
- Dwyer, R., & Collins, A. (February 28, 2022). Music can help lift our kids out of the literacy rut, but schools in some states are still missing out. *The Conversation*.
<https://theconversation.com/music-can-help-lift-our-kids-out-of-the-literacy-rut-but-schools-in-some-states-are-still-missing-out-173908>
- Dyson, A. H. (1988). Negotiating among multiple worlds: The space/time dimensions of young children's composing. *Research in the Teaching of English*, 22(4), 355–390
- Dyson, A. (1990). Symbol makers, symbol weavers: How children link play, pictures, and print. *Young Children*, 45(2), 50–57.

- Dyson, A. H. (2016). *Child cultures, schooling, and literacy: global perspectives on composing unique lives*. Routledge. <https://doi.org/10.4324/9781315736518>
- Dyson, A. H. (2020a). “We’re Playing Sisters, on Paper!”: Children composing on graphic playgrounds. *Literacy (Oxford, England)*, 54(2), 3–12. <https://doi.org/10.1111/lit.12214>
- Dyson, A. H. (2020b). “This isn’t my real writing”: The fate of children’s agency in too-tight curricula. *Theory into Practice*, 59(2), 119–127. <https://doi.org/10.1080/00405841.2019.1702390>
- Eady, M. J. (2008). Using design-based research to produce strategies for synchronous literacy for Indigenous learners. Emerging Technologies Conference, 7. <https://ro.uow.edu.au/etc08/7>
- Eccles, R., van der Linde, J., Roux, M. L., & Swanepoel, D. W. (2021). The effect of music education approaches on phonological awareness and early literacy: A systematic review. *The Australian Journal of Language and Literacy*, 44(1), 46–60. <https://doi.org/10.3316/informit.742989747081516>
- Eco, U. (1976). *A theory of semiotics*. Indiana University Press. <http://www.jstor.org/stable/j.ctt16xwcfj>
- Eco, U. (1978). Semiotics: A discipline or an interdisciplinary method? In T. Sebeok, (Ed.), *Sight, sound and sense*. Bloomington and London: Indiana University Press. <https://publish.iupress.indiana.edu/projects/sight-sound-and-sense>
- Eco, U. (2014). *From the tree to the labyrinth : Historical studies on the sign and interpretation*. Harvard University Press.
- Edwards-Groves, C. J. (2011). The multimodal writing process: Changing practices in contemporary classrooms. *Language and Education*, 25(1), 49–64.

- Edwards-Groves, C. J. (2014). Talk moves: A repertoire of practices for productive classroom practices. *PETAA Paper, 195*. Primary English Teaching Association Australia.
- Eisner, E. W. (2005). *Reimagining schools: The selected works of Elliot W. Eisner*. Routledge.
<https://doi.org/10.4324/9780203019078>
- Eisner, E. W. (2008). *The arts and the creation of mind*. Yale University Press.
<https://doi.org/10.12987/9780300133578>
- Ellul, J. (1985). *The humiliation of the word*. Eerdmans Publishers.
- Evans, E. (1976). Music in “Look Homeward, Angel.” *The Southern Literary Journal*, 8(2), 62–73. <http://www.jstor.org/stable/20077538>
- Ewing, R. (Ed.). (2006). *Beyond the reading wars: A balanced approach to helping children learn to read*. Sydney: Primary English Teaching Association.
- Ewing, R. (2010). *The arts and Australian education : Realising potential. AER 58*. ACER Press.
- Ewing, R. (2016). Anticipating future storylines : Considering possible directions in Australian literacy education. *The Australian Journal of Language and Literacy*, 39(1), 96–102.
<https://doi.org/10.1007/BF03651910>
- Ewing, R. (2018). *The Australian curriculum: Promises, problems and possibilities*. Australian Curriculum Studies Association.
- Ewing, R. (2019a). Embedding arts-rich English and literacy pedagogies in the classroom. *Literacy Learning*, 27(1), 7–17.
- Ewing, R. (2019b). “The way of words”: Understanding and teaching reading in primary classrooms. *Journal of Professional Learning (JPL)*. (Special Edition: “For Your Staffroom”). <https://cpl.nswtf.org.au/wp-content/uploads/sites/2/2022/05/Robyn-Ewing-For-Your-Staffroom-The-Way-of-Words-Understanding-and-Teaching-Reading-in-Primary-Classrooms.pdf>

- Ewing, R. (2020). The Australian curriculum: The arts/ A critical opportunity. *Curriculum Perspectives*, 40, 75–81. <https://doi.org/10.1007/s41297-019-00098-w>.
- Ewing, R., Callow, J., & Rushton, K. (2016). *Language and literacy development in early childhood*. Cambridge University Press. <https://doi.org/10.1017/CBO9781316442791>
- Ewing, R., Manuel, J., & Mortimer, A. (2015). *Imaginative children's literature, educational drama and creative writing*. In J. Turbill, G. Barton and G. Brock (Eds.), *Teaching writing in today's classrooms: Looking back to look forward* (Chapter 8). Australian Literacy Educators Association: Adelaide.
- Ewing, R. A., Miller, C., & Locke, T. (2014). Editorial: An arts-led English and literacy curriculum. *English Teaching: Practice and Critique*, 13(2), 1–.
- Ewing, R., & Saunders, J. N. (2016). *The school drama book: Drama, literature and literacy in the creative classroom*. Currency Press.
- Exley, B. (2016). Secret squirrel stuff in the Australian Curriculum English : The genesis of the “new” grammar. *The Australian Journal of Language and Literacy*, 39(1), 74–85. <https://doi.org/10.3316/aeipt.211879>
- Exley, B., Kervin, L., & Mantei, J. (2016). Playing with grammar : A pedagogical heuristic for orientating to the language content of the Australian Curriculum : English. *English in Australia*, 51(2), 100–110.
- Fabb, N., & Halle, M. (2012). Grouping in the stressing of words, in metrical verse, and in music. In P. Rebuschat, M. Rohrmeier, J. A. Hawkins & I. Cross, (Eds.), *Language and music as cognitive systems* (pp. 4-21). Oxford University Press.
- Faudree, P. (2012). Music, language, and texts: Sound and semiotic ethnography. *Annual Review of Anthropology*, 41. 519-536. [10.1146/annurev-anthro-092611-145851](https://doi.org/10.1146/annurev-anthro-092611-145851).

- Faudree, P. (2017). Language, music, materiality (and immateriality): Entanglements beyond the “symbolic”. In J. Cavanaugh & S. Shankar (Eds.), *Language and materiality: Ethnographic and theoretical explorations* (pp. 255-259). Cambridge University Press.
<https://doi.org/10.1017/9781316848418.014>
- Faulkner, V., Rivalland, J., & Hunter, J. (2009). Caught in the middle: Improving writing in the middle and upper primary years. In C. Bazerman, R. Krut, K. Lunsford, S. McLeod, S. Null, P. Rogers & A. Stansell, (Eds.), *Traditions of Writing Research* (1st ed.). Routledge. <https://doi.org/10.4324/9780203892329>
- Feeney, S., & Moravcik, E. (1987). Thing of beauty: Aesthetic development in young children. *Young Children*, 42(6), 7–15.
- Feld, S., & Fox, A. A. (1994). Music and language. *Annual Review of Anthropology*, 23, 25–53.
<http://www.jstor.org/stable/2156005>
- Feld, S., Fox, A. A., Porcello, T., & Samuels, D. (2004). Vocal anthropology: From the music of language to the language of song. In A. Duranti (Ed.), *A companion to linguistic anthropology*, Chapter 14. Blackwell Publishing.
<https://static1.squarespace.com/static/545aad98e4b0f1f9150ad5c3/t/5465b3dbe4b05136ac820daf/1415951323774/2004+Vocal+Anthropology.pdf>
- Felton, E., Vichie, K., & Moore, E. (2016). Widening participation creatively: Creative arts education for social inclusion. *Higher Education Research & Development*, 35(3), 447-460, doi: 10.1080/07294360.2015.1107881
- Feuer, J. (1992). Genre study and television. In R. C. Allen (Ed.), *Channels of discourse, reassembled: Television and contemporary criticism*, (pp. 138-59). Routledge.

- Fingerhut, J., Gomez-Lavin, J., Winklmayr, C., Prinz, J. J. (2021). The aesthetic self: The importance of aesthetic taste in music and art for our perceived identity. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2020.577703>
- Fiske, E. (Ed.). (1999). *Champions of change: The impact of the arts on learning*. Washington. DC: The Arts Education Partnership and the President's Committee on the Arts and Humanities.
- Fitch, W. T. (2012). The biology and evolution of rhythm: Unravelling a paradox. In P. Rebuschat, M. Rohrmeier, J. A. Hawkins & I. Cross. (Eds.), *Language and music as cognitive systems* (Chapter 9). Oxford University Press.
- Fiveash, A., Bedoin, N., Lalitte, P., & Tillmann, B. (2020). Rhythmic priming of grammaticality judgments in children: Duration matters. *Journal of Experimental Child Psychology*, 197, 104885–104885. <https://doi.org/10.1016/j.jecp.2020.104885>
- Fiveash, A., Bella, S. D., Bigand, E., Gordon, R. L., & Tillmann, B. (2022). You got rhythm, or more: The multidimensionality of rhythmic abilities. *Attention, Perception & Psychophysics*, 84(4), 1370–1392. <https://doi.org/10.3758/s13414-022-02487-2>
- Fleming, M. (2012). *The arts in education: An introduction to aesthetics, theory and pedagogy*. Routledge. <https://doi.org/10.4324/9780203126240>
- Fletcher, R. (2017). *Joy write*. Heinemann.
- Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication*, 32(4), 365–387. doi:10.2307/356600.
- Fonseca-Mora, M. C., & Gant, M. (2016). *Melodies, rhythm and cognition in foreign language learning* (1st unabridged.). Cambridge Scholars Publishing.
- Ford, L.S. (1987). Creativity in a future key. In R. C. Neville (Ed.), *New Essays in Metaphysics*, p. 179-. State University of New York Press.

- Fox, M. (1993). *Radical reflections: passionate opinions on teaching, learning, and living*. Harcourt Brace.
- Fox, M. (2015). Sense and sensibility in the Donald Graves writing curriculum: An exploration, a remembering and a plea. In J. Turbill, G. Barton & C. Brock, (Eds.), *Teaching writing in today's classroom: Looking back to look forward*. Australian Literacy Educators Association: Adelaide. (Original work published in 2012)
- Freebody, P. (1997). Assessment as communal versus punitive practices: Six new literacy crises for Australia. *Literacy and Numeracy Studies*, 7(2), p 5-7.
<https://search.informit.org/doi/pdf/10.3316/ielapa.200700675>
- Freebody, P. (2007). *Literacy education in school: Research perspectives from the past for the future*. Australian Council for Educational Research (ACER).
- Freebody, P., & Luke, A. (1990). Literacies programs: Debates and demands in cultural context. *Prospect: Australian Journal of TESOL*, 5(7), 7-16.
- Freebody, P., Maton, K., & Martin, J. R. (2008). Talk, text, and knowledge in cumulative, integrated learning: A response to “intellectual challenge”. *Australian Journal of Language and Literacy*, 31(2), 188-201.
- Freire, P. (2005). *Teachers as cultural workers: Letters to those who dare teach* (1st ed.). Routledge.
<https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9780429496974>
- Friedrich, N., Portier, C., & Stagg Peterson, S. (2019). Identifying patterns in and relationships between rural Canadian indigenous and non-indigenous children's graphic representations and their talk. *Language & literacy (Kingston, Ont.)*, 21(1), 39–56.
<https://doi.org/10.20360/langandlit29370>
- Freidus, H. (2010). Finding Passion in Teaching and Learning: Embedding Literacy Skills in Content-Rich Curriculum. *The New Educator*, 6, 181–195. The City College of New York

- Fritz, J., Poeppel, D., Trainor, L., Schlaug, G., Patel, A. D., Peretz, I., Rauschecker, J. P., Halle, J., Stregapede, F., Parsons, L. M. (2013). The neurobiology of language, speech and music. In M. Arbib (Ed.), *Language, music and the brain* (pp. 417-459). MIT Press.
- Fugard, A., & Potts, H. W. (2019). Thematic Analysis. In P. Atkinson, S. Delamont, A. Cernat, J. W. Sakshaug, & R.A. Williams (Eds.), *SAGE Research Methods Foundations*. <https://doi.org/10.4135/9781526421036858333>
- Gaboury, V., Lavoie, N., & Lessard, A. (2020). A combined music and writing program helps second graders learn to spell. *International Journal of Music Education*, 38(4), 513–524. <https://doi.org/10.1177/0255761420950982>
- Galton, F. (1869). Musicians. In F. Galton, *Hereditary genius: An inquiry into its laws and consequences* (pp. 237-246). Macmillan and Co. <https://doi.org/10.1037/13474-013>
- Gannon, S. (2014). Something mysterious that we don't understand... the beat of the human heart, the rhythm of language: Creative writing and imaginative response in English. In B. Doecke, G. Parr, & W. Sawyer (Eds.), *Language and creativity in contemporary English classroom*. Phoenix Education.
- Gannon, S. (2019). Teaching writing in the NAPLAN era: The experiences of secondary English teachers. *English in Australia*, 54(2), 657-679. *Gale Academic OneFile*, link.gale.com/apps/doc/A613867265/AONE?u=usyd&sid=bookmark-AONE&xid=357995ab.
- Gant, A. (2017). *Music*. Profile Books Ltd. *ProQuest Ebook Central*, <https://ebookcentral-proquest-com.ezproxy.library.sydney.edu.au/lib/usyd/detail.action?docID=4689548>.
- Gardner, P., & Kuzich, S. (2022). Ready to write? Investigating the writing experiences of pre-service teachers and their readiness to teach writing. *Issues in Educational Research*, 32(2), 513-532.

- <http://ezproxy.library.usyd.edu.au/login?url=https://www.proquest.com/scholarly-journals/ready-write-investigating-writing-experiences-pre/docview/2702185552/se-2>
- Gaskill, N., & Nocek, A. J. (Eds.). (2014). *Lure of Whitehead*. University of Minnesota Press.
- Geambaşu, A., Toron, L., Ravignani, A., & Levelt, C. C. (2020). Rhythmic recursion? Human sensitivity to a Lindenmayer grammar with self-similar structure in a musical task. *Music & Science*, 3, 205920432094661. <https://doi.org/10.1177/2059204320946615>
- Genishi, C., & Dyson, A. H. (2009) *Children, language and literacy: diverse learners in diverse times*. Teacher's College Press.
- Genishi, C., & Dyson, A. H. (2014). Play as the precursor for literacy development. In L. Brooker, M. Blaise, & S. Edwards (Eds.), *Sage handbook of play and learning in early childhood* (pp. 228-239). SAGE Publications, Limited.
- Gibson, R., & Ewing, R. (2020). *Transforming the curriculum through the arts*. Springer International Publishing AG.
- Gill, R. (2018). The making of a teacher: Why NAPLAN is not good enough for us. *Journal of Professional Learning, Semester 1*. <https://cpl.asn.au/journal/semester-1-2018/the-making-of-a-teacher-why-naplan-is-not-good-enough-for-us>
- Giroux, H. A. (1987). Critical literacy and student experience: Donald Graves' approach to literacy. *Language Arts*, 64(2), 175–181. <http://www.jstor.org/stable/41961590>
- Gleeson, L. (2014). *Writing like a writer: Teaching narrative writing* (New edition). Primary English Teaching Association.
- Gleeson, L., (n.d). What makes a good book for young kids. *Schoolatoz*. Department of Education, NSW.
- Goodall, H. (2013). *The story of music*. Chatto & Windus.

- Goodkin, D. (2001). Orff-Shulwerk in the New Millennium. *Music Educators Journal*, 88(3), 17-19.
- Goodman, J. (2017). Experimenting with sound and silence: Sonorous bodies, sonic selves, acoustic topographies, and auditory histories of schooling. *Paedagogica Historica*, 53(5), 528–541. <https://doi.org/10.1080/00309230.2017.1335334>
- Goodwin, C. (2000). Action and embodiment within situated human interaction. *Journal of Pragmatics*, 32(10), 1489-1522. [https://doi.org/10.1016/S0378-2166\(99\)00096-X](https://doi.org/10.1016/S0378-2166(99)00096-X).
- Gordon, R. L., Fehd, H. M., & McCandliss, B. D. (2015). Does music training enhance literacy skills? A meta-analysis. *Frontiers in Psychology*, 6, 1777–1777. <https://doi.org/10.3389/fpsyg.2015.01777>
- Gordon, R. L., Jacobs, M. S., Schuele, C. M., & McAuley, J. D. (2015). Perspectives on the rhythm-grammar link and its implications for typical and atypical language development. *Annals of the New York Academy of Sciences*, 1337(1), 16–25. <https://doi.org/10.1111/nyas.12683>
- Gordon, R. L., Magne, C. L., & Large, E. W. (2011). EEG correlates of song prosody: A new look at the relationship between linguistic and musical rhythm. *Frontiers in Psychology*, 2, 352–352. <https://doi.org/10.3389/fpsyg.2011.00352>
- Gordon, R. L., Schön, D., Magne, C., Astésano, C., & Besson, M. (2010). Words and melody are intertwined in perception of sung words: EEG and behavioral evidence. *PloS One*, 5(3), e9889–e9889. <https://doi.org/10.1371/journal.pone.0009889>
- Gordon, R. L., Shivers, C. M., Wieland, E. A., Kotz, S. A., Yoder, P. J., & Devin McAuley, J. (2015). Musical rhythm discrimination explains individual differences in grammar skills in children. *Developmental Science*, 18(4), 635–644. <https://doi.org/10.1111/desc.12230>

- Graham, S. (2018). A revised writer(s)-within-community model of writing. *Educational Psychologist*, 53(4), 258–279. <https://doi.org/10.1080/00461520.2018.1481406>
- Graham, S. (2019). Changing how writing is taught. *Review of Research in Education*, 43, 277–303. <https://doi.org/10.3102/0091732x18821125>
- Graham, S. (2020). The sciences of reading and writing must become more fully integrated. *Reading Research Quarterly*, 55, S35–S44.
- Graham, S., & Harris, K. R. (2017). Evidence-based writing practices: A meta-analysis of existing meta-analyses. In R. Fidalgo, K. R. Harris, & M. Braaksma (Eds.), *Design principles for teaching effective writing* (pp. 13–37). Brill.
- Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools. A report to Carnegie Corporation of New York*. Alliance for Excellent Education, Washington DC.
- Graham, S., Kiuahara, S., McKeown, D., & Harris, K. (2012). A meta-analysis of writing instruction for students in the elementary grades.(Report)(Author abstract). *Journal of Educational Psychology*, 104(4), 879–896. <https://doi.org/10.1037/a0029185>.
- Graham, S., MacArthur, C. A., & Fitzgerald, J. (2019). *Best practices in writing instruction*, (3rd ed.) The Guilford Press.
- Graves, D. (1983). *Writing: Teachers and children at work*. Heineman.
- Gravem Johansen, G., Holdhus, K., Larsson, C., & MacGlone, U. (Eds.). (2019). *Expanding the space for improvisation pedagogy in music: A transdisciplinary approach* (1st ed.). Routledge. <https://doi.org/10.4324/9781351199957>
- Green, B., Hodgins, J., & Luke, A. (1997). Debating literacy in Australia: A documentary history 1945-1994. *The Australian Journal of Language and Literacy (AJLL)*, 20(1), p. 6-24. <https://www.researchgate.net/publication/297843989>

- Greene, M. (1976). Literature in aesthetic education. *Journal of Aesthetic Education*, 10(3/4), 61–76. <https://doi.org/10.2307/3332062>
- Greene, M. (1984). The art of being present: Educating for aesthetic encounters. *The Journal of Education*, 166(2), 123–135. <http://www.jstor.org/stable/42742048>
- Greene, M. (1986). The spaces of aesthetic education. *Journal of Aesthetic Education*, 20(4), 56–62. <https://doi.org/10.2307/3332600>
- Greene, M. (1987). Creating, experiencing, sense-making: Art worlds in schools. *Journal of Aesthetic Education*, 21(4), 11–23. <https://doi.org/10.2307/3332827>
- Greene, M. (1995a). Art and imagination: Reclaiming the sense of possibility. *The Phi Delta Kappan*, 76(5), 378–382. <http://www.jstor.org/stable/20405345>
- Greene, M. (1995b). *Releasing the imagination: Essays on education, the arts and social change*. Jossey Bass.
- Greenfield, M., Honing, H., Kotz, S., & Ravignani, A. (2021). Synchrony and rhythm interaction: From the brain to behavioural ecology. *Philosophical Transactions B*, 1-7. Royal Society. <https://doi.org/10.1098/rstb.2020.0324>
<https://doi.org/10.1098/rstb.2020.0324>
- Grossman, P. (2011). Framework for teaching practice: A brief history of an idea. *Teacher's College Road*, 113(12).
- Guba, E.G. and Lincoln. Y.S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln, (Eds.), *Handbook of qualitative research* (pp. 105-17). Sage Publications.
- Guilford, J. P. (1958). Can creativity be developed? *Art Education*, 11(6), 3–18.
<https://doi.org/10.2307/3184459>

- Guilford, J. P. (1984), Varieties of divergent production. *The Journal of Creative Behavior*, 18, 1-10. <https://doi-org.ezproxy.library.sydney.edu.au/10.1002/j.2162-6057.1984.tb00984.x>
- Habib, M., Lardy, C., Desiles, T., Commeiras, C., Chobert, J., & Besson, M. (2016). Music and dyslexia: A new musical training method to improve reading and related disorders. *Frontiers in Psychology*, 7, 26–26. <https://doi.org/10.3389/fpsyg.2016.00026>
- Haitos, A. (2019). The cultivation of aesthetic intensity: A Whiteheadian philosophy of education. In V. Petrov & A. C. Scarfe (Eds.), *Education from a Whiteheadian point of view: Process, rhythm and poiesis*. Cambridge Scholars Press.
- Halcrow, K. (2018). Imitation and innovation : Harnessing the principles of music pedagogy for the writing classroom. *Literacy Learning*, 26(3), 48–57.
- Halewood, M. (2011). A. N. Whitehead and social theory: Tracing a culture of thought. New York: Anthem Press.
- Halewood, M. (2015). Death, entropy, creativity and perpetual perishing: Some thoughts from Whitehead and Stengers. *Social Sciences (Basel)*, 4(3), 655–667. <https://doi.org/10.3390/socsci4030655>
- Hallam, S. (2015). *The power of music: A research synthesis of the impact of actively making music on the intellectual, social and personal development of children and young people*. London, Ed.
- Halliday, M.A.K. (1975). Learning How to Mean: Explorations in the Development of Language. London: Edward Arnold.
- Halliday, M. A. K. (1978a). *Language as social semiotic: The social interpretation of language and meaning*. University Park Press.
- Halliday, M. A. K. (1978b). *Ideas about language*. <https://openjournals.library.sydney.edu.au/index.php/ART/article/view/5494/6165>

- Halliday, M.A.K. (2002). A Personal Perspective. In M. A. K. Halliday & J. Webster (Eds.), *On Grammar*, Vol. 1 in *The Collected Works*, (Introduction). Continuum.
- Halliday, M. A. K. (2004). *The language of early childhood, Volume 4*. Continuum.
<https://doi.org/10.5040/9781474212007>
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2013). *Halliday's introduction to functional grammar* (4th ed.). Routledge. <https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9780203431269>
- Halliday, M. A. K., & Webster, J. J. (2003). *On language and linguistics* (Volume 3). Bloomsbury Publishing Plc: ProQuest Ebook Central. <https://ebookcentral-proquest-com.ezproxy.library.sydney.edu.au/lib/usyd/detail.action?docID=436170>.
- Halliwell-Phillips, J. O. (1886). *The nursery rhymes of England*. F. Warne and co.
<https://archive.org/details/nurseryrhymesofe00hall/page/37/mode/1up>
- Hammond, J., & Gibbons, P. (2005). Putting scaffolding to work: The contribution of scaffolding in articulating ESL education. *Prospect*, 20(1), 7-30.
- Hansen, D., Bernstorff, E. D., Stuber, G. M., & Bernstorff, E. D. (2014). *The music and literacy connection* (2nd ed.). Rowman & Littlefield Publishers.
- Harper, H. & Rennie, J. (2009). 'I had to go and get myself a book on grammar': A study of pre-service teachers' knowledge about language. *Australian Journal of Language and Literacy*, 32(1), 22-37.
- Haselbach, B. (2006). Orff Schulwerk back and forth: 40 years of contact between Australia and the Orff Institute in Salzburg. *Musicworks Journal of the Australian Council of Orff Schulwerk*, 11(1), 5–10. <https://doi.org/10.3316/informit.433750658942669>
- Hayes, D., Hattam., R., Comber, B., Kerkham, L., Lupton, R., & Thomson, P. (2017). *Literacy, leading and learning: beyond pedagogies of poverty*. London: Routledge.

- Henning, A. S. (2019). Does every student succeed? Applying Whitehead's process pedagogy and rhythmic education to the national standardized curricula. In V. Petrov & A. C. Scarfe (Eds.), *Education from a Whiteheadian point of view: Process, rhythm and poiesis* (Chapter 9). Cambridge Scholars Press.
- Heppner, D. H. (2017). Writing instruction in Canadian preschool to primary grades: A literature review. *McGill Journal of Education*, 52(2), 335–358.
<https://doi.org/10.7202/1044470ar>
- Herbert, R., & Dibben, N. (2018). Making sense of music: Meanings 10- to 18-year-olds attach to experimenter-selected musical materials. *Psychology of Music*, 46(3), 375-391.
<https://doi.org/10.1177/0305735617713118>
- Herdener, M., Humbel, T., Esposito, F., Habermeyer, B., Cattapan-Ludewig, K., & Seifritz, E. (2014). Jazz drummers recruit language-specific areas for the processing of rhythmic structure. *Cerebral Cortex (New York, N.Y. 1991)*, 24(3), 836–843.
<https://doi.org/10.1093/cercor/bhs367>
- Herrington, J. A. McKenney, S., Reeves, T. C.; & Ron, O. (2007). Design-based research and doctoral students: Guidelines for preparing a dissertation proposal. 4089-4097.
<https://ro.uow.edu.au/edupapers/627>
- Hetland, L. (2000). Learning to make music enhances spatial reasoning. *Journal of Aesthetic Education*, 34(3/4), 179–238. <https://doi.org/10.2307/3333643>
- Higgins, B., Miller, M., & Wegmann, S. (2006). Teaching to the test...not! Balancing best practice and testing requirements in writing. *International Reading Association*, 310-319
[doi:10.1598/RT.60.4.1](https://doi.org/10.1598/RT.60.4.1)
- Hillocks, G. (1986). *Research on written composition: New directions for teaching*. Urbana, IL: National Council for Teachers of English.

- Hocking, W. E. (1961). Whitehead as I knew him. *The Journal of Philosophy (Whitehead Centennial Issue)*, 58(19), 505-516.
- Hodge, R., & Kress, G. (1988). *Social Semiotics*. Cambridge: Polity.
- Hoermann, D. (1998). The introduction of the Kodály movement in Australia. *Bulletin (Kodály Music Education Institute of Australia)*, 1998, 3-6.
- Hoermann, D. (2011). Australian involvement in the founding of the international Kodály society. *Australian Kodály Journal (Online)*, 2011, 11-12.
- Holliman, A. J., Mundy, I. R., Wade-Woolley, L., Wood, C., & Bird, C. (2017). Prosodic awareness and children's multisyllabic word reading. *Educational Psychology (Dorchester-on-Thames)*, 37(10), 1222-1241. <https://doi.org/10.1080/01443410.2017.1330948>
- Hsiang, T. P., Graham, S., & Yang, Y. M. (2020). Teachers' practices and beliefs about teaching writing: A comprehensive survey of grades 1 to 3 teachers. *Reading and Writing*, 33(10), 2511-2548. <https://doi.org/10.1007/s11145-020-10050-4>
- Hughes, P. (1997). Aboriginal ways of learning and learning styles. *Australian Association for Research in Education (AARE)*.
- Humphrey, S., & Macnaught, L. (2016). Functional language instruction and the writing growth of English language learners in the middle years. *TESOL Quarterly*, 50(4), 792-816. <https://doi.org/10.1002/tesq.247>
- Humphrey, S., Droga, R. & Feez, S. (2012). *Grammar and meaning*. Primary English Teachers' Association Australia.
- Hurley, A. W. (2019). Whistling the death march? Listening in to the acoustics of Ludwig Leichhardt's Australian exploration. *Australian Historical Studies*, 50(2), 155-170. <https://doi.org/10.1080/1031461X.2019.1583258>

- Hyde, K. F. (2000). Recognising deductive processes in qualitative research. *Qualitative Market Research*, 3(2), 82-90. <https://doi.org/10.1108/13522750010322089>
- Ibbotson, L., & See, B. H. (2021). Delivering music education training for non-specialist teachers through effective partnership: A Kodály-inspired intervention to improve young children's development outcomes. *Education Sciences*, 11(8), 433–. <https://doi.org/10.3390/educsci11080433>
- Isaacson, S. (1989). Role of secretary vs. author: Resolving the conflict in writing instruction. *Learning Disability Quarterly*, 12(3), 209–217. <https://doi.org/10.2307/1510690>
- Ivanič, R. (2004). Discourses of writing and learning to write. *Language and Education*, 18(3), 220–245.
- Ivey, G. (2020). Design-based research in literacy. In M. H. Mallette & N. K. Duke (Eds.), *Literacy research methodologies*. Guilford Publications.
- Jackendoff, R. (1977). Review of *The Unanswered Question*, by L. Bernstein. *Language*, 53(4), 883–894. <https://doi.org/10.2307/412916>
- Jackendoff, R. (2011). Music and language. In T. Gracyk & A. Kania (Eds.), *The Routledge companion to philosophy and music* (pp. 124–135). Routledge. <https://doi.org/10.4324/9780203830376-18>
- Jackendoff, R. (2009). Parallels and nonparallels between language and music. *Music Perception*, 26(3), 195–204. <https://doi.org/10.1525/mp.2009.26.3.195>
- Jackendoff, R. S., & Lerdahl, F. (1980). *A deep parallel between music and language*. Indiana University Linguistics Club.
- Jackendoff, R., & Lerdahl, F. (2006). The capacity for music: What is it, and what's special about it? *Cognition*, 100(1), 33–72. <https://doi.org/10.1016/j.cognition.2005.11.005>

- Jaeger, E.L. (2022). “I won’t won’t be writing”: Young authors enact meaningful work. *Australian Journal of Literacy and Language*. <https://doi.org/10.1007/s44020-022-00001-7>
- James, R. (2019). *The sonic episteme: Acoustic resonance, neoliberalism, and biopolitics*. Duke University Press. <https://doi.org/10.1515/9781478007371>
- Jäncke, L. (2012). The relationship between music and language. *Frontiers in Psychology*. 3(123). 10.3389/fpsyg.2012.00123.
- Jang, J., Kim, S., & Kim, J. (2019). Design-based research on the design and application of flipped learning model for inclusive education of reading-writing. *Korean Association For Learner-Centered Curriculum And Instruction*, 19(13), 315–358. <https://doi.org/10.22251/jlcci.2019.19.13.315>
- Jay, M. (1988). The rise of hermeneutics and the crisis of ocularcentrism. *Poetics Today*, 9(2), 307–326. <https://doi.org/10.2307/1772691>
- Jefferson, M., & Anderson, M. (2021). *Transforming education : Reimagining learning, pedagogy and curriculum*. <https://doi.org/10.5040/9781350130104>
- Jentschke, S., & Koelsch, S. (2009). Musical training modulates the development of syntax processing in children. *Neuroimage*, 47, 735–744.
- Jewitt, C., Bezemer, J., & O’Halloran, K. (2016). *Introducing multimodality*. Taylor & Francis.
- Johnson, M. (2008). *The meaning of the body: Aesthetics of human understanding*. Chicago: University of Chicago Press.
- Jones, P. (2010). Teaching, learning and talking: Mapping “the trail of fire”. *English Teaching: Practice and Critique*, 9(2), 61-80. <http://education.waikato.ac.nz/research/files/etpc/files/2010v9n2art5.pdf>

- Jones, P., & Chen, H. (2012). *Teachers' knowledge about language: Issues of pedagogy and expertise. The Australian Journal of Language and Literacy*, 35(2), 147–172. <https://doi.org/10.1007/BF03651880>
- Jones, P., Simpson, A., & Thwaite, A. (2018). *Talking the talk: Snapshots from Australian classrooms* (1st. ed.). PETAA.
- Jones, S., Myhill, D., & Bailey, T. (2013). Grammar for writing? An investigation of the effects of contextualised grammar teaching on students' writing. *Reading & Writing*, 26(8), 1241–1263. <https://doi.org/10.1007/s11145-012-9416-1>
- Joseph, D. (2015). “We did the how to teach it”: Music teaching and learning in higher education in Australia. *The Australian Journal of Teacher Education*, 40(7), 1–14. <https://doi.org/10.14221/ajte.2015v40n7.1>
- Joseph, B. (2018). *Why we need NAPLAN*. Research Report 36, Centre of Independent Studies. <https://www.cis.org.au/wp-content/uploads/2018/05/rr36.pdf>
- Kant, I. (1790). *The critique of judgement* (J. C. Meredith, Trans.). Alex Catalogue. <http://infomotions.com/etexts/philosophy/1700-1799/kant-critique-140.htm>
- Karp, P. (2018). Bizarre NAPLAN writing test measures ‘all the wrong things’, US expert says. *The Guardian*. <https://www.theguardian.com/australia-news/2018/apr/09/bizarre-naplan-writing-test-measures-all-the-wrong-things-us-expert-says>
- Kaschub, M. (2016). Advancing composition in music education. *Music Educators Journal*, 102(3), 24–25.
- Keiler, A. (1978). Bernstein's *The Unanswered Question* and the problem of musical competence. *The Musical Quarterly*, 64, 195–222.

- Kelly, K., Becker, W., Lipscomb, G., & Robards, A. (2020). Centering culture through writing and the arts: Lessons learned in New Zealand. *The Reading Teacher*, 74(2), 147–158.
<https://doi.org/10.1002/trtr.1918>
- Ker, J. (1837). An essay on the archaeology of our popular phrases, nursery rhymes. *Internet Archive*, (p. 252). Longman, Rees, Orme, Brown, Green and Coupland, Southampton.
<https://archive.org/details/essayonarchaeolo00kerjuoft/page/n269/mode/2up>
- Kerkovius, A. (2005). Orff approach changes profile of music in school. *Musicworks Journal of the Australian Council of Orff Schulwerk*, 10(1), 26–28.
<https://doi.org/10.3316/informit.474407802228061>
- Kervin, L., & Mantei, J. (2022). Pretend Play: Children in Control of a Shifting Narrative. *Education Sciences*, 12(12), NA.
<https://link.gale.com/apps/doc/A751871081/AONE?u=usyd&sid=bookmark-AONE&xid=c6a73dbb>
- Kirby, A.L., Dahbi, M., Surrain, S., Rowe, M. L., & Luk, G. (2022). Music uses in preschool classrooms in the U.S.: A multiple-methods study. *Early Childhood Education Journal*.
<https://doi.org/10.1007/s10643-022-01309-2>
- Kittle, P., (Ed.) & Graves, D. (2015). *Penny interviews Donald Graves for inside writing* [video]. YouTube. <https://www.youtube.com/watch?v=XjPcZfp3Us4&t=773s>
- Klein, J. T. (1990). *Interdisciplinarity: History, theory, and practice*. Wayne State University Press.
- Kodály, Z. (1925). Hungarian folk music. In Z. Kodály (1974), *The selected writings of Zoltan Kodály*, 24-27. London: Boosey & Hawkes
- Kodály, Z. (1974). *The selected writings of Zoltán Kodály*. Boosey & Hawkes.
- Korff, J. (2023, March 18). *Dadirri (Deep Listening)*. Creative Spirits.
<https://www.creativespirits.info/aboriginalculture/education/deep-listening-dadirri>

- Koster, M., & Bouwer, R. (2018). Describing multifaceted writing interventions: From design principles for the focus and mode of instruction to student and teacher activities. *Journal of Writing Research*, 10(2), 189–224. <https://doi.org/10.17239/jowr-2018.10.02.03>
- Koster, M., Bouwer, R., & van den Bergh, H. (2017). Professional development of teachers in the implementation of a strategy-focused writing intervention program for elementary students. *Contemporary Educational Psychology*, 49, 1–20. <https://doi.org/10.1016/j.cedpsych.2016.10.002>
- Koster, M., Tribushinina, E., De Jong, P., & van den Berg, H. (2015). Teaching children to write: A meta-analysis of writing intervention research. *Journal of Writing Research*, 7(2), 299–234.
- Kraus, N., Hornickel, J., Strait, D. L., Slater, J., & Thompson, E. (2014). Engagement in community music classes sparks neuroplasticity and language development in children from disadvantaged backgrounds. *Frontiers in Psychology*, 5, 1403.
- Kress, G. R. (1997). *Before writing: Rethinking the paths to literacy*. Routledge.
- Kress, G. R. (1988). *Communication and culture: An introduction*. New South Wales University Press
- Kress, G. R. (2000). *Early spelling: Between convention and creativity*. Routledge.
- Kress, G. R. (2003). *Literacy in the new media age*. Routledge. <https://doi.org/10.4324/9780203299234>
- Kress, G. R. (2010). *Multimodality: A social semiotic approach to contemporary communication*. Routledge. <https://doi.org/10.4324/9780203970034>
- Kress, G. R. (2011). ‘Partnerships in research’: multimodality and ethnography. *Qualitative Research*, 11(3), 239–260. <https://doi.org/10.1177/1468794111399836>

- Kress, G. R., & van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. Routledge.
- Kress, G. R., & van Leeuwen, T. (2002). Colour as a semiotic mode: Notes for a grammar of colour. *Visual Communication (London, England)*, 1(3), 343–368.
<https://doi.org/10.1177/147035720200100306>
- Kunert, R., Willems, R. M., Casasanto, D., Patel, A. D., & Hagoort, P. (2015). Music and language syntax interact in Broca's area: An fMRI study. *PLoS ONE*, 10(11), e0141069.
- Lage-Gómez, C., & Cremades-Andreu, R. (2020). Theorising “participatory creativity” in music education: Unpacking the whole process at a Spanish secondary school. *Music Education Research*, 22(1), 54–67. <https://doi.org/10.1080/14613808.2019.1703922>
- Lähdesmäki, T., Baranova, J., Ylönen, S. C., Koistinen, A.-K., Mäkinen, K., Juskiene, V., & Zaleskiene, I. (2021). *Learning cultural literacy through creative practices in schools: Cultural and multimodal approaches to meaning-making*. Springer International Publishing AG.
- Langer, S. K. (1942). *Philosophy in a new key: A study in the symbolism of reason, rite, and art*. Harvard University Press.
- Langer, S. K. (1953). *Feeling and form: A theory of art developed from Philosophy in a new key*. Routledge & Kegan Paul.
- Larsson, C., & Georgii-Hemming, E. (2019). Improvisation in general music education – a literature review. *British Journal of Music Education*, 36(1), 49–67.
<https://doi.org/10.1017/S026505171800013X>
- Latham, G. & Ewing, R. (2018). *Generative conversations for creative learning: Reimagining literacy education and understanding*. Melbourne: Palgrave Macmillan.
- Lazarus, A. A. (1989). *The practice of multimodal therapy: Systematic, comprehensive, and effective psychotherapy*. Johns Hopkins University Press.

- Lerdahl, F. (2001). The sounds of poetry viewed as music. *Annals of the New York Academy of Sciences*, 930(1), 337–354. <https://doi.org/10.1111/j.1749-6632.2001.tb05743.x>
- Lerdahl, F. (2020). *Composition and cognition: Reflections on contemporary music and the musical mind* (1st ed.). University of California Press. <https://doi.org/10.2307/j.ctvp2n31k>
- Lerdahl, F., & Jackendoff, R. (1983). An overview of hierarchical structure in music. *Music Perception: An Interdisciplinary Journal*, 1(2), 229–252. <https://doi.org/10.2307/40285257>
- Letts, R. (2007). *Thus far, with the National Review of School Music Education*. Music in Australia. http://musicinaustralia.org.au/index.php?title=Thus_far,_with_the_National_Review_of_School_Music_Education#cite_note-7
- Lewis, T. E. (2011). The poetics of learning: Whitehead and Agamben on rhythm. *Philosophy of Education*.
- Lim, F. V. (2022). A design-based research approach to the teaching and learning of multiliteracies. *The Asia-Pacific Education Researcher*, 32(1). <https://doi.org/10.1007/s40299-022-00683-0>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage. [https://doi.org/10.1016/0147-1767\(85\)90062-8](https://doi.org/10.1016/0147-1767(85)90062-8)
- Lines, D. (2017). Jazz departures: Sustaining a pedagogy of improvisation. In G. Naughton, G. Biesta & D. R. Cole (Eds.), *Art, artists and pedagogy* (pp. 52-60). Routledge.
- Lingard, B., Thompson, G., & Sellar, S. (2016). *National testing in schools: An Australian assessment*. Routledge.
- List, G. (1963). The boundaries of speech and song. *Ethnomusicology*, 7(1), 1–16. <https://doi.org/10.2307/924141>

- Locke, L. M. (2016). *The Orff approach in the professional lives and practices of teachers in the Aotearoa/New Zealand school context* [Thesis, Doctor of Philosophy (PhD)]. University of Waikato, Hamilton, New Zealand. <https://hdl.handle.net/10289/9990>
- Locke, L. M. (2017). The Orff approach in the professional lives and practices of teachers in the Aotearoa/New Zealand school context. *Waikato Journal of Education*, 22(4), 109–110. <https://doi.org/10.15663/wje.v22i4.590>
- Locke, L. M. (2020). Leading with music. In R. Gibson & R. Ewing (Eds.), *Transforming the curriculum through the arts*, (pp. 137–153). Springer International Publishing. https://doi.org/10.1007/978-3-030-52797-6_9
- Locke, L. M. (2022). Manakitia a papatuanuku: Eco-literate pedagogy and music education. *Teachers and Curriculum*, 22(2), 113–125. <https://doi.org/10.15663/tandc.v22i2.411>
- Locke, L. M., & Locke, T. (2011). Sounds of Waitakere: Using practitioner research to explore how Year 6 recorder players compose responses to visual representations of a natural environment. *British Journal of Music Education*, 28(3), 263–284. <https://doi.org/10.1017/S0265051711000209>
- Locke, L. M., & Locke, T. (2012). Introducing a mentor into a children’s composition project: Reflections on a process. *Thinking Skills and Creativity*, 7(1), 8–20. <https://doi.org/10.1016/j.tsc.2011.12.001>
- Locke, T. (2004). *Critical discourse analysis*. London and New York: Continuum.
- Locke, T. (2009). Orff and the “ivory tower”: Fostering critique as a mode of legitimation. *International Journal of Music Education*, 27(4), 314–325. <https://doi.org/10.1177/0255761409345446>
- Locke, T. (2010). Discovering a metalanguage for all seasons: Bringing literary language in from the cold. In T. Locke, (Ed.), *Beyond the grammar wars* (pp. 170-184). Routledge.

- Locke, T. (2015). *Developing writing teachers : Practical ways for teacher-writers to transform their classroom practice*. Routledge, Taylor & Francis Group.
<https://doi.org/10.4324/9780203096451>
- London, J. (2012). Schemas not syntax: A reply to Patel. In P. Rebuschat, P. Rohrmeier, J. A. Hawkins & I. Cross (Eds.), *Language and music as cognitive systems* (pp. 242-247). Oxford University Press.
- Lonely Planet. (2023). *Explore places on lonely planet*. <https://www.lonelyplanet.com>
- Long, A. (2013). Involve me: Using the Orff approach within the elementary classroom. *Awards for Excellence in Student Research & Creative Activity - Documents*. 4.
- Lorenzo, O., Herrera, L., Hernández-Candelas, M., & Badea, M. (2014). Influence of music training on language development. *Procedia - Social and Behavioral Sciences*, 128, 527 – 530.
- Louden, W., Rohl, E., Gore, J., McIntosh, A., Greaves, D., Wright, R., Siemon, D., & House, H. (2005). *Prepared to teach: An investigation into the preparation of teachers to teach literacy and numeracy*. Mount Lawley, Western Australia: Edith Cowan University.
- Louden, W., Rohl, M., Barrett-Pugh, C., Brown, C., & Cairney, T. (2005). *In teachers' hands: Effective literacy practices in the early years of schooling*. ACER Research Online.
http://research.acer.edu.au/monitoring_learning/2/
- Love, B. L. (2015). What is hip-hop-based education doing in *nice* fields such as early childhood and elementary education? *Urban Education*, 50(1), 106–131.
<https://doi.org/10.1177/0042085914563182>
- Love, K., Sandiford, C., Macken-Horarik, M. & Unsworth, L. (2014). From ‘bored witless’ to ‘rhetorical nous’: Teacher orientation to knowledge about language and strengthening student persuasive writing. *English in Australia*, 49(3), 43-56. Retrieved from

<http://search.ebscohost.com/login, a spx?direct=true&db=eric&AN=EJ1051302&site=ehost-live>
<http://www.aate.org.au/journals/2014-vol-49-no-1-to-3>

Lowe, K. (2012). *What's the story? Making meaning in primary classrooms*. Primary English Teaching Association [PETA].

Lowe, K. (2017). Four instructional practices so no one falls through the gaps. *Literacy Learning*, 25(3), 28–37. <https://doi.org/10.3316/aeipt.218054>

Lowe, K., & Bormann, F. (2012). U-can write: Working with struggling writers. *Literacy Learning*, 20(2), 22–28. <https://doi.org/10.3316/aeipt.191919>

Lyndon, C.W., & Simon, M. (2017). *Music as multimodal discourse/ Bloomsbury Advances in Semiotics*. Bloomsbury Academic.

<http://dx.doi.org.ezproxy.library.sydney.edu.au/10.5040/9781474264419>

Ma, W., Fiveash, A., Margulis, E. H., Behrend, D., & Thompson, W. F. (2020). Song and infant-directed speech facilitate word learning. *Quarterly Journal of Experimental Psychology*, 73(7), 1036–1054. <https://doi.org/10.1177/1747021819888982>

Macken, M., Kalantzis, M., Kress, G., Martin, J., & Cope, B. (1989). *A genre-based approach to teaching writing, Years 3-6, book 1: Introduction*. Sydney: Directorate of Studies, N.S.W. Department of Education (pp. 6-8). New Learning Online.

<https://newlearningonline.com/literacies/chapter-6/macken-et-al.-on-genre-theory>

Macken-Horarik, M. (2016). Building a metalanguage for interpreting multimodal literature: Insights from systemic functional semiotics in two case study classrooms. *English in Australia*, 51(2), 85-. Gale Academic OneFile.

link.gale.com/apps/doc/A470230296/AONE?u=usyd&sid=bookmark-AONE&xid=e1407b8f. Accessed 13 Mar. 2023.

- Macken-Horarik, M., Love, K., & Horarik, S. (2018). Rethinking grammar in language arts: Insights from an Australian survey of teachers' subject knowledge. *Research in the Teaching of English*, 52(3), 288-316.
- Mackenzie, & Scull, J. (2016). Using a Writing Analysis Tool to monitor student progress and focus teaching decisions. *Practical Literacy*, 21(2), 35–38.
- Mackenzie, N. M., & Scull, J. (2018). *Understanding and supporting young writers from birth to 8*. Routledge. <https://doi.org/10.4324/9781315561301>
- Mackenzie, N., Scull, J., & Bowles, T. (2015). Writing over time: An analysis of texts created by Year One students. *Australian Educational Researcher*, 42(5), 567–593.
<https://doi.org/10.1007/s13384-015-0189-9>
- Mackenzie, N. M., Scull, J., & Munsie, L. (2013). Analysing writing: The development of a tool for use in the early years of schooling. *Issues in Educational Research*, 23(3), 375-391. Retrieved from: <http://www.iier.org.au/iier23/mackenzie.pdf>
- Mackenzie, N. M., Scull, J., & Munsie, L. (2015). *Writing Analysis Tool*.
<https://noellamackenzie.com/writing-analysis-tool/>
- Magne, C., Mitsuko, A., Astesano, C., Gordon, R. L., Sølvi, Y., Farner, S., Kronland-Martinet, R., & Besson, M. (2005). Comparison of rhythmic processing in language and music: An interdisciplinary approach. *Journal of Music and Meaning [JMM]*, 3.
- Mäkelä, T., Fenyvesi, K., Kankaanranta, M., Pnevmatikos, D., & Christodoulou, P. (2022). Co-designing a pedagogical framework and principles for a hybrid STEM learning environment design. *Educational Technology Research and Development*, 70(4), 1329–1357.
<https://doi.org/10.1007/s11423-022-10114-y>
- Makkai, A. (1990). Interview with Michael Halliday. In T. A. Sebeok & J. Umiker-Sebeok (Eds.), *The semiotic web, 1989* (Vol. 92). De Gruyter, Inc.

- Malloch, S. (1999). Mother and infants and communicative musicality. In I. Deliège (Ed.), *Rhythms, musical narrative, and the origins of human communication, musicae scientiae, special issue, 1999-2000*, 29–57. Liège: European Society for the Cognitive Sciences of Music.
- Malloch, S., Sharp, D., Campbell, D. M., Campbell, A. M., & Trevarthen, C. (1997). Measuring the human voice: analysing pitch, timing, loudness and voice quality in mother/infant communication. *Proc. Inst. Acoustics*, 19, 495–500.
- Malloch, S., & Trevarthen, C., (Eds.). (2009a). *Communicative musicality: Exploring the basis of human companionship*. Oxford University Press.
- Malloch, S., & Trevarthen, C. (2009b). Musicality: Communicating the vitality and interests of life. In S. Malloch & C. Trevarthen (Eds.), *Communicative musicality: Exploring the basis of human companionship*, 1-11. Oxford University Press.
- Malloch, S., & Trevarthen, C. (2018). The human nature of music. *Frontiers of Psychology*. 9(1680). doi: 10.3389/fpsyg.2018.01680
- Mannheim, B. (1986). Popular song and popular grammar, poetry and metalanguage. *Word*, 37(1-2), 45-75, DOI: 10.1080/00437956.1986.11435766
- Mantei, J. (2008). Using a design-based research approach to explore the ways that primary school teachers conceptualise authentic learning: A work in progress. *Emerging Technologies Conference 2008*. 15.
<https://ro.uow.edu.au/etc08/15>
- Manyukhina, Y., & Wyse, D. (2019). Learner agency and the curriculum: A critical realist perspective. *Curriculum Journal (London, England)*, 30(3), 223–243.
<https://doi.org/10.1080/09585176.2019.1599973>
- Margulis, E. H. (2013). Repetition and emotive communication in music versus speech. *Frontiers in Psychology*, 4, 167–167. <https://doi.org/10.3389/fpsyg.2013.00167>

- Mariano, E., Campbell-Evans, G., & Hunter, J. (2022). Writing assessment in early primary classrooms: Thoughts from four teachers. *The Australian Journal of Language and Literacy*, 45(1), 85–101. <https://doi.org/10.1007/s44020-022-00007-1>
- Markauskaite, L., & Goodyear, P. (2017). *Epistemic fluency and professional education: Innovation, knowledgeable action and actionable knowledge* (1st ed. 2017., Vol. 14). Springer. <https://doi.org/10.1007/978-94-007-4369-4>
- Markauskaite Lina, & Wrigley, C. (2023). How can we co-design for interdisciplinarity? Three entwinements of design and interdisciplinarity. *Journal of Design, Business & Society (Bristol)*, 9(1), 3–8. https://doi.org/10.1386/dbs_00043_2
- Marsh, J. (2018). Young children's online practices. In P. Albers (Ed.), *Global conversations in literacy research: digital and critical literacies*. Routledge: Taylor and Francis.
- Martin, D. (1967). The power of music and Whitehead's theory of perception. *The Journal of Aesthetics and Art Criticism*, 25(3), 313-322.
- Martins, M., Neves, L., Rodrigues, P., Vasconcelos, O., & Castro, S. L. (2018). Orff-based music training enhances children's manual dexterity and bimanual coordination. *Frontiers in Psychology*, 9, 2616–2616. <https://doi.org/10.3389/fpsyg.2018.02616>
- Martins, M. J. D., Fischmeister, F. P. S., Gingras, B., Bianco, R., Puig-Waldmueller, E., Villringer, A., Tecumseh Fitch, W., Beisteiner, R. (2020). Recursive music elucidates neural mechanisms supporting the generation and detection of melodic hierarchies. *Brain Structure and Function* 225, 1997–2015. <https://doi.org/10.1007/s00429-020-02105-7>
- Matthews, D. R., Ubbes, V. A., & Freysinger, V. J. (2016). A qualitative investigation of early childhood teachers' experiences of rhythm as pedagogy. *Journal of Early Childhood Research : ECR*, 14(1), 3–17. <https://doi.org/10.1177/1476718X14523745>

- Maxwell, J. A. (2010). Using numbers in qualitative research. *Qualitative Inquiry*, 16(6), 475–482. <https://doi.org/10.1177/1077800410364740>
- Maxwell, S. E., Lau, M. Y., and Howard, G. S. (2015). Is psychology suffering from a replication crisis? What does “failure to replicate” really mean? *Am. Psychol.*, 70, 487–498. doi: 10.1037/a0039400
- Mavers, D. (2011). *Children’s drawing and writing: The remarkable in the unremarkable*. Routledge.
- Maybin, J., & Swann, J. (2007). Everyday creativity in language : Textuality, contextuality, and critique : Language creativity in everyday contexts. *Applied Linguistics*, 28(4), 497–517.
- Maynard, K., Pullen, P., & Coyne, M. (2010). Teaching vocabulary to first-grade students through repeated shared storybook reading: A comparison of rich and basic instruction to incidental exposure. *Literacy Research and Instruction*, 49(3), 209–242. <https://doi.org/10.1080/19388070902943245>
- Maynard, T., & Lowe, K. (1999). Boys and writing in the primary school. *Education 3-13*, 27(2), 4-9. doi: 10.1080/03004279985200131
- McClelland, R. C., & Hartenberger, R. (2020). *The Cambridge companion to rhythm* (R. C. McClelland & R. Hartenberger, Eds.). Cambridge University Press.
- McFarlane, C. (2019). Engaging and supporting boys through the middle years: A perspective from Australia. In D. C. Virtue (Ed.), *International handbook of middle level education theory, research, and policy* (1st ed., pp. 131–142). Routledge. <https://doi.org/10.4324/9781351122115-10>
- McGaw, B., Loudon, W., & Wyatt-Smith A. C. (2020). NAPLAN review: Final report. https://naplanreview.com.au/pdfs/2020_NAPLAN_review_final_report.pdf
- McGee, L., & Schickedanz, J. (2007). Repeated interactive read-alouds in preschool and kindergarten. *The Reading Teacher*, 60(8), 742–751. <https://doi.org/10.1598/RT.60.8.4>

- McGrath, J. (2018). *Samuel Beckett, repetition and modern music* (1st ed.). Routledge. <https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9781315607566>
- Meacham, S. J., Meacham, S., Thompson, M., & Graves, H. (2019). Hip-hop early literacy in K–1 classrooms. *The Reading Teacher*, 73(1), 29–37. <https://doi.org/10.1002/trtr.1809>
- Mead, M. (1926). The methodology of racial testing: Its significance for sociology. *American Journal of Sociology*, 31(5), 657–667. <http://www.jstor.org/stable/2764354>
- Mead, M. (1939). Native languages as field work tools 1. *American Anthropologist*, 41(2), 189–205.
- Mead, M. (1964). *Anthropology, a human science: Selected papers 1939-1960*. Van Nostrand Publishers.
- Mead, M. (1972a). Music in world cultures: Music is a human need. *Music Educators Journal*, 59(2), 24–24.
- Mead, M. (1972b). Vicissitudes of the study of the total communication process. *Approaches to semiotics*, 15, 277–288. De Gruyter. <https://doi.org/10.1515/9783111349022-012>
- Meltzer, C. (2015). Understanding the ambiguity and uncertainty in creative processes when using arts-based methods in education and working life. *Organizational aesthetics*, 4(1), 46-69. <https://oa.journals.publicknowledgeproject.org/index.php/oa/article/view/45>
- Meyer, R.J., & Whitmore, K.F. (2017). *Reclaiming early childhood literacies: Narratives of hope, power, and vision*. Taylor & Francis Group. <https://ebookcentral-proquest-com.ezproxy.library.sydney.edu.au/lib/usyd/detail.action?docID=4662741>.
- Meyer, S. (2005). Introduction. *Configurations* 13(1), 1-33. doi:10.1353/con.2007.0010.
- Micchi, G., Bigo, L., Giraud, M., Groult, R., & Levé, F. (2021). I keep counting: An experiment in human/AI co-creative songwriting. *Transactions of the International Society for Music Information Retrieval*, 4(1), 263–. <https://link-gale->

com.ezproxy.library.sydney.edu.au/apps/doc/A688529457/AONE?u=usyd&sid=bo
okmark-AONE&xid=9583c874

- Middleton, M., & Curwood, J. S. (2020). A brave new world : Teachers' conceptions of the value of creativity in the new Stage 6 English syllabus. *The Australian Journal of Language and Literacy*, 43(2), 167–176. <https://doi.org/10.1007/BF03652052>
- Miller, C. R. (1984). Genre as social action. *Quarterly Journal of Speech* 70, 151-67.
- Ministry of Education, Ontario. (2009). *The Ontario Curriculum Grades 1-8: The Arts*.
<https://www.edu.gov.on.ca/eng/curriculum/elementary/arts18b09curr.pdf>
- Ministry of Education- Te Tāhuhu o Te Mātauranga, New Zealand Government. (2023). *The arts, music: What is music about?* <https://ncea.education.govt.nz/arts/music>
- Misson, R., & Morgan, W. (2006). *Critical literacy and the aesthetic: Transforming the English classroom*. National Council of Teachers of English.
- Mithen, S. J. (2006). *The singing neanderthals: The origins of music, language, mind, and body* (1st paperback ed). Harvard University Press.
- Mithen, S. (2012). The significance of stones and bones: understanding the biology and evolution of rhythm requires attention to the archaeological and fossil record. In P. Rebuschat, M. Rohrmeier, J. A. Hawkins & I. Cross (Eds.), *Language and music as cognitive systems* (Chapter 11). Oxford University Press.
- Molino, J., Underwood, J. A., & Ayrey, C. (1990). Musical fact and the semiology of music. *Music Analysis*, 9(2), 105–156. <https://doi.org/10.2307/854225>
- Morrell, E., & Duncan-Andrade, J. M. (2004). What they do learn in school: Hip-hop as a bridge to canonical poetry. In J. Mahiri (Ed.), *What they don't learn in school: Literacy in the lives of urban youth* (pp. 247–268). Routledge.

- Moreno, S. (2009). Can music influence language and cognition? *Contemporary Music Review*, 28(3), 329–345. <https://doi.org/10.1080/07494460903404410>
- Moreno, S., Bialystok, E., Barac, R., Schellenberg, E. G., Cepeda, N. J., & Chau, T. (2011). Short-term music training enhances verbal intelligence and executive function. *Psychological Science*, 22(11), 1425–1433. <https://doi.org/10.1177/0956797611416999>
- Müller, C., Cienki, A., Fricke, E., Ladewig, S., McNeill, D., & Tessendorf, S. (Eds.). (2013). *Body - language - communication. volume 1 : An international handbook on multimodality in human interaction*. De Gruyter, Inc..
- Murray, D. M. (1984). Writing and teaching for surprise. *College English*, 46(1), 1–7. <https://doi.org/10.2307/376758>
- Murray, D. M. (1985). *A writer teaches writing* (2nd ed.). Houghton Mifflin Co.
- Murray, P., & Wilson, P. (2004). *Music and the muses: The culture of “mousikē” in the classical Athenian city*. Oxford University Press.
- Myers, C. (1983). Drawing as prewriting in preschool. In M. Myers & J. Gray, *Theory and practice in the teaching of composition: Processing, distancing and modelling* (pp. 75–85). Illinois: National Council of Teachers of English. <https://eric.ed.gov/?id=ED227515>
- My Five-a-Day: Đọc cùng con dịch. (2016). *Bố tớ - My Dad by Anthony Browne* [video]. YouTube. <https://www.youtube.com/watch?v=EaJxLPc-l-I>
- Myhill, D. (2005). Ways of knowing: writing with grammar in mind. *English Teaching: Practice and Critique*, 4(3), 77–96.
- Myhill, D. (2011). Grammar for designers: How grammar supports the development of writing. In S. Ellis, E. McCartney & J. Bourne (Eds.), *Insight and impact: Applied linguistics and the primary school*, (pp. 81–92). Cambridge University Press.

- Myhill, D. (2019). Linguistic choice as empowerment - teaching rhetorical decision-making in writing. *Utbildning Och Demokrati*, 28(2), 55–75.
<https://doi.org/10.48059/uod.v28i2.1121>
- Myhill, D. (2023). Grammar as a resource for developing metalinguistic understanding about writing. In A. G. Spinillo & C. Sotomayor (Eds.), *Development of writing skills in children in diverse cultural contexts* (pp. 43–64). Springer, Cham. https://doi.org/10.1007/978-3-031-29286-6_3
- Myhill, D., Jones, S., & Lines, H. (2018). Supporting less proficient writers through linguistically aware teaching. *Language and Education*, 32(4), 333.
[doi:10.1080/09500782.2018.1438468](https://doi.org/10.1080/09500782.2018.1438468)
- Myhill, D. A., Jones, S. M., Lines, H., & Watson, A. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education*, 27(2), 139–166.
<https://doi.org/10.1080/02671522.2011.637640>
- Myhill, D., Jones, S., & Watson, A. (2013). Grammar matters: How teachers' grammatical knowledge impacts on the teaching of writing. *Teaching and Teacher Education*, 36, 77-91.
<http://dx.doi.org/10.1016/j.tate.2013.07.005>
- Myhill, D., Newman, R., & Watson, A. (2020). Going meta: Dialogic talk in the writing classroom. *Literacy Learning in the Middle Years* 43(1).
- Myhill, D., & Watson, A. (2014). The role of grammar in the writing curriculum: A review of the literature. *Child Language Teaching and Therapy*, 30(1), 41-62.
[doi:10.1177/0265659013514070](https://doi.org/10.1177/0265659013514070).

- Myhill, D., Watson, A., & Newman, R. (2020). Thinking differently about grammar and metalinguistic understanding in writing. *Bellaterra Journal of Teaching & Learning Language & Literature*, 13(2), 870. doi:10.5565/rev/jtl3.870.
- National Assessment Program. (2022). *Naplan*. <https://www.nap.edu.au/naplan>
- National Council of Teachers of English. (2022). *Position Statement on Writing Instruction in School*. NCTE. <https://ncte.org/statement/statement-on-writing-instruction-in-school/>
- Nattiez, J-J. (1990). *Music and discourse: toward a semiology of music*. Princeton University Press.
- Nattiez, J-J. (2013). The narrativization of music/ Music: Narrative or proto-narrative? *Human & Social Studies. Research and Practice*, 2(2). <https://doi.org/10.2478/hssr-2013-0004>
- Nelson, C. (2010). The invention of creativity: The emergence of a discourse. *Cultural Studies Review*, 16(2), 49–74. <https://doi.org/10.5130/csr.v16i2.1694>
- Nelson, L. H., Wright, W., & Parker, E. W. (2016). Embedding music into language and literacy instruction for young children who are deaf or hard of hearing. *Young Exceptional Children*, 19(1), 27–38. <https://doi.org/10.1177/1096250614566539>
- Ness, I. J., & Glăveanu, V. (2019). Polyphonic orchestration: The dialogical nature of creativity. In R. A. Beghetto & G. E. Corazza (Eds.), *Dynamic perspectives on creativity* (pp. 189–206). Springer International Publishing. https://doi.org/10.1007/978-3-319-99163-4_11
- NSW Government Education. (2023, March). *Data types – Strengths and limitations*. New South Wales Government. <https://education.nsw.gov.au/teaching-and-learning/professional-learning/pl-resources/evaluation-resource-hub/turning-data-into-evidence/data-types-strengths-and-limitations>

- Nielsen, R. P. (2016). Action research as an ethics praxis method. *Journal of Business Ethics*, 135(3), 419–428. <http://www.jstor.org/stable/24736063>
- Nikolaou, E. (2023). Encouraging creativity through music improvisation activities: Pre-service primary general teacher-students' reflections and beliefs. *International Journal of Music Education*, 25576142311789–. <https://doi.org/10.1177/02557614231178925>
- Niland, A. (2007). Musical stories: Strategies for integrating literature and music for young children. *Australasian Journal of Early Childhood*, 32(4), 7–11. <https://doi.org/10.1177/183693910703200403>
- Niland, A. (2009). The power of musical play: The value of play-based, child-centred curriculum in early childhood music education. *General Music Today*, 23(1), 17–21. <https://doi.org/10.1177/1048371309335625>
- Niland A. (2023). Picture books, imagination and play: Pathways to positive reading identities for young children. *Education Sciences*, 13(5), 511. <https://doi.org/10.3390/educsci13050511>
- Noad, B., & Barton, G. (2020). Emotion resonance and divergence: A semiotic analysis of music and sound in “The Lost Thing” an animated short film and “Elizabeth” a film trailer. *Social Semiotics*, 30(2), 206–224. <https://doi.org/10.1080/10350330.2018.1543115>
- Noad, B., & Unsworth, L. (2007). Semiosis in the film soundtrack : Aural perspective and social distance in “The Queen” film trailer. *Literacy Learning*, 15(3), 8–19. <https://doi.org/10.3316/aeipt.163802>
- Nor, N. M., and Ab Rashid, R. (2018). A review of theoretical perspectives on language learning and acquisition. *Kasetsart Journal of Social Sciences*, 39, 161–167. doi: 10.1016/j.kjss.2017.12.012

- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, 16(1). <https://doi.org/10.1177/1609406917733847>
- Oakley, G., Wildy, H., & Berman, Y. (2020). Multimodal digital text creation using tablets and open-ended creative apps to improve the literacy learning of children in early childhood classrooms. *Journal of Early Childhood Literacy*, 20(4), 655–679. <https://doi.org/10.1177/1468798418779171>
- O’Callaghan, K. (2018). *Essays on music and language in modernist literature: Musical modernism* (1st ed., Vol. 47). Routledge. <https://doi.org/10.4324/9781315231716>
- Ockelford, A. (2017). *Comparing notes: How we make sense of music*. Profile Books.
- Oesch, N. (2019). Music and language in social interaction: Synchrony, antiphony, and functional origins. *Frontiers in Psychology*, 10, 1514. doi: 10.3389/fpsyg.2019.01514
- Ohman-Rodriguez, J. (2004). Music from inside out: Promoting emergent composition with young children. *Young Children*, 59(4), 50–55.
- Olsen, D. R. (2009). The history of writing. In R. Beard, D. Myhill, J. Riley & M. Nystrand (Eds.), *The sage handbook of writing development* (pp. 6-16). Sage Publications Ltd, <https://dx.doi.org/10.4135/9780857021069>
- Oreck, B. (2006). Artistic choices: A study of teachers who use the arts in the classroom. *International Journal of Education and the Arts*, 7(8), 1–27.
- Orff, C. (1963). The Schulwerk: Its origin and aims (A. Walter, Trans.). *Music Educators Journal*, 49(5), 69-74.
- Ortlieb, E., Cheek, E. H. J., & Verlaan, W. (2016). *Writing instruction to support literacy success*. Emerald Publishing Limited.

- Oxford Learner's Dictionaries. (2023). Grammar. In *Oxford Learner's Dictionaries.com*
<https://www.oxfordlearnersdictionaries.com/definition/english/grammar?q=grammar>
- Oxford University Press. (2023). *Grammar*. Oxford Reference.
<https://www.oxfordreference.com/display/10.1093/oi/authority.20111019152836936#:~:text=The%20whole%20system%20and%20structure,of%20the%20seven%20liberal%20arts.>
- Ozernov-Palchik, O., & Patel, A. D. (2018). Musical rhythm and reading development: Does beat processing matter? *Annals of the New York Academy of Sciences*, 1423(1), 166–175.
<https://doi.org/10.1111/nyas.13853>
- Ozernov-Palchik, O., Wolf, M., & Patel, A. D. (2018). Relationships between early literacy and nonlinguistic rhythmic processes in kindergarteners. *Journal of Experimental Child Psychology*, 167, 354–368. <https://doi.org/10.1016/j.jecp.2017.11.009>
- Pagan, N. O. (2019). Barthes the phenomenologist and the being of literature. *Mosaic: An Interdisciplinary Critical Journal*, 52(1), 17–32. <https://www.jstor.org/stable/26974141>
- Paolino, A., & Lummis, G. W. (2015). Orff-Schulwerk as a pedagogical tool for the effective teaching of Italian to upper primary students in Western Australia. *Babel (Parkville, Australia)*, 50(1), 12–23. <https://doi.org/10.3316/aeipt.215161>
- Panksepp, J., & Trevarthen, C. (2009). The neuroscience of emotion in music. In Malloch, S., & Trevarthen, C. (Eds.), *Communicative musicality: Exploring the basis of human companionship*, 105-146. Oxford University Press.
- Paquette, K. R., & Rieg, S. A. (2008). Using music to support the literacy development of young English language learners. *Early Childhood Education Journal* 36(3), 227-232.
10.1007/s10643-008-0277-9

- Parr, J. M. (2016). Accelerating student progress in writing: Examining practices effective in New Zealand primary school classrooms. *Literacy Research, Practice and Evaluation*, 7, 41–64. Emerald Group Publishing Limited. <https://doi.org/10.1108/S2048-045820160000007002>
- Parr, J. M., & Jesson, R. (2016). Mapping the landscape of writing instruction in New Zealand primary school classrooms. *Reading and Writing*, 29(5), 981–1011. <https://doi.org/10.1007/s11145-015-9589-5>
- Parret, H. (2013). With Herman Parrett. In J. Martin (Ed.), *Interviews with M. A. K. Halliday: Language turned back on himself* (pp. 1–40). Bloomsbury Academic. <http://dx.doi.org.ezproxy.library.sydney.edu.au/10.5040/9781472541956.ch-001> (Originally published in 1972)
- Pascoe, R., Leong, S., MacCallum, J., Mackinlay, E., Marsh, K., Smith, B., Church, T., & Winterton, A. (2005). *National review of school music education: Augmenting the diminished*. Australian Government Dept. of Education, Science and Training. <https://researchportal.murdoch.edu.au/esploro/outputs/report/National-review-of-school-music-education/991005543715907891>
- Patel, A. D. (1998). Syntactic processing in language and music: Different cognitive operations, similar neural resources? *Music Perception: An Interdisciplinary Journal*, 16(1), 27–42. <https://doi.org/10.2307/40285775>
- Patel, A. D. (2003). Language, music, syntax and the brain. *Nature Neuroscience*, 6(7), 674–681. <https://doi.org/10.1038/nn1082>
- Patel, A. D. (2007). *Music, language, and the brain*. Online edition: Oxford Academic <https://doi.org/10.1093/acprof:oso/9780195123753.003.0004>

- Patel, A. D. (2011). Why would musical training benefit the neural encoding of speech? The OPERA hypothesis. *Frontiers in Psychology*, 2, 142–142.
<https://doi.org/10.3389/fpsyg.2011.00142>
- Patel, A. D. (2012). Language, music, and the brain: a resource-sharing framework. In P. Rebuschat, M. Rohrmeier, J. A. Hawkins, & I. Cross, I (Eds.), *Language and Music as Cognitive Systems*, (Chapter 22). Oxford University Press.
- Patel, A. D. (2014a). The evolutionary biology of musical rhythm: Was Darwin wrong? *PLoS Biology*, 12(3), e1001821–e1001821. <https://doi.org/10.1371/journal.pbio.1001821>
- Patel, A. D. (2014b). Can non-linguistic musical training change the way the brain processes speech? The expanded OPERA hypothesis. *Hearing Research*, 308, 98–108.
<https://doi.org/10.1016/j.heares.2013.08.011>
- Patel, A. D., & Daniele, J. R. (2003). An empirical comparison of rhythm in language and music. *Cognition*, 87(1), B35-B45. [https://doi.org/10.1016/S0010-0277\(02\)00187-7](https://doi.org/10.1016/S0010-0277(02)00187-7)
- Patel, A. D., & Morgan, E. (2017). Exploring cognitive relations between prediction in language and music. *Cognitive Sciences*, 41, 303–320. doi: 10.1111/cogs.12411
- Paul, A., Sharda, M., Menon, S., Arora, I., Kansal, N., Arora, K., & Singh, N. C. (2015). The effect of sung speech on socio-communicative responsiveness in children with autism spectrum disorders. *Frontiers Human Neuroscience*, 9(555). doi: 10.3389/fnhum.2015.00555.
- Pearson, D. P., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8(3), 317-344. [https://doi.org/10.1016/0361-476X\(83\)90019-X](https://doi.org/10.1016/0361-476X(83)90019-X).

- Peirce, C. S. (1998). *The essential Peirce selected philosophical writings, Volume 2, 1893-1913* (N. Houser, J. R. Eller, A. C. Lewis, A. De Tienne, C. L. Clark & D. B. Davis, Eds.). Indiana University Press. (Original work published 1913)
- Perani, D., Saccuman, M. C., Scifo, P., Spada, D., Andreolli, G., Rovelli, R., Baldoli, C., & Koelsch, S. (2010). Functional specializations for music processing in the human newborn brain. *Proceedings of the National Academy of Sciences*, 107(10), 4758-4763.
- Peretz, I., & Zatorre, R. J. (2003). *The Cognitive Neuroscience of Music* (Repr.). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198525202.001.0001>
- Peretz, I., Vuvan, D., Lagrois, M.-É., & Armony, J. L. (2015). Neural overlap in processing music and speech. *Philosophical Transactions of the Royal Society of London. Series B. Biological Sciences*, 370(1664), 68–75. <https://doi.org/10.1098/rstb.2014.0090>
- Petrov, V., & Scarfe, A. C. (2019). *Education from a Whiteheadian point of view : Process, rhythm, and poiesis* (V. Petrov & A. C. Scarfe, Eds.). Cambridge Scholars Publishing.
- Philippakos, Z. A. (2021). *Design-based research in education : Theory and applications*. The Guilford Press.
- Ponella, D. (2020). Composing with children: Cultivating creativity, connections, and community. In F. K. Reisman (Ed.), *70 years of research into creativity: JP Guilford's role and today's focus*, (Chapter 11). London: 2020 KIE Conference Publications. KIE Conference Publications. <https://kiecon.org/creativity-books/>
- Pope, R. (2005). *Creativity: theory, history, practice*. Routledge.
- Portier, C., Friedrich, N., & Stagg Peterson, S. (2019). Play(ful) pedagogical practices for creative collaborative literacy. *The Reading Teacher*, 73(1), 17–27. <https://www.jstor.org/stable/26801689>

- Powel, S., & La Rocca, G. (2021). Supporting early childhood teachers with Orff: The potential of targeted professional learning to build skill and confidence to sing with children. *Musicworks Journal of the Australian Council of Orff Schulwerk*, 26, 25–32. <https://doi.org/10.3316/informit.912437987703587>
- Power, A. (2019). Panel discussion at Orff 2-day conference: On the theme of “the future of music education.” *Musicworks Journal of the Australian Council of Orff Schulwerk*, 24, 18–19. <https://doi.org/10.3316/informit.857700004337129>
- Power, A. (n.d.). *The Orff Approach*. Music Australia. <https://musicaustralia.org.au/discover/music-education/music-education-methodologies-approaches/the-orff-approach/>
- Pretty-Norbury, & Pontarini, L. (2018). Kodály or Orff? Why not both? *Canadian Music Educator*, 60(1), 9–14.
- Pritchard, R., & Honeycutt, R. (2006). The process approach to writing instruction: Examining its effectiveness. In C. MacArthur, S. Graham & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 275-290). The Guildford Press.
- Primary English Teachers of Australia Association. (2018, April 18). Vale Michael ‘M.A.K’ Halliday. *The Primary English Teachers Association*. https://petaa.edu.au/w/w/News/Latest_News/Vale_Michael_Halliday.aspx
- Proudfoot, K. (2023). Inductive/deductive hybrid thematic analysis in mixed methods research. *Journal of Mixed Methods Research*, 17(3), 308–326. <https://doi.org/10.1177/15586898221126816>
- Pugach, C., Leder, H., & Graham, D. J. (2017). How stable are human aesthetic preferences across the lifespan? *Frontiers in Human Neuroscience*, 31(11), 289. doi: 10.3389/fnhum.2017.00289. PMID: 28620290; PMCID: PMC5449452.

- Ragin, C. C. (1987). *The comparative method: Moving beyond qualitative and quantitative strategies*. University of California Press.
- Reading Joy. (2022, June 16). *My Dad by Anthony Browne* [video]. You Tube.
<https://www.youtube.com/watch?v=krW88eliPB0&t=8s>
- Rebne, R., & Sætre, J. H. (2019). Improvisation in primary school settings: Discovering the play of music making. In G. Gravem Johansen, K. Holdhus, C. Larsson, & U. MacGlone, (Eds.), *Expanding the space for improvisation pedagogy in music: A transdisciplinary approach* (pp. 133–146). <https://doi.org/10.4324/9781351199957-9>
- Rebuschat, P., Rohrmeier, M., Hawkins, J. A., & Cross, I. (Eds.). (2012). *Language and music as cognitive systems*. Oxford University Press.
- Rebuschat, P. (2015). *Implicit and explicit learning of languages* (P. Rebuschat, Ed.). John Benjamins Publishing Company.
- Reeves, T. C. (2005). Design-based research in educational technology: Progress made, challenges remain. *Educational Technology*, 45(1), 48–52.
<http://www.jstor.org/stable/44429189>
- Reeves, T. C. (2006). Design research from a technology perspective. In J. van den Akker, K. Gravemeijer, S. McKenney, & N. Nieveen (Eds.), *Educational design research* (pp. 52-66). Routledge.
- Reilly, S., Wake, M., Ukoumunne, O., Bavin, E., Prior, M., Cini, E., Conway, L., Eadie, P., & Bretherton, L. (2010). Predicting language outcomes at 4 Years of age: Findings from early language in Victoria study. *Pediatrics*, 126. e1530-7. 10.1542/peds.2010-0254.
- Reiman, P. (2011). Design-based research. In L. Markauskaite, P. Freebody, & J. Irwin (Eds.), *Methodological choice and design*, (Vol 9, pp. 37–50). Springer Netherlands.
https://doi.org/10.1007/978-90-481-8933-5_3

- Reimer, B. (2022). *A philosophy of music education: Advancing the vision*, (3rd ed.). State University of New York Press. ProQuest Ebook Central. <https://ebookcentral-proquest-com.ezproxy.library.sydney.edu.au/lib/usyd/detail.action?docID=29687510>.
- Richardson, C. (2022). Supporting collaborative creativity in education with The i5 Framework. *Educational Action Research*, 30(2), 297–312.
<https://doi.org/10.1080/09650792.2020.1810731>
- Richardson, L., & St Pierre, E. (2008). A method of inquiry. *Collecting and interpreting qualitative materials*, 3(4), 473.
- Riddle, S. (2016). On music and literacy learning in the middle years. *Literacy Learning*, 24(3), 16–18.
- Rietdijk, S., van Weijen, D. , Janssen, T. , van den Bergh, H. & Rijlaarsdam, G. (2018). Teaching writing in primary education. *Journal of Educational Psychology*, 110(5), 640-663.
doi: 10.1037/edu0000237.
- Riley, L., Sebastian, T., & Bowen, B. (2021). Australian Indigenous knowledges and voices in Country. In F. Freschi, J. Venis & F. Nazier (Eds.), *The politics of design: Privilege and prejudice in Aotearoa New Zealand, Australia and South Africa*. Otago Polytechnic Press.
- Rose, D., & Martin, J. R. (2012). *Learning to write, reading to learn - Genre, knowledge and pedagogy in the Sydney School*. Equinox eBooks Publishing, United Kingdom.
- Rose, S. (2019). *Musical authorship from Schütz to Bach*. Cambridge University Press.
<https://doi.org/10.1017/9781108363280>
- Rosen, M. (2011, December 31). *How genre theory saved the world*. Michael Rosen Blog.
<http://michaelrosenblog.blogspot.com/2011/12/how-genre-theory-saved-world.html>
- Rossbridge, J., Rushton, K., & Derewianka, B. (2015). *Put it in writing: Context, text and language*. Primary English Teacher's Association of Australia (PETAA).

- Roulston, K. (2002). Revisiting Kodály's writings on early childhood music education: Implications for teaching in the 21st Century. *Bulletin (Kodály Music Education Institute of Australia)*, 2002-2003, 26–39. <https://doi.org/10.3316/informit.095691698417578>
- Round, R., & McPhail, G. (2019). Using music: From spontaneous to scientific concepts in the primary school writing classroom. *International Journal of Education and the Arts*, 20. <https://doi.org/10.18113/P8ijea20n5>
- Rousell, D. (2022). Accidental creatures: Whitehead's creativity and the clashing intensities of more-than-human life. *Qualitative Inquiry*, 28(5), 566–577. <https://doi.org/10.1177/10778004211065811>
- Rowe, D. W., Shimizu, A. Y., Davis, Z. G. (2021). Essential practices for engaging young children as writers: Lessons from expert early writing teachers. *The Reading Teacher* 75(4), 485–494.
- Rushton, K., & Callow, J. (2018). A gallery of practices – mobile learning, language, literacy and the arts (K-6). In G. Oakley (Ed.), *Mobile technologies in children's language and literacy* (pp. 29–49). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-78714-879-620181003>
- Rutherford, J. & Bhaba, H. (1990). The third space: Interview with Homi Bhabha. In J. Rutherford (Ed.), *Identity: Community, culture, difference* (pp. 207-221). Lawrence and Wishart.
- Sabet, N. (2022). Educational social enterprise and the wicked problem of creativity and literacy. *Education and Urban Society*, 1312452211105–. <https://doi.org/10.1177/00131245221110554>

- Safford, K., & Barrs, M. (2007). Creating contexts for talk: The influence of school-based creative arts projects on children's language. *English in Education*, 41(2), 44–56.
<https://doi.org/10.1111/j.1754-8845.2007.tb00816.x>
- Samild, J. (n.d.). *The Kodály approach*. Music Australia.
<https://musicaustralia.org.au/discover/music-education/music-education-methodologies-approaches/the-kodaly-approach/>
- Sandelowski, M., Voils, C. I., & Knafl, G. (2009). On quantitizing. *Journal of Mixed Method Research*, 3, 208-222.
- Sapir, E. (1955). *Language: An introduction to the study of speech*. Mariner Books Imprint.
- Sarrazin, N. (2016). Music and the child. In N. Sarrazin (Ed.), *Approaches to music education*, (Chapter 4). Milne Library. <https://milnepublishing.geneseo.edu/music-and-the-child/>
- Saunders, J., & Welch, G. (2012). *Communities of music education: A pilot study*. London: UK. International Music Education Research Centre (iMerc).
- Saxby, M. (1993). Children's literature: What to look for in a primary reading program. In L. Unsworth, (Ed.), *Literacy, learning and teaching: Language as social practice in the primary school* (pp. 55–92). Macmillan.
- Sawyer, W., & Watson, K. (1997). Literacy issues in Australia. *Teacher Development*, 1(3), 457-464. <https://doi.org/10.1080/13664539700200033>
- Schoepp, K. (2001). Reasons for using songs in the ESL/EFL classroom. *The Internet TESOL Journal* 7(2).
- Schäfer, T., Sedlmeier, P., Städtler, C., & Huron, D. (2013). The psychological functions of music listening. *Frontiers in Psychology*, 13(4)511. doi: 10.3389/fpsyg.2013.00511.

- Schlüter, J. (2005). *Rhythmic grammar. The influence of rhythm on grammatical variation and change in English*. Mouton de Gruyter.
- Schögler, B., & Trevarthen, C. (2007). To sing and dance together: From infants to jazz. In S. Bråten (Ed.), *On being moved: From mirror neurons to empathy*, 281-302. Philadelphia, PA: John Benjamins. doi: 10.1075/aicr.68.22sch
- Schön, D. (2009). “Music, Language, and the Brain”, By Aniruddh Patel. Oxford: Oxford University Press, 2008 [Review]. *Music Perception: An Interdisciplinary Journal*. 26. 287-288. 10.1525/mp.2009.26.3.287.
- Schön, D., Boyer, M., Moreno, S., Besson, M., Peretz, I., & Kolinsky, R. (2008). Songs as an aid for language acquisition. *Cognition*, 106(2), 975–983.
<https://doi.org/10.1016/j.cognition.2007.03.005>
- Schön, D., Gordon, R., Campagne, A., Magne, C., Astésano, C., Anton, J.-L., & Besson, M. (2010). Similar cerebral networks in language, music and song perception. *NeuroImage (Orlando, Fla.)*, 51(1), 450–461. <https://doi.org/10.1016/j.neuroimage.2010.02.023>
- Schön, D., Magne, C., & Besson, M. (2004). The music of speech: Music training facilitates pitch processing in both music and language. *Psychophysiology*, 41(3), 341–349.
<https://doi.org/10.1111/1469-8986.00172.x>
- Scull, J., & Mackenzie, N. (2017). *Understanding and supporting young writers from birth to 8*. Taylor and Francis. <https://doi.org/10.4324/9781315561301>
- Scull, J. A., Mackenzie, N. M., & Bowles, T. (2020). Assessing early writing: a six-factor model to inform assessment and teaching. *Educational Research for Policy and Practice*, 19(2), 239–259. <https://doi.org/10.1007/s10671-020-09257-7>
- Sebeok, T. (Ed.). (1978). *Sight, sound and sense*. Indiana University Press.

- Sebeok, T. (1986). Preface to *The Semiotic Web*. In T. A. Sebeok & J. Umiker-Sebeok (Eds.), *The Semiotic Web, 1986*, 367-378. Berlin: Mouton de Gruyter.
- Seidenberger, M. (2023, March). *About the “science” in “The Science of Reading”*. Reading Matters: Connecting Science and Education.
<https://seidenbergreading.net/2023/03/31/about-the-science-in-the-science-of-reading/>
- Sellar, S., & Cormack, P. (2007). Framing pedagogies: A review of frameworks and research designed to promote effective approaches to teaching and learning. Hawke Research Institute: University of South Australia.
- Sendak, M. (2012). *Where the wild things are* (M. Sendak, Illus.; 50th anniversary ed.). HarperCollins Publishers. (Original work published 1963)
- Senkal, O., & Muhtar, Z. (2021). Role of Orff music therapy in improving auditory processing skills in children with intellectual disability. *Nigerian Journal of Clinical Practice*, 24(7), 1005–1014. https://doi.org/10.4103/njcp.njcp_410_20
- Serafini, F. (2010). Reading multimodal texts: Perceptual, structural and ideological perspectives. *Children’s Literature in Education*, 41(2), 85–104.
<https://doi.org/10.1007/s10583-010-9100-5>
- Severino, L. (2020). Using creativity to enhance instruction for students with dyslexia, dysgraphia and dyscalculia. In F. K. Reisman (Ed.), *70 years of research into creativity: JP Guilford’s role and today’s focus*, (Chapter 2). London: 2020 KIE Conference Publications. KIE Conference Publications. <https://kiecon.org/creativity-books/>
- Sharples, M. (1999). *How we write : Writing as creative design*. Routledge.
- Simonton, D. K. (2017). Defining creativity: Don’t we also need to define what is *not* creative? *Journal of Creative Behavior*, 51, 281–284.

- Singer, M. (1978). For a semiotic anthropology. In T. Sebeok (Ed.), *Sight, sound and sense*. Indiana University Press.
- Slater, J., Strait, D. L., Skoe, E., O'Connell, S., Thompson, E., & Kraus, N. (2014). Longitudinal effects of group music instruction on literacy skills in low-income children. *PLoS One*, 9(11), e113383.
- Small, C. (1998). *Musicking: The meanings of performing and listening*. Wesleyan University Press
- Small, N., & Callow, J. (2021). Using postmodern picture books to support upper primary students' text analyst skills. *The Australian Journal of Language and Literacy*, 44(3), 6–21. <https://doi.org/10.3316/INFORMIT.127965579037635>
- Smith, F. (1983). Reading like a writer. *Language Arts*, 60(5).
- Smith, F. (2012). *Understanding reading : A psycholinguistic analysis of reading and learning to read* (6th ed.). Routledge. <https://doi.org/10.4324/9780203142165>
- Smolej Fritz, B., & Peklaj, C. (2019). A case study of music instruction according to E. Willems' pedagogy in children with intellectual disabilities: Its impacts on music abilities and language skills. *International Journal of Music Education*, 37(2), 243–256. <https://doi.org/10.1177/0255761419833082>
- Snyder, I. (2008). *The literacy wars: Why teaching children to read and write is a battleground in Australia*. Allen and Unwin.
- Somerville, M. (2013). Water in a dry land: Place-learning through art and story. *Innovative Ethnography Series*. Routledge.
- Sotiropoulou-Zormpala, M., & Mouriki, A. (2020). *Enriching arts education through aesthetics : Experiential arts integration activities for pre-school and early primary education* (1st ed.). Routledge. <https://doi.org/10.4324/9780429058516>

- Southcott, J., & Cosaitis, W. (2012). "It all begins with the beat of a drum": Early Australian encounters with Orff Schulwerk. *Australian Journal of Music Education*, (2), 20–. <https://doi-org.ezproxy.library.sydney.edu.au/10.1177/0255761409345446>
- Spendlove, D., Wyse, D., Craft, A., & Hallgarten, J. (2005). Creative learning. *Unpublished working correspondences*.
- Stam, R. (2000). *Film theory*. Blackwell.
- Stevens, R. (2018). *History of music education in Australia*. <https://music-ed.net/History/index.htm>
- Stinson, M. (2008). Drama and Design Experiment Research. *NJ: Drama Australia Journal*, 31(2), 35–44. <https://doi.org/10.1080/14452294.2007.11649516>
- Stockman, A. (2020). *Creating inclusive writing environments in the K-12 classroom: Reluctance, resistance, and strategies that make a difference* (1st ed.). Routledge. <https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9781003028260>
- Strand, T., & Legg, C. W. (2019). Peirce and education: An overview. In M. A. Peters, (Ed.), *Encyclopedia of educational philosophy and theory* (pp. 1-6). 10.1007/978-981-287-532-7_571-1.
- Stomann, A., & Australian Broadcasting Commission. (1978). *Let's sing / illustrated by Allan Stomann*. Sydney : Australian Broadcasting Commission
- Stuber, R., & Nicoladis, E. (2021). "This is a 'Titanic song': The effect of familiarity on children's learning affective meaning in music. *Cognitive Processing*, 22(1), 105–116. <https://doi.org/10.1007/s10339-020-00988-2>
- Sungurtekin, S. (2021). Classroom and music teachers' perceptions about the development of imagination and creativity in primary music education. *Journal of Pedagogical Research*, 5(3), 164–186. <https://doi.org/10.33902/JPR.2021371364>

- Suss, G. (2020). From boredom to creativity: A review of what schools need to do now (before it is too late). In F. K. Reisman, (Ed.), *70 years of research into creativity: JP Guilford's role and today's focus* (Chapter 6). London: 2020 KIE Conference Publications. KIE Conference Publications.
<https://kiecon.org/creativity-books/>
- Sweeney, R. (2019). Rhythm in motion: Developing English skills through music and creative movement. *Creative Arts in Education and Therapy*, 5(2), 134–142.
<https://doi.org/10.15212/CAET/2019/5/26>
- Tafari, J. (2008). *Infant musicality: New research for educators and parents*. Routledge.
<https://doi.org/10.4324/9781315092690>
- Tamminen, J., Rastle, K., Darby, J., Lucas, R., & Williamson, V. J. (2017). The impact of music on learning and consolidation of novel words. *Memory (Hove)*, 25(1), 107–121.
<https://doi.org/10.1080/09658211.2015.1130843>
- Tarasti, E. (1987). Basic concepts of studies in musical signification: A report on a new international research project semiotics of music. In T. A. Sebeok & J. Umiker-Sebeok, (Eds.), *The semiotic web, 1986* (pp. 367-378). Mouton de Gruyter.
- Tarasti, E. (2012). *Semiotics of classical music: How Mozart, Brahms and Wagner talk to us* (1. Aufl., Vol. 10). Walter de Gruyter GmbH Co.KG. <https://doi.org/10.1515/9781614511410>
- Tatarkiewicz, W. (1980). A history of six ideas: An essay in aesthetics. Melbourne International Philosophy Series (MIPS, Volume 5).
<https://link.springer.com/book/10.1007/978-94-009-8805-7>
- Temperley, D. (2022). Music and language. *Annual Review of Linguistics*, 153-170.
<https://www.annualreviews.org/doi/10.1146/annurev-linguistics-031220-121126>

- Terry, G., & Hayfield, N. (2020). Reflexive thematic analysis. In M. R. M. Ward & S. Delamont, (Eds.), *Handbook of qualitative research in education* (Chapter 38). Edward Elgar Publishing. <https://doi-org.ezproxy.library.sydney.edu.au/10.4337/9781788977159.00049>
- Thomas, D. P. (2020). Rapid decline and gender disparities in the NAPLAN writing data. *Australian Educational Researcher*, 47(5), 777–796. <https://doi.org/10.1007/s13384-019-00366-8>
- Thwaites, T., Davis, L., & Mules, W. (1994). *Tools for cultural studies: An introduction*. Macmillan.
- Tierney, A., Patel, A. D., & Breen, M. (2018). Acoustic foundations of the speech-to-song illusion. *Journal of Experimental Psychology - General*, 147(6), 888–904. <https://doi.org/10.1037/xge0000455>Tierney, Patel & Breen, 2008
- Tierney, A., Patel, A. D., Jasmin, K., & Breen, M. (2021). Individual differences in perception of the speech-to-song illusion are linked to musical aptitude but not musical training. *Journal of Experimental Psychology - Human Perception and Performance*, 47(12), 1681–1697. <https://doi.org/10.1037/xhp0000968>
- Tinaclassroom. (2021, February 17). *Anthony Browne - My dad: Sing a song* [video]. You Tube. <https://www.youtube.com/watch?v=OaonU6xWnqY>
- Tomlinson, M. M. (2015). Transmodal redesign in music and literacy: Diverse multimodal classrooms. *Journal of Early Childhood Literacy*, 15(4), 533–567. <https://doi.org/10.1177/1468798414552509>
- Tomasello, M. (2008). *Origins of human communication*. MIT Press.
- Tønnessen, E. S., & Forsgren, F. (2018). *Multimodality and aesthetics*. (E. Seip Tønnessen & F. Forsgren, Eds.; First edition.). London: Routledge.

- Trainor, L. J., & Cirelli, L. (2015). Rhythm and interpersonal synchrony in early social development. *Ann. N. Y. Acad. Sci.* 1337, 45–52. doi: 10.1111/nyas.12649
- Trainor L. J., & Trehub S. E. (1992). A comparison of infants' and adults' sensitivity to western musical structure. *Journal of Experimental Psychology: Human Perception and Performance*, 18, 394–402.
- Trehub, S. E. (2003). The developmental origins of musicality. *Nat. Neurosci.* 6, 669–673. doi: 10.1038/nm1084
- Trehub, S. E., Becker, J., & Morley, I. (2018). Cross-cultural perspectives on music and musicality. In H. Honing, (Eds.), *The origins of musicality* (pp. 129-148). MIT Press. *ProQuest Ebook Central*, <https://ebookcentral-proquest-com.ezproxy.library.sydney.edu.au/lib/usyd/detail.action?docID=5351326>.
- Trevarthen, C. (1974). The psychobiology of speech development. *Language and Brain: Developmental Aspects Neurosciences Research Program Bulletin*, 12, 570-585.
- Trevarthen, C. (1990). Signs before speech. In Sebeok, T. A., & Umiker-Sebeok, J. (Eds.), *The semiotic web, 1989*, 689-755. Berlin: Mouton de Gruyter.
- Trevarthen, C. (1999). Musicality and the intrinsic motive pulse: Evidence from human psychobiology and infant communication. *Musicae Scientiae*, 3(1_suppl), 155–215. <https://doi.org/10.1177/10298649000030S109>
- Trevarthen, C. (2005). First things first: Infants make good use of the sympathetic rhythm of imitation, without reason or language. *J. Child Psychother.* 31, 91–113. doi: 10.1080/00754170500079651
- Trevarthen, C. (2008). The musical art of infant conversation: Narrating in the time of sympathetic experience, without rational interpretation, before words. *Music. Sci.* 12(Suppl.), 15–46. doi: 10.1177/1029864908012001021

- Trevarthen, C. (2011). Communicative musicality: The human impulse to create and share music. In Hargreaves, D., Miell, D., & MacDonald, R. (Eds.), *Musical imaginations: multidisciplinary perspectives on creativity, performance and perception*. Oxford, online edition: Oxford Academic. <https://doi.org/10.1093/acprof:oso/9780199568086.003.0017>
- Trevarthen, C. (2015a). Communicative musicality or stories of truth and beauty in the sound of moving. *Signata*, 6, 165-194.
- Trevarthen, C. (2015b). Infant semiosis: The psycho-biology of action and shared experience from birth. *Cognitive Development*, 36, 130–141. doi: 10.1016/j.cogdev.2015.09.008
- Trevarthen, C. (2016). Pre-birth to three: Professor Colwyn Trevarthen- musicality of language [Video]. *Education Scotland*. You Tube.
https://www.youtube.com/watch?v=HLL_tB60hqM
- Trevarthen, C., & Malloch, S. (2017). The musical self: Affections for life in a community of sound. In MacDonald, R., Hargreaves, D., & Miell, D. (Eds.), *The oxford handbook of musical identities* (2nd ed., pp. 155–175). Oxford University Press. doi: 10.1093/acprof:oso/9780199679485.003.0009
- Trousdale, G. (2018). Creativity parallels between language and music. *Zeitschrift für Anglistik und Amerikanistik*. 66. 371-380. 10.1515/zaa-2018-0031.
- Turbill, J., Barton, G., & Brock, C. (Eds.). (2015). *Teaching writing in today's classroom: Looking back to look forward*. Australian Literacy Educators Association: Adelaide.
- Ugwuzor, F. O. (2019). Philosophical education and global citizenship: Tapping into the process philosophy of Alfred North Whitehead. *New Zealand Journal of Educational Studies*, 54(1), 179–194. <https://doi.org/10.1007/s40841-019-00125-4>
- Ungunmerr-Baumann, M.-R., Groom, R. A., Schuberg, E. L., Atkinson, J., (Carlie) Atkinson, C., Wallace, R., & Morris, G. (2022). Dadirri: An Indigenous place-based research

methodology. *AlterNative: An International Journal of Indigenous Peoples*, 18(1), 94–103.

United Nations Educational, Scientific and Cultural Organisation. (2006). *Road map for arts education. The world conference for arts education: Building Creative Capacities for the 21st Century*. Lisbon: UNESCO.

www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/CLT/pdf/Arts_Edu_RoadMap_en.pdf.

United Nations Educational, Scientific and Cultural Organisation/ International Academy of Education (IAE). (2014). *Nurturing creative thinking: Educational practices series*, 25. <https://unesdoc.unesco.org/ark:/48223/pf0000227680.locale=en>

United Nations Educational, Scientific and Cultural Organisation. (2017). *Fostering a culture of reading and writing: Examples of dynamic literate environments; selected case studies*. UNESCO Institute for lifelong learning. <https://unesdoc.unesco.org/ark:/48223/pf0000257933>

United Nations Educational, Scientific and Cultural Organisation. (2021). *Framework for culture and arts education*. UNESDOC Digital Library. <https://unesdoc.unesco.org/ark:/48223/pf0000376144>

Unsworth, L. (2008a). *New literacies and the English curriculum: multimodal perspectives*. Continuum.

Unsworth, L. (2008b). Multimodal semiotic analyses and education. In Unsworth, L. (Ed.), *Multi-modal semiotics functional analysis in contexts of education*, 1–15. Continuum.

Unsworth, L., Tyler, R., Fenwick, L., Humphrey, S., Chandler, P., Herrington, M., & Pham, L. (2022). Design-based research and teacher professional learning about multimodal literacy. In R. Tyler, L. Fenwick, S. Humphrey, P. Chandler, M. Herrington & L. Pham, (Eds.), *Multimodal literacy in school science* (1st ed., Vol. 1, pp. 199–220). Routledge. <https://doi.org/10.4324/9781003150718-10>

- Vaiouli, P., & Andreou, G. (2018). Communication and language development of young children with autism: A review of research in music. *Communication Disorders Quarterly*, 39(2), 323–329. <https://doi.org/10.1177/1525740117705117>
- Vanden Bosch der Nederlanden, C. M., Hannon, E. E., & Snyder, J. S. (2015). Finding the music of speech: Musical knowledge influences pitch processing in speech. *Cognition*, 143, 135–40. doi: 10.1016/j.cognition.2015.06.015. Epub 2015 Jul 4. PMID: 26151370.
- Vanden Bosch der Nederlanden, C. M., Joannisse, F. M., & Grahn, J. A. (2020). Music as a scaffold for listening to speech: Better neural phase-locking to song than speech. *Neuroimage*, 214. 10.1016/j.neuroimage.2020.116767
- van Leeuwen, T. (1993). Genre and field in critical discourse analysis: A synopsis. *Discourse & Society*, 4(2), 193–223. <http://www.jstor.org/stable/42888775>
- van Leeuwen, T. (1999). *Speech, music, sound*. Macmillan.
- van Leeuwen, T. (2000). It was just like magic – A multimodal analysis of children’s writing. *Linguistics and Education*, 10(3) 273–305.
- Varecka, M. J. (2019). Multimodal pedagogies and music students’ audio meaning-making [Thesis]. Deakin University.
https://dro.deakin.edu.au/articles/thesis/Multimodal_pedagogies_and_music_students_audio_meaning-making/21113563/1/files/37457377.pdf
- Vass, E. (2019). Musical co-creativity and learning in the Kokas pedagogy: Polyphony of movement and imagination. *Thinking Skills and Creativity*, 31, 179–197.
<https://doi.org/10.1016/j.tsc.2018.12.004>

- Vass, E., Littleton, K., Jones, A., & Miell, D. (2014). The affectively constituted dimensions of creative interthinking. *International Journal of Educational Research*, 66, 63–77.
<https://doi.org/10.1016/j.ijer.2014.02.004>
- Vaughan, T., Harris, J., & Caldwell, B. (2011). Bridging the gap in school achievement through the arts: Summary report.
- Veblen, K. (2007). The many ways of community music. *International Journal of Community Music*, 1, 5-21. 10.1386/ijcm.1.1.5_1.
- Vernon, P. E. (1989). The nature-nurture problem in creativity. In J. A. Glover, R. R. Ronning, C. R. Reynolds, (Eds.). *Handbook of creativity - Perspectives on Individual Differences*. Springer. https://doi.org/10.1007/978-1-4757-5356-1_5
- Victorian Curriculum and Assessment Authority. (n.d.). “*Music Education Guide*”: *Approaches to learning*. <https://www.vcaa.vic.edu.au/curriculum/foundation-10/music-educationguide/Pages/section5-methodologies.aspx>
- Victorian Curriculum and Assessment Authority. (n.d.). “*Music Education Guide*”: *Approaches to learning*. <https://www.vcaa.vic.edu.au/curriculum/foundation-10/music-educationguide/Pages/section5-methodologies.aspx>
- Victorian State Government Education. (2019). Teaching-learning cycle: Reading and writing connections.
<https://www.education.vic.gov.au/school/teachers/teachingresources/discipline/english/literacy/readingviewing/Pages/teachingpraccycle.aspx>
- Vogel, R., & Vijver, R. (2015). *Rhythm in cognition and grammar: A Germanic perspective* (Vol. 286). De Gruyter. <https://doi.org/10.1515/9783110378092>
- Vygotsky, L. S. (1978). *Mind in society : The development of higher psychological processes* (M. Cole, Trans.). Harvard University Press.

- Vygotsky, L. S. (2004). Imagination and creativity in childhood (M.E. Sharpe, Trans.). *Journal of Russian and East European Psychology*, 42(1), 7–97. (Originally published in 1967)
- Walia, C. (2019). A dynamic definition of creativity. *Creativity Research Journal*, 31(3), 237–247.
<https://doi.org/10.1080/10400419.2019.1641787>
- Walsh, M. (2010). Multimodal literacy: What does it mean for classroom practice? *Australian Journal of Language and Literacy*, 33, 211–239.
- Walshe, R. D. (2015). Writing as process. Reprinted in J. Turbill, G. Barton, & C. Brock, (Eds.), *Teaching writing in today's classroom: Looking back to look forward*. Australian Literacy Educators Association: Adelaide. (Originally published in R. D. Walshe's *Every child can write*, 1981)
- Ward, M. R. M & Delamont, S. (Eds.) (2020). *Handbook of qualitative research in education*. Edward Elgar Publishing. <https://doi-org.ezproxy.library.sydney.edu.au/10.4337/9781788977159.00049>
- Watts, S. H. (2019). Writing in music: Applications of the Collins writing program in elementary music. *Canadian Music Educator*, 61(1), 24–28.
- Wæraas, A. (2022). Thematic analysis: Making values emerge from texts. In G. Espedal, B. Jelstad Løvaas, S. Sirris, A. Wæraas (Eds.), *Researching Values* (pp. 153–170). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-90769-3_9
- Weber, M. (2013). *Whitehead's pancreativism: The basics* (Vol. 7). De Gruyter, Inc.
<https://doi.org/10.1515/9783110330779>
- Weber, M. (2019). Can you teach creativity? In V. Petrov, & A. Scarfe, A. C. (Eds.), *Education from a Whiteheadian point of view : Process, rhythm, and poiesis*, Chapter 2. Cambridge Scholars Publishing.

- Weingart, P., & Stehr, N. (Eds.). (2000). *Practising interdisciplinarity*. University of Toronto Press. <http://www.jstor.org/stable/10.3138/9781442678729>
- Weinstein, Y., Madan, C. R. & Sumeracki, M. A. (2018). Teaching the science of learning. *Cogn. Research* 3(2), 1-17. <https://doi.org/10.1186/s41235-017-0087-y>
- Whitehead, A. N. (1929). *The aims of education and other essays*. The Free Press.
- Whitehead, A. N. (1938). *Modes of thought* (Vol. 93521). Simon and Schuster.
- Whitehead, A. N. (1961). *Adventures of ideas*. Cambridge at the University Press (CUP) Archive. (Original work published 1933)
- Whitehead, A. N. (1978). *Process and reality*. Simon and Schuster. (Original work published 1929)
- Whitehead, A. N., & Russell, B. (1997). *Principia mathematica to* 56* (Vol. 2). Cambridge University Press. (Original work published 1910)
- Whitehead, A. N., & Price, L. (1954). *Dialogues of Alfred North Whitehead*. London: M. Reinhardt.
- Whitfield, S. (2010). Music: its expressive power and moral significance. *Musical Offerings* 1(1). <https://doi:10.15385/jmo.2010.1.1.2>
- Wiese, R. (2016) Prosodic Parallelism—Comparing Spoken and Written Language. *Front. Psychol.* 7:1598. <https://doi:10.3389/fpsyg.2016.01598>
- Wilson, C., & Brown, M. (2020). Considering the golden age of creativity (*Or a brief musical interlude in the midst of a crisis). In F. K. Reisman (Ed.), *70 years of research into creativity: JP Guilford's role and today's focus*, Chapter 3. London: 2020 KIE Conference Publications. KIE Conference Publications. <https://kiecon.org/creativity-books/>

- Wilson, S. (2022). Talking our way into writerly dispositions. *Literacy Learning in the Middle Years*, 30(1).
- Wittgenstein, L. (1978). *Philosophical investigations*. (G.E.M. Anscombe, Trans.). Oxford University Press.
- Wixon, V., & Wixon, P. (1983). Using talk-write in the classroom. In M. Myers, & J. Gray (Eds.), *Theory and practice in the teaching of composition: Processing, distancing and modelling*. Illinois: National Council of Teachers of English. <https://eric.ed.gov/?id=ED227515>
- Woodruff, G. E. (2009). Book review: Aniruddh Patel's "Music, Language, and the Brain". Oxford: Oxford University Press, 2008. 513pp. ISBN 9780195123753. *Psychology of Music*, 37(3), 381–386. <https://doi.org/10.1177/0305735609339474>
- Woods, A. (2015). Learning to write: Analysing writing samples as part of considering how children become writers. In Turbill, J., Barton, G., & Brock, C. (Eds.). (2015). *Teaching writing in today's classroom: looking back to look forward* (Chapter 10). Australian Literacy Educators Association: Adelaide.
- Wright, A. J. (July 8, 2022). Donald Graves address: Reflecting on the writing revolution and the need for rejuvenation. ALEA/AATE National Conference, Darwin.
- Wright, C., & Ville, S. (2017). Visualising the interdisciplinary research field: The life cycle of economic history in Australia. *Minerva*, 55(3), 321–340.
<http://www.jstor.org/stable/26302111>
- Wyatt-Smith, C., & Cumming, J. (1999). Examining the literacy demands of the enacted curriculum. *Literacy Learning: The Middle Years*, 7(2), 19–31.
- Wyatt-Smith, C., & Jackson, C. (2016). NAPLAN data on writing: A picture of accelerating negative change. *The Australian Journal of Language and Literacy*, 39(3), 1–.

- Wyatt-Smith, C., Jackson, C., Borooah, V., & Whalley, K. (2018). Summary of the research report of the Australian writing survey. Institute for Learning Sciences & Teacher Education.
- <https://www.educationstandards.nsw.edu.au/wps/wcm/connect/e61c5e7e-d553-4a33-ab0d-7297c2709302/summary-report-of-the-australian-writing-survey.pdf?MOD=AJPERES&CVID=>
- Wyse, D. (2001). Grammar for writing? A critical review of empirical evidence. *British Journal of Educational Studies*, 49(4), 411–427. <https://doi.org/10.1111/1467-8527.t01-1-00185>
- Wyse, D. (2017). *How writing works: From the invention of the alphabet to the rise of social media*. Cambridge University Press. <https://doi.org/10.1017/9781316882276>
- Wyse, D. (2018). Choice, voice and process - teaching writing in the 21st century: Revisiting the influence of Donald Graves and the process approach to writing. *English in Australia*, 53(3), 82–91.
- Wyse, D. (2021). Why they can't write: killing the five-paragraph essay and other necessities by John Warner (2018). [Review of *Why They Can't Write: Killing the Five-Paragraph Essay and Other Necessities* by John Warner (2018). Baltimore, MA: John Hopkins University Press ISBN: 978142142710, 288pp]. *Literacy*, 55(1), 77–77. Wiley Subscription Services, Inc. <https://doi.org/10.1111/lit.12213>
- Wyse, D., & Bradbury, A. (2022). The Book is Mightier than the Phoneme. *School Librarian*, 70(3), 6–7.
- Wyse, D., & Bradbury, A. (2022). The passion, pedagogy and politics of reading. *English in Education*, 56(3), 247–260. <https://doi.org/10.1080/04250494.2022.2091987>
- Wyse, D., & Bradbury, A. (2022). Reading wars or reading reconciliation? A critical examination of robust research evidence, curriculum policy and teachers' practices for

- teaching phonics and reading. *Review of Education (Oxford)*, 10(1).
<https://doi.org/10.1002/rev3.3314>
- Wyse, D., & Dowson, P. (2008). *The Really Useful Creativity Book* (1st ed.). Routledge.
<https://doi-org.ezproxy.library.sydney.edu.au/10.4324/9780203870761>
- Wyse, D., & Ferrari, A. (2015). Creativity and education: Comparing the national curricula of the states of the European Union and the United Kingdom. *British Educational Research Journal*, 41(1), 30–47. <https://doi.org/10.1002/berj.3135>
- Wyse, D., & Torgerson, C. (2017). Experimental trials and “what works?” in education: The case of grammar for writing. *British Educational Research Journal*, 43(6), 1019–1047.
<https://doi.org/10.1002/berj.3315>
- Young, R., & Ferguson, F. (2021). *Writing for pleasure: Theory, research and practice*. Routledge.
- Zammit, K. (2010). New learning environments framework: Integrating multiliteracies into the curriculum. *Pedagogies: An International Journal*, 5(4), 325–337.
- Zammit, K., Rhodes, J. & Milby, T. (2022). International approaches to writing instruction: a comparison of curriculum in Australia and the USA. *Australian Journal of Literacy and Learning, AJLL*, 45, 1–18. <https://doi.org/10.1007/s44020-022-00002-6>
- Zbikowski, L. M. (2012). Music, language, and what falls in between. *Ethnomusicology*, 56(1), 125–131. <https://doi.org/10.5406/ethnomusicology.56.1.0125>
- Zentner, M., & Eerola, T. (2010). Rhythmic engagement with music in infancy. *Psychological and Cognitive Sciences*, 107(13), 5768–5773. <https://doi.org/10.1073/pnas.1000121107>
- Zhao, Y., Emler, T. E., & Snethen, A. (2019). *An education crisis is a terrible thing to waste : How radical changes can spark student excitement and success*. Teachers College Press.
- Zhao, Y. (2023, January 5). How not to kill creativity? *Creative, Entrepreneurial, and Global: 21st Century Education*. <http://zhaolearning.com/2023/01/05/how-not-to-kill-creativity/>

Appendices

Appendix A

Key Terms and Their Definitions

Aesthetic experience involves multisensory arts-based experiences. In a phenomenological sense, these are experiential and material, involving social and cultural interactions. Aesthetic experience is also about evaluations that are made in the creation and viewing of artistic work. Aesthetic experience in this present study, is informed by explanations offered by Kant (1790), Whitehead (1929/1978, 1961), Dewey (1934/1989), Langer (1942, 1953), Barthes (1977, 1985), and Greene (1995).

Composition is a term used in both music and writing contexts to describe the process of composing, and denotes the arrangement of a coherent whole. Aesthetic evaluations are involved in creative composition, and is aimed at achieving some kind of aesthetic coherence to communicate an idea, emotion or meaning to others. The composition process usually involves the rearrangement of some familiar elements in generative improvisatory combinations to create something original or new.

English This usually refers to the subject English identified as a core subject in the primary and secondary years of schooling in the Australian Curriculum (ACARA, n.d.-b, n.d.-c). However, English does not only refer to Australian Standard English but to the repertoire of literacy, language and literature understanding and skills, developed within the English classroom.

Grammar is “the whole system and structure of a language or of languages in general ... consisting of syntax and morphology (including inflections) and sometimes also phonology and semantics” (Oxford University Press, 2023, para 1). It is an element taught within the subject English and is associated with writing. It is sometimes defined as the “rules” of language (Oxford Learner Dictionaries, 2023; ACARA, n.d.-d). However, grammar works with punctuation and vocabulary and its “rules” change depending on the text genre, social and cultural context. Therefore, grammar has instead been expanded as *linguistic or language awareness* (Jones et al., 2013; Myhill, 2023). This research study is also informed by cognitive science and linguistics (Chomsky,

2016; Patel, 2008;) which views grammar as an organising element of language akin to rhythm, and is a generative language element. Drawing on Myhill's description of linguistic awareness as a 'repertoire of infinite possibilities' (Myhill, 2011a; also cited in Myhill & Watson, 2014), grammar is also a creative compositional tool that empowers the writer (Myhill, 2019; Myhill et al., 2020). A broader awareness of the ways grammar can or should be taught contextually for maximum effect, has also been explored in many research studies and explorations (Jones et al., 2013; Myhill et al., 2012; Myhill et al., 2018) and therefore the impact of teacher knowledge about grammar (Myhill et al., 2012). See also: **Metalinguistic and language awareness**).

High-stakes testing refers to national standardised testing measures such as NAPLAN (National Assessment Program—Literacy and Numeracy). These tests are considered “high stakes” whereby each school's performance is published and schools and teachers' roles in teaching writing, for instance, can feel highly scrutinised.¹⁸ High-stakes testing has been linked to a de-emphasis on creativity, creative teaching approaches and the arts in schools (Dulfer et al., 2012; Zhao, 2019, 2023).

Improvisation refers to a concept in both music and drama classrooms that implies spontaneous performance and usually in response to other creative work, people or things, in the environment and moment. In music, improvisation can refer to the concept of playing or innovating upon learned patterns. It is an activity that diverts from, plays with, or adds to a recognisable pattern or structure.

Language, for the purposes of this research, mainly refers to oral and written linguistic communication that is used for expressing and developing ideas. As defined in the Australian Curriculum, the Language strand is for “knowing about the English language and how it works” (ACARA, 2021, para. 7). Language is used to describe spoken and written linguistic forms but is also sometimes used to describe other semiotic systems and resources used to make meaning

¹⁸ Sahlberg, P quoted by P. Karp, (2018), Bizarre NAPLAN writing test measures 'all the wrong things', US expert says. In The Guardian.

(Halliday, as cited in Makkai, 1990; Halliday, 1978a). However, as clarified by Kress (2010) and Derewianka (2012), language is often used as a ‘catch-all’ for all the modes of meaning and therefore loses its specificity. They argue the term language should therefore be reserved for linguistic modes, an approach adopted throughout most of this study, albeit within an approach that also questions the boundaries between music and language.

Metalinguistic and Language Awareness is a term used since the 1980s and was picked up by Andrews (2007), who defines it not as “any single theoretical model, but rather [an] informed, principled eclecticism”, adding that “such knowledge is not static: it is constantly changing, developing, renewing itself” (Andrews, 2007, p. xii). It is a term that refers to the kind of knowledge and understanding that students need to have about language. Andrews further argues that “the language-aware teacher needs to be both scientist and artist, and [that] therein lies much of the challenge” (p. 7). Myhill and colleagues also use the term ‘metalinguistic or linguistic awareness’ to signal a shift from traditional grammar notions, to an acknowledgement of a range of connected language considerations including textual genre, punctuation, and vocabulary aspects (Myhill, 2023; Myhill et al., 2012; Myhill et al., 2020). Locke (2010) also shows that metalanguages are themselves ‘value-laden’ to reveal dominant views about language and literature, such that a literary metalanguage needs to be brought ‘in from the cold’ after a period in which a primarily period

Literature refers to texts that will by virtue of some aspect of its artistic, creative, or technical merit be viewed as a model text in the literacy classroom as a basis for reading, writing, spelling, speaking, and listening and undergirds all grammar instruction and guided literacy inquiry. As the term literature also denotes something challenging, thought provoking, or curious, students respond by “understanding, appreciating, responding to, analysing and creating literary texts” (ACARA, 2021, para. 3).

Literacy is used to refer to the full suite of skills used for oral, aural, visual, and written language or, as it is defined in the Australian Curriculum, as “expanding the repertoire of English usage” (ACARA, 2021, para. 3).

Mentor texts are literary texts used as enjoyable literature to teach and model a range of linguistic, multimodal reading and cultural literacy dimensions (Small & Callow, 2021). In terms of writing, model or mentor texts can also be used as exemplary models to be analysed and from which to draw authorial, literary and metalinguistic techniques (Smith, 1983, 2012; see also **Literature**).

Music is an overarching term that refers both to the subject discipline, Music as well as to the artform itself. It also refers to the act of music performance, music playing, and to music listening and appreciation. Music also refers to a piece of performed, notated, or recorded music.

Pedagogy suggests intentional lesson design and can refer to the principles and methods of instruction, or to the art and science of teaching. It usually refers to a philosophy or principle of teaching and learning, rather than simply a teaching practice. For example, some unintentional teaching approaches, assumed without reflection, may be examples of practice but not pedagogy.

Play is essential to the LIRIC framework in both the imaginative, creative sense as well as in an oral-aural musical performance sense. Play is described by Coalter and Taylor (2001) as “characterised by freedom of choice, spontaneity and an absence of extrinsically imposed rules” (p. v). Play has also been described as an essential aspect of childhood development but which is also evident in adult behaviour. In a music classroom, playing is the performance of a musical piece. Both aspects of play describe essential aspects of a LIRIC writing classroom. Language—through multimodal music, movement, sound, and speech experiences—is the material object for playful experimentation and compositional rearrangement. It is also played aloud, performed and rehearsed in the musical sense as a part of this process.

Rehearsal (like recitation) is used in music, but also in a range of arts performance contexts, and tends to imply a public performance or sharing with an audience. It can also be

playful where rehearsal is accompanied by improvisation. It often means being “played again” and has an aural/oral component. Interpreting this concept for the purposes of the literacy classroom may warrant some new interpretations of the term such as repetition, imitation, replay, and rewriting.

Scaffolding is an instructional process supported by the sequential development of skills through guided modelling and has been expressed through such models as the “gradual release of instruction” (Pearson & Gallagher, 1983). It is a concept that was especially explored by Russian psychologist Lev Vygotsky (1978) and refers to a process undertaken by a teacher or ‘more knowledgeable other’ within the student’s zone of proximal development (ZPD). Learning is more effectively achieved where there is the identification of a student’s area for growth so that with the modelling and support of a mentor, a student gains gradual independence over time (Hammond & Gibbons, 2005).

Social semiotics “takes the notion of the *sign* as its starting point” (Bezemer & Kress, 2016, p. 9) but emphasises the social use of those signs as shaped by the environment and chosen by intentional and active participants.

Texts, as expressed in the Australian Curriculum, can “include media texts, everyday texts and workplace texts from increasingly complex and unfamiliar settings, ranging from the everyday language of personal experience to more abstract, specialised and technical language, including the language of schooling and academic study” (ACARA, n.d.-i, para. 1). Texts may also refer to the written compositions produced by students and teachers. *Text* in its original sense, as highlighted by Kress (2006, 2010), is related to *textiles* and *texture*, and reinforces the sense in which a text is created through the arrangement of language as a material (spoken or written) object, a “woven” thing made up of constituent parts.

Writing refers to the multimodal act or process of text construction, as well as to the product of writing. Writing also refers to the distinct aspect of teaching and learning involved in the subject English, and across various subject contexts.

Table A1*Music and Writing Terms Updated*

Music Music refers to communicative and expressive acts (internally and externally produced) that involve creative play with oscillating structures of musical sound and silence to create aesthetic coherence (or meaning). Musical capacities are innate and learned, develop from a young age and in socio-cultural contexts. Producing music and sound is inherently creative and compositional and involves the intentional selection of media. Logical and aesthetic reasoning and evaluations are needed to produce or to interpret sound. Music is a material experience in the body. Music can be represented visually. (Locke, 2020; Brandt et al., 2012; Trevarthen & Malloch, 2018)
Language Language refers to communicative and expressive acts (internally and externally produced) that involve creative play with linguistic and acoustic materials such as sound and silence, marks and space to create aesthetic coherence (or meaning). Language capacities are innate and learned, developing in socio-cultural contexts. Language is inherently creative and compositional and involves the intentional selection of media and both logical and aesthetic reasoning. Language is a material experience in the body. Language can be represented visually and can be accompanied by other modes. (Halliday, 2003; Chomsky, 2016; Barthes, 1985 [1982]; Kress, 2010.
Text Any manifestation of meaning that draws (or weaves) in a range of multimodal forms to express, interpret and create, spoken or written, sung, spoken or performed works that create a particular coherence according to a text maker's intentions. (Kress, 1997, 2010, 2011; Dyson, 1998, 1990; Barton, 2014)
Writing Like music and language, writing is inherently creative regardless of its genre. Writing is written speech or written language. It refers to both a crafted linguistic product (the written text) but also refers to the process of its making (the weaving). Writing also refers to the social, cultural and multimodal processes enacted within the process of text-making, the discourse called upon to craft it, irrespective of the final form the written text takes. Writing begins with thought, often involves talk, and involves the enaction of the identities

of both author and writer. Writing may be accompanied by a range of other modes. (Vygotsky, 1978; Kress, 2010, 2011; Wyse, 2017; Bruyère, & Pendergrass, 2020)

Multimodality

A theory of text that is underpinned by a democratic approach that unifies all modes of meaning making, without privileging one or another, and gives readers and writers access to design principles for text in the digital age. A range of semiotic resources and systems of meaning are called on to create a text, and while some may afford a greater meaning, all resources are recognised as having a meaning potential that can be drawn on to analyse or make texts. Multimodal writing is also an attitude and process for writing that calls on an agentic action from the designer or maker. (Kress, 1997, 2010, 2011; Callow, 2013)

Appendix B

Music Teacher Participant Information



Primary Literacy and the Arts
School of Education
Faculty of Arts and Social Sciences

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The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

MUSIC TEACHER PARTICIPANT INFORMATION STATEMENT

(1) What is this study about?

You are invited to take part in a research study that seeks to develop a music-pedagogy informed framework for the teaching of writing with a focus on linguistic grammar.

As the Music teacher in this first phase of the research, you are invited to play a key role in leading teacher collaboration for this interdisciplinary study. The study seeks to explore and develop a framework design for composition with a focus on teaching writing using a 'music mindset', with grammar a key measure.

In one-hourly lessons once a week for 5 weeks, you will be a part of co-designing elements of the model and finding out to what extent it is a useful model for you and the literacy teachers. You will be provided with training, resources and time to work on this research project over Term 3, and will be supported by the lead researcher, and your principal and deputy principal. The framework you co-design will then be further developed and refined at another school in 2020.

Based on more than 20 years of neuroscientific research- which has established a compelling link between the cognitive processes used for both music and language, and in particular, rhythm and grammar- this study is a collaborative exploration between music and literacy teachers with the aim of exploring and developing a shared framework for the teaching of composition.

The framework is based on principles that underpin the music classroom, expressed in the curriculum and music education philosophies, including Orff and Kodaly approaches. The *LIRIC* framework: Listening, Interpreting, Reciting, Improvising and Composing, will be used to explore the potential for such a framework. The impact of the framework will be considered and measured through a consideration of grammar outcomes. Attention to linguistic grammar within the context of the writing classroom will be considered in an analogous manner, with connections made to the treatment of rhythm within composition in the music classroom.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary.

By giving your consent to take part in this study you are telling us that you:

- Understand what you have read.
- Agree to take part in the research study as outlined below.
- Agree to the use of your personal information as described.

You will be given a copy of this Participant Information Statement to keep.

(2) Who is running the study?

The study is being carried out by the following researchers:

Emerita Professor Robyn Ewing

Professor, Teacher Education and the Arts (University of Sydney)

Dr Anita Collins

Adjunct Professor of Education (University of Canberra)

Dr Millie Locke

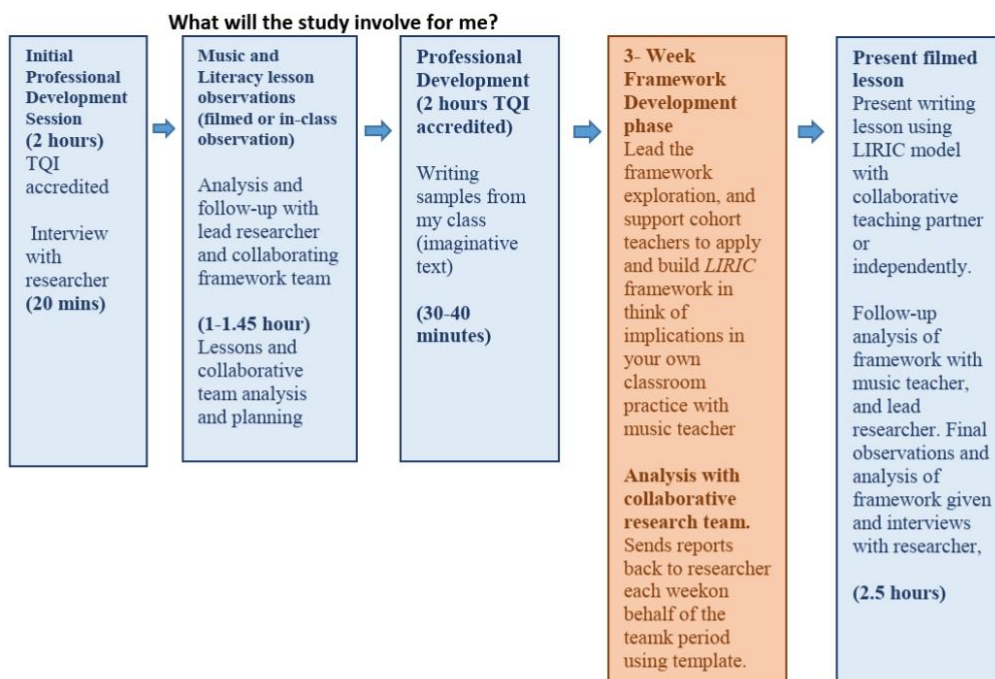
Professor of Education (University of Auckland)

Mrs Katherine Halcrow

Doctor of Philosophy Student (University of Sydney)

Mrs Katherine Halcrow is conducting this study as the basis for the degree of Doctor of Philosophy at The University of Sydney. This will take place under the supervision of Emerita Professor, Robyn Ewing, Dr Anita Collins, and Dr Millie Locke.

There are no conflicts of interest, or financial benefits that are associated with the study.



Other aspects required within the above research structure:

- **Gather student and parent/carer permission forms** and support safe storage of data with principal to be securely stored for pick-up by the researcher
- **Filming of one of your own lessons** Leading the Collaborative Framework Development research team, including filming some literacy lessons and reporting back to the researcher during 3-week Framework Development Phase You will be asked to provide feedback, observations, and lesson ideas the team have been using in their lessons, and adjustments being made.
- **Audio recordings of 2x interviews** with lead researcher
- Researcher and music teacher may take **photographs of classroom lessons** and student work
- **Regular review of the research process** will be extended to you throughout the process of the research through email contact with the researcher and through the PD times allocated
- As an active co-researcher, your analysis and experience in working with the LIRIC framework will be a key aspect of the study
- **Overseeing safe storage of the iPad and other data in a secure locked position** at all times, agreed to with the principal to protect student information and data collected
- As the Music Teacher, **supporting and guiding the 3-week framework development phase**, including providing a music perspective for literacy writing lessons, and gathering cohort teacher perspectives
- You will not be identified in data, research or articles unless you indicate otherwise.

A timeline of the research is included with this participation statement to clarify the process. Templates for planning and lesson and writing analysis will be provided to guide you through the research process. Your principal has indicated that she agrees to provide time and support where possible to allow you the extra time to participate in this research study.

(3) How much of my time will the study take?

As outlined in more detail in the diagram shown in point 3):

Total time per team member: **Approximately 12 hours** in total over a period of 8 weeks (Term 3)

(4) Who can take part in the study?

The Music teacher, Year 1 cohort teachers and Year 1 students and their parents/guardians will be invited to take part in the study..

Class teachers will also identify a cross-section of 5 of students for closer study and this will involve some interviews with the researcher, as well as a closer analysis of their writing.

These students will not have any outstanding learning issues (such as ILP, NESB/TESOL, or identified as gifted) as this may skew results.

(5) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney, nor any staff nor anyone at Ainslie School.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time. You can do this by contacting your principal who will then contact the researcher directly.

INTERVIEWS (Teachers and some students)

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview.

WRITING SAMPLE (All Students)

All students will supply a pre- and post- 30-minute imaginative writing sample. They are free to stop at any time if they do not feel comfortable. Students will be reminded of this prior to each writing sample. Unless you say that you want us to keep them, any writing samples that have not been completed because a student chose to stop, will be disposed of and the information you have provided will not be included in the study results.

FILMING AND PHOTOGRAPHING (All Students)

The main focus of filming is on teacher and lesson delivery approaches, but student responses and activities may also be recorded with film and photographs. If students would like to take part in the lessons, but would not like to be filmed, please indicate this on the consent form.

DATA THAT CAN BE CANNOT BE WITHDRAWN

If you decide to withdraw from the study, we will not collect any more information from you. Any information that we have already collected, however, will be kept in our study records and may be included in the study results.

(6) Are there any risks or costs associated with being in the study?

Possible risks may include, but are not limited to:

- Inconvenience and extra time requirements ie. you and your staff giving up significant time outside normal commitments to participate in the research project.

Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study.

(7) Are there any benefits associated with being in the study?

- Opportunity to develop professionally, and collaborate with colleagues with a research focus
- Acquiring and developing new teaching materials and resources
- TQI-accredited Professional Development hours
- Contributing to new academic research

(8) What will happen to information about me that is collected during the study?

- Your name, school, year cohort, teaching experience, gender and age (though your name will be kept confidential for reporting purposes)
- Audio and filmed recordings will not be stored online at any time.
- Your observation notes, reflections, lesson planning and analysis notes
- You will be able to access any information from the study on request including interview transcript notes and researcher analysis
- Results will be published in a doctoral thesis
- Results of the research published elsewhere for journals etc will not identify you personally and will only share conclusions already disclosed to you at the end of the research period. You will be notified each time a journal or conference presentation containing the research is likely to occur.
- Hardcopy data of the research will be stored on the researcher's hard drive for the duration of the study. Post-study all information will be kept securely at The University of Sydney for a period of 20 years, due to the fact that the research involves children. All information can be requested at any stage from the researcher or from the University of Sydney.
- It is not envisaged that the data used in this research will be used for future research.

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.

Please Note:

Your information will be stored securely and your identity/information will only be disclosed with your permission, except as required by law. Study findings may be published, but you will not be identified in these publications unless you agree to this using the tick box on the consent form.

(9) Can I tell other people about the study?

Yes, you may talk to other people about the study.

(10) What if I would like further information about the study?

When you have read this information, Mrs Katherine Halcrow will be available at the time of consent and will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Mrs Katherine Halcrow (Doctoral student), khal2116@uni.sydney.edu.au, ([REDACTION]) Alternatively, you can contact Emeritus Professor Robyn Ewing robyn.ewing@sydney.edu.au.

(11) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study.

As well as being a valued part of the ongoing review and analysis of the framework development, you and all participants will receive a research summary of results. This will be published in a one-page summary for the school newsletter.

Please tick the relevant box on the consent form, answering the relevant question to indicate that you would like to receive further, more detailed, information regarding your (or your class's) involvement. This feedback will be supplied in a 1-page summary form via email.

You will receive this feedback after the study is finished.

(12) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [2019/495] and by The ACT Education Directorate [RES:1917]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** ro.humanethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep

Appendix C

Music Teacher Participation Consent



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Telephone: +61 2 93513846
Facsimile: +61 2 93512606
Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

MUSIC TEACHER PARTICIPANT CONSENT FORM

I, ... [PRINT NAME], agree to take part in this research study.

In giving my consent, I state that:

- I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved.
- I have read the Participant Information Statement and have been able to discuss my involvement in the study with the researchers if I wished to do so. The researchers have answered any questions that I had about the study and I am happy with the answers.
- I understand that being in this study is completely voluntary and I do not have to take part. My decision whether to be in the study will not affect my relationship with the researchers or anyone else at the University of Sydney nor at my place of employment, now or in the future.
- I understand that I can withdraw from the study at any time.
- I understand that I may stop the interview at any time if I do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the information provided will not be included in the study. I also understand that I may refuse to answer any questions I don't wish to answer.
- I understand that my questionnaire responses cannot be withdrawn once they are submitted, as they are anonymous and therefore the researchers will not be able to tell which one is mine.
- I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law.
- I understand that the results of this study may be published, and that publications will not contain my name or any identifiable information about me.

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I consent to:

- Audio-recording YES ☐ NO ☐
- Video-recording YES ☐ NO ☐
- Photographs YES ☐ NO ☐
- Being interviewed YES ☐ NO ☐
- Collecting writing samples from students YES ☐ NO ☐
- Overseeing the safe storage of all data I collect in a place agreed to with my principal, in order to protect the identity of participants, especially students including written, filmed and photographic evidence and to maintain the integrity of data collected
YES ☐ NO ☐
- I would like to review my interview transcripts YES ☐ NO ☐
- The study will require some extra time commitments, and I acknowledge that during the 3-week micro-phase period of the research, I will coordinate the CFD (Collaborative Framework Team) in the design intervention and collate and report the team's analysis to the researcher using the templates provided. I will be supported by the researcher and provided with resources to do this.
YES ☐ NO ☐
- As well as general feedback about the results of the study that will be made available to staff after the completion of the research, I would also like to receive more detailed feedback about the results of my students, and of my own participation in this study
YES ☐ NO ☐
Support principal in maintaining secure storage of student data including film on student researcher's iPad to protect identity of participants, especially students including written, filmed and photographic evidence and to maintain the integrity of data collected while awaiting pick-up.

If you answered YES, please indicate your preferred form of feedback and address:

☐ Postal: _____

☐ Email: _____

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495].

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.....
Signature

.....
PRINT name

.....
Date

.....
Email contact during research period

.....
Best phone contact during research period

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495].

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Appendix D

Teacher Participant Information



Primary Literacy and the Arts
School of Education
Faculty of Arts and Social Sciences

ABN 15 211 513 464

Emerita Professor Robyn Ewing
Professor, Teacher Education and the Arts

A35- Education Building
The University of Sydney
NSW 2006 AUSTRALIA
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Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

TEACHER PARTICIPANT INFORMATION STATEMENT

(1) What is this study about?

You are invited to take part in a research study that seeks to develop a music-pedagogy informed framework for the teaching of writing with a focus on linguistic grammar.

As a participating teacher and co-researcher, you will be asked to collaborate with the music teacher and your cohort teachers, to explore the viability of a new framework model for teaching writing and grammar using a 'music mindset'. In one-hourly lessons once a week for 5 weeks, you will be designing elements of the model and finding out to what extent it is a useful model for you as a teacher. You will be provided with training, resources and time to work on this research project over Term 3, and will be supported by the lead researcher, music teacher and your principal and deputy principal. The framework you co-design will then be further developed and refined at another school in 2020.

Based on more than 20 years of neuroscientific research- which has established a compelling link between the cognitive processes used for both music and language, and in particular, rhythm and grammar- this study is a collaborative exploration between music and literacy teachers with the aim of exploring and developing a shared framework for the teaching of composition.

The framework is based on principles that underpin the music classroom, expressed in the curriculum and music education philosophies, including Orff and Kodaly approaches. The *LIRIC* framework: Listening, Interpreting, Reciting, Improvising and Composing, will be used to explore the potential for such a framework. The impact of the framework will be considered and measured through a consideration of grammar outcomes. Attention to linguistic grammar within the context of the writing classroom will be considered in an analogous manner, with connections made to the treatment of rhythm within composition in the music classroom.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom
[2019/495]

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Participation in this research study is voluntary. By giving your consent to take part in this study you are telling us that you:

- Understand what you have read.
- Agree to take part in the research study as outlined below.
- Agree to the use of your personal information as described.

You will be given a copy of this Participant Information Statement to keep.

(2) Who is running the study?

The study is being carried out by the following researchers:

Emerita Professor Robyn Ewing

Professor, Teacher Education and the Arts (University of Sydney)

Dr Anita Collins

Adjunct Professor of Education (University of Canberra)

Dr Millie Locke

Professor of Education (University of Auckland)

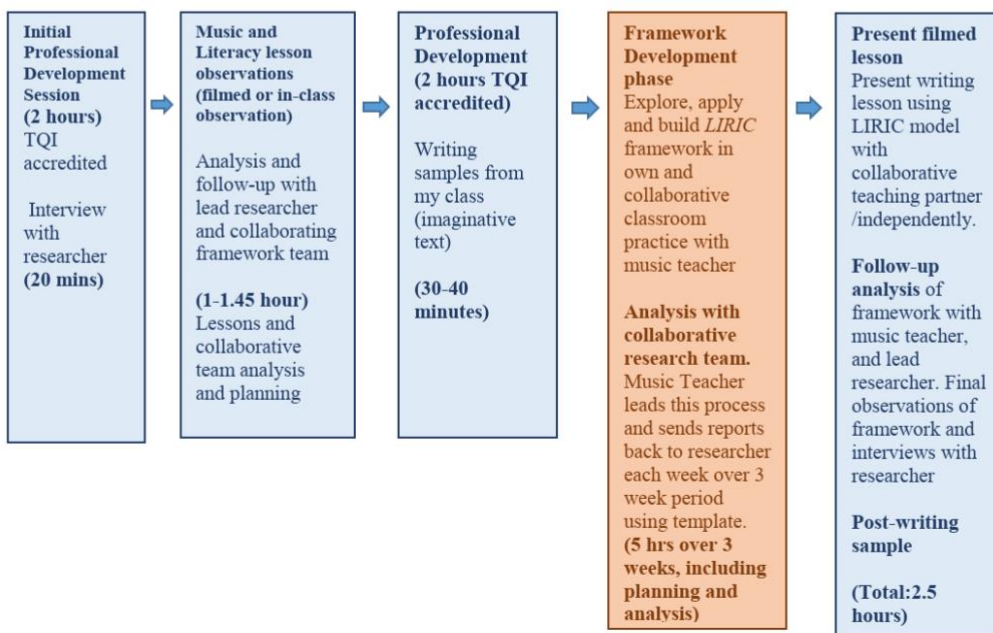
Mrs Katherine Halcrow

Doctor of Philosophy Student (University of Sydney)

Mrs Katherine Halcrow is conducting this study as the basis for the degree of Doctor of Philosophy at The University of Sydney. This will take place under the supervision of Emerita Professor, Robyn Ewing, Dr Anita Collins, and Dr Millie Locke.

There are no conflicts of interest, or financial benefits that are associated with the study.

(3) What will the study involve for me?



The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495]

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Other aspects required within the above research structure:

- **Gather student and parent/carer permission forms** and supply to principal to be securely stored for pick-up by the researcher
- **Filming of one of your own lessons**
- **Music teacher will lead the Collaborative Framework Development team** and will coordinate a weekly review and analysis of lesson plans over a 3-week period and will During this period, the music team will send weekly updates to the researcher on behalf of the teacher research team. You will be asked to provide feedback, observations, and lesson ideas you have been using in your weekly lesson, and adjustments being made.
- **Audio recordings of 2x interviews** with lead researcher
- Researcher and music teacher may take **photographs of classroom lessons** and student work
- **Identify 5 students in your class** who will be subject to closer analysis throughout the research period through interview with the researcher and writing samples supplied
- **Gather 2x student writing samples** from your class (to be analysed by the researcher) pre- and post- the framework development and supply to principal to be securely stored for pick-up by the researcher
- **Regular review of the research process** will be extended to you throughout the process of the research through email contact with the researcher and through the PD times allocated
- As an active co-researcher, your analysis and experience in working with the LIRIC framework will be a key aspect of the study
- You will not be identified in data, research or articles unless you indicate otherwise.

A timeline of the research is included with this participation statement to clarify the process. Templates for planning and lesson and writing analysis will be provided to guide you through the research process. Your principal has indicated that she agrees to provide time and support where possible to allow you the extra time to participate in this research study. You are encouraged to communicate regularly with the Music Teacher, Jessie Copeman with your principal and with the researcher to notify of any concerns about the research experience.

(4) How much of my time will the study take?

As outlined in more detail in the diagram shown in point 3):

Total time per team member: **Approximately 12 hours** in total over a period of 8 weeks (Term 3)

(5) Who can take part in the study?

The Music teacher, Year 1 cohort teachers and Year 1 students and their parents/guardians are being invited to take part in the study.

You will also identify a cross-section of 5 of your students for closer study and this will involve some interviews with the researcher, as well as a closer analysis of their writing. These students will be identified by you and will not have any outstanding learning issues (such as ILP, NESB/TESOL, or identified as gifted) as this may skew results.

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney, nor any staff nor anyone at Ainslie School.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time. You can do this by contacting your principal who will then contact the researcher directly via email or by phone.

INTERVIEWS (Some Students)

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview.

WRITING SAMPLE (All Students)

All students will supply a pre- and post- 30-minute imaginative writing sample. They are free to stop at any time if they do not feel comfortable. Students will be reminded of this prior to each writing sample. Unless you say that you want us to keep them, any writing samples that have not been completed because a student chose to stop, will be disposed of and the information you have provided will not be included in the study results.

FILMING AND PHOTOGRAPHING (All Students)

The main focus of filming is on the teacher and lesson delivery approaches, but student responses and activities may also be recorded with film and photographs. If students would like to take part in the lessons, but would not like to be filmed, please indicate this on the consent form.

DATA THAT CAN BE CANNOT BE WITHDRAWN

If you decide to withdraw from the study, we will not collect any more information from you. Any information that we have already collected, however, will be kept in our study records and may be included in the study results.

(7) Are there any risks or costs associated with being in the study?

Possible risks may include, but are not limited to:

- Inconvenience and extra time requirements ie. you and your staff giving up significant time outside normal commitments to participate in the research project.

Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study.

(8) Are there any benefits associated with being in the study?

- Opportunity to develop professionally, and collaborate with colleagues with a research focus
- Acquiring and developing new teaching materials and resources
- TQI-accredited Professional Development hours
- Contributing to new academic research

(9) What will happen to information about me that is collected during the study?

- Your name, school, year cohort, teaching experience, gender and age (though your name will be kept confidential for reporting purposes)
- All data, including audio and filmed recordings will be stored using a University of Sydney-supported platform, 'Research Data Store' a secure data storage platform and data, including interview transcripts will not make participants identifiable
- Your observation notes, reflections, lesson planning and analysis notes
- You will be able to access any information from the study on request including interview transcript notes and researcher analysis
- Results will be published in a doctoral thesis
- Results of the research published elsewhere for journals etc will not identify you personally and will only share conclusions along the lines already disclosed to you at the end of the research period. You will be notified each time a journal or conference presentation containing the research is likely to occur.
- Hardcopy data of the research will be stored on the researcher's hard drive for the duration of the study. Post-study all information will be kept securely at The University of Sydney for a period of 20 years, due to the fact that the research involves children. All information can be requested at any stage from the researcher or from the University of Sydney.
- It is not envisaged that the data used in this research will be used for future research.

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.

Please Note:

Your information will be stored securely and your identity/information will only be disclosed with your permission, except as required by law. Study findings may be published, but you will not be identified in these publications unless you agree to this using the tick box on the consent form.

(10) Can I tell other people about the study?

Yes, you are free to talk about the study with other people.

(11) What if I would like further information about the study?

When you have read this information, Mrs Katherine Halcrow will be available at the time of consent and will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Mrs Katherine Halcrow (Doctoral student), khal2116@uni.sydney.edu.au, 0400340894. Alternatively, you can contact Emeritus Professor Robyn Ewing robyn.ewing@sydney.edu.au.

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study.

As well as being a valued part of the ongoing review and analysis of the framework development, you and all participants will receive a research summary of results. This will be published in a one-page summary for the school newsletter.

Please tick the relevant box on the consent form, answering the relevant question to indicate that you would like to receive further more detailed information regarding your (or your class's) involvement. This feedback will be supplied in a 1-page summary form via email.

You will receive this feedback after the study is finished.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [2019/495] and by The ACT Education Directorate [RES: 1917]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** ro.humanethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep

Appendix E

Teacher Participant Consent



ABN 15 211 513 464

Emerita Professor Robyn Ewing
Professor, Teacher Education and the Arts

Primary Literacy and the Arts
School of Education and Social Work
Faculty of Arts and Social Sciences

A35- Education Building
The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 93513846
Facsimile: +61 2 93512606
Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

TEACHER PARTICIPANT CONSENT FORM

I, ... [PRINT NAME], agree to take part in this research study.

In giving my consent, I state that:

- I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved.
- I have read the Participant Information Statement and have been able to discuss my involvement in the study with the researchers if I wished to do so. The researchers have answered any questions that I had about the study and I am happy with the answers.
- I understand that being in this study is completely voluntary and I do not have to take part. My decision whether to be in the study will not affect my relationship with the researchers or anyone else at the University of Sydney nor at my place of employment, now or in the future.
- I understand that I can withdraw from the study at any time.
- I understand that I may stop the interview at any time if I do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the information provided will not be included in the study. I also understand that I may refuse to answer any questions I don't wish to answer.
- I understand that my questionnaire responses cannot be withdrawn once they are submitted, as they are anonymous and therefore the researchers will not be able to tell which one is mine.
- I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law.
- I understand that the results of this study may be published, and that publications will not contain my name or any identifiable information about me.

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495]

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I consent to:

- **Audio-recording** YES ☐ NO ☐
- **Video-recording** YES ☐ NO ☐
- **Photographs** YES ☐ NO ☐
- **Being interviewed** YES ☐ NO ☐
- **Collecting writing samples from students** YES ☐ NO ☐
- **Overseeing the safe storage of all data I collect in a place agreed to with my principal, in order to protect the identity of participants, especially students including written, filmed and photographic evidence and to maintain the integrity of data collected**
YES ☐ NO ☐
- **I would like to review my interview transcripts** YES ☐ NO ☐
- **The study will require some extra time commitments** YES ☐ NO ☐
- **As well as general feedback about the results of the study that will be made available to staff after the completion of the research, I would also like to receive more detailed feedback about the results of my students, and of my own participation in this study**
YES ☐ NO ☐

If you answered **YES**, please indicate your preferred form of feedback and address:

☐ Postal: _____

☐ Email: _____

.....
Signature

.....
PRINT name

.....
Best email during research period

.....
Date

.....
Best phone contact during research period

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495]

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Appendix F

Principal Participation Information



Primary Literacy and the Arts
School of Education
Faculty of Arts and Social Sciences

ABN 15 211 513 464

Emerita Professor Robyn Ewing
Professor, Teacher Education and the Arts

A35- Education Building
The University of Sydney
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Facsimile: +61 2 93512606
Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

PRINCIPAL PARTICIPANT INFORMATION STATEMENT

(1) What is this study about?

You are invited to take part in a research study that will develop a music-pedagogy informed framework for the teaching of linguistic grammar within the primary writing classroom.

Based on more than 20 years of neuroscientific research- which has established a compelling link between the cognitive processes used for both music and language, and in particular, rhythm and grammar- this study is a collaborative exploration between music and literacy teachers with the aim of exploring and developing a shared framework for the teaching of composition.

The framework is based on principles that underpin the music classroom, expressed in the curriculum and music education philosophies, including Orff and Kodaly approaches. The *LIRIC* framework: Listening, Interpreting, Reciting, Improvising and Composing, will be used to explore the potential for such a framework. The impact of the framework will be considered and measured through a consideration of grammar outcomes. Attention to linguistic grammar within the context of the writing classroom will be considered in an analogous manner, with connections made to the treatment of rhythm within composition in the music classroom.

You have been invited to participate in this study because your school has expressed an interest in being involved, given the arts focus of the school, and the strong collaborative environment that already exists between you the principal, and your music and literacy teachers.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary.

By giving your consent to take part in this study you are telling us that you:

- Understand what you have read.

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

- Agree to take part in the research study as outlined below.
- Agree to the use of your personal information as described.
- Agree to oversee general aspects of teacher and student participation
- Secure all research data including: consent forms, surveys, writing samples and iPad for filming/recording in a secure locked location on a daily basis, for the retrieval and use of teacher participants until such time as the researcher can collect

You will be given a copy of this Participant Information Statement to keep.

(2) Who is running the study?

The study is being carried out by the following researchers:

Emerita Professor Robyn Ewing

Professor, Teacher Education and the Arts (University of Sydney)

Dr Anita Collins

Adjunct Professor of Education (University of Canberra)

Dr Millie Locke

Professor of Education (University of Auckland)

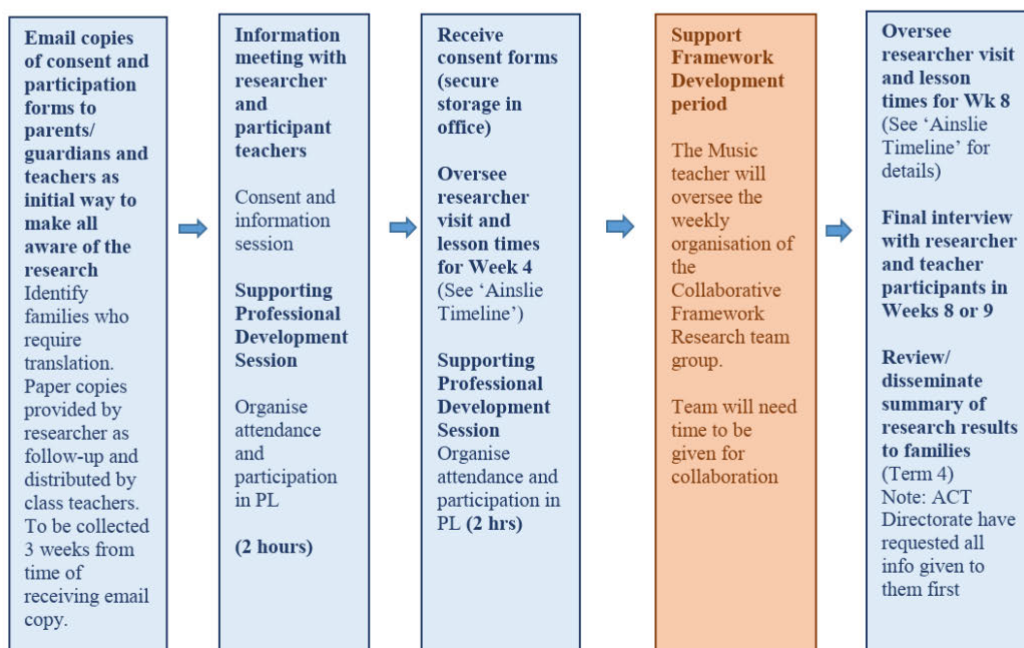
Mrs Katherine Halcrow

Doctor of Philosophy Student (University of Sydney)

Mrs Katherine Halcrow is conducting this study as the basis for the degree of Doctor of Philosophy at The University of Sydney. This will take place under the supervision of Emerita Professor, Robyn Ewing, Dr Millie Locke and Dr Anita Collins.

There are no conflicts of interest, or financial benefits that are associated with the study.

(3) What will the study involve for me ?



The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495]

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Your support and time provision for teachers to supply the following further aspects required within the above research structure are:

- **Gather student and parent/carer permission forms** securely stored for pick-up by the researcher
- **Securely store all research data**, including hard copy consent forms, student writing samples, iPad for filmed lessons (supplied by researcher), during the 6 week research phase. This is to protect the identities of participants and protect the integrity of the research artefacts
- **Regular review of the research process** will be extended to you throughout the process of the research through phone contact with the researcher
- **Organising and supporting the members of the Collaborative Research Team (music and Year 1 class teachers) time to collaborate.** The music teacher, Jessie Copeman will lead this process. This may involve providing extra release from class to reduce time pressures on teachers.
- **Notify researcher early if there are any potential foreseen challenges** involving relevant staff or students involved in the study that may impact on results
- At a later stage, you may be invited to be identified in journal articles, or invited to co-present findings at a conference should the opportunity arise

(4) How much of my time will the study take?

As outlined in more detail in the diagram shown in point 3). Your time, will be supplied at your own discretion as you see necessary, to support the following:

Total time per teaching member: **Approximately 12 hours** in total over a period of 8 wks (Term 3).

(5) Who can take part in the study?

The music teacher, Year 1 class teachers, Year 1 students and their parents/guardians will be invited to take part in the study.

5 students will be identified for closer study and will involve some interviews with the researcher, as well as having their writing analysed. These students will be identified by the class teachers.

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time. You can do this by contacting the researcher directly via email or by phone.

INTERVIEWS (Some Students)

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview.

WRITING SAMPLE (All Students)

All students will supply a pre- and post- 30-minute imaginative writing sample. They are free to stop at any time if they do not feel comfortable. Students will be reminded of this prior to each writing

sample. Unless you say that you want us to keep them, any writing samples that have not been completed because a student chose to stop, will be disposed of and the information you have provided will not be included in the study results.

FILMING AND PHOTOGRAPHING (All Students)

The main focus of filming is on the teacher and lesson delivery approaches, but student responses and activities may also be recorded with film and photographs. If students would like to take part in the lessons, but would not like to be filmed, please indicate this on the consent form.

DATA THAT CAN BE CANNOT BE WITHDRAWN

If you decide to withdraw from the study, we will not collect any more information from you. Any information that we have already collected, however, will be kept in our study records and may be included in the study results.

(7) Are there any risks or costs associated with being in the study?

Possible risks may include, but are not limited to:

- Inconvenience and extra time requirements e ie. you and your staff giving up significant time outside normal commitments over Term 3 to participate in the research project.

Aside from this, we don't expect that there will be any risks or costs associated with taking part in this study.

(8) Are there any benefits associated with being in the study?

- TQI-accredited Professional Development hours
- Interdisciplinary collaboration
- Acquiring new teaching materials and resources for the teaching of grammar and writing
- Focus on writing and grammar in specialised music class-inspired lessons
- learning grammar and writing, using a music mindset and which use speaking and listening, drama and role play
- Opportunities to develop and contribute to interdisciplinary research in the area of the writing and grammar

(9) What will happen to information about me that is collected during the study?

- Your name, school, year cohort, teaching experience, gender and age (though your name will be kept confidential for reporting purposes)
- All data, including audio and filmed recordings will be stored using a University of Sydney-supported platform, 'Research Data Store' a secure data storage platform and data, including interview transcripts will not make participants identifiable
- Your observation notes, reflections, lesson planning and analysis notes
- You will be able to access any information from the study on request including interview transcript notes and researcher analysis
- Results will be published in a doctoral thesis
- Results of the research published elsewhere for journals etc will not identify you personally and will only share conclusions along the lines already disclosed to you at the end of the research period. You will be notified each time a journal or conference presentation containing the research is likely to occur.
- Hardcopy data of the research will be stored on the researcher's hard drive for the duration of the study. Post-study all information will be kept securely at The University of Sydney for a

period of 20 years, due to the fact that the research involves children. All information can be requested at any stage from the researcher or from the University of Sydney.

- It is not envisaged that the data used in this research will be used for future research.

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.

Please Note:

Your information will be stored securely and your identity/information will only be disclosed with your permission, except as required by law. Study findings may be published, but you will not be identified in these publications unless you agree to this using the tick box on the consent form.

(10) Can I tell other people about the study?

Yes, you may talk to other people about the study.

(11) What if I would like further information about the study?

When you have read this information, Mrs Katherine Halcrow will be available at the time of consent and will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Mrs Katherine Halcrow (Doctoral student), khal2116@uni.sydney.edu.au, (REDACTED). Alternatively, you can contact Emeritus Professor Robyn Ewing robyn.ewing@sydney.edu.au.

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study.

As well as being a valued part of the ongoing review and analysis of the framework development, you and all participants will receive a research summary of results. This will be published in a one-page summary for the school newsletter.

The ACT Education Directorate, and you as the principal, will be given the opportunity to review and suggest edits to the information tabled for dissemination to participating teachers and to families. It is expected that results will be ready for review at the beginning of Term 4.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [2019/495] and by The ACT Education Directorate [1917]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** ro.humanethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep

Appendix G

Principal Participation Consent



ABN 15 211 513 464

Emerita Professor Robyn Ewing
Professor, Teacher Education and the Arts

Primary Literacy and the Arts
School of Education and Social Work
Faculty of Arts and Social Sciences

A35- Education Building
The University of Sydney
NSW 2006 AUSTRALIA

Telephone: +61 2 93513846

Facsimile: +61 2 93512606

Email: robyn.ewing@sydney.edu.au

Web:

http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

PRINCIPAL PARTICIPANT CONSENT FORM

I, ... [PRINT NAME], agree to take part in this research study.

In giving my consent, I state that:

- I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved.
- I have read the Principal Participant Information Statement and have been able to discuss my involvement in the study with the researchers if I wished to do so. The researchers have answered any questions that I had about the study and I am happy with the answers.
- I understand that being in this study is completely voluntary and I do not have to take part. My decision whether to be in the study will not affect my relationship with the researchers or anyone else at the University of Sydney nor at my place of employment, now or in the future.
- I understand that I can withdraw from the study at any time.
- I understand that I may stop the interview at any time if I do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the information provided will not be included in the study. I also understand that I may refuse to answer any questions I don't wish to answer.
- I understand that my questionnaire responses cannot be withdrawn once they are submitted, as they are anonymous and therefore the researchers will not be able to tell which one is mine.
- I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law.
- I understand that the results of this study may be published, and that publications will not contain my name or any identifiable information about me.

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495].

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I consent to:

- Teacher and student participation in this research YES ☐ NO ☐
- Researcher in-school visits YES NO ☐ ☐
- Researcher-led Professional Learning YES ☐ NO ☐
- Being interviewed YES ☐ NO ☐
- Support communication and collection of participant consents YES ☐ NO ☐
- Oversee secure storage of student data including film on student researcher's iPad to protect identity of participants, especially students including written, filmed and photographic evidence and to maintain the integrity of data collected while awaiting pick-up. YES ☐ NO ☐
- I would like to review my interview transcripts YES ☐ NO ☐
- I understand that I will receive feedback about my school's results and will be given the opportunity to review and manage the way this is communicated to teachers and families YES ☐ NO ☐
- Providing extra time (including class cover, where necessary) for teachers to research collaboration and planning. This will be at my discretion to provide for the smooth running of research activities. I acknowledge that this may in some circumstances be at some extra cost and/or inconvenience to the school. YES ☐ NO ☐

The researcher will contact you by email and school office phone but may need to contact you directly ahead of school visits, in case of unforeseen circumstances. Please supply best contact details for you/deputy in these circumstances.

.....
Signature

.....
PRINT name

Best Email:

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495].

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.....
Date

Mobile contact details:

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Appendix H

Student Participation Information



Primary Literacy and the Arts
School of Education
Faculty of Arts and Social Sciences

ABN 15 211 513 464

Emerita Professor Robyn Ewing
Professor, Teacher Education and the Arts

A35- Education Building
The University of Sydney
NSW 2006 AUSTRALIA
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Facsimile: +61 2 93512606
Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

STUDENT PARTICIPANT INFORMATION STATEMENT

Note: Your teacher will read this to you. You should also read it with a parent and feel free to ask any questions if you want to know more or if it doesn't make sense. A parent may also email the researcher directly with any questions you may have.

(1) What is this study about? (Please read and talk about this with a grown-up)

You are invited to be part of a research project that your teachers are planning to do with researchers from The University of Sydney. Together, they are planning to design some new ways to teach writing and language, that might feel more like learning music in the music classroom.

Once a week for 6 weeks your teachers will explore with you ways to play with language using a 'music mindset' to support your writing work.

The 'writing with a music mindset' lessons will focus on the musical qualities of language, through drama, role-play, and discussion to help you build confidence with language for writing. We might start to notice the normal as well as unexpected rhythms of language we come across in books we love and how we can imitate and play with these as writers.

This research study is based on brain research that shows that the brain thinks about music and language in very similar ways.

The 6 lessons will be taught by your class teachers, by a university researcher and by the music teacher. Some lessons will be filmed, and you may be interviewed if you choose to, plus you will do lots of writing to help us see how the lessons might be helping you.

Please read this with your teacher and a parent to help you understand what the research is about and whether you want to join in. You do not have to take part in the lessons if you don't want to. It is up to you.

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom
[2019/495]

By giving your permission to take part in this study you are telling us that you:

- Understand what you have read.
- Agree to take part in the research study as outlined below.
- Agree to the use of your personal information as described.

You will be given a copy of this Student Information Statement to keep.

(2) Who is doing the study?

The study is being carried out by the following researchers:

Emerita Professor Robyn Ewing

Professor, Teacher Education and the Arts (University of Sydney)

Dr Anita Collins

Adjunct Professor of Education (University of Canberra)

Dr Millie Locke

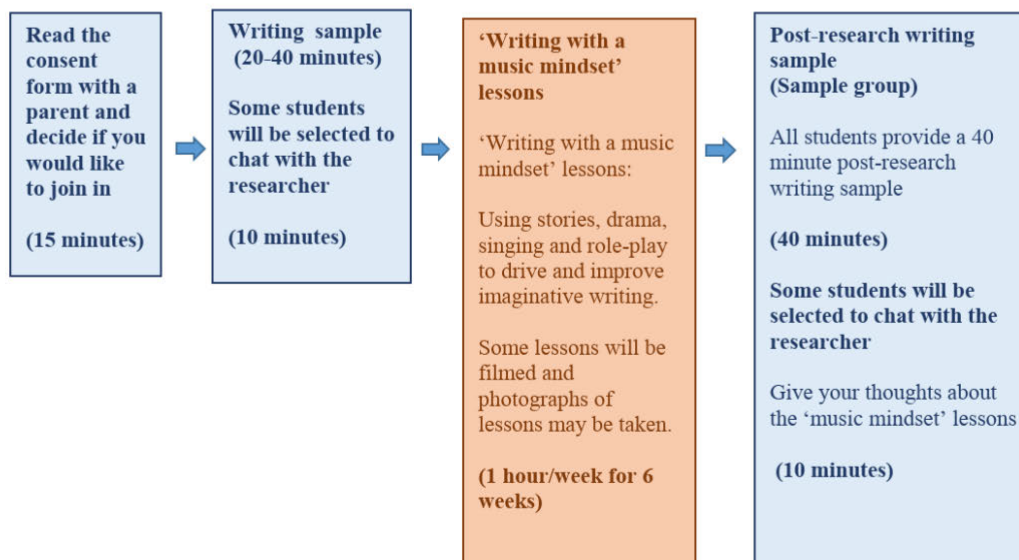
Professor of Education (University of Auckland)

Mrs Katherine Halcrow

Doctor of Philosophy Student (University of Sydney) Mrs Katherine Halcrow is conducting this study as the basis for the degree of Doctor of Philosophy at The University of Sydney. This will take place under the supervision of Emerita Professor, Robyn Ewing, Dr Millie Locke and Dr Anita Collins.

No one is receiving money or any other special or unfair benefits for doing this study.

(3) What will the study involve for me ?



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Other aspects required within the above research structure:

- Ask your teacher and principal any questions you have about the lessons
- **Return your consent (and your parent's consent form)** to your class teacher within two weeks of receiving the paper copy of this letter
- **Writing samples** along with all students in class

(4) How much of my time will the study take?

As outlined in more detail in the diagram shown in point 3):

Total time per team member: **Approximately 5 lesson hours** in total over a period of 5 weeks (Term 3)

(5) Who can take part in the study?

All Year One teachers and students will be invited to take part in the study. The music teacher will also join in. 5 students in each class will also be identified for closer study, involving some interviews with the researcher, and their writing closely analysed to gauge the impacts of the research on student writing.

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely up to you and you do not have to take part. No one will be upset with you if you decide you don't want to do it anymore. No one will mind. Just let your parent, class teacher or the researcher know.

If you decide to take part in the study and then change your mind later, you can stop doing it. If you decide not to be a part of the 5 lessons, you will join in a writing lesson with another Year 1 teacher, that you would normally do.

INTERVIEW

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included. You may also refuse to answer questions that you do not wish to answer during the interview.

WRITING SAMPLE (All Students)

All students will supply writing samples at the beginning and end of the research period. You are free to stop at any time if you do not feel comfortable. You will be reminded about this before you start writing. You can choose to stop writing if you don't feel comfortable, and the writing will be thrown away if you and your parents decide you don't want it included.

FILMING AND PHOTOGRAPHING (All Students)

Filming of some lessons will be recorded. The iPad that is used for this will mainly be focused on the teacher but may also capture you and your classmates as you participate in the lessons.

The teachers are using the recorded lessons so that they can think about the teaching and learning, to make improvements for the next lesson.

DATA THAT CAN BE CANNOT BE WITHDRAWN

If you decide to withdraw from the study, we will not collect any more information from you. Any information that we have already collected which you have already consented to, however, will be kept in our study records and may be included in the study results.

(7) Are there any risks or costs associated with being in the study?

Possible risks may include, but are not limited to:

- Change to your normal literacy lessons once a week for 5-6 weeks.

Aside from giving up your normal literacy class time, we do not expect that there will be any risks or costs associated with taking part in this study.

(8) Are there any benefits associated with being in the study?

- Try some new ways of becoming a writer using a music mindset, including drama, role play and stories
- Work with your teachers and the university researcher to explore and work on new ways to teach writing that may help you, your classmates and students in other schools

(9) What will happen to information about me that is collected during the study?

- Your name, school, year cohort, gender and age will be kept secret (though your name will be kept confidential for reporting purposes)
- All data, including audio and filmed recordings will be stored using a University of Sydney-supported platform, 'Research Data Store' a secure data storage platform and data, including interview transcripts will not make participants identifiable
- Writing samples will securely stored and names will not be displayed or communicated
- All data will be referred to in pseudonyms and anonymously, so that you cannot be personally identified
- Hardcopy data of the research will be stored on the researcher's hard drive for the duration of the study. Post-study all information will be kept securely at The University of Sydney for a period of 20 years, in keeping with human ethics laws that require data to be stored until children are of an age to be able to access that data. All information can be requested at any stage from the researcher or from the University of Sydney.
- It is not envisaged that the data used in this research will be used for future research.

By providing your consent, you agree that we may collect personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.

Please Note:

Your information will be stored securely and your identity/information will only be disclosed with your permission, except as required by law. Study findings may be published, but you will not be identified in these publications unless you agree to this using the tick box on the consent form.

(10) Can I tell other people about the study?

Yes, you may discuss the study with other people.

(11) What if I would like further information about the study?

When you have read this information, Mrs Katherine Halcrow will be available at the time of consent and will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Mrs Katherine Halcrow (Doctoral student), khal2116@uni.sydney.edu.au. Alternatively, you can contact Emeritus Professor Robyn Ewing robyn.ewing@sydney.edu.au.

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study.

All families will receive the results of the research. This will be sent home in a one-page summary and no students or classes will be identifiable. You and your parents may also decide that you would like to receive more information about your experience and writing throughout the 5 lessons. You will receive this feedback once the study is finished.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [2019/495] and The ACT Education Directorate [RES:1917]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** ro.humanethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep

Appendix I

Student Participation Consent

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ABN 15 211 513 464

Emerita Professor Robyn Ewing
Professor, Teacher Education and the Arts

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School of Education
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The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 93513846
Facsimile: +61 2 93512606
Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

Note: This will be read to students by the class teacher before students sign and return. It will also be read to students by the researcher to confirm details and to answer questions at the time of research. Verbal consent will also be recorded for students taking part in interviews.

Student Consent Form

If you are happy to be in the study, please

- **write** your **name** in the space below
- **sign** your **name** at the bottom of the next page
- put the **date** at the bottom of the next page.

You should only say 'yes' to being in the study if you know what it is about and you want to be in it. If you don't want to be in the study, you do not have to sign the form

I, ...[PRINT NAME], am happy to be in this research study.

In saying yes to being in the study, I am saying that:

- I know what the study is about.
- I know what I will be asked to do.
- Someone has talked to me about the study.
- My questions have been answered.

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- I know that I don't have to be in the study if I don't want to.
- I know that I can pull out of the study at any time if I don't want to do it anymore.
- I know that I don't have to answer any questions that I don't want to answer.
- I know that the researchers won't tell anyone what I say when we talk to each other, unless I talk about being hurt by someone or hurting myself or someone else.

Now we are going to ask you if you are happy to do a few other things in the study. Please tick (✓) 'Yes' or 'No' to tell us what you would like.

Please note: all *photos and videos will only be taken within class lessons, and the focus is the teaching and learning activities:*

Are you happy for us to take photos of you?	Yes ☐	No ☐
Are you happy for us to make videos of you?	Yes ☐	No ☐
Are you happy for us to tape record your voice?	Yes ☐	No ☐
Are you happy for us to collect samples of your writing?	Yes ☐	No ☐
Do you want us to tell you what we learnt in the study?	Yes ☐	No ☐

.....
Signature

.....
Date

Appendix J

Parent Participation Information



Primary Literacy and the Arts
School of Education
Faculty of Arts and Social Sciences

ABN 15 211 513 464

Emerita Professor Robyn Ewing
Professor, Teacher Education and the Arts

A35- Education Building
The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 93513846
Facsimile: +61 2 93512606
Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

PARENT/GUARDIAN INFORMATION STATEMENT

(1) What is this study about? (Please also read and explain the Student Participation Form with your child)

Your child is being invited to take part in a research study that will investigate teaching and learning in the primary writing classroom, with a focus on grammar. Music and literacy teachers will work together to consider how the primary writing classroom might be enhanced through a 'music mindset' approach to teaching writing and grammar, informed by more than 20 years of research in the fields of neuroscience and linguistics that show the positive impacts of music approaches on literacy outcomes.

The research will form one lesson a week for a period of 5 weeks in Term 3, with lessons taught by a student researcher with the music and the class teachers.

'Language as music' focuses on drama, role-play, debate and discussion to encourage play and performance, to emphasise the musical qualities of speech and language. The music principles of: Listening, Interpreting, Reciting, Improvising and Composing, form the structure and basis of all lessons, with explicit links to writing and grammar outcomes.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you and your child want to take part in the research. Please read this information statement carefully and feel free to ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary.

By giving your consent to take part in this study you are telling us that you:

- Understand what you have read.
- Agree to take part in the research study as outlined below.
- Agree to the use of your personal information as described.

You will be given a copy of this Participant Information Statement to keep.

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom

(2) Who is running the study?

The study is being carried out by the following researchers:

Emerita Professor Robyn Ewing

Professor, Teacher Education and the Arts (University of Sydney)

Dr Anita Collins

Adjunct Professor of Education (University of Canberra)

Dr Millie Locke

Professor of Education (University of Auckland)

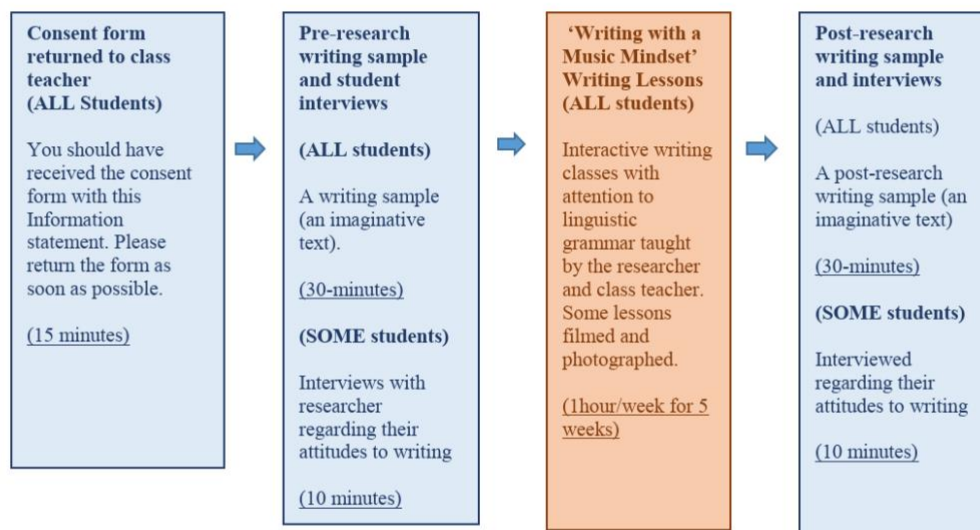
Mrs Katherine Halcrow

Doctor of Philosophy Student (University of Sydney)

Mrs Katherine Halcrow is conducting this study as the basis for the degree of Doctor of Philosophy at The University of Sydney.

There are no conflicts of interest, or financial benefits that are associated with the study.

(3) What will the study involve for me ?



Other aspects required within the above research structure:

- **Permission forms** returned to class teacher
- **Audio recording of consent** with lead researcher confirming understanding of the written consent (and only if a written form has already been supplied by their parent/guardians)
- **Writing samples** of all students in class, with analysis of grammar and writing outcomes

(4) How much of my time will the study take?

Total time per student: **Approximately 6 hours** in total over a period of 5 weeks as shown in Point 3.

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [2019/495]

(5) Who can take part in the study?

All grade cohort students and their parents/guardians will be invited to take part in the study.

On the consent form you will be able to select one of the following:

- That you DO give consent for all participation
- That you DO give consent to participate **but not** for some aspects (which you may identify)

By **not** returning the form by the date required you indicate that you do not wish your child to participate. During the weekly lessons, your child will participate in a writing lesson taught by one of the Year 1 Class Teachers, as would have been delivered under normal circumstances.

While all participating students will be involved in lessons, filming and writing activities, 5 students in each class will be identified for closer study, involving two interviews with the researcher, as well as a closer analysis of their writing pre- and post- the research period. These students will be selected by the class teacher to represent a range of abilities and strengths in writing, and only if a parent/guardian has already indicated that they give consent for their child to participate in the research. By providing consent, you accept that your child may be selected to be in the focus group.

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time. You can do this by contacting your principal who will then contact the researcher directly via email or by phone.

INTERVIEWS (Some Students)

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview.

WRITING SAMPLE (All Students)

All students will supply a pre- and post- 30-minute imaginative writing sample. They are free to stop at any time if they do not feel comfortable. Students will be reminded of this prior to each writing sample. Unless you say that you want us to keep them, any writing samples that have not been completed because a student chose to stop, will be disposed of and the information you have provided will not be included in the study results.

FILMING AND PHOTOGRAPHING (All Students)

The main focus of filming is on the teacher and lesson delivery approaches, but student responses and activities may also be recorded with film and photographs. If students would like to take part in the lessons, but would not like to be filmed, please indicate this on the consent form.

DATA THAT CAN BE CANNOT BE WITHDRAWN

If you decide to withdraw from the study, we will not collect any more information from your child. Any information that we have already collected which you have already consented to, however, will be kept in our study records and may be included in the study results.

(7) Are there any risks or costs associated with being in the study?

Possible risks may include, but are not limited to:

- Change to regular class routine with the 5 'Writing with a Music Mindset' lessons over 5 weeks

Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study.

(8) Are there any benefits associated with being in the study?

- Focus on writing and grammar through research-informed approaches
- Emphasis on speaking and listening, drama and role play to support language development
- Opportunity to contribute to research in the teaching and learning of writing and grammar for primary students

(9) What will happen to information about me that is collected during the study?

- Your name, school, year cohort, gender and age will be kept secret (though your name will be kept confidential for reporting purposes)
- All data, including audio and filmed recordings will be stored using a University of Sydney-supported platform, 'Research Data Store' a secure data storage platform, however participants will not be identifiable
- Writing samples will securely stored and names will not be displayed or communicated
- All data will be referred to in pseudonyms and anonymously, so that you cannot be personally identified
- Hardcopy data of the research will be stored on the researcher's hard drive for the duration of the study. Post-study all information will be kept securely at The University of Sydney for a period of 20 years, in keeping with human ethics laws that require data to be stored until children are of an age to be able to access that data. All information can be requested at any stage from the researcher or from the University of Sydney.
- It is not envisaged that the data used in this research will be used for future research.

By providing your consent, you agree that we may collect personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.

Please Note:

Your information will be stored securely and your identity/information will only be disclosed with your permission, except as required by law. Study findings may be published, but you will not be identified in these publications unless you agree to this using the tick box on the consent form.

(10) Can I tell other people about the study?

Yes, you may discuss the study

(11) What if I would like further information about the study?

When you have read this information, Mrs Katherine Halcrow will be available at the time of consent and will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Mrs Katherine Halcrow (Doctoral student), khal2116@uni.sydney.edu.au. Alternatively, you can contact Emeritus Professor Robyn Ewing robyn.ewing@sydney.edu.au.

(12) Will I be told the results of the study?

All families who participated in the study will receive feedback about the overall results of this study. This will be a one-page summary and no students or classes will be identifiable.

However, if you would like to receive further, more individualised information about your child's participation and writing sample analysis, you may indicate this on the consent form. You will receive this feedback within two months of the completion of the research period.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [2019/495] and by The ACT Education Directorate [RES: 1917]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** ro.humanethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep

Appendix K

Parent Participation Consent

Page 1 of 3



Primary Literacy and the Arts
School of Education
Faculty of Arts and Social Sciences

ABN 15 211 513 464

Emerita Professor Robyn Ewing
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Facsimile: +61 2 93512606
Email: robyn.ewing@sydney.edu.au
Web: http://sydney.edu.au/education_social_work

The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom [Reference: 2019/495]

CONSENT FORM: PARENT/ GUARDIAN

I, ... [PRINT NAME OF Parent/ guardian], consent to my son/daughter, ... [PRINT PARTICIPANT'S NAME] participating in this research study.

In giving my consent I state that:

- I understand the purpose of the study, what participants will be asked to do, and any risks/benefits involved.
- I have read the Information Statement and have been able to discuss the study with the researchers if I wished to do so.
- The researchers have answered any questions that I had about the study which have been communicated via email with the researchers directly or through the principal of Ainslie School, Mrs Wendy Cave and I am happy with the answers.
- I understand that being in this study is completely voluntary. My decision whether to let the person under my guardianship/care take part in the study will not affect my/their relationship with the researchers or anyone else at the University of Sydney nor will my decision to participate affect my relationship with the staff and principal at Ainslie School now or in the future. now or in the future.
- I understand that the person under my guardianship/care can withdraw from the study at any time.
- I understand that the person under my guardianship/care may stop the interview at any time if they do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the

The rhythm-grammar connection [2019/495]

Final Version [July 2019]

information provided will not be included in the study. I also understand that they may refuse to answer any questions they don't wish to answer.

- I understand that the person under my guardianship/care may leave the focus group at any time if they do not wish to continue. I also understand that it will not be possible to withdraw their comments once the group has started as it is a group discussion.
- I understand that personal information collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that this personal information will only be told to others with my permission, except as required by law.
- I understand that the results of this study may be published, and that these publications will not contain any identifiable information about the person under my guardianship/care.

I consent to:

• Interviews with researcher (Audio-recording)	YES ☐	NO ☐
• Video-recording (of class lessons)	YES ☐	NO ☐
• Photographs (of class lessons)	YES ☐	NO ☐
• Writing Samples	YES ☐	NO ☐

Following the research, the overall results of the study will be communicated to the parent community through the school. Students and classes will not be identifiable.

I would also like to receive individualised feedback about my child's results and participation in the study?

YES ☐ NO ☐

If you answered 'Yes', please indicate your preferred form of feedback and provide details:

☐ Postal: _____

☐ Email: _____

Carer/guardian's signature:

.....
Signature

.....
PRINT name

.....
Date

Participant's signature:

.....
Signature

.....
PRINT name

.....
Date

Appendix L.1

Ethics Research Approval – ACT Directorate and University of Sydney



File Ref: RES-1917

Emerita Professor Robyn Ewing
Teacher education and the Arts
University of Sydney NSW 2006

robyn.ewing@sydney.edu.au

Dear Professor Ewing

Approval of research proposal

Thank you for your application to conduct the proposed research titled *The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom*. I am pleased to inform you that the Education Directorate has approved your research.

Please note the following conditions regarding your proposed research project:

- research in the school(s) must be concluded by end September 2019
- any publication or provision of your research must not enable the identification of any student, school or system. Data for the ACT must not be identifiable
- any changes in the methodology, scope and timeframe of the project require approval from the Directorate
- names of schools that participated in the research project must be provided to the Directorate at the completion of research/data collection in schools
- an embargoed copy of your report must be provided to the Directorate prior to release for briefing purposes. An electronic copy of the embargoed report should be forwarded to the Directorate at DETRResearch@act.gov.au
- a final post-release copy of your report should be mailed to:

Research Section
Analytics and Evaluation Branch
ACT Education Directorate
GPO Box 158
CANBERRA ACT 2601

- research reports received as per the preceding conditions will be placed online, accessible internally to Directorate staff in order to inform policy and program development and evaluation through research in public schools.

The Directorate approves research in all public schools. You may now directly approach the principals of schools. In doing so, you will need to provide a copy of this Letter of Approval

and current *Working with Vulnerable People* registration (or jurisdictional equivalent) if applicable, for permission to carry out your research. It will be at the discretion of the principal as to whether your research can proceed at their site.

Any information that you obtain as part of research or data collection must be treated in accordance with the requirements of the *Privacy Act 1988*.

If you require any information about this letter and/or the research application process, please contact DETRResearch@act.gov.au

Best wishes for your research.

Yours sincerely

[REDACTION]

Dr Hai Phung
Executive Branch Manager
Analytics and Evaluation

8 July 2019

Appendix L.2

Ethics Research Approval – ACT Directorate and University of Sydney



Research Integrity & Ethics Administration HUMAN RESEARCH ETHICS COMMITTEE

Thursday, 22 August 2019

Prof Robyn Ewing
Education; Faculty of Arts and Social Sciences
Email: robyn.ewing@sydney.edu.au

Dear Robyn,

The University of Sydney Human Research Ethics Committee (HREC) has considered your application.

I am pleased to inform you that after consideration of your response, your project has been approved.

Details of the approval are as follows:

Project No.: 2019/495
Project Title: The rhythm-grammar connection: towards an interdisciplinary framework for the teaching of composition in the primary writing classroom
Authorised Personnel: Ewing Robyn; Halcrow Katherine; Collins Anita;
Approval Period: 22/08/2019 to 22/08/2023
First Annual Report Due: 22/08/2020

Documents Approved:

Date Uploaded	Version Number	Document Name
19/08/2019	Version 2	Student Assent
19/08/2019	Version 3	Parent guardian Information Statement Strand 1 Clean Copy
19/08/2019	Version 3	Parent guardian Information Statement Strand 2 Clean Copy
19/08/2019	Version 3	Parent Guardian Consent Strand 1 Clean Copy
19/08/2019	Version 3	Parent Guardian Consent Strand 2 Clean Copy
21/07/2019	Version 1	Research Tools (interviews, sample analysis, lesson planning)
20/07/2019	Version 1	Design based research template
20/07/2019	Version 2	Music Teacher Consent Strand 1 (final teacher consent)
20/07/2019	Version 2	Teacher Participant Consent Strands 1_2 (final)
20/07/2019	Version 2	Teacher Information Statement Strand 2 (final)
20/07/2019	Version 2	Teacher Information Statement Strand 1 (final)
20/07/2019	Version 2	Student Consent Strands 1_2 (final)
20/07/2019	Version 2	Student Information Statement Strand 1 (final)
20/07/2019	Version 2	Student Information Statement Strand 2 (final)
20/07/2019	Version 1	Music Teacher Information Statement Strand 1 (new)
20/07/2019	Version 1	Research Overview
20/07/2019	Version 1	Research Overview Strand 2
17/05/2019	Version 1	Strand 2 Principal Participant Information Statement
17/05/2019	Version 1	Strand 2 Artist-Expert Participant Information Statement
17/05/2019	Version 1	Strand 1 Principal Participation Form
17/05/2019	Version 1	Principal Consent Form
17/05/2019	Version 1	Artist Consent Form
05/05/2019	Version 1	Interview Formats and Class Observation Appendices

Research Integrity & Ethics Administration
Research Portfolio
Level 3, F23 Administration Building
The University of Sydney
NSW 2006 Australia

T +61 2 9036 9161
E human.ethics@sydney.edu.au
W sydney.edu.au/ethics

ABN 15 211 513 464
CRICOS 00026A

Condition/s of Approval

- Research must be conducted according to the approved proposal.
- An annual progress report must be submitted to the Ethics Office on or before the anniversary of approval and on completion of the project.
- You must report as soon as practicable anything that might warrant review of ethical approval of the project including:
 - Serious or unexpected adverse events (which should be reported within 72 hours).
 - Unforeseen events that might affect continued ethical acceptability of the project.
- Any changes to the proposal must be approved prior to their implementation (except where an amendment is undertaken to eliminate *immediate* risk to participants).
- Personnel working on this project must be sufficiently qualified by education, training and experience for their role, or adequately supervised. Changes to personnel must be reported and approved.
- Personnel must disclose any actual or potential conflicts of interest, including any financial or other interest or affiliation, as relevant to this project.
- Data and primary materials must be retained and stored in accordance with the relevant legislation and University guidelines.
- Ethics approval is dependent upon ongoing compliance of the research with the *National Statement on Ethical Conduct in Human Research*, the *Australian Code for the Responsible Conduct of Research*, applicable legal requirements, and with University policies, procedures and governance requirements.
- The Ethics Office may conduct audits on approved projects.
- The Chief Investigator has ultimate responsibility for the conduct of the research and is responsible for ensuring all others involved will conduct the research in accordance with the above.

This letter constitutes ethical approval only.

Please contact the Ethics Office should you require further information or clarification.

Sincerely,

[REDACTION]

Professor Glen Davis
Chair
Human Research Ethics Committee (HREC 2)

The University of Sydney of Sydney HRECs are constituted and operate in accordance with the National Health and Medical Research Council's (NHMRC) [National Statement on Ethical Conduct in Human Research \(2007\)](#) and the NHMRC's [Australian Code for the Responsible Conduct of Research \(2007\)](#).

Appendix M

Interviews

Table M1

Interviews: Schedule

Interview Schedule Marybank School, Term 3, 2019	
Weeks 1–3 Prior to in-class intervention	Semi-structured teacher interview questions: Appendix M (August 2019). Tag: [Pseudonym].TI1.2019
Week 4 In-class intervention introduction	Pre-study open-structured student interviews (September 2019). Tag: [Pseudonym].SI1.2019
Week 10 In-class intervention ends	Final open-structured teacher interviews. (September, 2019) Tag: [Pseudonym].TI2.2019 Final open-structured student interviews (September 2019) Tag: [Pseudonym].SI2.2019

Figure M1

Teacher Interviews: Semi-structured

PHASE ONE RESEARCH INTERVIEW Semi-structured 1st Interview with Co-researcher		
Opening Script: <i>Thank you for agreeing to be interviewed and to participate in this research and for signing the research agreement form.</i> <i>Do you have any questions about the research so far?</i> <i>You indicated previously that you were happy to be involved and to be interviewed today, is this still the case? Y/N?</i> <i>Do you feel comfortable being recorded? If not, I can just take notes. Y/N?</i> <i>Please let me know, if at any time, you would like me to stop recording or stop taking notes, so that your comments can remain off the record.</i> <i>Are you ready to begin? Y/N?</i>		
Note any initial questions/concerns about research:		
Interviewee Name:	Initial responses	Follow-up probing question/s - Elaboration probe. <i>Can you tell me more about that?</i> - Detail probes. <i>Can you provide some examples? When did that happen? Who was doing that?</i> - Clarification probe. <i>When you said [insert comment] what do you mean?</i> - Echo probe. Repeat interviewee's comment and ask for more detail, or next aspect. - Silent probe (wait). - 'Uh-huh', 'Yes, I see.' Encouragements to continue <i>Adapted from Ben McCammon, 'Interviews'</i> http://designresearchtechniques.com/casestudies/semi-structured-interviews/
Background (orientation) Questions		
<i>Can you describe your teaching experience and background?</i>		
<i>How would you describe your teaching style as a literacy teacher?</i>		
<i>In your opinion, what are the main challenges of being a writing teacher in the Primary classroom?</i>		
<i>How do you usually manage these challenges?</i>		

Figure M2

Teacher Interviews: Semi-structured

<i>Can you describe one of your typical writing lessons?</i>		
<i>How do you normally teach spelling?</i>		
<i>Can you give specific examples?</i>		
<i>How do you normally teach grammar through the writing process?</i>		
<i>Specific examples?</i>		
<i>How do you usually plan and assess writing?</i>		
<i>What would you like to know more about as a writing teacher?</i>		
Central Inquiry Questions Script: The primary research question is: 'What insights might be gained from popular practices common to the music classroom for teachers of linguistic grammar in the writing classroom? Applying music pedagogy to the writing classroom is a very new concept in literacy <u>education</u>, and has legitimacy due to findings in neuroscience over the last 20 years, connecting rhythm and grammar, and literacy and music, more broadly because of the overlapping cognitive pathways used for each. Because of this, I do not expect you to have considered these parallels before. These questions are designed not to test you but to help show some developing growth in awareness over the duration of the project. Are you comfortable continuing with the questions, given this background? Y/N?		
<i>Do you have any background or experience in music education (or if asking a music teacher, 'literacy education')?</i>		
<i>What opportunities have you had to collaborate with the music [or literacy] or other specialist teachers in the past?</i>		
<i>If so, how would you describe the experience/s?</i>		
<i>Can you see any potential benefits in collaborating with the music [or literacy] teacher?</i>		
<i>Have you ever considered similarities between music and literacy education?</i>		
<i>How do you think the process of music</i>		

Figure M3

Teacher Interviews: Semi-structured

<i>classroom and literacy classroom might be similar or different?</i>		
<i>What, if anything, do you think teachers of literacy (in particular, writing) <u>have to learn from music teachers?</u></i>		
<i>What, if anything, do you think teachers of music have to learn from literacy teachers?</i>		
<i>Can you see potential for teachers of music and literacy to see their pedagogies as overlapping?</i>		
<i>How do you use listening activities to support student learning in literacy/writing?</i>		Can you think of specific ways this may have supported student learning in grammar?
<i>How do you use interpreting activities to support student learning in literacy/writing?</i>		Can you think of specific ways this may have supported student learning in grammar?
<i>How do you use recitation/repetition activities to support student learning in literacy/writing?</i>		Can you think of specific ways this may <u>have supported</u> student learning in grammar?
<i>How do you use improvisation activities to support student learning in literacy/writing?</i>		Can you think of specific ways this may have supported student learning in grammar?

Appendix N

Music Specialist Lesson Example (Composition): Transcript

Note: This lesson was to Year 1 students familiar with key concepts, such as the Kodály terms.

Teacher

Students

Today we're going to do some composing.

I've got some music on the board [*sounds her triangle*]. I'm going to play it for you, but I'm not going to tell you anything about it just yet, I just want you to have a little listen...

[*Plays a traditional tune on the xylophone*].

Have a listen again.

[*This time, the teacher accompanies the tune with the words, singing*].

So, what I've got here... can you see? How many different notes. I want you to listen again, and then we're going to sing the song together. [*Sings and plays the tune again*].

Can you join me? [*The students sing along, and they sing twice through*].

Do you remember that I was telling that the notes in this song have three different colours [*referring to the colours of the xylophone pads*]?

What are those three different colours? What's the first colour you see?

[*Child responds*] **It's yellow.**

That's right. Can everyone get their yellow one out [*students are taking out their xylophone rod*]. Their yellow one. And putting it on the floor. Not playing just yet, just getting it out.

What's the next colour we can see? [*Waits*]

[*Another child responds*] **It's orange.**

Orange. Can everybody find their orange.... And getting it out. Now....And our very last colour, what's our very last colour up on the board here?

[*Another child responds*] **Red.**

Good, can we get our red out? Our big red. I know we've got two red, but just the bigger one.

Can you show me with your hands that you've got all three colours now? [*Students indicate they do*] Excellent. Do you know what we're going to do right now? We're going to play this piece together. Do you think we can play this together?

[*Students answer*] **Yes!**

Alright, what's our first colour ... the one we might play?

[*Several students answer*] **E** [*Another student*] **It's yellow**

'E', yes and it is yellow....on the count of 4, we're going to play 'E'. 'D'. 'C'. [*Continues to model the song with the rhythm and pattern of notes to play the song*]

On the count of 4, without the stops. 1,2,3,4... [*Teacher now says the name of the notes as she points to the notes on the whiteboard, and this time the students play along on their own*].

Let's try that again, singing and saying the colours, rather than the names of the notes, this time. [*Teacher says the name of the colours as they play together*]. Put your mallets down.

This song is also a 'solfa' [*Kodály term*] song. Remember our hand signs? The first one is, 'mi', and the sound look ... what's it doing? It's going... [*teacher sings it and waits...*]

...[*student comes in*] What's it doing?...

It's going down.

What's the sound below? *[teacher sings it and waits...]*

...*[student comes in]* **ré.**

[Teacher sings the next] ...do...[Teacher and students sing an extended pattern putting the notes together...and more students join in]

Can we all sign that together? *[Students sing the 'do-mi-ré' pattern together and do the Kodály signing gestures together to accompany the singing]*

We're now going to clap the rhythm. What sort of rhythm is it?

[Student answers] **even**

A ta? A ti-ti? *[Students give a range of answers]*

Can we all say the rhythm? *[Teacher leads the students to sing the rhythm using 'ta-ti-tum'.*

We're going to play it and listen to the rhythm at the same time? They then sing the song and play using each of the patterns, using the rhythm code, the melody code, and then with the words.

You're going to write your own piece, using the three colours.

One child is heard continuing to sing the song pattern softly to herself as the teacher continues to speak.

The teacher provides a pattern idea, and shows how they might represent it, students suggest alternatives. Students offer a 'sza', some rhythm patterns and some note patterns.

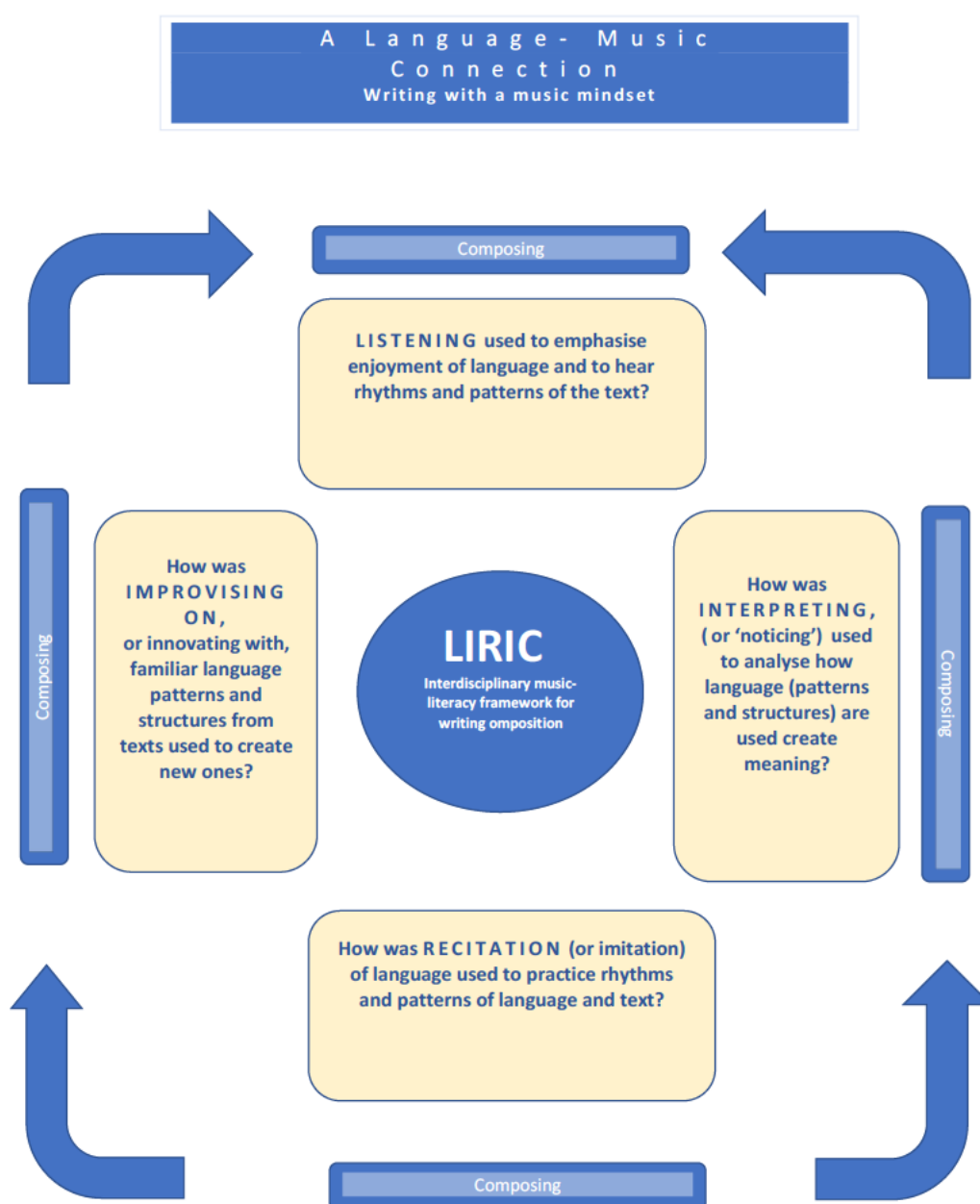
Students move into pairs with their xylophones, paper and coloured pencils to experiment with the sound patterns and notate them as they compose. Teacher works with students to hear ideas and offer suggestions.

Appendix O

LIRIC Framework Reflection Tool

Figure O1

LIRIC Teacher Participant Reflection Tool Provided by the Researcher



Note. This tool was provided to assist teachers in considering interdisciplinary connections between music and language and as a guide to reflect on their own lessons.

Appendix P

Shared Music-English Concepts in the Australian Curriculum: English (in bold)

LANGUAGE:

Text Structure and organisation

Understand **patterns of repetition** and contrast in simple texts **ACELA1448**

Punctuation

Recognise that different types of punctuation, (including full stops, question marks and exclamation marks) signal sentences that make statements, ask questions, **express emotion** or give commands **ACELA1448**

- *Using intonation and pauses in response to punctuation when reading*
- *Reading texts and identifying different sentence level punctuation*

Evaluative Language

Explore different ways of **expressing emotions**, including verbal, visual, body language and facial expressions **ACELA 1787**

Expressing and developing ideas

Identify the parts of a simple sentence that represent what's happening **ACELA1451**

Explore differences in words that represent people, places and things (nouns including pronouns) happenings and states (verbs), qualities (adjectives) and details such as when, where and how (adverbs) **ACELA 1787**

- *Learning how a sentence can be made more vivid by adding adjectives, adverbs and unusual verbs*

LITERATURE:

Experimentation and Adaption

Innovate on familiar texts by using similar characters, **repetitive patterns** or vocabulary **ACELT1832**

Responding to Literature

Discuss a range of characters and events in literary texts, making connections with students' own experiences **ACELT1582**

Examining Literature

Discuss features of plot, character and setting and explore some features of characters in texts **ACELT1584**

Literature and context

Discuss how authors create characters using language and images **ACELT1581**

Creating Literature

Listen to, **recite** and **perform** chants, poems, **rhymes and songs**, **imitating** and **inventing sound patterns**, including alliteration and rhyme. **ACELT1585**

Recreate texts imaginatively using drawing, writing, **performance** **ACELT1586**

LITERACY:

Creating Texts

Create short imaginative and informative texts that show emerging use of appropriate text structure, sentence-level grammar, word choice, spelling, punctuation and multimodal elements **ACELY1661**

Re-read students own texts and discuss possible changes to improve meaning, spelling, punctuation **ACELY1662**

Shared Music-English concepts in the Australian Curriculum: Music (in bold)

Learning Area Achievement Standard:

By the end of Year 2, students describe artworks and those to which they respond. **They consider where and why people make artworks.** Students use the elements and processes of arts subjects to make and share artworks that represent ideas. Students improvise, compose, arrange and perform music. They demonstrate aural skills by staying in tune and keeping in time.

Develop aural skills by exploring and **imitating** sounds, pitch and **rhythm patterns** using voice, movement and body percussion **ACAMUM080**

- **imitating** pitch and **rhythm patterns** to develop aural recognition skills, for example echo clapping, and call and response singing
- using voice and body percussion to **experiment** with the elements of music to identify same and different, sound and silence, fast and slow, long and short, high and low, loud and soft, happy and sad

Sing and play instruments to improvise and practise a repertoire of chants, songs and rhymes, used by cultural groups in the community **ACAMUM081**

- singing and performing music to explore the **expressive possibilities of their voices** and instruments
- considering viewpoints, meanings and **interpretations**- what did the music make you think about and why?
- practising and performing music, reading from notation (invented and learnt symbols)

Create compositions and **perform** music to communicate ideas to an audience **ACAMUM082**

- choosing and combining sounds to **create** compositions, for example pitch and rhythm patterns
- improvising patterns of body movement, such as clapping or stamping and creating accompaniments to familiar music
- consider forms and elements - what sounds or musical phrases are in my composition

Respond to music and consider where and why people make music, starting with Australian music, including music of Aboriginal and Torres Strait islander Peoples **ACAMUR083**

- describing shapes, **patterns**, form or mood of pieces of music using their own words and learnt music terminology

Appendix Q

Common Curriculum Language and Principles: Music and English

Table Q1

Common Year 1 English and Music Australian Curriculum Indicators

LIRIC		Music + Literacy = Writing with a 'Music Mindset'			
		Music + (Indicators and elaborations)	Literacy = (Indicators and elaborations)	Phase One Class Applications	Other proposed class applications
		Sing and play instruments to improvise and practise a repertoire of chants, songs and rhymes ACAMUM081 Create compositions and perform music to communicate ideas to an audience ACAMUM082	Listen to, recite and perform chants, poems, rhymes and songs, imitating and inventing sound patterns , including alliteration and rhyme. ACELT1585 Innovate on familiar texts by using similar characters, repetitive patterns or vocabulary ACELT1832	Year One	Stage One
Creating and Composing	Listening and Reciting	- imitating pitch and rhythm patterns to develop aural recognition skills, e.g., Echo clapping, call and response sing - use voice/body percussion to experiment with elements. Identify: same/different, sound/silence, fast/slow, long/short, high/low, loud/soft, happy/sad - sing and perform music to explore the expressive possibilities of voices and instruments - practise and perform music, reading from notation (invented and learnt symbols) - improvising patterns of body movement, such as clapping or stamping and creating accompaniments to familiar music	- using intonation and pauses in response to punctuation when reading - explore different ways of expressing emotions, including verbal, visual, body language and facial expressions - Recreate texts imaginatively using drawing, writing, performance	- Listen to a composition (text) and appreciate patterns of language, rhyming and repetition - Listen to a word, phrase or sentence from a text and identify the rhythmic pattern, through choral recitation, clapping, call and response and chanting	Read and perform a text as a class through reader's theatre or oral rehearsal in pairs to experiment with expression to enhance meaning, using dynamics pace and pitch (sound/silence, fast/slow, long/short, high/low, loud/soft, happy/sad)
	Interpreting and Appreciating	- describe shapes, patterns, form, mood of music using own words and music terminology - consider viewpoints, meanings and interpretations- what did the music make you think about and why? - respond to music consider why people make music	- reading texts and identifying different sentence level punctuation - re-read students' own texts and discuss changes to improve meaning, spelling, punctuation - discuss how authors create characters	- Create gestures to identify full-stops and commas	- Create gestures, body percussion and sound effects to accompany choral reading of a text to enhance comprehension to create rhythm and mood

			using language and images		
	Improvising and Composing	- choose and combine sounds to create compositions, e.g., pitch and rhythm patterns - consider forms and elements - what sounds or musical phrases are in my composition?	- innovate on familiar texts using similar characters, patterns , vocabulary	- Pair writing experiments to combine elements from the text and create variations	- Partner writing: short descriptions, plays, poems using patterns from a text, supported by digital recording, images, big paper

Appendix R

Pre- and Post- Writing Sample Conditions

Pre and Post Design- intervention Writing Sample Analysis (Formative and Summative Use)

Student Writing Evaluation Rubric (using ACARA outcomes/indicators)

Purpose: Rubric designed with a focus on writing (with linguistic grammar, or 'language patterns' a key focus)

Audience: Researcher and Teacher use for participating Year 1 students, both for pre and post writing samples, but also for teacher use in analyzing sample student group's written and spoken texts

Writing Sample Delivery Instructions:

One class will be filmed by the researcher or music teacher during this session

1. **Read 'My Dad' by Anthony Browne** making predictions about the text, inviting students to make comments about the pictures and the character as you normally would.
2. When the story has been read, read the story again, this time saying to students **"This time when I read the story, I'd like you to see if you can notice things about the sentences. Can you hear patterns in the sentences? What is interesting about the words or the sentences that the author uses?"**
3. **Ask** a couple of students what they noticed about the language.
4. **Ask** students to think about someone from their family they could write about. It might be their dad, a grandparent, cousin or a pet (for the post-assessment, they will write about a friend or imaginary character instead). **"Turn to the person next to you and describe the 'character' to them." (1-minute each)**
5. Now ask students to go back to their seats, where there is a blank piece of paper and a lined piece of paper. Now you are going to work on your own to write a description of the person. You can use the blank paper or the lined paper to write about this person. You can also draw a picture of the person, but don't do this until you've finished writing.

Note: These writing samples will be delivered in a 'normal' class situation, where students will work independently but don't have to be silent.

If a student requests help, teachers may give this support, but will write on the assessment page (at the end of the session) what support was given, particularly if the student is a sample group student.

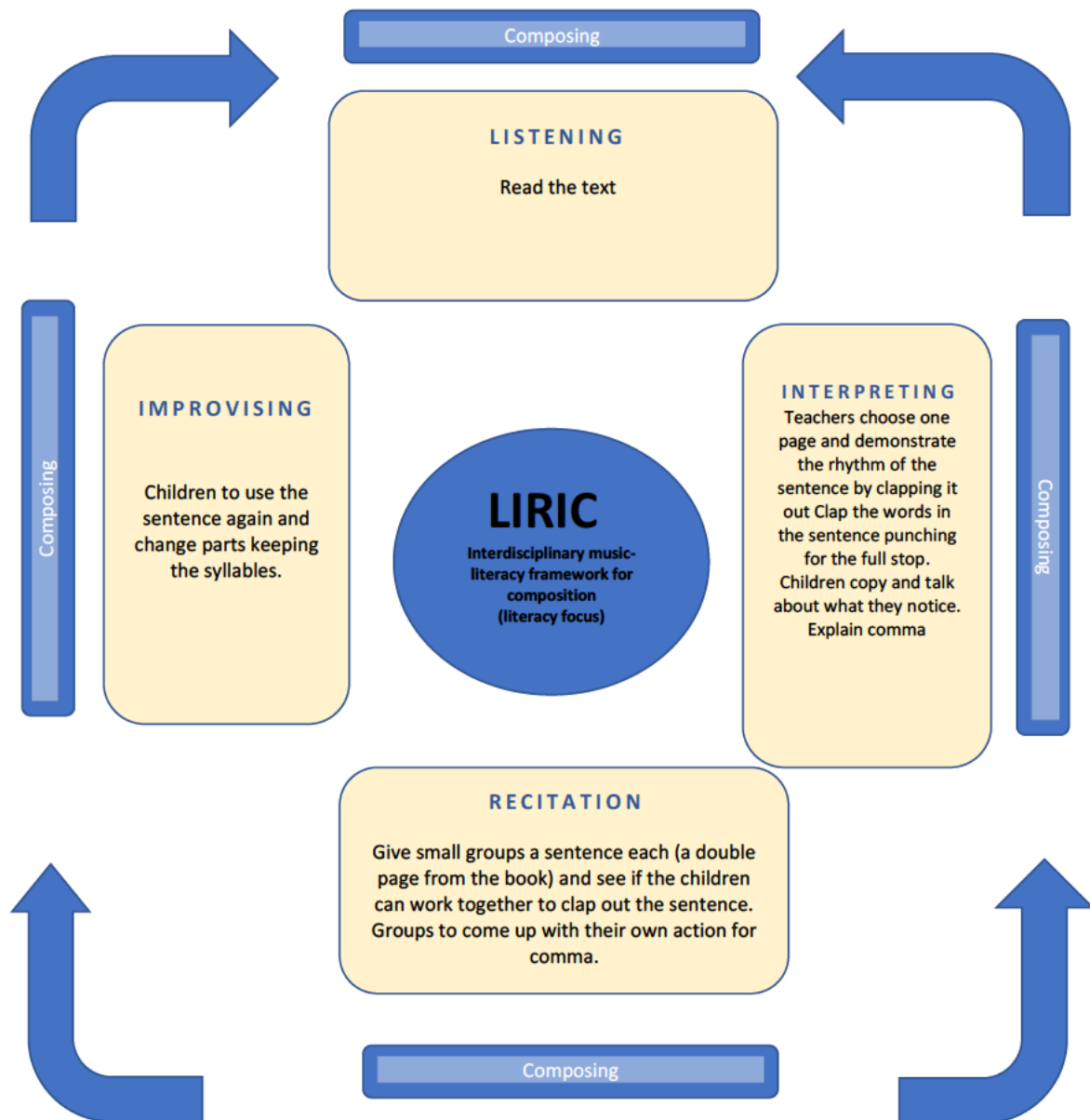
Note. Samples captured prior to study in Term 3 Week 5 (26/9/19) and post-week 6 of the study Term 3 Week 10 (22/09/19-24/09/19). Each session was 40-45 minutes. This included reading the text as a stimulus, and 20-30 minutes writing time.

Appendix S

LIRIC Framework [1st Iteration]: Teacher Planning Example

Figure S1

LIRIC Lesson Planning



Note. This lesson overview was devised by Marybank Primary teachers (Week 2 of study)

Appendix T

Teacher lesson: character trait writing (transcript)

Note: Year 1 lesson at Marybank Primary School with teacher participants. This example demonstrates the use of choral reading, gesture, role play.

Teacher

A range of different Year 1 students

We have been reading this amazing book for quite some time and I wonder if you can remember the name of the author. - **Anthony Browne**

Yes, that's right. We're going to pretend that we are Anthony Browne a little bit later on. But first, we're going to read this book for the last time. Read along with me.

Students choral read the whole book, making gestures for commas and full-stops

[without the teacher for most of the book] Teacher made a few comments here and there, such as for the students' expression for the bracket I like the way you used your voice for that: (Without falling off)

In the past, we haven't had a lot of time to write but right now what we're going to do, we're going to notice something about another person in the room. Can I get you to sit knee to knee and I would like you... I'm going to work with Veronica [the music teacher] at the moment, but right now I'm going to work with George, and I'm going to notice something. It could be anything. It could be his smile. Just look at the person that you're with and just notice one thing about them. I'm going to look at Jess, I'm going to notice something about Jess.

This is my character that I'm going to talk about right now. I'm going to talk about Jess's hair: Veronica Coffey has long brown hair. Veronica Coffey has long brown hair.

Now... look at you person, and come up with one sentence, something you noticed.

5,4,3,2,1...stop

Is there anyone who can tell me what they noticed? Share their sentence?

- **Charlie has ...hmm...short...I can't say the colour...?**

Blonde? Yeh, blonde

Short, blonde hair

- **Noelle has dark brown eyes**

I like that you changed what we were talking about [from hair] Anyone else?

- **Leia has a necklace on.**

Great! Leia has a necklace on.

- **Pearl has a plait in her hair.** *[Teacher repeats approvingly] Anyone else? Charlie?*

- **David had brown eyes** *[Praise from teacher] Anyone else?*

- **Claire has unicorn pants**

Now, I'm going to notice one more feature about Veronica. This a feature that you can't see. It's not something I can look at Veronica and just know. The only way I know this about Veronica is I kind of know a little bit about her. I've seen her in different places doing different things. This is something that isn't written, it's not something on her face, it's not something she's wearing. It's something about her character. It is something I know, actually it's not even something about her character, it's a skill that she has. You ready?

Veronica Coffey [student interjects... is good at music?] ... sings like an angel. Veronica Coffey sings like an angel.

If I was Anthony Browne, and I'm going to show you his picture in a moment, if I was Anthony Browne writing about Jessie, I know two things so far, I've said she has long brown hair, I know when she sings like an angel. I might change my sentence a little bit. Veronica Coffey has long hair like Rapunzel and she has the voice of an angel.

Can you turn to your partner and pretend that you're Anthony Browne and try to make those two sentences. [Students spend 5 minutes taking time to construct some sentences]

Would anyone like to share again?

- Dom has blue eyes like a bird...
- Callum has um... hair colour of blonde and has blue hazel eyes.
- Charlie has a beautiful voice.
- David's eyes are as brown as a tree trunk.

Do you know what, Anthony Browne actually writes like that. He does say this person has *this* like *da-da-da-da*!

- I've got more! 'David's eyes are as brown as a tree trunk and his shoes are as black as coal.' That's amazing! But Anthony Browne doesn't just talk about what his character looks like but he looks at the character. So, you're going to do some writing now about your character and using some of those sentences and more, you're going to pretend that you're Anthony Browne to make some sentences about your character. Here's a picture of him. When you write your sentences about the character, it would be great to see some words like... 'My character can fly like a bird... and can swim like a fish. [quoting from the book] Maybe not that, something different, something specific to my character my character is as fast as a possum!... my character is as soft as a pillow!

Appendix U

Year 1 Lesson: Character Trait Writing (Transcript)

Note: Year 1 lesson at Marybank Primary School with teacher participants.

Teacher

A range of different Year 1 students

Lesson Part 1

The class begin by joining together to do a choral reading together. This class have created different gestures and melodic sounds for punctuation, which they use to accompany their choral reading.

In today's lesson, we're going to notice how Anthony Browne painted a picture of his dad using the words in the story. We got a really good picture in our heads. He used the words in such a lovely way that we get a great picture. Not just what dad looks like. Not just that he has brown hair and blue eyes, but that he's as soft as a teddy and he's a brilliant singer and all these other things that you wouldn't know if you just looked at dad. He told us a lot about dad inside, so we would like you to do today is sit knee to knee with a partner. Look at your friend. Notice something that you can actually see. So, the teacher here, Alicia, has short black hair –

[Students talking together and trying different sentences.]

Now, I want you to take it in turns, to say something to your partner something about them, something that we can't see – so if I was going to say something about Alicia, I'd say that Alicia is a very creative person.

Anthony Browne

I heard some really interesting things.

- Callum is cooperative.
- George can build
- Great at monkey bars

(Ms Kelly) You're no longer children in Year 1, you're Anthony Browne. How would you say that? Tell the other person how you would describe them if you were Anthony Browne Some interesting things.

(Ms Pickering) So if I was saying it about Alicia, I would say 'Alicia is as creative as a famous artist

- So, you're kind of exaggerating a little bit

Students are then working in their pairs to create some sentences

Lesson Part Two

(Ms Pickering) So now I would like you to become your character.

Everyone stand up. You're going to move around the room becoming your character. How would your character move? *[1-2 minutes pass for this, with students moving in character]*

What would their face be doing? *...[1 minutes pass for this, with students moving in character]*

How would your character look if they were surprised about something? ...*[1 minute passes for this, with some students stopping to practice facial expressions]*

The reason was sometimes when you move like your character, you might get some interesting ideas about words you might use... George looked really interesting as his character so that may help you when you're making your character.

(Ms Kelly) So the first few sentences might be about what they look like. You might use three sentences to show what they look like.

(Ms Pickering) What do people like or dislike about their character? What might they be good at? We want you to think about how Anthony Browne might write them, so they have two parts to them. Some of those lovely sentences that have rhythm to them? So... *'My dad's an amazing dancer, and a brilliant singer'*.

So, think about that lovely rhythm that Anthony Browne writes in.

(Ms Kelly) Does everyone has an idea? If you don't have an idea, put your hand up. Let us know and we'll help you.

(Ms Pickering) So remember we have the descriptive words here too if you get a little bit stuck

(Ms Kelly) Remember we are being Anthony Browne

Appendix V

LIRIC Framework Planning: Teacher Reflection (Micro-Phase 1)

Figure V1

Year One Lesson Teacher Reflection on LIRIC Elements

- Literacy teacher has planned a music lesson that features music composition. - Take notes as you observe the lesson. - Watch the filmed lesson afterwards and add more notes together as you notice more aspects		
LIRIC	Features: <i>What happened?</i>	Recommendations
Listening	Reread 'My Dad' by Anthony Brown. This is the third time students have heard this story so invite children to read along matching the speech rhythm and expressions used by the teacher (Choral Reading). Ask students if they noticed any special patterns in the sentences they heard/read together. Record everything that is said on a whiteboard.	- This worked well. The children enjoyed hearing the book again.
Treatment of grammar:		
Interpreting	Show a sentence from the text both as a coloured page and as cut up sentence. Read the cut-up sentence using a rhythmic speech. Ask students if they noticed what you did after the word anything. Why? (When reading, a comma signals a brief pause). What about the full stop? Ask children recite sentence pretending to be dad. For the second part recite and mime a wolf. This is like a rap or a poem! I wonder if we could use body percussion. Model clapping the syllables (words within sentences) punching out at the full stop.	- Adding the visual of the cut the sentence really worked and made the lesson more inclusive and explicit - Drama component wasn't essential to this lesson -
Treatment of grammar: Used drama to reflect the full stop and the comma.		
Explicit discussion about what full stops and commas do		

Note. LIRIC lesson reflection provided by Marybank teachers (Week 3 of study)

Figure V2

Year One Lesson Teacher Reflection Notes on LIRIC Elements

Reciting	In groups of 2-4, students read, clap the rhythm/syllables and mime the characters in their sentences. Children invent a symbol for a comma. Share with the group.	- Group consideration - Acting and clapping was a bit much for them to handle. Perhaps older children would be ok with this.
Treatment of grammar:		
Composing		- Time prevented us completing the cycle - A linked second lesson would be good to allow for some quality writing.
Treatment of grammar:		
Improvising	Use the cut-up sentences to demonstrate how to innovate on a text. Ask students to change one or two words (but keep the rhythm/syllables of the words) to compose a different sentence. Ask children to clap and mime their sentence. Share with the group.	-
Treatment of grammar:		
Conclusions: What worked? Kids were engaged Seemed to suit the learning styles of some while others struggled Children innovated on the text and came up with some good ideas quickly Children worked well together What is missing from LIRIC? Not enough time. Usually we do 45 min lessons and we found that there wasn't enough time to get through all the components of the lesson. We feel that if the lesson had been any longer the children would have lost interest. What needs to be added to LIRIC? During the syllable identification <u>section</u> we added gesture to ~~emphasise~~ punctuation points.		

Note. LIRIC lesson reflection Year One Lesson Teacher Reflection (Week 3 of Study)

Appendix W

LIRIC Framework Planning: Teacher Reflection (Micro-Phase 2)

Figure W1

LIRIC Lessons: Teacher Reflection Notes (Zoom Meeting With Researcher)

LIRIC	Features: What happened?	Recommendations
Listening	- Read the book - Choral reading	
Treatment of grammar: <i>We talked about the punctuation and the words that were in the sentence. Pointed out the grammatical aspects</i>		
Interpreting	- Talked more about the punctuation and the use of these - Sergine scaffolding and sentence cut-ups, lifted up the comma and the full-stops -	
Treatment of grammar: <i>We interpreted the parts of the sentences and the contribution they made to the overall effect of the sentences. They are thinking about grammar (unknowingly) as the rhythms, patterns and structures of language because we act out, clap out and stomp out the sentences.</i>		
Reciting	They created the characters through drama, and that then helped the students to internalize and empathise with the characters. Physicalising the language helped them to understand the characters better. As they were physicalizing it, they naturally absorbed the rhythm, and were keeping the time, anticipating the next words/ phrases. It helped their memory of the sentences. From the non-music perspective, the physicalizing helped them understand what the words meant more than what they would normally do. Not having a trained music teacher in our class might have impacted on the choices we were making compared to the other class. As generalist teachers, though, we do have a bit of everything at our disposal. There was teaching that was happening with the music teacher that may not have happened as much as with us. In the class where the literacy teacher was working with the music teacher there was more rhythmic walking and clapping to expose the patterns of the sentences.	

Note: This was held in Week 4 of study

Figure W2

LIRIC Lessons: Teacher Reflection Notes (Zoom Meeting With Researcher)

Treatment of grammar: Noticing the patterns of the language, and reciting different clauses and parts of the sentences, though these were not actually named. The students were noticing the distinctive parts of the sentences. These distinctive parts of the sentence are distinctive because they are also rhythmically distinctive. As teachers, we noticed that the independent clauses had a distinctive rhythm as opposed to the dependent clauses. Researcher's notes: It means that these students are being exposed to much higher concepts in grammar, well before they need to 'know' this in the curriculum. Though they are not naming these parts explicitly, they are being made explicitly <i>aware of</i> them as distinctive parts of the sentence. This means that these students are thinking about the patterns of the language early, and thinking of sentences not as single unit parts, but are thinking about the structure even before being able to name them.		
Improvising	Acting out characters and deconstructing the text. Pulling out the characters to solidify the images in their heads. When we looked at the sentences on the page/board we then were able to see the parts of the sentence and of the words to guide us in clapping out the syllables. The students created their own gestures for the punctuation parts of the sentence. The subject component: had a different rhythm about it. There were two different parts to the sentences. The complete clause had a certain number of syllables. The syllables were pointing to the rhythmic difference about. They have only really composed in the sense of innovating on the original sentences. Many students need more support with this such as word banks etc to assist elaboration. Some students want to go further and I wonder whether the restriction limited them.	
Treatment of grammar: Using the patterns and structures to create new sentences, using new word choice and extending sentences with complex dependent clauses or adding another independent clause using conjunctions.		
Composing	- Acting out new characters, - Composing part was difficult. It was limited to innovating on one sentence. We followed up with a second lesson where we did a bit more innovating - 'My dad isn't afraid of anything. Not even the big bad wolf'. It was very hard to do this. The pattern restricted them. The springboard of the text allows everyone to start together. - The creativity needed to be released beyond the pattern. - As a book - Does the repetition allow for the lower - The lower student were more supported. - Keep all of that structure, but be really explicit about letting the top - Challenging to compose because of varying needs and time factor. This remains a	

Note. This was held in Week 4 of study

Figure W3

LIRIC Lessons: Teacher Reflection Notes (Zoom Meeting With Researcher)

Treatment of grammar: This remains a challenge at this stage.

Conclusions:

The framework is not linear- hierarchical. We dip in and out of all elements all the time because they are all interrelated aspects.

It's not necessarily important that students explicitly notice/name the grammar aspects as they experience the different rhythms of the text. It seems equally worthwhile that the students experience rather than talk about the grammar

This process teaches grammar as something intuitive, in the same way that rhythm would be taught at this age.

Jessie (music teacher) commented that she would also not be introducing the metalanguage concepts of rhythm until the older grades.

Researcher: referred back to Debra Myhill's concept of grammar as the patterns of 'infinite possibilities' in language rather than rules. Students can be learning about components of a sentence (the structures and patterns) without having to know and name the technical 'parts'.

What worked?

All students are able to access the grammar and punctuation whereas in the past some students wouldn't all have grasped the punctuation aspects. The lowest students who weren't able to get punctuation aspects in the past were all able to confidently grasp this. There was success with drama and 'physicalisation' aspects also.

Physical drama engaged everyone and it meant that all students deeply understood the characters in a way they mightn't normally.

What is missing from LIRIC?

Reading/viewing (looking at the text, making connections from written to spoken)

Gesturing – children came up with their own children. Example, for commas, full-stops, question marks, and then

Gesture was important that they were noticing and were able to do this themselves.

The link to free composition was different for different students. It was thought that the pattern approach might be limiting for the top students.

The scope and time for composition was an uncertain part of the framework. Making the link into free composition was a link that was not yet properly understood.

Strengthening

Reading/viewing (looking at the text

Note. This was held in Week 4 of study

Appendix X

Writing Analysis Tool

Table X1

Writing Tool (WT) from Mackenzie et al. (2013) used in pre- and post- study writing assessment

Rating	Text Structure	Sentence structure & Grammatical features	Vocabulary	Spelling	Punctuation	Handwriting/Legibility
1	No clear message.	Random words.	Records word of personal significance, such as their own name or those of family members.	Random letters/letter like symbols	No evidence of punctuation	Letter like forms with some recognisable letters
2	One or more ideas (not related).	Shows an awareness of correct sentence parts including noun/verb agreement. Meaning may be unclear.	Uses familiar, common words (e.g. like, went) and one, two and three letter high frequency words (e.g. I, my, to, the, a, see, me).	Semi-phonetic, consonant framework, alongside representation of dominant vowel sounds. Correct spelling of some two and three letter high frequency words (e.g. the, my, to, can).	Some use of capital letters and/or full stops	Mix of upper and lower case letters and / or some reversals / distortions (e.g. hnr / ad / bp / vy / i l).
3	Two or three related ideas. May also include other unrelated ideas.	Uses simple clauses, with nouns, verbs, adverbs, which may be linked by "and". Meaning clear.	Everyday vocabulary, for example Oxford first 307 word list plus proper nouns (particular to the child's cultural context e.g. Fruit Fly Circus, Sydney Opera House).	Phonetic spelling –plausible attempts with most sounds in words represented. Correct spelling of three and four letter high frequency words (e.g. the, like, come, have, went).	Correct use of capital letters and full stops at the start and end of sentences.	Mostly correct letter formations yet may contain poor spacing, positioning, or messy corrections.
4	Four or more sequenced ideas. Clearly connected.	Uses simple and compound sentence/s with appropriate conjunctions (e.g. and, but, then). Use of adverbial phrases to indicate when, where, how or with whom.	Uses a range of vocabulary, including topic specific words (e.g. A story about going to the zoo might include animal names and behaviours).	Use of orthographic patterns or common English letter sequences. If incorrect they are plausible alternatives (e.g. er for ir or ur; cort for caught). Use of some digraphs (ck, ay). Correct use of inflections (ed, ing). Correct spelling of common words (e.g. was, here, they, this).	Some use, either correct or incorrect, of any of the following: • Proper noun capitalisation, • Speech marks, • Question mark, • Exclamation mark, • Commas for lists, • Apostrophe for possession.	Letters correctly formed, mostly well spaced and positioned.
5	Evidence of structure and features of genre (text type). eg. recount, narrative, report letter.	Uses a variety of sentence structures: simple, compound and complex. Pronoun reference is correct to track a character or object over sentences.	Demonstrate a variety of vocabulary choices. Includes descriptive or emotive language.	Use of some irregular spelling patterns (e.g. light, cough) Application of spelling rules (e.g. hope/hoping, skip/skipping). Correct spelling of more complex common words (e.g. there, their, where, were, why, who).	Uses a range of punctuation correctly.	Regularity of letter size, shape, placement, orientation and spacing.
6	Complex text which shows strong evidence of the features of text type, purpose and audience.	Demonstrates variety in sentence structures, sentence length, and uses a range of sentence beginnings. Sentences flow with logical sequence throughout the text and show a consistent use of tense.	Correct use of unique field or technically specific vocabulary. Use of figurative language such as metaphor and/or simile.	Correct spelling of most words including multisyllabic and phonetically irregular words. Making plausible attempts at unusual words.	Demonstrates control over a variety of punctuation to enhance text meaning.	Correct, consistent, legible, appearing to be fluent.

Writing Tool, Mackenzie, Scull & Munsie, 2009-2013 © All Rights Reserved

Note. A tool developed for research and school assessment. The tool was developed through the examination of over 3000 Year 1 writing samples from 75 Australian schools.

Writing Analysis Tool—Total Scores

The 'Writing Tool' Analysis of Student Gains at Marybank Primary School.

Note. Student Pseudonyms Applied.

Appendix Z

Writing Analysis: Multi-dimensional Assessment

Table Z1

Student Writing Achievement in S1 and S2 Samples at Marybank Primary School [Pseudonyms Applied]. Table supplied as a figure.

Writing Sample Analysis Results																															
Writing Analysis Tool (WAT) Results - (MacKenzie, Scott and Martin, 2013)															ACARA Curriculum Analysis																
Children indicate pre- and post-writing samples (11/14/9)	Text Level Grammar		Length of text (approx. words)		Text Structure		Sentence structure and grammatical features		Vocabulary		Spelling		Punctuation		Handwriting/Legibility		Total Score (Range: 1-36)		LANGUAGE: Punctuation		LANGUAGE: Sentences and ideas level/grammar		LITERATURE: Experimentation and Address		Demonstrated in Interview		ACARA Writing samples Year 3				
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
	98	78	4	5	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
1. Rei	98	78	4	5	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2. Ben	88	100	4	4.5	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3. Ella	80	100	4	5	3	5	3	3.5	3	4	2	3	2.5	3.5	17.5	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
4. Leo	30	84	3	4.5	2	2.5	2	2.5	2	2.5	2	2	3	13	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
5. Pip	80	100	4	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
6. Carey	56	68	5.5	5.5	4.5	4.5	4	6	3	4	1.5	2.5	2	20.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
7. Penny	63	63	4	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
8. Eddie	28	68	4	5	3	3.5	2	3.5	2	3.5	2	3	15.5	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
12. Kelly	65	80	5	5	4.5	4.5	4	4	3.5	3.5	3.5	4.5	3	3	23.5	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13. Charlie	65	80	4	5.5	4	4.5	4	4.5	3	3.5	2	2	3	3	20	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
14. Del	39	102	4	5	2	3	2	3.5	2	2.5	2	3	2	3	14	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
15. Seb	48	100	4	5.5	3.5	5	3	4	3	4	3	4	4	4	20.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
16. Ron	21	75	3	5	2.5	3	2.5	3	2.5	3	1.5	3	2	4	14	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
17. Dom	18	69	3	4.5	3	3.5	2	2.5	3	3	2.5	2.5	3	3	16.5	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
18. Blake	65	84	4.5	4.5	2.5	3	2	2.5	1.5	2	1	2	2	2	13.5	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
19. Drew	48	75	3.5	4.5	2	3	3.5	4	2	2.5	1.5	2	2	2	14	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
20. Taylor	42	84	4	5.5	3.5	5	3	5	3	5	2.5	3.5	3.5	3.5	19.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
21. Parker	24	100	3	5	2	3	2	3	3	4	2	4	4	4	16	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
22. Alie	14	100	3	5	2	5	1.5	4	2.5	3	2	3	2	4	13	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
23. Noelle	13	105	3	5	2	5	2.5	4	3	4.5	2	5	4	4	16.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
24. Ariel	24	100	3	5	3.5	4	2	5	3	5	2	2.5	2	3	15.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
25. Pat	35	100	4	5	3.5	5	3.5	4	4.5	4.5	2	4	2	4	19.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
TOTAL	7	1	14	9	16	7	18	9	23	15	16	12	14	1	23	13 N-Em	23	13 N-Em	22	12	12	12	12	12	12	12	12	12	12	12	12