



Teaching multimodal texts through collaborative inquiry

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Chapter 1: Introduction

Introduction

Contemporary research on literacy education highlights the strong need to support students in schools to express their ideas and emotions through a range of texts and communicative modes (Barton, 2014). Ever since the introduction of the concept of multiliteracies near the turn of the century (New London Group, 1996), research has been proliferated by the notion of literacy being diverse through a. the range of texts being produced and consumed by users and b. the social and cultural practices of peoples globally (Kalantzis, Cope, Chan & Dalley-Trim, 2017; Mills, 2015).

In addition, research on multimodality and its influence on text production has increased significantly, largely due to the enhancements in digital technologies and various platforms used to communicate worldwide (Barton, 2014). Understanding how language or linguistic mode is utilised in making meaning is important but so are the others modes including aural and sound, embodiment and gesture, space and spatial awareness and visual image. Such research has explored how emotions for example can be expressed multimodally (Mills, Unsworth & Barton, 2018).

Similarly, the *Australian Curriculum: English* notes that students should be able “learn to listen to, read, view, speak, write, create and reflect on increasingly complex and sophisticated spoken, written and multimodal texts across a growing range of contexts with accuracy, fluency and purpose” (ACARA, n.d.). It is therefore important that these observations be considered by teachers in the work they do through literacy curriculum, pedagogy and assessment in schools.

Aims of the project

The proposed research aims to support teams of teachers and leaders in three Catholic education primary schools related to the learning and teaching of multimodal text comprehension and composition.

Therefore, this collaborative inquiry project, involving a team of researchers, teachers and leaders in literacy, aims to answer the following questions:

1. What do teachers and students know about multimodal comprehension and composition?
2. What do teachers and students feel enable and/or inhibit their knowledge and understanding of multimodal text comprehension and composition?
3. Can a collaborative inquiry approach improve teachers’ and students’ knowledge and understanding of multimodal text comprehension and composition?

These research questions will inform the team about: firstly, what is going well and what may need enhancement in regards to teaching multimodal text comprehension and composition and secondly, provide a robust evidence-base that could be transferable to other schools so that they can consider ways in which to address the importance of learning

and teaching multimodal texts. The significance of addressing this issue means that we can better understand the ways in which students are already engaging with others outside of school and therefore embrace these practices in motivating pedagogies that engage students in the classroom.

Context of the project

The project aligns directly with BCE's strategic priorities. Excellent learning and teaching aims to advance student progress and achievement by improving literacy teaching practice in every classroom and by providing resourcing and professional support for effective and expected teaching practices. Building a sustainable future aligns with this submission by seeking to implement a professional learning strategy as an integrated approach to capacity building. In response to the year 3-6 literacy data, the focus area 'connecting the modes – deeper literacy learning through multimodal text' has been identified and endorsed.

This submission supports a responsive approach to identified needs that fulfils two purposes through targeted professional learning and collation and creation of resources to provide support via BCE literacy portal pages and future professional learning offerings. The project aligns with BCE's collaborative learning cycle that involves the 4Cs –co-planning, co-teaching, co-debriefing and co-reflecting (based on Sharratt and Fullan's work 2012).

Therefore, the benefits for participants in the project include:

1. Becoming more aware of knowledge and practices related to multimodal text comprehension and composition, along with literacy knowledge and teaching practice
2. Having the opportunity to work as part of a collaborative team
3. Improving curriculum planning, pedagogies and assessment related to multimodal texts
4. Being part of a process that provides a robust evidence-base that can potentially be transferred to other school contexts and
5. Having an opportunity for teachers to reflect on their involvement and provide leadership in the field to other schools.

Chapter 2: Literature review

Introduction

It is undeniable that the ways in which we communicate in today's world are rich and diverse. People across the globe are now connected more than ever before. As such, terms such as multiliteracies and multimodalities have proliferated the research literature (Kalantzis, Cope, Dally-Trim & Chan, 2017). Multiliteracies has been defined as working on two levels: the diverse types of texts that we make, consume and share and the multiple literate practices that occur personally, socially and culturally (Cope & Kalantzis, 2000).

Multimodality refers to the range of modes used to create multiliterate texts. These include some or all of the design elements such as gesture, image, language, sound and space. Jewitt (2008) reported ten years ago that literacies have evolved in response to fluid conditions of the twenty-first century. She argued that the relationship between multimodal text production and dissemination has resulted in a diverse range of texts and communicative modes. Multimodal texts and the teaching of such texts has therefore been the focus on much scholarly work on literacy pedagogies over the past few decades (Bull & Anstey, 2007; Callow, 2018; Daly & Unsworth, 2011; Huang 2017; Mills, 2008).

This chapter therefore outlines relevant research on the teaching of multimodal texts in a range of contexts. It will analyse studies that have explored the types of literate activities that children and young people undertake outside of school as well as those related to pedagogical practices in classrooms. The analysis will highlight the research themes as well as gaps—in the hope that this study has filled these within the scholarly literature.

Diverse modes of communication

Much research has explored the extensive ways in which we communicate with each other all across the world. This research lies largely in the field of literacy and linguistics. In a recent edited book by Nichols and Snowden (2017), contributors show how literacy and language are both dynamic concepts—constantly changing due to the mobility of people. In fact Thornhill in 2013, reported that more than 230 million people lived outside of their home country. Such an observable trend has significant impact on the ways in which language is used, consumed and created. More than ever before communicating with people from other countries is required in business, education and other fields of study.

At the turn of the century a group of literacy educators known as the New London Group discussed the changes in the world and devised the term multiliteracies. The concept involved a range of literate practices in order to make meaning in different environments. These methods of communication involve a range of modes. According to Bezemer and Kress (2008) modes are social and cultural constructs that can be expressed through gesture, image, language, sound and spatial awareness. Expression of meaning can occur through just one mode or ensembles of modes (Barton, 2018).

Within each of these modes lie various design elements or codes and conventions (Anstey & Bull, 2010). Students need to have knowledge about these when creating multimodal texts. The most dominant mode used in the classroom is linguistic mode. Students are often expected to complete oral and written assessment using words alone even though there are a range of modes that can be used to communicate. Scholars have called for action whereby schools value other modes so that students have the opportunity to express meaning in different ways. This is particularly noted to be valuable for students from English as a Second Language background who may have difficulty expressing through language but other modes such as image and movement (Godhe, 2013; Kervin & Derewianka, 2011).

Understanding how each of the modes are dealt with and also what 'ensembles' of modes are used to create meaning is important for students in 21st century communication (Barton, 2018). Equally important is how schools and educators consider how they are represented in the curriculum and how it is then enacted and assessed in the classroom (Mills, 2015).

Curriculum planning, pedagogy and assessment for multimodal literacies learning

Due to the extensive expansion of modes of communication it is critical that teachers and schools consider this in planning and assessing for learning. Indeed many scholars have explored how schools should embrace the concept of 21st century literacies (Barton, Arnold & Trimble-Roles, 2015; Groenke & Prickett, 2012; Jiménez, Roberts, Brugar, Meyer & Waito, 2017). These studies have illustrated the need to bridge out of school literacies with in-school ones (Barton, Mills & Ronksley-Pavia, under review); addressing diverse cultural and social literacies (Brock & Boyd, 2015); and including digital and design technologies in the classroom (Mills, 2011, 2015).

Curriculum planning for multimodal texts

The *Australian Curriculum: English* notes that students need to "learn to listen to, read, view, speak, write, create and reflect on increasingly complex and sophisticated spoken, written and multimodal texts across a growing range of contexts with accuracy, fluency and purpose" (ACARA, n.d.). Similarly, the *General Capability: Literacy* highlights that literacy involves "students listening to, reading, viewing, speaking, writing and creating oral, print, visual and digital texts, and using and modifying language for different purposes in a range of contexts" (ACARA, n.d.). As previously stated the increase in the ways in which we communicate is exponential and as such, the curriculum includes a number of content descriptions across the school years that expect students to achieve in multimodality and the design elements. Some of these include:

- Year 1: Compare different kinds of images in narrative and informative texts and discuss how they contribute to meaning (ACELA1453)
- Year 2: Discuss how depictions of characters in print, sound and images reflect the contexts in which they were created (ACELT1587)

- Year 3: Explore the effect of choices when framing an image, placement of elements in the image, and salience on composition of still and moving images in a range of types of texts (ACELA1496)
- Year 5 and 6: Plan, draft and publish imaginative, informative and persuasive print and multimodal texts, choosing text structures, language features, images and sound appropriate to purpose and audience (ACELY1704)

It is important for schools to consider the ways in which students are already using these literacies outside of school. The research literature has pointed to the fact that students are engaging in a diverse range of multimodal literacies in their everyday lives yet schools are slow to adapt and adopt these practices (Barton, Mills & Ronksley-Pavia, in press).

Effective pedagogies for multimodal texts

Effective pedagogies relate to both the comprehension and composition of multimodal texts. As multimodal texts involve a number of creative processes, valued and known by arts practitioners, a number of approaches to teaching have been recognised. These include:

- practical hands-on and embodied teaching and learning
- multi-modal learning and diverse learning styles
- authentic purposes and audiences
- co-construction of learning
- relationships of trust that are integral to the co-construction of learning in the arts classroom
- balance between agency and direction
- flexibility and responsiveness
- arts-rich opportunities across time and place
- arts-rich teaching and learning environments
- resources for arts making and responses, and
- authentic and purposeful assessment that is integrated with planning, teaching, monitoring and reporting arts learning. (Pascoe, 2015, p. 6)

For Pascoe (2015), hands-on learning is where students are provided a range of materials to explore and express meaning by making connections between somatic, affective and cognitive learning. Students respond to and make new texts authentically for real purposes and values. Such an approach allows teachers and students to co-construct new knowledge as well as value students' prior learnings. A range of skills including decision making, having a voice and agency as well as being responsive are all developed through multimodal text composition.

An appropriate model for effective multimodal text composition is shown below (Barton, 2018). The model includes methods that are age appropriate; address the personal, social and cultural needs of students; and acknowledge that each school context is unique and distinct.

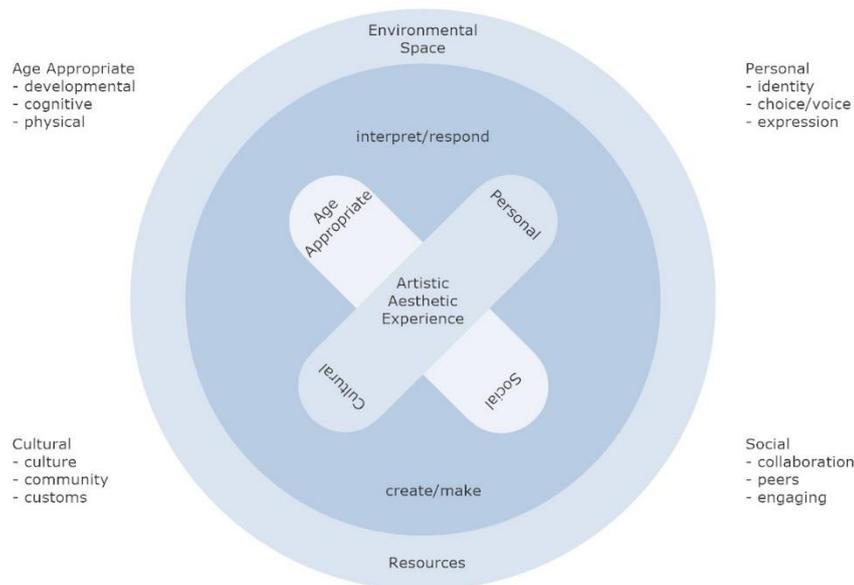


Figure 1: An effective pedagogical model for teaching multimodal texts in classrooms (Barton, 2018)

Improving inferential comprehension of multimodal texts

Another area explored in the literature is how students can ‘critically read’ multimodal texts (Serafini, 2011). Serafini’s work explores how teachers can expand the ways in which students interpret multimodal texts by understanding a variety of theories and perspectives. These include through the lenses of art theory and criticism, grammar and systemic functional linguistics, and media literacies. Understanding that there are a number of ways students can ‘read’ multimodal texts is important in bridging theory and practice. It also improves students’ critical reading of texts including inferential comprehension

Keene and Zimmerman (1997) in their study identified that when proficient readers infer, they:

- Draw conclusions from text
- Make reasonable predictions as they read, test and revise those predictions as they read further
- Create dynamic interpretations of text that are adapted as they continue to read
- Use the combination of background knowledge and explicitly stated information from the text to answer questions they have as they read
- Make connections between conclusions they draw and other beliefs or knowledge and
- Make critical or analytical judgments about what they read.

Readers of multimodal texts also use these strategies while interpreting the distinctive elements of each of the modes.

Importance of metalanguage

Building distinctive and rich vocabulary related to multimodal texts is critical for students to understand and construct them. Metalanguage or language about multimodal language enables students to describe and interpret multimodal texts effectively. Table – outlines the other modes and their elements which can support students in discussing each of the modes in their learning and assessment.

Modes	Elements
Gestural/embodiment	High/low potency Positive/negative valence High/low arousal etc.
Visual /image	Line, colour, shape, light, framing, texture, tone etc.
Linguistic /oral and written	Field, tenor and mode, modality, cohesion, layout, grammar, affect, judgment, expression, pace, tone etc.
Sound/aural	Rhythm, pitch, volume, articulation, harmony, timbre (tone quality) etc.
Spatial	Architectonic, ecological, geographic, diagrammatic, organisational

Table 1: The modes and elements (see appendices for more resources)

Assessment of and for multimodal texts

Jewitt (2008) explained that:

“Different modes demand different intellectual work from pupils and this work ‘fills up’ the concepts to be learnt in different ways. The range of representational resources made available through visual communication (spatial relations, colour, etc.), for example, enable the expression of kinds of meaning that would be difficult, or perhaps impossible, in language (Jewitt et al., 2000)” (p. 84).

It is therefore critical that educators consider ways in which to vary their assessment to meet the needs of their students. Referred to as ‘multimodal reshaping’ teachers can offer students a range of options in terms of assessment that address the same criteria. It ensures students have a choice and voice and can therefore express their meaning via a range of modes and ensembles of modes.

Varying assessment and options for students has said to empower them and make the students at the centre of learning. Multimodal texts and assessment therefore can be the catalyst in creating authentic and engaging assessment tasks that students write for purpose and with a particular audience in mind.

Chapter 3: Methodology

Introduction

Learning and teaching in schools is a critical component of educational practice worldwide. As such, the development of robust and evidence-based practice is critical to know firstly what works, and secondly why it works. A research based approach is therefore necessary to determine how schools approach the teaching of multimodal texts and how these methods might be improved overall to ensure positive learning outcomes for students.

As stated in chapter 1 the main aim of this project was to develop a comprehensive approach to investigating the teaching of multimodal texts in three schools. Consequently the research questions were:

1. What do teachers and students know about multimodal comprehension and composition?
2. What do teachers and students feel enable and/or inhibit their knowledge and understanding of multimodal text comprehension and composition?
3. Can a collaborative inquiry approach improve teachers' and students' knowledge and understanding of multimodal text comprehension and composition?

In order to answer these questions the research team worked in collaboration with school leaders and teachers, system staff and of course the students. When working in teams it is important that each stakeholder is satisfied with their involvement, therefore we decided on a collaborative approach to the research.

Methodology

Collaborative inquiry is an approach where leaders, teachers and researchers work alongside each other. Such an approach enables all stakeholders involved to share, discuss, and analyse their practice including any identified areas needing improvement. Lee and Smagorinsky (2000) for example, used theories developed by Vygotsky that acknowledged the historical, social and cultural influences on human development including learning. They extended Vygotsky's work into the field of literacy by recognising that:

- Language has a large role in learning to read and write
- Dialogue has a significant role in learning literacy
- Classrooms are complex and involve other spaces outside the classroom
- Cultural and social backgrounds of students influence literacy learning and
- These all have significance for teachers' ongoing professional learning and development. (p. 3)

Consequently, Lee and Smagorinsky (2000) offered a collaborative approach to supporting teachers' work in the fields of literacy, learning and teaching. They noted that the nature of education and its associated activities constantly change so discussing, trialling and reflecting on practice is essential.

Collaborative inquiry involves a professional learning community (PLC) that systemically examines teaching and learning practices (Donohoo, 2013). She continues to explain the process for educators:

By closely examining and reflecting on the results of their actions, individuals and teams begin to think differently. They begin to question long-standing beliefs and consider implications for their professional practices. (p. 2)

Therefore, collaborative inquiry is a qualitative approach to understanding a phenomenon in action—for this project, this relates to the teaching of multimodal texts. In addition to understanding the teachers' practices in curriculum, planning and pedagogies in the classroom we wanted to know the extent to which teachers felt confident in teaching multimodal texts. We therefore, also administered a quantitative pre- and post-self-efficacy survey to our teaching participants. The next section outlines the methods used in more detail.

Methods

The project will be carried out over three terms in a school year, that is, Terms 2-4. As such, the following provides details of what methods will be used to answer the above-mentioned research questions. There are three proposed project phases:

Phase 1: Term 2 2018

1. Audit of schools' current practices and resources related to multimodal texts (RQ1)
2. Conversations with teachers, leaders and students (RQ1 and RQ2)
3. Pre-survey – teachers' self-efficacy in teaching multimodal texts (RQ1)
4. Collection of pre-student samples of work (RQ1 and RQ2)
5. Workshop 1 (multimodal day) and 2 (within each school) for teachers on multimodal text comprehension and composition
6. Initial meeting with teams (RQ3)
7. Plan for collaborative inquiry cycle (RQ3)

Phase 2: Term 3 2018

1. Classroom observations (video recorded) and coaching (RQ3)
2. Collaborative inquiry and capacity building of teachers and students (face-to-face and online e.g. yammer between schools) (RQ3)
1. Continued planning meetings (RQ3)
2. Workshop 3 for teachers on multimodal text comprehension and composition (at USQ)
3. Collection of post-student samples of work (RQ1 and RQ2)

Phase 3: Term 4 2018

1. Recorded focus groups with teachers (RQ1 and RQ2)
2. Post-survey – teachers self-efficacy in teaching multimodal texts (RQ1, RQ2 and RQ3)
3. Evaluation and reporting

Participants

The participants for this study volunteered to be part of the project. BCE sent an invite out to all schools requesting participation. As a result, three schools chose to participate. At each school, the Year 4 and Year 6 teachers and their classes were participants in the study.

School A: Magpie Primary	School B: Creek Crossing Primary	School C: Python Primary
Year 4 teacher and class	Year 4 teacher and class	Year 4 teachers and classes x2
Year 6 teacher and class	Year 6 teacher and class	Year 6 teachers and classes x 2

Table 2: Schools and classes involved in the study

Chapter 4

Preliminary findings and recommendations

1. Know the school context

Throughout the duration of the data collection phases it was clear that each school had its own distinct features and needs. The smallest of the schools was located in a regional area and therefore accessing required resources was difficult particularly in finding staff for planning days. The other two schools, which are significantly larger, have similar resources available and ICSEA value is also higher. This factor is significant in terms of multimodal text learning and teaching as schools need to work within their own confines when considering the resources available.

2. Plan authentic learning activities from the curriculum

Effective planning for teaching and learning stems from the Australian Curriculum. Even from the early years thoughtful planning means that learning outcomes are met. The early years learning framework defines curriculum as:

“all the interactions, experiences, activities, routines and events, planned and unplanned, that occur in an environment designed to foster children’s learning and development.’ (EYLF, p.9)

As such, when teaching multimodal text comprehension and composition in the classroom it is vital that a range of learning objectives are developed based on the curriculum (whether AC:E or other curriculum areas), that learning activities align with these learning objectives and assessment is developed around these initiatives. Such constructive alignment allows students to see clearly what is expected on them. Learning activities for the teaching of multimodal texts need to indeed be multimodal. Students need a range of ways to express meaning for inclusive and supportive approaches to education.

3. Consider ways to improve inferential comprehension and questioning in the classroom

Being critical readers of multimodal texts is important for children and young people today. We are constantly faced with media and news in the form of image, text, sound etc. so it is important that we are able to ‘read’ these texts critically and openly. As such, inferential comprehension needs to be systematically taught in the classroom from Prep to Year 6 and beyond. Inferential comprehension is:

“the ability to process written information and understand the underlying meaning of the text. This information is then used to infer or determine deeper meaning that is not explicitly stated. Inferential comprehension requires readers to: combine ideas, draw conclusions, interpret and evaluate information, and identify tone and voice” (NSW Government, 2017).

When relating this to multimodal texts students also need to identify, describe and interpret the elements of all of the modes of meaning. Teachers can also enhance children’s inferential comprehension through quality use of questioning in the classroom. Work by Marzano (2010) offers four questions to facilitate discussion about inference: a. what is my

inference? b. what information did I use to make this inference? c. how good was my thinking? and d. do I need to change my thinking?

4. Use more metalanguage related to multimodal texts

The development of metalanguage, that is language about multimodal language, is critical for students' deep understanding of both the comprehension and composition of multimodal texts. This involves students being explicitly taught the vocabulary related to all of the modes of meaning. Comprehensive word banks as well as use of these in classroom dialogues is important for students' understanding and knowledge of multimodal texts. According to Anstey and Bull (2010) metalanguage refers to the "specialised terminology that describes how a multimodal text works" (p. 1). They argue that the grammar for each of the five semiotic systems provides a metalanguage for discussing how they convey meaning. This includes knowing and understanding each of the elements experienced in the modes – aural, embodied, linguistic, spatial and visual. Consequently, teachers can support this work by developing comprehensive resources to develop the metalanguage use in the classroom and in assessment.

5. Vary assessment for and of multimodal text learning

Assessment for and of learning is needed in classrooms. This involves both formative and summative assessment practices. Assessment involves the use of a range of strategies or tools to document, measure and evaluate learning progress as well as knowledge and skill acquisition. It gathers evidence about both students' learning needs but also learning goals and outcomes. A number of researchers have noted the difference between assessment of learning and assessment for learning. Assessment *of* learning refers to summative assessment, whereby judgements are made about students' achievement at the conclusion of a distinct instructional phase. Assessment *for* learning is formative assessment and is "the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there" (Assessment Reform Group, 2002). Both approaches are important to embed in teaching and learning to ensure effective and positive outcomes for all (Entwistle & Peterson, 2004; Lublin, 2003). Further, multimodal assessment and reflection is needed in order to address and enhance practices related to the teaching of multimodal texts.

6. Continue professional learning in bridging research and practice

Teachers' self-efficacy in a number of areas has been explored in the literature and literacy is no exception (Tschannen-Moran & Johnson, 2011). As such, the research team aimed to measure teachers' self-efficacy in relation to teaching multimodal texts. A pre- and post-test was used with the same questions. Results were reported in Chapter 4. The results showed that teachers' self-efficacy improved due to the collaborative inquiry approach to learning about the teaching of multimodal texts. Continued professional learning therefore ensures increase in self-efficacy about the teaching of multimodal texts.

References

References for interim report (including those read and not cited)

- Åberg, E. S., & Åkerfeldt, A. (2017). Design and recognition of multimodal texts: Selection of digital tools and modes on the basis of social and material premises? *Journal of Computer Education*, 4(3), 283–306. DOI 10.1007/s40692-017-0088-3
- Alvermann, D., & Wilson, A. (2011). Comprehension strategy instruction for multimodal texts in science. *Theory into Practice*, 50, 116–124. DOI: 10.1080/00405841.2011.558436
- Anstey, M., & Bull, G. (2010). Helping teachers to explore multimodal texts. *Curriculum and Leadership Journal*, 8(16). Retrieved from: http://www.curriculum.edu.au/leader/helping_teachers_to_explore_multimodal_texts,31522.html?issueID=12141
- Archer, A. (2010). Multimodal texts in higher education and the implications for writing pedagogy. *English in Education*, 44(3), 200-213. DOI: 10.1111/j.1754-8845.2010.01073.x.
- Australian Curriculum and Reporting Authority (ACARA). (n.d.) *The Australian Curriculum: English*. Retrieved 20th April 2018: <https://www.australiancurriculum.edu.au/f-10-curriculum/english/>
- Barton, G.M. (2013). The arts and literacy: What does it mean to be arts literate? *International Journal of Education and the Arts*, 14(18).
- Barton, G.M. (2014). The arts and literacy: interpretation and expression of symbolic form. In G.M. Barton (Ed.). *Literacy in the Arts: Retheorising Learning and Teaching*, (pp. 3-20). Switzerland: Springer International Publishing.
- Barton, G.M. (2015). Literacy in the middle years visual arts classroom: A 'functional' approach. *Literacy Learning: The Middle Years, Special Issue*, June 2015
- Barton, G. M. (2018). *Music learning and teaching in culturally and socially diverse contexts: implication for classroom practice*. London: Palgrave Macmillan.
- Barton, G. M., Arnold, J., & Trimble-Roles, R. (2015). Writing practices today and in the future: Multimodal and creative text composition in the 21st century. In J.Turbill, G.M. Barton & C. Brock. (Eds.), *Teaching Writing in Today's Classrooms: Looking Back to Look Forward*. ALEA occasional publication July 2015.
- Barton, G. M., Mills, K., & Ronksley-Pavia, M. (under review). Musical.ly, coding and gaming: How far have schools come to bridge out-of-school literacies? *Journal of Adolescent and Adult Literacy*.
- Barton, G.M., & Trimble-Roles, R. (2016). Supporting middle years students in creating multimodal texts with iPad apps. *Literacy Learning: The Middle Years*, 24(3), i-vii.

- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts: A social semiotic account of designs for learning. *Written Communication, 25*(2), 166–195.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101.
- Brock, C., & Boyd, F. (2015). Transforming practice in action. In C. Brock & F. Boyd (Eds.), *Social Diversity within Multiliteracies: Complexity in Teaching and Learning*, (pp. 201-212). New York: Routledge Publishers.
- Bull, G., & Anstey, M. (2007). Exploring visual literacy through a range of texts. *Practically Primary, 12*(3), 4-7.
- Callow, J. (2006). Images, politics and multiliteracies: Using a visual metalanguage. *Australian Journal of Language and Literacy, 29*(1), 7–23.
- Callow, J. (2018). Classroom assessment and picture books – strategies for assessing how students interpret multimodal texts. *Australian Journal of Language and Literacy, 41*(1), 5-20.
- Cope, B., & Kalantzis, M. (2000). *Learning by design*. Retrieved from: <http://newlearningonline.com/learning-by-design/>
- Daly, A., & Unsworth, L. (2011). Analysis and comprehension of multimodal texts. *Australian Journal of Language and Literacy, 34*(1), 61–80.
- Danielsson, K., & Selander, S. (2016). Reading multimodal texts for learning—a model for cultivating multimodal literacy. *Designs for Learning, 8*(1), 25–36. <http://dx.doi.org/10.16993/dfl.72>
- Donohoo, J. (2013). Why Collaborative Inquiry? *Collaborative Inquiry for Educators: A Facilitators Guide to School Improvement*, (pp. 1-10). Thousand Oaks, CA: Sage Publishers.
- Godhe, A. (2012). Tensions and contradictions when creating a multimodal text as a school task in mother tongue education. *Nordic Journal of Digital Literacy, 8*(4).
- Groenke, S. L., & Prickett, R. (2012). Continued absences: Multimodal texts and 21st century literacy instruction. *The ALAN Review, 62*-67.
- Huang, S-Y. (2017). Critical multimodal literacy with moving-image texts. *English Teaching: Practice & Critique, 16*(2), 194-206. <https://doi.org/10.1108/ETPC-02-2017-0018>
- Jewitt, C. (2008). Multimodality and literacy in school classrooms. *Review of Research in Education, 32*, 241-267.
- Jiménez, L., Roberts, K., Brugar, K., Meyer, C., Waito, K. (2017). Moving our can(n)ons: Toward an appreciation of multimodal texts in the classroom. *The Reading Teacher, 71*(3), 363–368. doi:10.1002/trtr.1630
- Kalantzis, M., Cope, B., Chan, E., & Dalley-Trim, L. (2017). *Literacies, 2nd ed*. Australia: Cambridge University Press.

- Keene, E. K., & Zimmerman, S. (1997). *Mosaic of thought: Teaching comprehension in a reading workshop*. Portsmouth, NH: Heinemann
- Kervin, L., & Derewianka, B. (2011). New technologies to support language learning. In B. Tomlinson (Ed.), *Materials Development in Language Teaching*, (pp. 328-351). Cambridge: CUP.
- Lee, C., & Smagorinsky P. (2000). Introduction: Constructing meaning through collaborative inquiry. In C. Lee & P. Smagorinsky (Eds.), *Vygotskian Perspectives on Literacy Research: Constructing Meaning through Collaborative Inquiry*, (pp. 1-15). U.K.: Cambridge University Press.
- Liu, J. (2013). Visual images interpretive strategies in multimodal texts. *Journal of Language Teaching and Research*, 4(6), 1259-1263. DOI:10.4304/jltr.4.6.1259-1263
- Lowien, N. (2016). 'It's easy!': Scaffolding literacy for teaching multimodal texts. *Literacy Learning: The Middle Years*, 24(1), 38-52.
- 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), 85-99.
- Marzano, R. (2010). Teaching inference. *Educational Leadership*, 67(7), 80-101.
- Mills, K. A. (2008). *Multiliteracies and a metalanguage for the moving image: Multimodal analysis of a claymation movie*. In Proceedings AARE 2008 International Education Conference, Brisbane.
- Mills, K. A. (2011). 'I'm making it different to the book': Transmediation in young children's multimodal and digital texts. *Australasian Journal of Early Childhood*, 36(3), 56-65.
- Mills, K. A. (2015). *Literacy theories for the digital age: Social, critical, multimodal, spatial, material and sensory lenses*. UK: Multilingual Matters.
- Mills, K. A., & Exley, B. (2014). Narrative and multimodality in English language arts curricula: A tale of two nations. *Language Arts*, 92(2), 136-143.
- Mills, K. A., Unsworth, L., & Barton, G.M. (2018). The multimodal communication of emotions in children's film production, In R. Putulny, A. Bellocchi, S. Khorana, R. Olson, J. McKenzie, & M. Peterie (Eds.), *Handbook of Research on Emotions*. London, UK: Routledge.
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66, 60-92.
- Nichols, S., & Snowden, C. (Eds.). (2017). *Languages and literacies as mobile and placed resources*. New York and London: Routledge.
- NSW Government. (2017). *Inferential comprehension*. Retrieved from: <https://education.nsw.gov.au/teaching-and-learning/student-assessment/smart-teaching-strategies/literacy/reading/inferential-comprehension>

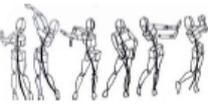
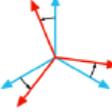
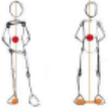
- Papademetriou, E., & Makri, D. (2015). The metalanguage of “visual design” into the classroom for the construction of intermodal meanings. *International Journal of Education and Literacy Studies*, 3(2), 32-43.
- Pascoe, R. (2015). *Teaching the arts: For the AiR Summer School 2016*. Western Australia: StagePage.
- Richter, E. (2016). "I've known rivers": A reflection on the synergy of multigenre, multimodal texts. *Journal of Education*, 196(1), 41-46.
- Ryan, M. E., & Anstey, M. (2003). Identity and text: developing self-conscious readers. *Australian Journal of Language and Literacy*, 26(1), 9-22.
- Schnellert, L., & Butler, D. (2014). *Collaborative inquiry empowering teachers in their professional development*. Canada: Canadian Education Association.
- Serafini, F. (2010). Reading multimodal texts: Perceptual, structural and ideological perspectives. *Children's Literature in Education*, 41, 85–104. DOI 10.1007/s10583-010-9100-5
- Serafini, F. (2011). Expanding perspectives for comprehending visual images in multimodal texts. *Journal of Adolescent & Adult Literacy*, 54(5), 342-350.
- Shanahan, L. (2013). Composing “kid-friendly” multimodal text: when conversations, instruction, and signs come together. *Written Communication*, 30(2) 194–227.
- Sharratt, L., & Fullan, M. (2012). *Putting FACES on the data: What great leaders do!* Twin Oaks CA: Corwin.
- Siegel, M. (2006). Rereading the Signs: Multimodal Transformations in the Field of Literacy Education. *Language Arts*, 84(1), 65-77.
- Siegel, M. (2012). New times for multimodality? Confronting the accountability culture. *Journal of Adolescent and Adult Literacy*, 55(8), 671-680. DOI:10.1002/JAAL.00082
- Skains, R. (2017). The materiality of the intangible: Literary metaphor in multimodal texts. *Convergence: The International Journal of Research into New Media Technologies*, 1–15. DOI: 10.1177/1354856517703965
- Thornhill, T (2013). *More people than ever living outside their home country*. U.K.; Dailymail.
- Towndrow, P. A., Nelson, M., & Yusuf, W. Squaring literacy assessment with multimodal design: An analytic case for semiotic awareness. *Journal of Literacy Research*, 45(4) 327–355.
- Tschannen-Moran, M., & Johnson, D. (2011). Exploring literacy teachers' self-efficacy beliefs: Potential sources at play. *Teaching and Teacher Education*, 27, 751-761. doi:10.1016/j.tate.2010.12.005
- Unsworth, L. (2001). *Teaching multiliteracies across the curriculum: Changing contexts of text and image in classroom practice*. Buckingham: Open University Press.

- Unsworth, L. (2006). Towards a metalanguage for multiliteracies education: Describing the meaning making resources of language-image interaction. *English Teaching: Practice and Critique*, 5(1), 55-76.
- Unsworth, L., & Macken-Horarik, M. (2015). Interpretive responses to images in picture books by primary and secondary school students: Exploring curriculum expectations of a 'visual grammatics'. *English in Education*, 49(1), 56-79. DOI: 10.1111/eie.12047
- Vasudevan, L., Schultz, K., & Bateman, J. (2010). Rethinking composing in a digital age: Authoring literate identities through multimodal storytelling. *Written Communication*, 27(4) 442–468.
- Walsh, M., Asha, J., & Spranger, N. (2007). Reading digital texts. *Australian Journal of Language and Literacy*, 30(1), 40-53.
- Zaidi, R., & Rowsell, J. (Eds.). *Literacy lives in transcultural times*. New York and London: Routledge.

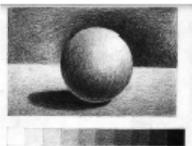
Appendices

Appendix A: Building metalanguage on all of the modes

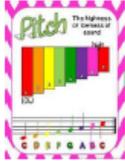
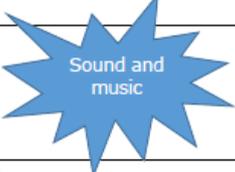
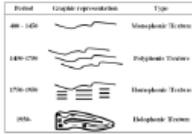
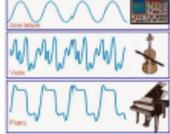
Useful words for elements of gesture

<p>Line of action/direction</p> <ul style="list-style-type: none"> • Left • Right • Centre • Top • Bottom • Clockwise • Anti-clockwise • Continuous • Diagonal • Convergent 	<p>Action</p> <ul style="list-style-type: none"> - Arms <ul style="list-style-type: none"> o Folded, straight - Hands <ul style="list-style-type: none"> o gripping, soft, on hips, rubbing etc. - Head <ul style="list-style-type: none"> o nod, tilt, shrug, shake, down etc - Body <ul style="list-style-type: none"> o stiff, loose, relaxed, nervous, uncomfortable etc - fast, slow, harsh, smooth 	<p>Gaze and posture</p> <ul style="list-style-type: none"> ✓ Direct ✓ Indirect ✓ Cold ✓ Piercing ✓ Hostile ✓ Averted ✓ Steady ✓ Friendly ✓ Warm ✓ Critical 
<p>Orientation</p> <ul style="list-style-type: none"> o Angled o Intimate o Powerful o Oppressed o Aggressive o Compliant o Respectful 		<p>Proximity</p> <ul style="list-style-type: none"> ❖ Close ❖ Relative ❖ Physical ❖ Geographical ❖ Varied ❖ Chronological 
<p>Weight</p> <ul style="list-style-type: none"> ▪ Heavy ▪ Light ▪ Balanced ▪ Uneven ▪ Dense ▪ Ponderous ▪ weightless 		<p>Contact</p> <ul style="list-style-type: none"> ✚ personal ✚ impersonal ✚ close ✚ direct ✚ casual ✚ emotional ✚ firm ✚ meaningful

Useful words for elements in images

<p>Shape</p> <ul style="list-style-type: none"> • Large • Small • Round • Square • Triangular • Irregular • Regular • Heavy • Light • Flat • Closed • open 	<p>Line</p> <ul style="list-style-type: none"> - Short - Long - Repetitive - Smooth - Rough - Broken - Blurred - Thick - Thin - Vertical - Horizontal - Wide 	<p>Colour</p> <ul style="list-style-type: none"> ✚ Warm ✚ Cool ✚ Pastel ✚ Opaque ✚ Bright ✚ Dull ✚ Hot ✚ Angry ✚ Happy ✚ Clear ✚ Calm ✚ Pale 
<p>Layout</p> <ul style="list-style-type: none"> ▪ Rule of thirds ▪ Salience ▪ Focal point ▪ Balanced ▪ Emphasised ▪ Rhythmic ▪ Realistic 		<p>Lighting</p> <ul style="list-style-type: none"> ✓ Bright ✓ Dull ✓ Light ✓ Dark ✓ Intense ✓ Contrast ✓ Glossy 
<p>Tone and texture</p> <ul style="list-style-type: none"> ▪ light ▪ dark ▪ medium ▪ shaded ▪ deep ▪ shallow ▪ contrast ▪ smooth ▪ rough ▪ scratchy ▪ leathery ▪ silky 		<p>Framing</p> <ul style="list-style-type: none"> - Full page spread - Double page spread - Borders - Gutters - Thick or thin frame - Mirrored - Reflective - Comic strip - Montage - multiple images on one page 

Useful words for elements in sound

<p>Pitch and harmony</p> <ul style="list-style-type: none"> • High • Low • Medium • Angular • Smooth • Short • Narrow • Wide • Steep • Chromatic • pentatonic • Sequenced • Patterned 	<p>Rhythm</p> <ul style="list-style-type: none"> - Short - Long - Repetitive - Sharp - Disjointed - Irregular - Regular - Smooth - Bumpy - Syncopated - Delayed 	<p>Articulation</p> <ul style="list-style-type: none"> ✓ Short ✓ Long ✓ Sharp ✓ Attack ✓ Repetitive ✓ Smooth ✓ Flowing ✓ Irregular ✓ Disjointed ✓ Harsh ✓ Strong ✓ Rubato ✓ Sforzando 
<p>Tempo</p> <ul style="list-style-type: none"> ▪ Fast (Allegro) ▪ Slow (Adagio) ▪ Medium speed (Andante) ▪ Extremely fast (Prestissimo) ▪ Very slow (Largo) 		<p>Dynamics</p> <ul style="list-style-type: none"> ✓ Loud (Forte) ✓ Soft (Piano) ✓ Very loud (Fortissimo) ✓ Very soft (Pianissimo) ✓ Mezzo-Forte ✓ Mezzo-Pianissimo 
<p>Tone</p> <ul style="list-style-type: none"> ▪ Happy ▪ Sad ▪ Angry ▪ High ▪ Low ▪ Middle range ▪ Strong ▪ Warm ▪ Rich ▪ Dark ▪ Mellow ▪ shrill ▪ dissonant ▪ consonant ▪ major ▪ minor 	<p>Texture</p> <ul style="list-style-type: none"> - one voice - two voices - many voices - thin - light - open - spare - thick - fat - full - dense - complex - homophonic - polyphonic 	<p>Timbre</p> <ul style="list-style-type: none"> ➢ smooth ➢ rough ➢ sweet ➢ strange ➢ pure ➢ gentle ➢ powerful ➢ wooden ➢ metallic ➢ nasal ➢ husky ➢ sharp ➢ unpleasant ➢ majestic ➢ brassy 

Useful words for elements about spatial mode

<p>Position</p> <ul style="list-style-type: none"> • Left • Right • Centre • Margin • Top • Bottom • Rule of thirds • Next to • Behind • Across from 	<p>Distance</p> <ul style="list-style-type: none"> - Formal - informal - Intimate - Close up - Short - Long - Apart - Far - Further 	<p>Framing</p> <ul style="list-style-type: none"> ✓ Weak ✓ Strong ✓ Evident ✓ Passive ✓ Deliberate ✓ Vertical ✓ Horizontal ✓ Continuous ✓ Different ✓ Montage (more than one image on a page) 
<p>Direction</p> <ul style="list-style-type: none"> ○ Clockwise ○ Anti-clockwise ○ Ahead ○ Around ○ Down ○ Up 		<p>Proximity</p> <ul style="list-style-type: none"> ❖ Close ❖ Relative ❖ Physical ❖ Geographical ❖ Varied ❖ Chronological
<p>Saliency</p> <ul style="list-style-type: none"> ▪ Low ▪ High ▪ Easy ▪ Line of sight ▪ Base ▪ Obvious ▪ Vector ▪ Balanced ▪ Uneven ▪ Contoured 	<p>Arrangement</p> <ul style="list-style-type: none"> ➢ Even ➢ Broken ➢ Patterned ➢ Criss-crossed ➢ Vague ➢ Patchy ➢ Array ➢ Dominant ➢ Linear 	<p>Balance</p> <ul style="list-style-type: none"> ➢ Light ➢ Heavy ➢ Uneasy ➢ Precise ➢ Stable ➢ detailed ➢ Organised ➢ Purposeful ➢ Irregular ➢ Geometric 