

Heather Lotherington, Sabine Tan, Kay L. O'Halloran*,
Peter Wignell and Andrew Schmitt

Analyzing the talking book *Imagine a world*: A multimodal approach to English language learning in a multilingual context

<https://doi.org/10.1515/text-2019-0239>

Abstract: In recent years there has been increased academic and professional interest and awareness in approaches to English language teaching (ELT) that take a plurilingual approach. This is often combined with a multimodal stance. The outcome of this combination is an approach to English language teaching that integrates multiple languages and multiple semiotic resources. This paper examines how a plurilingual approach to ELT can be viewed through a multimodal lens by analyzing the construction of a plurilingual talking book created as a student project in an elementary public school. The analysis uses multimodal analysis software to map the interaction of languages and images, in order to determine how these function as meaning-making resources in a multimodal, multiple-language text created by linguistically diverse students with high ELT needs. The findings indicate how combinations of different semiotic resources work together to create meaning, delineates the role of English in meaning-making, and illustrates the children's multilingual interactions in the creation of their collaboratively composed multimodal talking book.

Keywords: talking book, multimodality, plurilingualism, multilingualism, multimodal analysis, systemic functional theory

*Corresponding author: **Kay L. O'Halloran**, Department of Communication and Media, University of Liverpool, Liverpool, Merseyside, UK, E-mail: kay.ohalloran@liverpool.ac.uk

Heather Lotherington, Faculty of Education, York University, Toronto, Ontario, Canada, E-mail: hlotherington@edu.yorku.ca

Sabine Tan: E-mail: sabine.tan@curtin.edu.au, **Peter Wignell**:

E-mail: peter.wignell@curtin.edu.au, School of Education, Curtin University, Perth, Western Australia, Australia

Andrew Schmitt, Toronto District School Board, Toronto, Ontario, Canada, E-mail: andrew.schmitt@tdsb.on.ca

1 Introduction

This paper presents a multimodal analysis of a plurilingual ‘talking book’, entitled *Imagine a world*. *Imagine a world* is a 38-page, 7:25 minute-long dynamic audio-visual artifact combining multiple written and spoken languages, visual images, animations, music and sound, which was created as a joint project by the combined junior division classes of grade 4 and 5 students at an inner city elementary school in northwest Toronto, Ontario, Canada. The children’s multimodal creation, which is available for viewing on YouTube (https://www.youtube.com/watch?v=8zabcX_zoPO), was a student project undertaken as part of a longitudinal collaborative action research study that brought together elementary school teachers, university researchers, graduate students, and members of the school community to design digital multimodal literacy pedagogies for a linguistically diverse student body in need of English language learning and support (Lotherington 2011; Lotherington and Jenson 2011; Lotherington and Paige 2017).

Reflecting on the impact and directions of multimodality for educational theory and practice, van Leeuwen (2015) suggests that applying a multimodal lens to the study of bilingualism (or multilingualism) could perhaps lead to “new ways of talking about language(s) and new ways of enthusing students to study it, practice it, and love it” (van Leeuwen 2015: 587). The analysis of the talking book presented in this paper explores ways in which a multimodal perspective can inform multilingual and plurilingual approaches to English language teaching and learning, and lead to an empirically-informed appreciation of how ethnic, cultural and linguistic diversity can be highlighted and brought into focus via a multimodal multiple language project.

In what follows, we first provide the background of the larger project, with regard to English language teaching (ELT) in a linguistically diverse context. We then provide a literature review on plurilingual approaches to ELT and introduce the theoretical model which informs the multimodal analysis of the talking book. The paper then discusses the process of production, which is followed by an analysis of excerpts of the finished multimodal artifact conducted from a social semiotic perspective. The paper concludes with remarks on how the analysis of a multimodal plurilingual artifact afforded us with a better understanding, not only about how the children interacted linguistically with their collaboratively produced product, but also how the creation of the talking book functioned to support English language learning, encouraged linguistic curiosity, and reinforced pride in the children’s home languages.

1.1 Background and context

The talking book, *Imagine a world*, was created by grade 4 and 5 students at an elementary school in Toronto, Ontario, Canada. The book was the outcome of a student project developed within a collaborative action research agenda to build multimodal pedagogies that encouraged children's English language development in a context that did not sharply divide home and school languages, and fostered a positive attitude to linguistic diversity while targeting English for task-based, project-building purposes.

A central tension at the school – as in classrooms across Toronto – was that all teachers functioned as de facto ELT teachers given the profusion of languages spoken by their students. Given the dated political infrastructure for English as a Second Language (ESL), support was not designed to accommodate the reality of a majority of English language learners in every class. A systemic pedagogical redesign was required to support children's complex and varied language learning needs.

Consequently, the collaborative action research agenda developed at the school investigated how the language knowledge of ELT students in linguistically diverse classes could be profitably harnessed along with English in the creation of multimodal new media texts in order to facilitate learning in content areas and learning English. Three features of the approach stand out: ELT was built into a digital multimodal literacies paradigm that provided linguistic bridging on an individual basis (Lotherington 2011, Lotherington 2013); English language learning and home language maintenance took place in a context of complex linguistic plurality; and language learning was integrated with content area learning.

2 Literature review

2.1 Plurilingual approaches

Reinforcing home language and cultural knowledge in the English-medium elementary classroom goes back decades, supported by practices such as bilingual storytelling, storybook reading, and homemade book production (cf. Edelsky 1982; Clay 1985). However, as the twenty-first century has progressed, public school classes, particularly in urban centres, have become increasingly more culturally and linguistically complex. The changing complexities of such diverse classrooms call for a shift in pedagogical approaches

away from twentieth century binary models of language education reinforcing English vs. ESL towards approaches that accommodate increasing cultural and linguistic diversity (e.g. Creese and Blackledge 2010; García and Wei 2015).

Additionally, complex and varied new literacy practices have co-evolved with the digital revolution of the twenty-first century, consistent with the changing material, sociocultural, and communicational nature of texts. Complex multimodal texts accommodate multiple semiotic threads that are capable of expression through a variety of combinations of semiotic resources, including multiple languages. Plurilingual and multilingual multimodal practices are proliferating in online spaces (Ivković and Lotherington 2009; Thorne and Ivković 2015), and increasingly being designed into pedagogical projects (cf. Lotherington 2011; Potts 2013; Ntelioglou et al. 2014; Stille and Prasad 2015; Lotherington and Paige 2017), effectively introducing multimodality to the language teaching community (Early et al. 2015; Lotherington and Paige 2017).

Whereas the term ‘plurilingualism’ is sometimes used as the preferred European designation for ‘multilingualism’: plurilinguisme (French), plurilingüismo (Spanish) and so forth (e.g. Beacco et al. 2010), a sociolinguistic research trend prefers ‘plurilingualism’ as a descriptor of individual competencies versus ‘multilingualism’ for social populations. However, as Thorne and Ivković (2015) point out, this “suggests the notion of multiple discrete and stable linguistic varieties rather than the mixing and hybridity that are often evident in contemporary communicative repertoires” (p. 170). Our usage of plurilingualism follows Moore and Gajo’s (2009) definition of plurilingualism as “multiple repertoires in relation to speakers’ agency in a variety of situations and social contexts” (p. 138). Welcoming plurilingual practices into classroom language learning invites, in Taylor and Snodden’s (2013: 443) words, “a paradigm shift in thinking about the place of other languages in TESOL”, softening the hard borders traditionally separating languages in the ELT classroom (Cenoz and Gorter 2013), and encouraging pedagogical flexibility (Lin 2013).

Our digital multimodality orientation distinguished our project from approaches to teaching English language learners in the mainstream classroom using traditional print media (cf. Carrasquillo and Rodríguez 2002; Gibbons 2003; Coelho 2004), and it extends discussions and investigations focusing on (monolingual) digital multimodality in schools as a feature of contemporary social communication (cf. Kress 2003; Lankshear and Knobel 2003; Pahl and Roswell 2006; Jewitt 2008) by incorporating languages in the multimodal mix.

2.2 Multimodal approach and theoretical model

The term ‘multimodality’ is commonly employed to describe practices and resources in contemporary digitally-mediated literacy practice, most prominently from a social semiotics perspective, where ‘mode’ is defined as “the name for a culturally and socially fashioned resource for representation and communication” (Kress 2003: 45). Whereas diverse approaches to multimodal analysis exist (see, for example, Elleström’s [2010] treatment of intermediality, Jewitt et al.’s [2016] description of three major and five emergent trends to multimodal analysis, and Bateman et al.’s [2017] problem-oriented perspective to understanding multimodality as a phenomenon), most discussion relating to the teaching of English language and literacy derives from social semiotics, which, in turn, is grounded in Halliday’s theory of systemic functional linguistics (SFL) (e.g. Halliday and Matthiessen 2014).

Kress, a key architect of social semiotic multimodal theory, delineates the affordances of a mode in terms of materiality, noting, for example that “time-based modes – speech, dance, gesture, action, music – have potentials for representation which differ from space-based modes – image, sculpture and other 3D forms such as layout, architectural arrangement, streetscape” (Kress 2003: 45). This identification of materiality and spatio-temporal aspects of modality parallels Elleström’s (2010) semiotic analysis of media, where modes describe material and spatiotemporal characteristics in addition to sensorial and semiotic aspects. However, despite careful delineation of the semiotic intricacy of multimodality in the research literature, there is a tendency for ELT researchers and practitioners to glaze over multimodality, often simply citing the examples provided for the context of learning resources, e.g. “image, writing, layout, speech, moving image” (Bezemer and Kress 2008: 171).

In this paper, we adopt a systemic functional approach to multimodal (discourse) analysis (SF-MDA) (O’Halloran 2008; O’Halloran and Lim 2014; O’Halloran et al. 2019; Tan et al. 2016; see Jewitt et al. 2016: Ch. 3) based on Halliday’s systemic functional theory (SFT), which has been most fully developed as Systemic Functional Linguistics (SFL). The basic principle of SFT is that the underlying organization of semiotic resources, such as language, images, architecture, music, has evolved to fulfil certain functions in society. These functions, termed *metafunctions*, are: (a) *ideational* meaning (consisting of *experiential* and *logical* meaning) – to encode our experience of the world (*experiential* meaning) and to make logical connections between events in the world and in text (*logical* meaning); (b) *interpersonal* meaning – to enact social relations and (c) *textual* (or *compositional*) meaning – to organize messages into coherent forms. The three types of meanings are modelled as system

networks of choices; for example, grammatical and discourse systems in language (cf. Martin and Rose 2007; Halliday and Matthiessen 2014) and visual systems in images (cf. Kress and van Leeuwen 2001, Kress and van Leeuwen 2006; O'Toole 2011). From the SF-MDA perspective, systems of meaning are unique to each semiotic resource; that is, semiotic resources serve different purposes and, as a result, their underlying organization is different.

Another key concept from SFT that informs SF-MDA is the notion that social context is modeled through register and genre (e.g. Eggins 1994; Martin 2002; Martin and White 2005). Register theory describes the impact of three key variables the way language is used in context. The three register variables, namely, *field*, *tenor* and *mode*, are directly related to the above-mentioned metafunctions. Field describes what a text is all about, that is, it is concerned with events, people and things, and the activities they are involved in, and relates to the ideational metafunction. Tenor is concerned with the social relations that are enacted in a text, the attitudes that are negotiated, the feelings involved and the ways in which readers are aligned, and relates to the interpersonal metafunction. Mode is concerned with the role language plays in discourse, that is, whether it is written or spoken, and the information flow across different media or channels of communication (speech, writing, images, video, etc.), and relates to the textual metafunction (Martin 2002; Martin and White 2005). In language, register is realized through choices in discourse semantics and lexico-grammar, phonology (spoken text) and graphology (written text).

From an SF-MDA perspective, multimodal texts and artifacts fulfill their communicative purposes through combinations of semiotic choices in their organizational structure, functional stages and properties, realized through the ways in which authors present and orientate the information to their readers. That is, the registerial choices in a talking book will differ from those deployed in a conventional storybook, a photo essay, or a documentary film.

One of the most pressing issues in multimodal analysis is modelling the underlying organization of semiotic resources and mapping the combinations of choices made in any given situation (e.g. see Baldry and Thibault's [2006] discussion of the resource integration principle). In addition, as Kress (2003) articulates, digital mediation facilitates the complex use of modes and modal ensembles, and changes the potential for communicative interactivity. For this reason, we use purpose-built software (O'Halloran et al. 2017) to examine how multiple language use and multimodality function semiotically to make meaning in *Imagine a world*.

In the next section we first discuss the process of production of the multi-semiotic artifact (e.g. Kress and van Leeuwen 2001; Bezemer and Kress 2008;

Kress 2010), which informs the analysis of excerpts of the talking book in Section 4.

3 Making *Imagine a world*: The production process

According to Kress and van Leeuwen (2001: 68) “meaning does not only reside in discourse and design, it also resides in production”, which is defined as the “communicative use of media, of material resources”, including the body, the voice, and other semiotic resources used for communicative purposes (Kress and van Leeuwen 2001: 66).

The student projects developed as part of the university-school collaborative action research project experimented with multiple language inclusion in various ways in both talk and texts. *Imagine a world* is a multi-semiotic plurilingual artifact in that the schoolchildren utilized fragments and degrees of multiple language knowledge, consistent with their developing and changing language competencies at home and school.

The production process of *Imagine a world* not only establishes the field, that is, what the text is all about (ideational metafunction), but provides insight about the students’ feelings and stance toward their subject matter (interpersonal metafunction), and illustrates how the book evolved to present a coherent message (textual metafunction).

Imagine a world was created as part of a larger social initiative on the topic of *respect*, developed by the teachers of grades 4 and 5 at the school in order to address the issue of homophobia. The study of *respect* combined family studies, English, art, science, and social research to examine how people shared many similarities as a preparatory step to looking at human differences (Lotherington and Rahemtula [2017] presents a detailed description of the full project). The conception, development, narration and production of *Imagine a world* involved the combined junior grades reading, researching, and developing their multi-modal content on human similarities; designing images to illustrate similarities and creating prints using a printmaking technique; captioning their art in multiple languages (with peer, family and teacher assistance); storyboarding the book; audiotaping the jointly narrated book, which included credits as well as the book finale where each child individually voiced the word *respect* in their language of choice; and programming the final video from the print and audiotaped resources. The illustrated book communicates one or two human

similarities per page via images captioned in English and other languages used in the school community (see Lotherington and Rahemtula [2017] for further details about the project, including community outreach and involvement).

The mentor text used to kick start development of *Imagine a world* was Mem Fox's *Whoever you are* (Fox 1997). The students read and discussed the book, then brainstormed ideas to create a list of universal human similarities, starting with "We (are) all". This list was refined as the students tested the universality of their claims, discovering that not all similarities were common to all people.

From the list of similarities and through collaboratively discussing options, the students chose a statement they had generated to individually create an image. With draft images in hand, the combined junior classes took a field trip to an art studio where professional artists taught them a printmaking technique using the corrugated liners on take-out coffee cups. As they learned the printmaking process, the students had to think about the symbolic representations of their statements. They discovered, for example, that elaborate draft images had to be simplified for printmaking, and words could not be incorporated into prints, given the mirror image this produced. The students chose the colours they used in their prints, and decided whether they would have their statement of similarity translated. Family members as well as the school French teacher were consulted for help with translations, and small groups of students who spoke the same language supported each other.

Storyboarding followed print-making. The teacher leading the project provided mentorship in the design aspects of *Imagine a world* aided by a group of students responsible for layout. The students grouped together statements that encapsulated similar meanings, taking into consideration the length of each statement and the orientation of the artwork.

In consultation with the students, the teacher drafted the explanatory introductory text around the process of creating the book (Page 3 in Figure 1). The draft introduction was then shared with the other teachers, revised, and taken back to the students, whose suggestions were incorporated in the final version. The teacher also designed the three multilingual borders used in the book in consultation with the students: a circle of languages around the book title on the title page (Page 1 in Figure 1), and contrasting linguistic borders on odd and even pages (Pages 4–7 in Figure 1).

Design aspects as well as the linguistic composition were developed and revised in collaboration with the students. The languages selected in the page borders included those spoken in the community as well as others suggested by the students. The class project welcomed knowledge the children brought with them from home, validating what they knew and who they were out of school

hours, as well as igniting their linguistic curiosity in the design of the multilingual borders. The teacher describes many children's reticence to contribute anything but English in the production at first. This timidity was tempered as the classmates opted to contribute a home language to captions. Similarly, not all the students chose to narrate their captions. A small group of students took responsibility for recording the audio input. Each student read the statement they had contributed, depicted and translated. The students practised reading in small groups, and where there were shared languages, they coached each other on pronunciation. The statement reading was recorded in a quiet location at the school and assembled at the end of taping.

As the talking book is an edited video rather than a filmed performance, the students were unaware of the full effect of their combined voices until the video had been completed and the multilingual narration became available. When the final video production was screened in class, the children reacted enthusiastically to their production. They were extremely proud of their creation, which thoughtfully utilized linguistic variation and images in communicating human similarities. As such, the production process proved to be a supportive reinforcement for language learning and maintenance.

4 Analyzing *Imagine a world*: A multimodal perspective

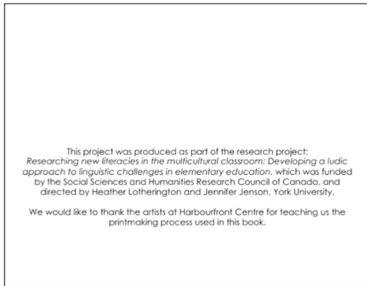
Imagine a world was first created as a static 3D hand-printed book, which was both multimodal, involving multiple semiotic resources in its design and construction; and plurilingual, threading multiple languages into the text. The book was then digitized: the students narrated, taped, and programmed it as a video, rendering the production multidimensional: X + Y spatial axes (height and width), plus the minimal depth of a printed book, plus time. The talking book requires the viewer to simultaneously read the page (spatial media orientation) and listen to the narration (temporal media orientation).

Figure 1 displays the first seven pages of *Imagine a world*, which were analyzed in this paper: the monolingual introductory page in English (following the title page and copyright page), and the first four multimodal, multilingual pages created by the students.

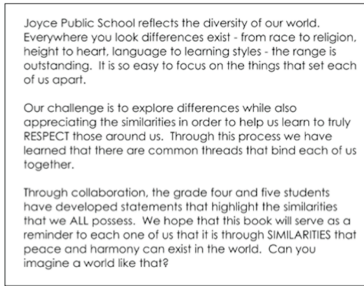
Table 1 lists the 37 languages and associated writing systems used in the talking book in the multilingual page borders, the students' captions, and their narration.



P. 1: Title page



P. 2: Copyright page



P. 3: Introduction



P. 4: "We all need love"



P. 5: "We all have feelings"



P. 6: "We all have a family"



P. 7: "We all have a home"

Figure 1: *Imagine a world*, Pages 1 to 7 (0:00–1:37).

Table 1: Languages spoken and written in *Imagine a world*.

Languages spoken by children	Languages written by children	Writing systems	Languages in Respect borders
Mandarin (PRC; Singapore)		Arabic abjad Simplified Chinese logography	Arabic Chinese
Cantonese/ Taiwanese Mandarin		Traditional Chinese logography	
Creole: Creolese (Guyana)	Creole: Creolese (Guyana)	Roman alphabet	
Creole: Patwa (Jamaican)	Creole: Patwa (Jamaica)	Roman alphabet Roman alphabet	Creole: Kreyòl (Haiti)
English Fante	English Farsi	Roman alphabet Akan alphabet Arabic abjad	Croatian
French	French	Roman alphabet Roman alphabet	Filipino
Greek Harari	Greek Harari (Ethiopic)	Greek alphabet Ge'ez abugida Hebrew alefbet (abjad)	German Greek Hebrew
Hindi	(Romanized) Hindi	Devanagari abugida Roman alphabet Roman alphabet Roman alphabet Kanji logography; Hirigana, Katakana syllabaries Hangul alphabet Roman alphabet	Hindi Hungarian Icelandic Italian Japanese Korean Norwegian
Oromo Pashto	(Oromo) Pashto	Ge'ez abugida Arabic abjad Roman alphabet	Portuguese
Punjabi	Punjabi	Gurmukhi abugida Cyrillic alphabet	Russian
Serbian Spanish	Spanish	Cyrillic alphabet Roman alphabet Roman alphabet	Swahili
Tamil	Tamil	Tamil abugida Thai abugida	Thai
Tigrinya	Tigrinya (Ethiopic)	Ge'ez abugida Roman alphabet Arabic abjad	Turkish Urdu
Vietnamese	Vietnamese	Roman alphabet	Vietnamese

The analysis of the sample pages aims to show not only how the multiple languages functioned semiotically in the multimodal text, but also how the children interacted multilingually with their collaboratively composed text.

Given the mixed media nature of the talking book, the analysis was performed using purpose-built software^{1,2} in order to examine (a) how languages interrelated with spatial semiotic resources (in particular, layout, captioning, image, and colour) to create a meaningful text in the static two-dimensional pages, presented in Section 4.1; and (b) how meaning was constructed across a plurality of languages in conjunction with multiple semiotic resources in time-space in the dynamically unfolding video, presented in Section 4.2.

4.1 Multiple language use in static two-dimensional pages

Given that the video was a programmed rather than a performed narration of an illustrated book, we first examined how written languages combined with other semiotic resources on the page to create a meaningful text, and to theorize how the use of these modes, singly and in combination, might aid learners of English.

Figure 2 shows a sample page of the talking book (Page 4 ‘We all need love’), as displayed in the software used for the analysis of the static two-dimensional pages. Here, semiotic choices are assigned to overlays [1] drawn on the image via corresponding annotation nodes [2] in system strips [3]. The assigned semiotic choices [4] are selected from a list of available options [5] for different semiotic systems. The selected semiotic choice is shown in the notes attached to the overlays [6].

The spatial media analyzed included language, script, captioning, graphic interface, image, colour and layout. Our analysis examined the contribution and intersection of these modes in the construction of textual meaning, which engaged both the concept of *modal density*, or “complexly interlinked communicative modes” (Norris 2004: 102), as elucidated in Section 4.1.1; and *message redundancy*, which facilitates comprehensibility for English language learners (Gibbons 2003), as explained in Section 4.1.2 below.

1 <http://multimodal-analysis.com/products/multimodal-analysis-image/index.html>.

2 <http://multimodal-analysis.com/products/multimodal-analysis-video/index.html>.

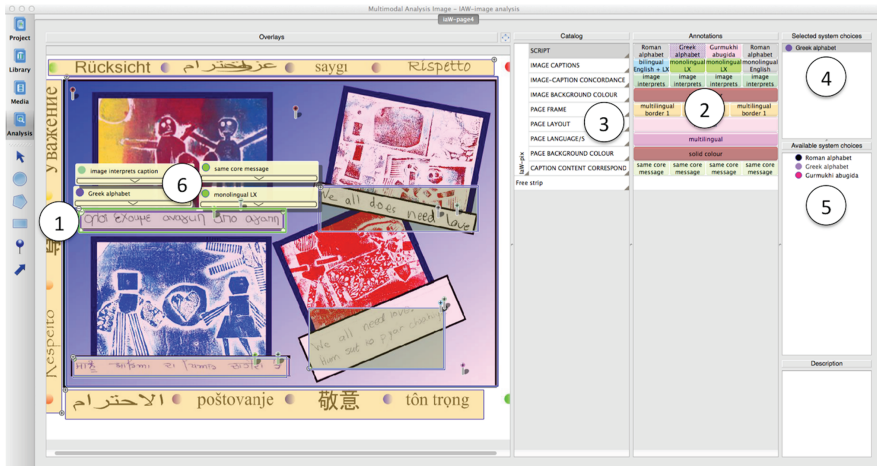


Figure 2: Screenshot of two-dimensional page from *Imagine a world* (Page 4, ‘We all need love’). Notation: Overlay [1], annotation nodes [2], systems strips [3], selected semiotic choice [4], available semiotic choices [5], selected semiotic choices displayed in overlay notes [6].

4.1.1 Modal density

Modal density is a concept developed by Norris (2004, 2014) for determining the intensity or weight of both embodied and disembodied modes (such as gaze, layout, media etc.) in the construction of higher-level action, and how they interrelate. For example, in a telephone conversation, spoken discourse is likely to carry more weight than other semiotic resources (Norris 2004: 84).

In this case, the contributions of semiotic resources on the page, such as languages, script, captioning, image, colour and layout, were examined.

In *Imagine a world*, the number of interacting semiotic systems contributing to the message varies starkly from the introductory linear section to the modular nature of the illustrated section. Figure 3 compares the paucity of interacting resources in the monolingual linear introduction on Page 3 of the talking book (displayed at top in Figure 3) against the relative density of interacting semiotic elements indicating variety in languages and caption types on Page 4 ‘We all need love’, as evidenced by the colour-coded annotations (displayed at bottom in Figure 3).

The introductory page (Page 3 in the talking book) has low modal density, featuring borderless English linear print in a uniform Roman typeface. In contrast, Page 4 ‘We all need love,’ (cf. Figure 4) is vibrant, compositionally and linguistically varied, and modally dense. The layout is modular, allowing

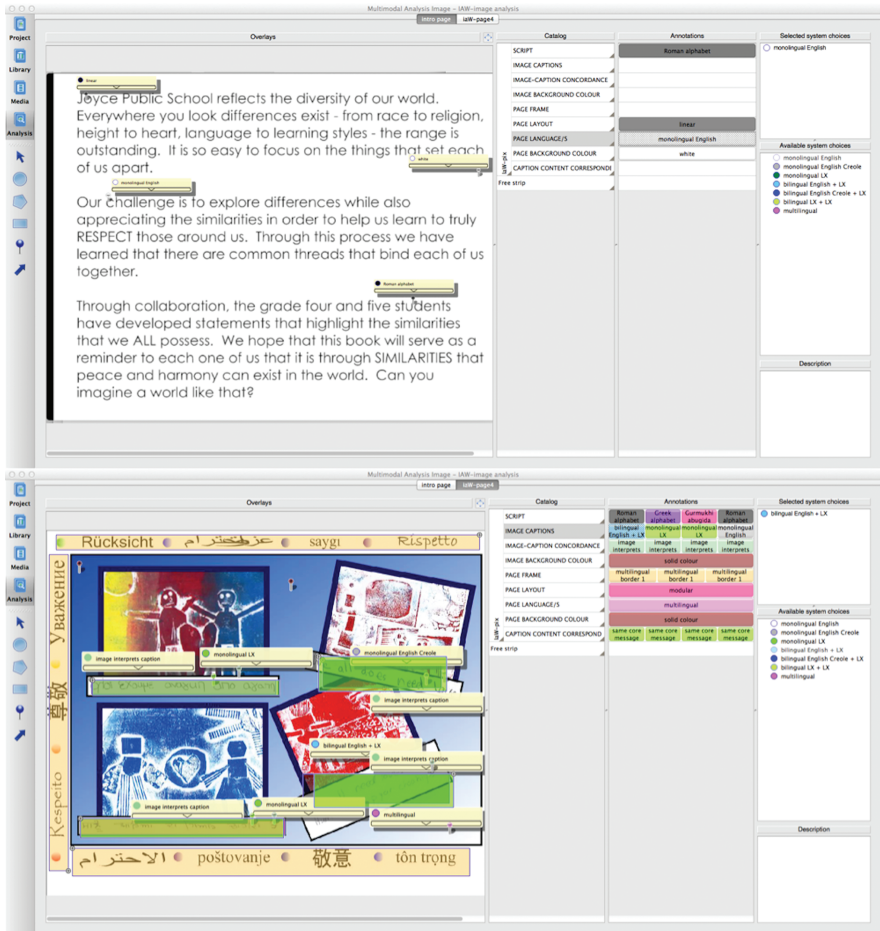


Figure 3: Image analysis of two pages of *Imagine a world* comparing modal density: Page 3 Introduction (top), and Page 4 ‘We all need love’ (bottom).

readers to move their eyes across and around the page. The message is the single, simple statement “We all need love”, which is repeated in various languages and hand-printed in captions on colourful images that are arranged in four image-text ensembles and placed nonlinearly on a page with a blue background, bordered by a left-page multilingual frame. In using handwriting, a home language, colour choice and image creation, the children individually expressed their interpretation of the statement “We all need love”, capitalizing on ideational, textual (or compositional) and interpersonal meaning-making choices.



Figure 4: Page 4 ‘We all need love’.

In our analysis, captions were coded for script as well as language, and type-face versus handwriting. The captions, which were all handwritten by the children, incorporate a mixture of English only, their home language (henceforth LX) only, and English and LX. They thus include varied languages and scripts, as shown in Figure 4. Handwriting imbued the captions with interpersonal meaning, connecting the author to the script, language, image and audience. However, beyond basic identification of the language, identifying the writing systems for the different languages did not add further information. Writing systems were canonically used apart from one exception, which can be seen in the caption accompanying the image at bottom right on Page 4 ‘We all need love’, where Hindi is transliterated using the Roman alphabet rather than the Devanagari abugida (cf. Figure 4).

4.1.2 Message redundancy

Modal density provides multiple semiotic access points for each statement made, leaving multiple representations which can be accessed. Which modes

are chosen, how they are designed, and composed on the page determines how meanings are made. In *Imagine a world*, the intersecting semiotic resources are designed to reinforce a single textual message on each page, which contributes to understanding for the language learner via message redundancy (Gibbons 2003).

The images on Page 4 of the talking book (cf. Figure 4) depict interpersonal elements, for example the iconic hearts symbolising love and connection. In contrast, the human figures in the images are stylized and generic. This could be the result of a combination of two things: the medium the children were working in, and that one of the foci of the project was the commonalities among all humans. The images, in combination with the captions and narration, highlight interpersonal meaning, which contrasts with the ideational focus of the introductory expository text.

The top left image on Page 4 is particularly arresting, though a full interpretation of the image without knowledge of the context can only be conjectural. However, given that the topic inspiring the talking book project was anti-homophobia, the researchers note with interest the rainbow background of the print, potentially symbolizing the rainbow flag standing for lesbian, gay, bisexual, and transgender (LGBT) pride. Furthermore, the two prints at bottom left on Page 4 incorporate similar symbolic elements: two human figures connected by an oversized heart with the sun shining on them. Moreover, the two generic human figures in the top print appear to be of the same sex, in contrast to the male-female figures depicted in the other images on the page. Due to the quality of the top and bottom right prints, the images were less identifiable, though both images clearly incorporate a couple.

The core message “We all need love” depicted in the images captures an inclusive *we*, including both same sex and opposite sex couples. The multilingual captioning offers an interpersonal sense of the inclusive *we*: all of us who are authors in all of our languages, the meaning of which is reinforced through the phonological resources deployed in the children’s voice-over narration (see Section 4.2.2).

In the analyzed pages of *Imagine a world*, image and colour clearly contribute to message redundancy and clearly have roles complementing the use of English and other languages in this multilingual multimodal context, both in the production process and in the finished product. That is, the production of the images provides a focal point for activity and the use of English in the process facilitates the integration of the topic and the community languages with a hands-on creative activity. Likewise in the finished product English provides the means for holding the book together, as discussed in the following sections.

4.2 Multiple language use in time-space

The analysis of the first seven audio-visual pages of *Imagine a world* (cf. Figure 1) focused on the patterned language use in time-space (on the turning pages and in the children's narration). Figure 5 shows the analyzed video segment as displayed in the analytical software, which has facilities for viewing the video in the player window [1] and film strip [2], for inserting time-stamped annotation nodes [3] in system strips [4], selecting semiotic choices [5] from a list of available semiotic options [6] and assigning them to corresponding annotation nodes. All annotations are synchronized with the video player, the filmstrip, the sound strip [7], the time-stamped nodes in the dialog strip [8], arranged in separate tabs for each speaker [9], and the corresponding verbal transcriptions in the transcription window [10].

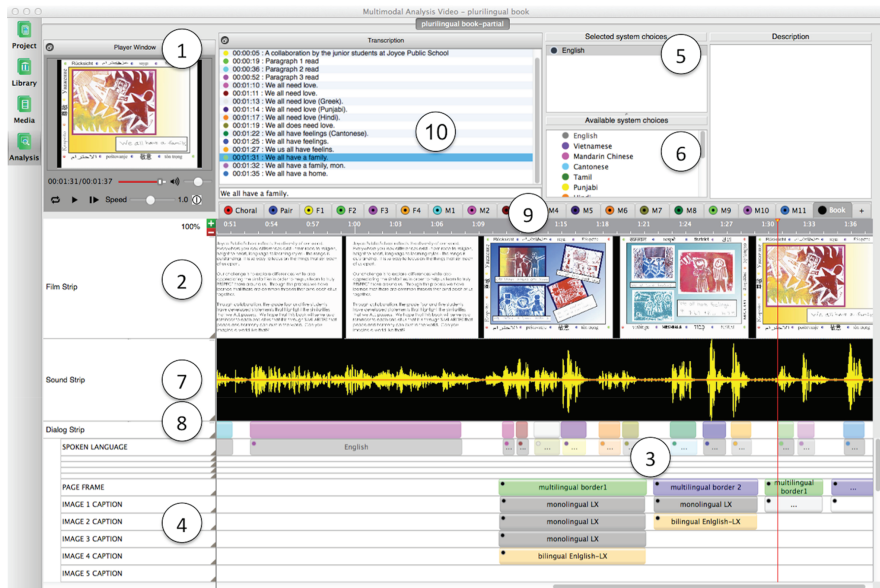


Figure 5: Snapshot of video analysis of *Imagine a world*. Notation: Player window [1], film strip [2], time-stamped annotations [3], strips [4], selected semiotic choice [5], list of available semiotic choices [6], sound strip [7], dialog strip [8], speaker tabs [9]; transcription of verbal utterances [10].

The analyzed sample features the voices of four female and eleven male students and provides a representative mixture of multimodal page layouts, and varied linguistic and narrative patterns. Our analysis of the video excerpts focuses

primarily on the linguistic and narrative patterning in terms of the multiple languages used by the children in their voice-over narration (Section 4.2.1), and the impression of turn-taking created through post-production editing (Section 4.2.2).

4.2.1 Linguistic patterns

The talking book is designed such that it requires the authors, with their diverse linguistic repertoires, to bring the text, written in multiple languages, to life. Following the title, copyright and introductory pages, which are monolingual English and predominantly linear in design (apart from the multilingual circular border on the title page), the children narrate colourfully illustrated modular pages featuring images captioned either monolingually or bilingually with a simple statement on what people share in common. In providing their voice-over narration to the multilingual pages in the talking book, the children read the statement they had contributed to the captioned images written in different languages. These included: English only; LX only (including Caribbean Creoles); English and LX.

Our analysis of the video sample (cf. Figure 6) shows that the students' narration in the analyzed segment mirrored the languages used in the captioned

The screenshot displays the 'Multimodal Analysis Video - plurilingual book' interface. The main window shows a video player with a slide titled 'We all have feelings' in multiple languages. A red box labeled '2' highlights the captioned text. To the right, a 'Transcripts' window shows a list of time-coded text segments, with a red box labeled '1' highlighting the English segment: '00:01:27 We all have feelings (English)'. Below the transcripts, 'Selected system choices' shows 'English-based Creole' selected. At the bottom, a 'Sound Strip' shows a yellow waveform, and a 'Dialog Strip' shows a timeline with colored blocks representing different languages. A red box highlights a 'Description: We all have feelings. English-based Creole' entry in the dialog strip. The dialog strip also shows 'multilingual border' labels and other language options like 'Greek', 'Ethiopic', and 'Punjabi'.

Figure 6: Languages spoken [1] mirrored languages written [2].

Table 2: Represented languages in the analyzed sample of *Imagine a world*.

Represented languages	Relative duration (in %) in terms of total video time	
	Spoken	Written
English	60.0%	26.3%
English-based Creoles	4.1%	19.1%
Cantonese	2.0%	0.0%
Greek	1.9%	10.8%
Punjabi	1.8%	10.8%
Hindi	1.7%	10.8%
Ethiopic	0.0%	8.4%

images (though mirroring writing to speech was not consistent throughout all pages of the book). Thus, the languages spoken (in the sample) matched the languages written on the page. Table 2 indicates the relative percentage of spoken and written languages represented in the analyzed excerpt of the talking book in terms of total video time.

4.2.2 Narrative patterns

The analysis in this subsection focuses on the simulated turn-taking patterns as a result of post-production editing, and the children's interpersonal investment when narrating the monolingual and multilingual pages.

Viewed from an SF-MDA perspective, the discourse style and register of the monolingual introductory page in English, which introduces the field or subject matter to reader or viewer, display many of the functional characteristics typical of a formal written text. Comprising three short paragraphs, each consisting of two or three complex sentences with embedded and subordinated clauses, the text is lexically dense, as evidenced, for example, by the high number of content-carrying words (e.g. Eggins 1994), often in thematically prominent position. The adopted formal tone of voice renders the text interpersonally distant and functions to foreground the institutional context (e.g. "Joyce Public School³", "the grade four and five students"), privileging the ideational metafunction. The creation of the text was a typical school reading and writing activity, although for students lacking proficiency in standard textbook English, this section offered

³ We have permission to use the name of the school.

limited access to the message intended for this section. For those with greater proficiency in reading and writing English, the task was familiar.

In contrast, the multimodal, multilingual pages created by the students feature a discourse style that – although read out by the students – is more commonly associated with the informality of spontaneous everyday spoken language, as evidenced, for example, by the simple clause structure of the ‘bare assertions’ (e.g. “We all need love”, “We all have feelings”, “We all have a family”, “We all have a home”) used to express the children’s feelings and adopted stance toward their subject matter, in English and other languages (see Martin and White [2005] for a discussion of the dialogistic status of bare assertions in terms of interpersonal engagement, solidarity and alignment of the reader).

The children’s varied interpersonal investment in narrating the monolingual and multilingual pages of the talking book is also reflected through their deployment of phonological resources. For example, an interesting contrast is visible between the flat and unemotional tone of voice employed by the children in the formulaic linear English paragraph reading of the introductory text, and the more enthusiastic participation in bringing their multilingual captions to life in the voice-over narration to the student-composed multimodal pages, where the messages carried in the images are reinforced interpersonally by greater pitch movement and volume. As shown in the sound strip [1] in Figure 7, amplified pitch volume, as indicated by marked spikes in

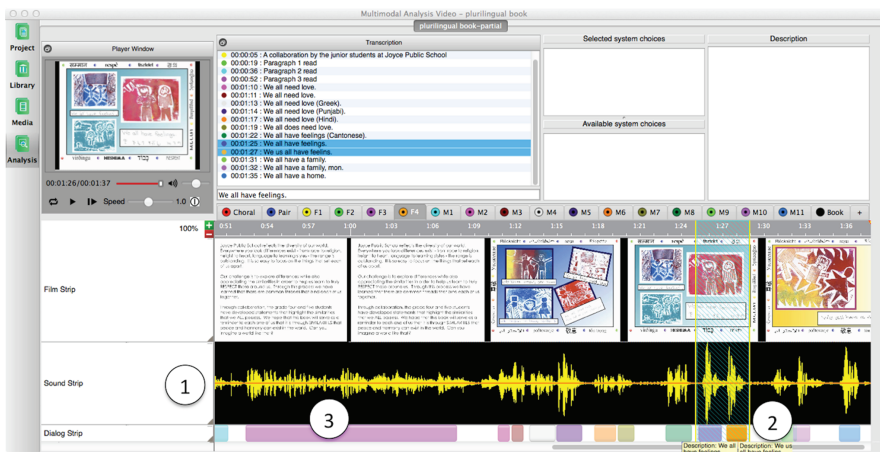


Figure 7: Pitch movement indicating interpersonal involvement in the narration of *Imagine a world*. Notation: Sound strip [1], amplified volume indicated by spikes in the sound waves [2], flat sound waves for introductory part [3].

the sound waves [2], shows much greater amplitude in the parts spoken by the children accompanying the images they had produced, showing a greater interpersonal involvement than in the preceding flatter narration of the introductory paragraphs [3].

Although the students exhibited individual variety in pitch and volume in their narration of the captions to the illustrated pages in different languages, the predominant tone adopted for reading their captions out loud was ‘rising-falling’, with emphasis placed on the communality of the statement “We all”. According to Halliday (1994: 303) a rising-falling tone combination is commonly used on strong assertions with the “implication of ‘you ought to know that’”.

The contrasting patterns between the formal reading of the introductory page, and the more informal voice-over narration to the captioned illustrations on Pages 4 to 7, are also reflected in the simulated turn-taking style as a result of post-production editing, when visualized in the form of state-transition diagrams which display the semiotic choices that have been utilized in the video over time. An example of a state transition diagram is shown at left in Figure 8. In the diagram, a state is denoted by circles [1] and represents the semiotic choices [2] that have been utilized in the video, in this case, spoken language. The different states, i.e. the language choices exercised by different speakers at specific points in time, are displayed in percentages in terms of total video time. The lines between the states [3] represent the movements (i.e. transitions) between

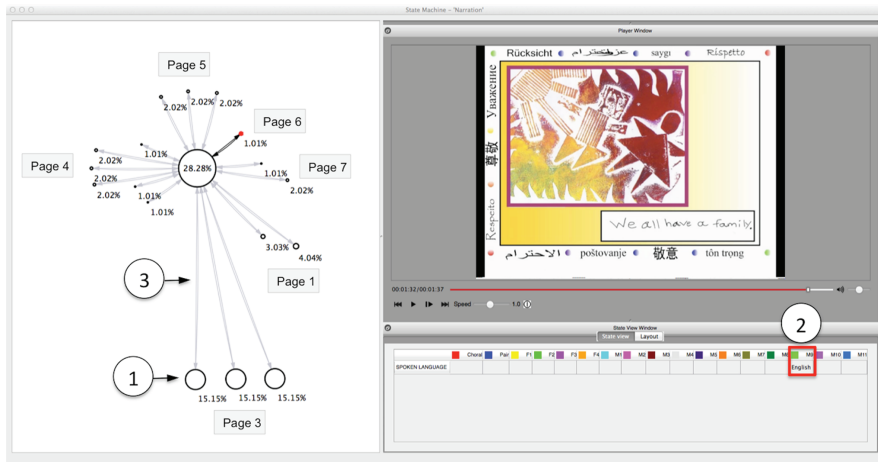


Figure 8: Screenshot of state transition diagram showing narration patterns in the analyzed excerpt of *Imagine a world*. Notation: state [1], language choice utilized by a speaker at a specific point in time in the video [2], transitions between states [3].

individual states as the video unfolds. Accordingly, we can infer from the larger circles at the bottom right quadrant of the diagram that the students make use of relatively long speech turns with few transitions between speakers when narrating the English passages on the introductory page (Page 3 in the talking book), than they do in the ensuing pages. Conversely, the voice-over narration to the captioned illustrations on Pages 4 to 7 of the talking book, which is read individually or jointly in English and other languages, focusing on one image at a time, is more interpersonally charged, even in its edited form, giving the appearance of shorter turns and frequent transitions between speakers.

5 Discussion

In Section 4, we presented the multimodal analysis of sample pages from the talking book *Imagine a world*, conducted with a view to better understand how the children interacted multilingually with their collaboratively produced semiotic artifact. In this section, we focus our attention on the contributions and implications of an analytic SF-MDA approach for teaching and learning English via a multimodal multiple language project, and how it afforded us with an overview and appreciation of the contributions of multiple semiotic elements and layers in the student-produced multilingual talking book.

The majority of the students who participated in the project were at some stage of learning English; their knowledge of and fluency in home languages also varied. The project invited their conception of human commonalities, expressed in English and other languages they had familiarity with, hand-printed images, colour, page design, and narrative voice.

English provided the thread of textual coherence across all pages amid the audio-visual profusion of languages in the talking book. It is the only linguistic medium that is constant throughout the pages of the text and the production, despite the fact that some images are captioned only in LX. In these cases, the images literally said the same thing as the other images on the page: they repeated the message linguistically and visually, if not in English. English was also the medium of the classroom, used during all production phases. Multilingual writing and narration involved translation with intergenerational, peer, and teacher support.

The composition of this text is layered and complex – more so with a spatio-temporal text, which needs to be scripted before being brought to life in a temporal medium, such as audio or video. The multimodal approach has

afforded us with an appreciation of how the production process contributed to meaning making, and how the editorial cycle in message creation and text design requires the author/s to think about the appropriateness of the core message to the technical medium, considering the semiotic values of colour, or font, for instance, in tune with the communicative intent of the message.

The modal density of a well-designed multimodal text facilitates message redundancy, which is clearly helpful to the project of language learning. To choose the appropriate word or phrase to convey meaning and emotional tone in a statement is a difficult task for a language learner. This is not to suggest that composition of a linear monolingual static two-dimensional text does not require careful discussion, and repeated editing. However, to combine a word or phrase with similarly carefully selected semiotic resources, such as image, sound effect, music, or video clip, and then to design the placement and interaction of these semiotic resources on the page or screen according to semiotic intent is also a demanding compositional task. The variety of semiotic resources employed in multimodal text creation invites complex meaning-making choices in encoding, programming, and editing that invite collegial discussion and offer different avenues to reinforcing linguistic meaning.

The multimodal approach has allowed us to form a deeper understanding of how different kinds of meaning are constructed and realized through combinations of different semiotic resources, and the overall effect this has on the finished product. It has made evident how combinations of different registerial choices in different sections of the talking book reflected a major stylistic division between written and spoken discourse, which aligned with the children's voice-over narration and turn-taking style adopted for different pages.

6 Summary and conclusion

In this article, we have demonstrated how the analysis of a multilingual artifact and its production, conducted from a multimodal perspective, can provide answers to the question how linguistic diversity can be utilized productively in the context of teaching English via a multimodal multiple language project.

Our inquiry into the production process has shown that in creating the talking book the students collaborated with each other and their teachers in multiple stages: brainstorming, researching, discussing, writing, editing, illustrating, printmaking, storyboarding, narrating, programming and video-editing. The schoolwork was conducted in English in the classroom; the languages of the home and of the world were inserted into the book by inviting intergenerational

assistance from the students' families, as well as help from the teachers. The final product, *Imagine a world*, offers the reading/listening audience diverse entry points to understanding the content, both linguistic and artistic.

Using purpose-built software for the analysis of the two-dimensional static images and the dynamically unfolding video, we examined how multiple languages were deployed along with other resources to create the talking book. The analysis of the images and their captions, in combination with the video analysis of linguistic and narrative patterns, provides a fine-grained picture of the interplay between different semiotic resources, allowing us to examine metafunctional contributions to meaning-making. The analysis allowed us to form a deeper understanding of how combinations of different semiotic resources worked together to create meaning in a multimodal multilingual artifact, to delineate the role of English in meaning-making, and gain greater insights into how the children interacted multilingually with their collaboratively composed multimodal talking book and how, throughout the process, the students engaged with the content of the focus topic in ways which challenged and engaged them and which, through using English as the common thread throughout, facilitated their use of English while simultaneously valuing their home languages.

Acknowledgements: This research was made possible through a Gordon and Jean Southam Fellowship for Professor Heather Lotherington, awarded by the Association of Commonwealth Universities. Grateful acknowledgement is also given to the Social Science and Humanities Council of Canada for funding the research generating the data analyzed in this paper.

References

- Baldry, Anthony & Paul J. Thibault. 2006. *Multimodal transcription and text analysis. A multimedia toolkit and coursebook*. London and New York: Equinox.
- Bateman, John, Janina Wildfeuer & Tuomo Hiippala. 2017. *Multimodality: Foundations, research and analysis – A problem-oriented introduction*. Berlin, Boston: De Gruyter.
- Beacco, Jean-Claude, Michael Byram, Marisa Cavalli, Daniel Coste, Mirjam Egli Cuenat, Francis Goullier & Joanna Panthier. 2010. *Guide for the development and implementation of curricula for plurilingual and intercultural education*. Geneva, CH: Council of Europe, Language Policy Division. <https://www.coe.int/en/web/language-policy/guide-for-the-development-and-implementation-of-curricula-for-plurilingual-and-intercultural-education>.
- Bezemer, Jeff & Gunther Kress. 2008. Writing in multimodal texts: A social semiotic account of designs for learning. *Written Communication* 25(2). 166–195.
- Carrasquillo, Angela & Vivian Rodríguez. 2002. *Language minority students in the mainstream classroom*, 2nd edn. Clevedon, UK: Multilingual Matters.

- Cenoz, Jasone & Durk Gorter. 2013. Towards a plurilingual approach in English language teaching: Softening the boundaries between languages. *TESOL Quarterly* 47(3). 591–599.
- Clay, Marie M. 1985. Beginning literacy in two languages. *Singapore Journal of Education* 7(2). 3–14.
- Coelho, Elizabeth. 2004. *Adding English: A guide to teaching in multilingual classrooms*. Toronto, ON: Pippin Publishing.
- Creese, Angela & Adrian Blackledge. 2010. Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *The Modern Language Journal* 94(1). 103–115.
- Early, Margaret, Maureen Kendrick & Diane Potts. 2015. Multimodality: Out from the margins of English language teaching. *TESOL Quarterly* 49(3). 447–460.
- Edelsky, Carole. 1982. Writing in a bilingual program: The relation of L1 and L2 texts. *TESOL Quarterly* 16(2). 211–228. doi:10.2307/3586793.
- Eggs, Suzanne. 1994. *An introduction to systemic functional linguistics*. London: Pinter Publishers.
- Elleström, Lars. 2010. The modalities of media: A model for understanding intermedial relations. In Lars Elleström (ed.), *Media borders, multimodality and intermediality*, 11–48. London: Palgrave Macmillan.
- Fox, Mem. 1997. *Whoever you are*. Orlando, FL: Voyager Books.
- García, Ofelia & Li Wei. 2015. Translanguaging, bilingualism and bilingual education. In Wayne E. Wright, Sovicheth Boun & Ofelia García (eds.), *Translanguaging, bilingualism, and bilingual education. The handbook of bilingual and multilingual education*, 223–240. Malden, MA: Wiley Blackwell.
- Gibbons, Pauline. 2003. Mediating language learning: Teacher interactions with ESL students in a content-based classroom. *TESOL Quarterly* 37(2). 247–273.
- Halliday, Michael A. K. 1994. *An introduction to functional grammar*, 2nd edn. London: Arnold.
- Halliday, Michael A. K. & Christian M. I. M. Matthiessen. 2014. *Halliday's introduction to functional grammar*, 4th edn. Abingdon, UK and New York, NY: Routledge.
- Ivković, Dejan & Heather Lotherington. 2009. Multilingualism in cyberspace: Conceptualizing the virtual linguistic landscape. *International Journal of Multilingualism* 6(1). 17–36.
- Jewitt, Carey. 2008. Multimodality and literacy in school classrooms. *Review of Research in Education* 32(1). 241–267.
- Jewitt, Carey, Jeff Bezemer & Kay L. O'Halloran. 2016. *Introducing multimodality*. London & New York: Routledge.
- Kress, Gunther. 2010. *Multimodality: A social semiotic approach to contemporary communication*. New York: Routledge.
- Kress, Gunther & Theo van Leeuwen. 2001. *Multimodal discourse: The modes and media of contemporary communication*. London: Arnold.
- Kress, Gunther & Theo van Leeuwen. 2006. *Reading images: The grammar of visual design*, 2nd edn. London: Routledge.
- Kress, Gunther R. 2003. *Literacy in the new media age*. London: Routledge.
- Lankshear, Colin & Michele Knobel. 2003. *New literacies: Changing knowledge and classroom learning*. Buckingham, UK: Open University Press.
- Lin, Angel. 2013. Toward paradigmatic change in TESOL methodologies: Building plurilingual pedagogies from the ground up. *TESOL Quarterly* 47(3). 521–545. doi:10.1002/tesq.113.
- Lotherington, Heather. 2011. *Pedagogy of multiliteracies: Rewriting Goldilocks*. New York, N.Y.: Routledge.

- Lotherington, Heather. 2013. Creating third spaces in the linguistically heterogeneous classroom for the advancement of plurilingualism. *TESOL Quarterly* 47. 619–625. doi:10.1002/tesq.117.
- Lotherington, Heather & Jennifer Jenson. 2011. Teaching multimodal and digital literacy in L2 settings: New literacies, new basics, new pedagogies. *Annual Review of Applied Linguistics* 31. 226–246.
- Lotherington, Heather & Cheryl Paige (eds.). 2017. *Teaching young learners in a superdiverse world: Multimodal perspectives and approaches*. New York, N.Y: Routledge.
- Lotherington, Heather & Farah Rahemtula. 2017. We speak your language. In Heather Lotherington & Cheryl Paige (eds.), *Teaching young learners in a superdiverse world: Multimodal perspectives and approaches*, 31–53. New York, N.Y: Routledge.
- Martin, James R. 2002. Meaning beyond the clause: SFL perspectives. *Annual Review of Applied Linguistics* 22. 52–74.
- Martin, James R. & David Rose. 2007. *Working with discourse: Meaning beyond the clause*, 2nd edn. London: Continuum.
- Martin, James R. & Peter R. R. White. 2005. *The language of evaluation, appraisal in English*. London and New York: Palgrave Macmillan.
- Moore, Danielle & Laurent Gajo. 2009. Introduction—French voices on plurilingualism and pluriculturalism: Theory, significance and perspectives. *International Journal of Multilingualism* 6(2). 137–153.
- Norris, Sigrid. 2004. Multimodal discourse analysis: A conceptual framework. In Philip LeVine & Ron Scollon (eds.), *Discourse and technology: Multimodal discourse analysis*, 101–115. Washington, DC: Georgetown University Press.
- Norris, Sigrid. 2014. Modal density and modal configurations. In Carey Jewitt (ed.), *The Routledge handbook of multimodal analysis*, 86–99. Abingdon, UK: Routledge.
- Ntelioglou, Burcu Yaman, Jennifer Fannin, Mike Montanera & Jim Cummins. 2014. A multilingual and multimodal approach to literacy teaching and learning in urban education: A collaborative inquiry project in an inner city elementary school. *Frontiers in Psychology*. doi:10.3389/fpsyg.2014.00533.
- O'Halloran, Kay L. 2008. Systemic functional-multimodal discourse analysis (SF-MDA): Constructing ideational meaning using language and visual imagery. *Visual Communication* 7(4). 443–475.
- O'Halloran, Kay L. & Victor Lim Fei. 2014. Systemic functional multimodal discourse analysis. In Sigrid Norris & Carmen Daniela Maier (eds.), *Texts, images and interactions: A reader in multimodality*, 137–154. Berlin: Mouton de Gruyter.
- O'Halloran, Kay L., Sabine Tan & K. L. E. Marissa. 2017. Multimodal analysis for critical thinking. *Learning, Media and Technology* 42(2). 147–170. doi:10.1080/17439884.2016.1101003.
- O'Halloran, Kay L., Sabine Tan & Peter Wignell. 2019. SFL and multimodal discourse analysis. In Geoff Thompson, Wendy L. Bowcher, Lise Fontaine & David Schöenthal (eds.), *The Cambridge handbook of systemic functional linguistics*, 433–461. Cambridge UK: Cambridge University Press.
- O'Toole, Michael. 2011. *The language of displayed art*, 2nd edn. London & New York: Routledge.
- Pahl, Kate & Jennifer Rowsell (eds.). 2006. *Travel notes from the new literacy studies: Case studies in practice*. Clevedon: Multilingual Matters Ltd.
- Potts, Diane. 2013. Plurilingualism as multimodal practice. *TESOL Quarterly* 47(3). 625–630. doi:10.1002/tesq.118.
- Stille, Saskia & Gail Prasad. 2015. “Imaginations”: Reflections on plurilingual students’ creative multimodal works. *TESOL Quarterly* 49(3). 608–621. doi:10.1002/tesq.116.

- Tan, Sabine, Kay L. O'Halloran & Peter Wignell. 2016. Multimodal research: Addressing the complexity of multimodal environments and the challenges for CALL. *ReCALL: Special Issue on Multimodal Environments in CALL* 28(03). 253–273. doi:10.1017/S0958344016000124.
- Taylor, Shelley K. & Kristin Snoddon. 2013. Plurilingualism in TESOL: Promising controversies. *TESOL Quarterly* 47(3). 439–445.
- Thorne, Steven L. & Dejan Ivković. 2015. Multilingual Eurovision meets plurilingual YouTube: Linguascaping discursive ontologies. In Dale Koike & Carl S. Blyth (eds.), *Dialogue in multilingual, multimodal, and multicompetent communities of practice*, 167–192. Amsterdam: John Benjamins.
- van Leeuwen, Theo. 2015. Multimodality in education: Some directions and some questions. *TESOL Quarterly* 49(3). 582–589.

Bionotes

Heather Lotherington

Heather Lotherington is Associate Dean (Research) in the Faculty of Education, and Professor of Multilingual Education at York University in Toronto. She is a Senior Fellow at Massey College in the University of Toronto, and former Gordon and Jean Southam Fellow at Curtin University, Perth, Australia. Her research interests span multimodal literacies; multilingual and plurilingual education; mobile learning; language, literacy and technology; and pedagogical innovation. She is currently researching production pedagogies for mobile second language learning, while continuing to theorize multimodality for educational purposes. Address for correspondence: Faculty of Education, York University, 4700 Keele Street, Toronto, ON M3J 1P3. Email: hlotherington@edu.yorku.ca

Sabine Tan

Sabine Tan is a Senior Research Fellow in the School of Education, Faculty of Humanities, at Curtin University. Her research interests include critical multimodal discourse analysis, social semiotics, and visual communication. She is particularly interested in the application of multidisciplinary perspectives within social semiotic theory to the analysis of institutional discourses involving traditional and new media. Address for correspondence: School of Education, Faculty of Humanities, Curtin University, Kent Street, Bentley Western Australia 6102. Email: sabine.tan@curtin.edu.au

Kay L. O'Halloran

Kay L. O'Halloran is Head of Department and Chair in Communication & Media in the School of the Arts at the University of Liverpool in the United Kingdom. Her areas of research include multimodal analysis, social semiotics, mathematics discourse, and the development of interactive digital media technologies and visualization techniques for multimodal and sociocultural analytics. Address for correspondence: Department of Communication & Media, University of Liverpool, School of the Arts, 19 Abercromby Square, L69 7ZG, United Kingdom. Email: kay.ohalloran@liverpool.ac.uk

Peter Wignell

Peter Wignell was a Senior Research Fellow in the School of Education, Faculty of Humanities, at Curtin University. His research interests are in Systemic Functional Linguistics, especially in its application to the analysis of multimodal texts, with a recent focus on discourses of violent extremism. His research has also focused on the role of language in the construction of specialised knowledge. Address for correspondence: School of Education, Faculty of Humanities, Curtin University, Kent Street, Bentley Western Australia 6102. Email: peter.wignell@curtin.edu.au

Andrew Schmitt

Andrew Schmitt is a K-12 Learning Coach in the Toronto District School Board. He facilitates job-embedded professional learning through co-planning, co-teaching, sharing resources and collaborative inquiry, to build collective educator efficacy using evidence-based instructional strategies and practices in the areas of literacy, numeracy, inquiry, technology integration, digital fluency and global competencies. At the time of this project, he was the Teacher Librarian at Joyce Public School. Email: andrew.schmitt@tdsb.on.ca

Copyright of Text & Talk is the property of De Gruyter and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.