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Multimodal Composing in K-16 ESL and EFL Education

Multilingual Perspectives

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Prologue

Multimodal Composing in L2 Writing: Multilingual Teaching and Learning Contexts

Abstract

This chapter presents key concepts (i.e., multimodality, mode, medium, and synaesthetic semiosis) of multimodal composing, drawing on social semiotics. It offers an overview of the current research and pedagogy of multimodal composing in multilingual teaching and learning contexts. It concludes with an introduction of the scope and organization of the volume and outlines of the chapters of the four sections in the book: (1) Theoretical and Methodological Issues in Researching Multimodal Composing; (2) Multilingual Writers' Engagement with Multimodal Composing; (3) Affordances and Constraints of Multimodal Composing in Multilingual Contexts; and (4) Pedagogical Issues Concerning Employing Multimodal Composition Pedagogy.

Keywords: Multimodality • Multimodal composing • L2 writing • ESL • EFL

Introduction

With the growing prominence of multimodal communication, writing is increasingly becoming designing multiple meaning-making modes (e.g., word, image, sound, video) into a synthesized ensemble. Writers, regardless of their language backgrounds, have become more engaged in multimodal composing practices with diverse communication technologies and multimedia authoring tools. Copious conceptual and empirical research over the past three decades has touched upon a range of issues related to multimodality. However, most research on the topic has focused primarily on multimodal composing in monolingual contexts where students use English as their first language (L1). Little research has been dedicated to directly

investigating second language (L2) students' multimodal composing (Belcher 2017; Yi et al. 2020). This paucity of research is due to the prevalent tradition that "the writing-skill view is alive and well in L2 writing" of K-16 English as a second or foreign language (ESL or EFL) education (Belcher 2017, p. 80). It is worth noting that some L2 writing teachers are ambivalent about or resistant to embracing multimodal composing in their L2 classrooms, because they may feel multimodal writing is far removed from their classroom realities and that they lack resources, time, and training for multimodal composing instruction.

L2 writers have long read and written a wide range of multimodal texts (both digital and nondigital) in their classrooms (e.g., academic posters, picture books, brochures, PowerPoint slides, video documentaries). In other words, EFL and ESL students in many different environments and countries are exposed to multimodal composing in L2 to varying degrees. Thus, multimodal composing is not new to L2 writers' literate lives, nor has it been difficult to identify its relevance. With emerging technologies, L2 writers have engaged with an increasing number of multimodal texts for meaning-making, and contemporary communication "requires addressing the full range of semiotic resources used within a community and/or society" (Early et al. 2015, p. 448). For L2 writers, multimodal composing is a reality; however, if we as members of the second language writing field focus only on monomodal written texts (typically academic written English), then our agenda in the field is quite narrow (Yi 2017). Thus, in-depth and critical explorations into multimodal composing and its implications in L2 writing research and pedagogy are necessary. Exploration of such an important topic can make a significant contribution to the field and help to move it forward.

Recent scholarship has collectively called for L2 writing professionals to give attention to a new dimension of L2 writing—research and pedagogy in multimodal composing (in both digital and non-digital forms)—and for explicitly or implicitly making multimodality more central in future L2 writing research (Casanave 2016; Hirvela and Belcher 2016). In addressing this research need, this edited volume contributes to expanding knowledge pertaining to multimodality and multilingual writing through a collection of empirical and conceptual studies. This edited volume offers research-driven and practice-oriented perspectives of multilinguals' multimodal composing, distinguishing itself from existing books that highlight possible multimodal affordances solely on the basis of conceptual grounding in monolingual English writing. Drawing on empirical data from K-16 classrooms in ESL and EFL contexts, it elucidates aspects of multimodal composing from a range of theoretical perspectives such as multiliteracies (Cope and Kalantzis 2010; New London Group 1996), systemic functional linguistics (SFL) (Halliday 1978, 2004; Halliday and Matthiessen 2014; Schleppegrell 2004), systemic functional multimodal discourse analysis (Jewitt et al. 2016; Unsworth 2006), and social semiotics (Jewitt 2006; Kress 2003, 2014; Kress and van Leeuwen 2001). This book aims to be a leading resource in researching issues of multilinguals' multimodal composing, while offering a comprehensive treatment of issues surrounding multimodality.

Multimodality

Multimodal composing involves more meaning-making resources than traditional language-based writing, and is grounded in the concept of multimodality and associated concepts such as mode and medium. *Multimodality* pertains to meaning-making with multiple modes (e.g., language, image, sound) and multimodal texts that include both digital and nondigital forms (e.g., videos, websites, live performances). *Mode* is a social and cultural meaning-making resource (Bezemer and Kress 2008; Kress 2010, 2014) and each mode has its own modal resources and affordances that are different from what is available in other modes. For instance, language has lexicogrammatical resources, while moving images have resources that include shapes, size, icons, spatial relations, and movement. Writers configure and synthesize available modes in a medium of composition that has different meaning potentials into a multimodal text. *Medium* as a channel of communication and distribution of meanings has materiality and a sociocultural aspect. Both materiality and social–cultural properties suited for specific contexts are mediated by the technical aspects of a medium (Elleström 2010, 2020). That is, medium represents the substance (cf. "oil on canvas") in and through which meaning is constructed and through which meaning becomes conveyed to others in sociocultural practices of communities. Examples of medium include book, screen, and "speaker-as-body-and-voice" (Bezemer and Kress 2008, p. 172), and as digital technologies have been widely used for contemporary communication, writers use digital media for composing screen-based multimodal texts. All media are interconnected to each other and have intermedial relations/intermediality within and between media (Elleström 2010). Media entail material, sensorial, spatiotemporal, and semiotic modalities that, respectively, relate to underlying physical, perceptual, spatiotemporal, and meaning-making interfaces of media. Each modality encompasses several modes that vary according to media. For instance, sensorial modality of a book is different from that of a film in that the former includes visual mode and the latter has visual and aural modes.

Multimodality has been used and explicated differently across a variety of disciplines based on various theories (Jewitt et al. 2016; Norris 2019). The theoretical perspectives that studies of language and literacy have drawn on could be categorized mainly into social semiotics (Jewitt 2006; Kress 2014; Kress and Hodge 1988; van Leeuwen 2005), SFL (Halliday 2004; Halliday and Matthiessen 2014; Martin and Rose 2008; O'Halloran et al. 2014; O'Toole 2011; Unsworth 2008), and conversation analysis (Goodwin 2000; Goodwin and Tulbert 2011; Schegloff 2007; Schegloff and Sacks 1973). Although these theories share conceptual foundations for mode and making meaning, they have their own methodological focus and approach to investigating multimodality. SFL-based research has investigated how modes are organized and used for social functions based on detailed transcriptions and analyses of texts or large corpora of texts (O'Halloran et al. 2014; O'Toole 2011; Unsworth 2006, 2008). Social semiotics, grounded in SFL (Halliday 1978, 1985), focuses on examining the agency of a sign maker that is interpreted by the aptness of a semiotic relation between the interest of the sign maker and modal affordances. Its methodology has been used

to conduct detailed analyses of small fragments of artifacts (e.g., print texts, films, games, drawings) employing historical comparisons or ethnography (Bezemer and Kress 2008; Kress and van Leeuwen 2006). Looking at sequential actions in interactions, conversation analysis has centered on how people recognize and organize social orders in interactions, and its methodology entails a micro-analysis of selected fragments of video recorded multimodal interactions (Goodwin 2000).

From theoretical perspectives of social semiotics and systemic functional linguistics, multimodal composing constructs discursive meanings that result from cultural ways of using semiotic resources/modes (Jewitt and Kress 2003; Kress 2003, 2005). An author's orchestration of available semiotic resources/modes into a multimodal ensemble is a representation of cultural, social, and discursive values and norms. That is, writers configure affordances regarding modes, media, audiences, and genres in the backdrop of their cultural, social, and political subjectivities in every act of meaning-making. The authors have expanded multimodal resources and agency within culturally bounded norms in constructing meanings of a text. Multimodal texts, therefore, convey meanings created in dialogic relations between an author's interest and cultural practice. In this, multimodal composing could generate changes in using modal and representational resources that have social and cultural implications in modes.

The semiotic modes in a multimodal text interact with each other, creating the meanings that the multimodal text construes as a whole. Meanings constructed intermodally across multiple modes (e.g., language/image, language/language/image) convey a new form of meaning that a single mode may not obtain (Kress 2003, 2010; Nelson 2006). The nature of multimodal composing is grounded in a *synaesthetic semiosis*, that "the different modes of representation are not held discretely, separately, as strongly bounded autonomous domains in the brain, or as autonomous communicational resources in culture, nor are they deployed discretely, either in representation or in communication" (Kress and van Leeuwen 2006, p. 41). Meaning-making processes based on intermodality among modes entail a writer's understanding of the role played by a mode of representation as a design element as well as the effects of both the absence and the existence of the design element on the multimodal ensemble that they create. Such an understanding entails what is required in creating and responding to a multimodal text.

Multimodal Composing in L2/Multilingual Contexts

Multimodality is a domain of inquiry (Kress 2009, p. 54), and has been studied in multiple disciplines including applied linguistics, composition, education, and communication. Studies of multimodality in multilingual and plurilingual contexts have employed transmodality to highlight the fluid and permeable multimodal composing of L2 writers, despite different views of language acquisition and use between multilingualism, which promotes balanced mastery of different languages as separate entities, and plurilingualism, which stresses synergetic interactions of

languages as a holistic integrated system (Piccardo 2013). Like other concepts with a "trans-" prefix (e.g., translangauging, transliteracy, translingual practice) that underscore dynamic and interrelated processes of language acquisition and use, transmodality challenges traditional monolingual and monomodal notions of language acquisition and use. Considering that multimodality describes intermodal relations/intermodality and orchestration across modes for meaning construction, transmodality instantiates the principles that multimodality signifies through such concepts as intermodality and synesthetic semiosis in creating a multimodal ensemble.

Studies of L2 multimodal composing have drawn on social semiotics, SFL, sociocultural theories, and multiliteracies that explain different aspects of multimodality using varied epistemological and methodological approaches (Yi et al. 2019, 2020). Despite the distinct nature of each theory, some theories have more epistemological and methodological commonalities than others. For instance, social semiotics and SFL (Halliday 1975; Kress 2003) examine how L2/multilingual writers orchestrate multiple semiotic resources available in a medium into a multimodal ensemble. With regard to expanded meaning-making resources for representing and communicating meanings, studies based on social semiotics have highlighted L2 writers' increased authorial agency in constructing intended meanings in a given instance of multimodal communication (Hafner 2015; Nelson 2006). They have shown how writers (re)design semiotic resources/modes available in a medium; writing as designing has become a matter of appropriating and synthesizing available modes into a semiotic whole, which can lead to the creation of new meanings through (re)designed text (Kress 2003; New London Group 1996). Turning the focus from author to text, SFL-based studies have explicated what and how modes and intermodal relations among the modes as design elements are employed and organized to create ideational, interpersonal, and textual meanings in the multimodal texts of L2 writers (Shin et al. 2020; Unsworth and Mills 2020).

Multiliteracies and sociocultural theories about situated literacy show that a form of literacy conveys its own legitimate values with embedded ideologies and cultures in its practice (Barton et al. 2000; Cope and Kalantzis 2010; New London Group 1996; Street 1984). Focusing on multimodal textual practices with interactions, ideologies, texts, and artifacts that mediate the practices, studies based on multiliteracies and sociocultural theories have examined the multimodal literacy practices of L2 writers in specific contexts, and have shown the patterning of social and cultural practices and the meanings ascribed by and to those writers (Ajayi 2009; Smith 2019). In particular, the studies have investigated how language learners appropriate and recreate available designs and use the redesigned texts, and what their literacy practices mean for language and literacy learning and identity construction. They have highlighted L2 writers' cultural and individual identities as they engage with increased semiotic choices in multimodal literacy practices.

A range of research methods have been used for investigations of multimodal composing in multilingual contexts, but a majority of the studies privilege qualitative research approaches (see Yi et al. in this volume). Studies grounded in social

semiotics and systemic functional linguistics draw on textual analyses (e.g., multimodal discourse analysis, systemic functional approaches to multimodal discourse analysis). Coupling multimodal discourse analysis with qualitative case study, the studies analyze what and how multiple modes/semiotic resources are used to create meanings of texts, and how cultural, social, and discursive values and norms are realized in constructed texts. Employing ethnographic principles, studies based on multiliteracies and sociocultural theories explore ways to engage with texts in specific multimodal textual practices. Adopting qualitative case study approaches, the studies investigate how authors create multimodal texts and what it means to use multimodal texts. Despite the epistemological and methodological differences, these strands of research into multimodal composing can advance understanding of both product and process aspects of multimodal composing in a symbiotic relationship.

Drawing on the aforementioned different theoretical and methodological approaches, L2 researchers have started to examine multilingual's multimodal authoring and texts. Although it is still emerging, much of the multimodal composing research conducted in L2 contexts has explored affordances, strategies, assessment, and perceptions, as well as how agency and identity are expressed and constructed through these composing practices (Barton and Potts 2013; Cimasko and Shin 2017; Hafner and Ho 2020; Lotherington and Jenson 2011; Nelson 2006; Prior 2013; van Leeuwen 2015; Shin et al. 2020; Unsworth and Mills 2020; Yi et al. 2017). For everyday communications, L2/multilingual writers have been designing, interpreting, and responding to multimodal texts (e.g., picture books, graphic novels, digital stories) that synthesize multiple semiotic resources such as words, sounds, and images conveying cultural, social, and discursive values and norms. Acknowledging L2/multilingual learners' communications out of school, classroom teachers in ESL and EFL contexts have started to employ multimodal approaches to support multilingual writers' language learning and uses (Ajayi 2009; Choi and Yi 2016; Hafner and Ho 2020; Nelson 2006; Shin and Cimasko 2008; Smith et al. 2017). Multilinguals' multimodal literacy practices in both digital and nondigital forms highlight new dimensions of research and pedagogy (Belcher 2017; Casanave 2016; Hirvela and Belcher 2016; Yi 2017).

Studies of multilinguals' multimodal composing push us to rethink L2 writing education. The primary fundamental set of changes concerns re-conceptualization of "what we mean by 'writing' to encompass literacy and multimodality more broadly, in and out of school" (Casanave 2016, p. 507). Another set of changes relates to the affordances and constraints of multimodal composing in relation to pedagogy, learner agency, and identity (Barton and Potts 2013; Hafner 2015; Harman and Shin 2018; Lotherington and Jenson 2011; Shin 2018; Yi, King, and Safriani 2017; Yi et al. 2019, 2020). As multimodal composing entails a conceptual shift from conventional to hybrid and from canonical to flexible meaning-making practices, teaching and researching multimodal composing that is creative yet grounded in discursive and cultural practices (Kress 2010) make reconceptualizing theoretical, methodological, and pedagogical tools necessary.

The Scope and Aim of This Book

The overarching goal of this book is to illustrate the current state of multimodal composing and literacies, with an emphasis on English language learners' language and literacy development. In particular, it examines theoretical, methodological, and pedagogical implications for the teaching and learning of multimodal composing for multilingual learners in U.S. K-16 ESL settings and in EFL settings (i.e., Taiwan and Chile). In addressing this research agenda, this edited volume expands the knowledge base pertaining to multimodality and multilingual writing for scholars and educators in TESOL, applied linguistics, and other related programs, and current and prospective students in those areas of inquiry. As a forerunner in offering a comprehensive treatment of issues surrounding multimodality from multilingual perspectives, the volume aims to:

- Equip readers to handle theoretical and methodological issues in research on multilinguals' multimodal composing and literacies in various ESL and EFL contexts.
- Allow readers to develop the depth and breadth of their knowledge about the nature of multilingual learners' multimodal composing and multimodal literacy practices, and about the affordances and constraints of multimodal composing for multilingual learners with regard to their language/literacy learning and identity construction.
- Provide readers with pedagogical implications for multimodal composing in teaching and learning contexts across K-16.

This volume takes the initiative in expanding research into the complexity of multimodal composing and pedagogy in L2 contexts to more effectively address the changing nature of communication.

Although most empirical study chapters are based on US K-16 ESL contexts, the book also presents chapters on non-U.S. EFL contexts. The primary audiences of this volume are professionals and scholars of multilingual education, including graduate students in TESOL, applied linguistics, and related fields (e.g., literacy education), as well as teacher educators and scholars who teach and conduct research on multimodal composing and literacy in ESL and EFL contexts. The first three parts of the book are intended primarily for scholarly readers in TESOL, applied linguistics, literacy studies, and teacher education. Those who benefit most from the empirical studies in the book are researchers who come with experience in one or more of the various strands of research and theory. The remainder of the book is beneficial for teachers and teacher educators who look for information about praxis in multimodal composing and literacy for their K-16 curricula. Both researchers and practitioners can draw on the contents of the book to engage in theoretical and practical issues related to teaching and assessing multimodal literacies in multilingual contexts.

Organization and Contents of Book

This book is organized into four parts, with the first three parts focusing on researching multimodal composing and the last section attending to pedagogy. The parts highlight (a) theoretical and methodological issues in researching multilinguals' multimodal composing and literacies; (b) the nature of multilingual learners' multimodal composing from a synaesthetic semiosis perspective that illustrates actual meaning-making processes (Kress 2003, 2010); (c) the affordances and constraints of multimodal composing for learner agency and identity construction; and (d) pedagogical implications for multimodal composing. The volume is composed of 11 chapters, in addition to the prologue and the epilogue written by the editors. The chapters in each of the four parts address a range of topics with regard to researching multimodal writing and its praxis in multilingual teaching and learning contexts across K-16. The contributing authors of the 11 chapters bring their unique, interconnected perspectives on elementary, secondary, and tertiary contexts to this volume.

Part I: Theoretical and Methodological Issues in Researching Multimodal Composing

Chapter 1 (Sun, Yang, and Silva) discusses the concept of multimodality in L2/multilingual writing by tracing its intellectual roots and reviewing its contemporary developments. Sun and his colleagues maintain that any investigation of the theoretical or pedagogical aspects of multimodal composition in multilingual contexts needs to be built on an understanding of what counts as multimodality and what multimodality implies. The chapter concludes that this need for a clear understanding of multimodality becomes even greater as language studies are currently undergoing "the trans-turn" (Hawkins 2018, p. 55), which foregrounds the negotiability, permeability, and fluidity of boundaries among languages and other modalities in meaning-making.

Chapter 2 (Yi, Shin, Cimasko, and Chen) illustrates key methodological approaches to examining multimodal composing. Yi and her colleagues describe the four dominant theoretical frameworks used in multimodal composing studies in TESOL and applied linguistics (social semiotics, systemic functional linguistics, multiliteracies, and sociocultural theories). The chapter then explains various research designs, from case study to quasi-experimental research, which have been employed in multimodal composing research, with demonstrations of analyses from different theoretical and analytical frameworks (e.g., multimodal discourse analysis, and qualitative data analysis) that draw on specific examples of data analysis. The chapter presents methodological implications for future research.

Part II: Multilingual Writers' Engagement with Multimodal Composing

Chapter 3 (Zhang, Harman, Aghasafari, and Delahunty), informed by design-based research (DBR) and an embodied systemic functional linguistics (SFL) approach, details how three university educators and an ESOL teacher worked collaboratively to design and implement an embodied multimodal curriculum in a mixed-level ESL classroom at a U.S. high school. Zhang and his colleagues conducted an intertextual exploration, an SFL-informed ideational analysis, and a logico-semantic analysis of classroom activities and students' final written and artwork. The findings focus on the strengths and challenges in using an SFL-informed embodied curriculum to support multilingual learners in multimodal composing, and in grappling with globalization and immigration issues. The chapter concludes with implications pointing to the affordances of DBR for bringing high-level theories such as SFL and multimodality into practice, and the need for continued refinement in developing an embodied teaching and learning approach with multilingual learners.

Chapter 4 (Dávila and Susberry) presents a qualitative study of how newcomer English Learners (ELs) collaboratively engage various semiotic tools in their production of multimodal identity texts in high school social studies classes. Through analysis of students' written work (worksheet, screenplay, and poster) as well as field notes and recordings of classroom interaction, Dávila and Susberry explore the choices learners make in coauthoring multimodal texts that bridge multiple languages, contexts, and experiences. The chapter concludes by contributing nuanced conceptualizations of multimodal composition that emphasize dynamic relationships among identity formation, translingual practice, and civic engagement in an increasingly interconnected and digital world.

Chapter 5 (Park) presents how college freshman ESL students responded to an assignment to create a multimodal letter addressing their future selves and affordances of multimodal projects for L2 writing. Park conducted a multimodal discourse analysis and a content analysis of multimodal letters that 78 international undergraduates composed in U.S. freshman composition courses. The students used language as one of their primary modes, and language and image intermodal relations to describe their literate lives and future aspirations. The chapter presents implications of multimodal project on meaningful connections between school assignments and out-of-school lives, and students' growing awareness of a future possible self.

Part III: Affordances and Constraints of Multimodal Composing in Multilingual Contexts

Chapter 6 (Liaw and Accurso) presents a year-long ethnographic study of a fifth-grade teacher's multilingual and multimodal practice and her Chinese-English dual immersion students' compositions in the United States. Liaw and Accurso investigated the affordances of critical multilingual and multimodal composing pedagogy for the Chinese-English dual immersion students. The findings show that this pedagogy afforded students a more dynamic text production process, and expanded the range of meanings and identities they constructed and enacted during literacy instruction. In addition, students produced robust compositions that demonstrated their development of a wide range of semiotic forms beyond language. The chapter concludes with recommendations for readers interested in transforming L2 literacy instruction using this approach.

Chapter 7 (Smith, Malova, and Amgott) presents a study about the perspectives of 98 bilingual 10th-grade students, who participated in three multimodal instructional units in an English Language Arts class at a U.S. high school. Based on a qualitative analysis of design interviews, written reflections, and video observations, Smith and her colleagues present the main themes of students' perspectives on the affordances of multimodal composition, including unique opportunities for conceptualizing through visuals and sounds, communicating in innovative ways, expressing identities, and contextualizing literature. The main constraints discussed by the students are also presented, ranging from various technical issues to "finding the right mode." Building on these perspectives, the chapter provides implications for research and practice when integrating digital multimodal composing into multilingual classrooms.

Chapter 8 (Tseng) explores how four pre-service Taiwanese EFL teachers as L2 writers used multimodal composing tasks to facilitate their reflective writing and acquisition of the reflection genre. Through a data analysis based on theories of multimodality, transfer, frameworks of analyzing inter-semiotic complementarity, and reflective writing, Tseng shows that inter-semiotic relations between multimodal composing and genre writing may contribute to the transfer of genre knowledge, as evident in genre features at linguistic and rhetorical levels in L2 writers' texts and their reported genre awareness. The chapter offers implications for genre-based academic writing pedagogy centered on a multimodal composing perspective.

Part IV: Pedagogical Issues Concerning Employing Multimodal Composition Pedagogy

Chapter 9 (King) presents an ethnographic study of second- and third-grade students at a French-English dual language immersion school in the U.S. King investigated how a multilingual second-grade teacher and his students navigated the multimodal composition process during an end-of-the-year project on "How to Make the World a

Better Place." Drawing on principles of ethnography, she analyzed the design process of the students' projects using a variety of mediums (e.g., PowerPoint, YouTube, trifold boards). The chapter concludes with a discussion of the pedagogical process of the classroom teacher, the multimodal multilingual composition process of the students, and the importance of displaying the designed products.

Chapter 10 (Sultana and Turner) examines pedagogical issues related to employing multimodal writing pedagogy in L2 classrooms, drawing on sociocultural theories of literacy and empirical studies of multimodal media production. Using the authors' personal reflections as researchers in two different settings, Sultana and Turner investigated the impacts of multimodal composing on in-school and out-of-school literacies and potential tensions in implementing multimodal pedagogies in classrooms. The chapter discusses pedagogical guidance and concerns that teachers need to pay attention to in executing multimodal pedagogy in L2 classrooms.

Chapter 11 (Gilliland, Galdames, and Villalobos Quiroz) investigates a multimodal approach that a teacher educator in Chile developed to support students' learning to write problem-solution narratives in a multi-skill course with institutionally imposed competencies and final assessments. Through an analysis of students' collaboratively written blog posts, Gilliland and her colleagues maintain that the multimodal assignment fostered students' embodied experiences, development of voice, and investment in their writing processes. They also show that students made use of the affordances of the blog genre to design image-rich descriptions of outings, writing posts in a unified voice and commenting from their own perspectives. The chapter makes suggestions for teachers to implement multimodal activities in language-learning contexts.

This book concludes with an epilogue (Shin, Cimasko, and Yi) that presents theoretical, methodological, and pedagogical implications for multimodal composing research and pedagogy. Through a synthesis of the contributors' chapters, perspectives, and voices, the epilogue illustrates future directions for researchers, practitioners, and teacher educators.

Conclusion

Through a collection of studies that expand the boundaries of current research, this volume addresses issues concerning multilinguals' multimodal composing, while offering comprehensive coverage (i.e., a conceptual overview, empirical research, research methods, and pedagogical implications) across the U.S. and global contexts, and reflecting on what the nexus of multimodality, writing development, and multilingual education entails for future research. The volume is written primarily for professionals and scholars of multilingual education, including graduate students, in TESOL, applied linguistics, and related fields (e.g., literacy education), as well as teacher educators and scholars who teach and conduct research on multimodal composing and literacy in ESL and EFL contexts. The book presents empirical studies and theoretical chapters that will be beneficial to scholars who have research experience, as well as praxis chapters that will be useful for teachers and teacher educators

who are looking for information about how to implement multimodal composing and literacy pedagogy in their ESL or EFL classes. Both researchers and practitioners can draw on the contents of the book to engage in theoretical and practical issues with regard to teaching and assessing multimodal literacies in multilingual contexts. The book concludes with a discussion of all the chapters in terms of contributions to multilinguals' multimodal composing and future directions for transforming L2 writing education for the multimodal composing of multilinguals.

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Contents

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Part I
Theoretical and Methodological Issues in Researching Multimodal Composing

Chapter 1
Multimodality in L2 Writing: Intellectual Roots and Contemporary Developments

Yachao Sun, Kai Yang, and Tony Silva

Abstract In this chapter, we discuss the concept of multimodality in L2/multilingual writing by tracing its intellectual roots and reviewing its contemporary developments. Any investigation of the theoretical or pedagogical aspects of multimodal composition in multilingual contexts needs to be built on an understanding of what counts as multimodality and what multimodality implies. This need for a clear understanding of multimodality becomes even greater as language studies are currently undergoing "the trans- turn," which foregrounds the negotiability, permeability, and fluidity of the boundaries among languages and other modalities in meaning-making.

Keywords Multimodality · Transmodality · L2 writing

1.1 Introduction

L2 writing has long been an interdisciplinary field of study that focuses on issues pertaining to the language used in the L2 writing process. Therefore, language has been viewed as the central or primary element in making and sharing meaning. Recent approaches to written communication, such as the multimodal approach to writing studies, tend to consider language as only one component of meaning negotiation and construction (Yi et al. 2020; Cimasko and Shin 2017; Jewitt and Kress 2003; Kress 2000). Multimodality is intellectually founded on Halliday's (1978) social semiotic theory of communication. Halliday's work is primarily concerned with language use in social and cultural contexts, while the concept of multimodality has been

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further developed and extended to highlight the co-constructive features of language and other modes in meaning construction (Hodge and Kress 1988; Kress 2003; Jewitt 2006; van Leeuwen and Kress 1995; van Leeuwen 2005, 2006). As it gains more traction in writing studies, researchers have begun to investigate the effect of multimodality on L2 learners' writing development. The current discussion of multimodality in L2 writing is primarily aligning itself with the "visual turn" (Purdy 2014) in this digital era. However, concepts regarding multimodality continue to shift and emerge (Gonzales 2016); new terms, such as multimodal codemeshing (Smith et al. 2017) and transmodality (Hawkins 2018; Horner et al. 2015; Shipka 2016), have been proposed as the result of the increasing "trans-" scholarship in language studies. In this chapter, we chart the intellectual roots of multimodality, introduce its current development based on the recent "visual turn" and "trans- turn" literature, and discuss multimodality in L2 writing.

1.2 Multimodality and Its Intellectual Roots

The conceptualization of multimodality is based on the understanding of the notions of mode and modality. Kress (2017) defines mode as "a socially shaped and culturally given resource for meaning-making. Image, writing, layout, music, gesture, speech, moving image, and soundtrack are examples of modes used in representation and communication" (p. 60). This understanding of modes corresponds with the views of Halliday (2009) and Jewitt (2006), who state that modes of color, movement, and sound in addition to the linguistic mode contribute to the production and perception of messages as well. Other researchers also classify modes into linguistic, visual, audio, and spatial modes (Shin and Cimasko 2008). In this sense, modes are also called semiotic resources (Jewitt 2006). Based on this notion of modes/semiotic resources, Hawkins (2018) describes modality as "linked clusters of semiotic resources used to make meaning in communication that are culturally embedded and recognizable" (p. 60). Multimodality, then, has been explicated as "the integrations of two or more semiotic resources (including language) in the communication of meaning" (O'Halloran and Smith 2012) or a position "that understand[s] communication and representation to be more than about language, and which attend[s] to the full range of communicational forms people use—image, gesture, gaze, posture and so on—and the relationships between these" (Jewitt 2017, p. 15). This multimodal approach to writing and composition studies has raised writing and composition scholars' and practitioners' awareness of the importance of semiotic resources other than language in meaning negotiation and construction in writing.

The spread and promotion of multimodal writing and composition are a consequence of technological advancement both in and outside writing and composition classrooms (Shin and Cimasko 2008). Digital technology (e.g., computers, the Internet, and online tools) has provided a space to use a wide range of representational modes, which accelerates the change of writing mediums from paper-based to computer-based. In addition to this technological influence, multimodal approaches

to composition have their theoretical origins rooted deeply in various intellectual movements in linguistics, composition studies, and L2 writing studies; among the more representative ones are "social semiotic theory of communication" (Halliday 1978, 1985; Hodge and Kress 1988; Kress and van Leeuwen 2001), "writing as design" (New London Group 1995; Kern 2000; Purdy 2014), and "visual turn" (Kress 1999; Purdy 2014).

The social semiotic theory of communication (Halliday 1978, 1985) might have exerted the most influence on approaches concentrating on multimodality. The core of social semiotics is the understanding that language is social. From this view, language is understood "as a result of people's constant social and cultural work" as opposed to "ready-made codes" (Jewitt 2006, p. 3). According to Jewitt (2006), the social semiotics theory of communication distinguishes itself from the traditional understanding of semiotics in the way it treats semiotic signs or codes. Instead of conceiving of signs and codes as predetermined, which cannot be changed in any way, social semiotics theory regards signs and codes as semiotic resources, among which writers are able to make selections to create meaning in a particular context. This conceptualization is inseparable from the social orientation toward language mentioned above. From this perspective, semiotic codes are shaped into semiotic resources through social use (Jewitt 2006, p. 3). This renewed understanding of semiotic systems as fluid semiotic resources changes the role of the writers from passive code decipherers to active sign makers. Expanding the scope of social semiotics that focuses primarily on language, multimodal approaches advocate for the legitimacy of all semiotic resources in meaning-making under the assumption that language is only one resource for communication.

Multimodal approaches to composition foreground the materiality of texts. Different from meanings constructed by monomodal texts, meanings of multimodal texts highly depend on "the materiality of different modes of expression" (Halliday 2009, p. 41). That is, questions like what modes are included and in what way they are designed in a multimodal text all shape how the text will be interpreted. Thus, researchers who take multimodal approaches to composition also investigate how different modes are incorporated and synthesized to create meaning (e.g., Kress et al. 2001) in addition to investigating topics on theory, methodology, pedagogy, and legitimacy surrounding multimodal approaches. Under these conditions, L2 writing educators' attention is inevitably directed to the composing processes of writers, which echoes the argument that Zamel (1982) and other scholars made about writing as a process of discovering meaning. Writing is a discovery process of ideas and is a means of self-expression. Even though Zamel's argument was originally made concerning monomodal composition, this idea is shared and greatly elaborated in multimodal approaches to composition. The rapid development of digital technology has involved increasingly more semiotic resources in the writing process for writers to discover meanings through writing in digital mediums. Intermediality, "understood as a general condition for understanding communicative and aesthetic mechanisms, events and devices" (Elleström 2010, p. 12), has been discussed to understand multimodality within mediums.

As semiotic resources keep increasing, especially with more non-linguistic semiotic resources becoming available in computer-based writing, writers gradually become designers, who "design and redesign all the modes of representation … in order to convey their intended meaning" (Shin and Cimasko 2008, p. 337). This further invokes the design thinking that Purdy (2014) and others promote in writing studies, through which they argue, "a central concern of the discipline is to explore the ways in which people make meaning with any and all available resources" (p. 632). *Design* has long been a useful term in writing studies, particularly in the subfield of computers and composition. When narrowing its usage in multimodal composing, *design* primarily involves resources such as images and layouts that have designable features. Although this idea of viewing writing as design in multimodal composition occurs initially together with the "visual turn" in composition studies (Kress 1999), which promotes the idea of considering texts as visual and treating images as texts, this perspective continues to be adopted as the discipline turns attention to other modes (e.g., audio and video) (Purdy 2014). The more multimodal resources are incorporated in composition, the stronger the advocacy for a "fuller turn" (Marback 2009, p. 400) from writing to designing would become. This "visual" or "fuller" turn in multimodal composition has been further discussed in the current "trans-" scholarship.

1.3 From Multimodality to Transmodality

The rapid development of globalization has motivated language scholars to consider how to respond to the increasingly diversified language teaching and learning contexts. One of the responses is a "trans-" approach to language studies. The "trans-" scholarship, which highlights the synergistic, emergent, and contingent features of language and language use, has gained increasing traction in writing studies (e.g., L2 writing (Canagarajah 2013a; Smith et al. 2017), basic writing (Horner 2011; Wang 2017), multimodal composition (Bezemer and Kress 2008; Cimasko and Shin 2017; Horner et al. 2015), and writing assessment (Dryer 2016; Lee 2016). Terms such as plurilingualism (Coste et al. 2009; Piccardo 2013), transculture (Guerra 2008; Lu 2009), transliteracy (Stornaiuolo et al. 2017; Thomas et al. 2007), translanguaging (Creese and Blackledge 2010; García 2009; García and Li 2014; García and Lin 2017; Otheguy et al. 2015), translingual approach (Horner et al. 2011; Horner and Tetreault 2017; Lu and Horner 2013, 2016), and translingual practice (Canagarajah 2013a, 2013b, 2017, 2018), have been discussed in different academic fields (such as Composition Studies, Literacy Studies, Cultural Studies, Bilingual Education, Applied Linguistics, and L2 Writing) to challenge monolingualism and underscore the negotiable, permeable, and fluid boundaries of language, language difference, and language use in writing practices. Although there are significant differences, these terms share alignment on some key points. In sum, they all advocate for heterogeneity as the norm, consider language as fluid and hybrid, call for agency of all language users in shaping their own language, view language user identities as dynamic and

negotiable, regards meaning-making as a synergy between language and other modes, and challenge a monolingual approach to language studies (Horner 2018, pp. 78–79).

Multimodal composition research has also been inspired by this increasing interest in "trans-" studies. Bezemer and Kress (2008) discuss multimodal composition from a social semiotic perspective based on two concepts: transformation (changes within a mode, such as within the mode of writing, words and grammars remain but their arrangements change) and transduction (changes involving a change of mode, such as a change from image to speech or writing) (p. 175). Design—"the practice where modes, media, frames, and sites of display on the one hand, and rhetorical purposes, the designer's interests, and the characteristics of the audience on the other are brought into coherence with each other" (Bezemer and Kress 2008, p. 174)—through transformation and transduction moves the focus of writing from language to the relationship between multimodal resources. Cimasko and Shin (2017), based on the concepts of design (Bezemer and Kress 2008), resemiotization ("a meaning-making practice that involves changes in mode through remediation" (p. 392)), and recontextualization ("design processes such as selection, arrangement, foregrounding, and social repositioning in related rhetorical contexts" (p. 393)), examine the writing process of an L2 student. Their findings show that a multimodal designing process is affected by conceived audiences, genre norms, personal experiences, and individual identities. Therefore, they call for more research on the negotiation of L2 writers' interest and agency in accommodating the audience's expectations in rhetorical contexts in multimodal composition studies.

The "trans-" ideas in multimodal composition studies have elicited discussions about a relatively new term "transmodality" (Hawkins 2018; Horner et al. 2015; Shipka 2016). Like other "trans-" concepts, this term is also proposed to challenge a monomodal approach to writing studies and question the traditional demarcations of different modalities in meaning-making. The notion of transmodality has been elaborated based on the discussions between multimodality and repertoire and between multimodality and a translingual approach.

1.3.1 Multimodality and Repertoire

Multimodality, as discussed above, indicates the co-occurrence and synthesis of different modes (such as visual, aural, and tactile modalities) in the process of meaning-making. The traditional understanding of multimodality that refers to coexisting but separate modes has been challenged by the concept of repertoire. Gumperz (1964) is widely referenced as one of the earlier attempts to conceptualize repertoire. Gumperz (1964) defines the term "verbal repertoire" as "the totality of linguistic forms regularly employed in the course of socially significant interaction. … The verbal repertoire then contains all the accepted ways of formulating messages" (pp. 137-138). The term repertoire has been developed beyond verbal communication to include all communicative actions, which is termed as "communicative repertoire" (Rymes 2010, 2014). Rymes (2014) describes communicative repertoire

as "refer[ing] to the collection of ways individuals use language and other means of communication (gestures, dress, posture, accessories), to function effectively in the multiple communities in which they participate" (p. 4). Recently, the notion of repertoire has been further extended to include not only verbal and communicative factors but also social and ecological elements, which is termed as "spatial repertoires" (Canagarajah 2018; Pennycook and Otsuji 2015). Pennycook and Otsuji (2015) explain "spatial repertoires" as "link[ing] the repertoires formed through individual life trajectories to the particular places in which these linguistic resources are deployed" (p. 83). Canagarajah (2018) modifies this term "to move spatial repertoires beyond the methodological individualism, human agency, and verbal resources the definition favors. Spatial repertoires may not be brought already to the activity by the individual but assembled in situ, and in collaboration with others, in the manner of distributed practice" (p. 37, emphasis in original). This modified definition of spatial repertoires emphasizes the roles of temporal–spatial elements (such as time, space, surrounding environments, and physical materials) in meaning-making. Although different terms have been developed based on the concept of repertoire, the core foundation of these terms (like the ones mentioned above) is that resources (including verbal, communicative, social, and ecological resources) are synergistic and contingent rather than separate and static. This integrated understanding of resources in meaning-making has become critical in developing "trans-" scholarship.

The concept of repertoire has motivated a discussion about the synergy of modes as transmodality in multimodal studies. Hawkins (2018) introduces the "trans-" turn in language and communication studies, explains the relationship between repertoires and multimodalities, and proposes the term "transmodality". Based on the understanding of mode (Kress 2017), modality (Jewitt 2017), and multimodality (Jewitt 2017) described in the previous section, she points out five complexities of multimodality. They are: (i) modes are intertwined rather than separate; (ii) modes and material objects that carry distinctive meanings are entangled with language for meaning-making; (iii) multimodal production, reception, negotiation, and assemblage work across time and space; (iv) context and culture assemble local, translocal, and transnational places, spaces, and conditions; and (v) transnational communications include relations of power. She claims that the current notions of multimodality could not address these complexities; therefore, she proposes the term "transmodality" and argues that

> Transmodalities index the simultaneous co-presence and co-reliance of language and other semiotic resources in meaning-making, affording each equal weight. It highlights the complexity of modes and the entanglements and relationships between them that shape meaning in multimodal artifacts and communications. It also highlights the need to destabilize and move beyond named categories of "modes," to a view of semiotic resources as embedded and given meaning within the specific assemblage, and within trajectories of time and space, continuously shifting and re-shaping in their contexts and mobility. (p. 64)

In short, transmodality decentralizes language and human intent in meaning-making and stresses the synergistic, emergent, and contingent features of semiotic

and material resources in meaning-making. Hawkins's (2018) illustrations of multimodality and transmodality are inspiring; however, these ideas pertinent to transmodality, as aforementioned, have been discussed in early and recent multimodal composition studies by explicating the concepts of multimodal ensemble (see Jewitt 2006 and Jewitt and Kress 2003), synaesthetic semiosis (see Kress 1998; Shin and Cimasko 2008), synesthesia (see Kress 2003), and transformation and transduction (see Cimasko and Shin 2017 and Bezemer and Kress 2008).

1.3.2 Multimodality and a Translingual Approach

Another important term that has been discussed in developing transmodality is a translingual approach. A translingual approach to writing was proposed in 2011 by Bruce Horner, Min-Zhan Lu, Jacqueline Jones Royster, and John Trimbur to argue for writer agency in shaping their own language, heterogeneity as the norm, and a challenge to monolingual approaches to language teaching, learning, and research. These ideas are inspired by the research on language difference in writing, such as the differences in English varieties (e.g., standard English and African American Vernacular English (AAVE)) and languages (e.g., English, Mandarin, and Spanish) (Horner et al. 2011; Horner and Tetreault 2017). The 1974 Conference on College Composition and Communication statement, *Students' Right to Their Own Language* (SRTOL), represents one of the early steps in legitimizing students' English varieties in academic writing, and studies in TESOL and L2 writing (such as Matsuda 1999, 2006; Silva 1997; Silva et al. 1997) serve as advocacy for the use of multilingual students' first language (L1) in their L2 writing process. In addition, the concept of contact zones—"social spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power, such as colonialism, slavery, or their aftermaths as they are lived out in many parts of the world today" (Pratt 1991, p. 34)—and the language practices in contact zones (Lu 1994) are widely referenced in translingual studies to explicate the power relations in communication and argue for empowering all language users to challenge dominant norms and shape their own language. Horner and Trimbur (2002) review the English Only debates in U.S. writing and composition studies, criticize English monolingualism, territorialization, and reification of languages, and call for a heterogeneous and dynamic approach to English writing and composition. These early studies build a conceptual foundation and lead to the main arguments of a translingual approach to writing studies:

> (1) honoring the power of all language users to shape language to specific ends; (2) recognizing the linguistic heterogeneity of all users of language both within the United States and globally; and (3) directly confronting English monolingualist expectations by researching and teaching how writers can work with and against, not simply within, those expectations. (Horner et al. 2011, p. 305)

Building on this conceptual foundation, a translingual approach has been further developed by incorporating and redefining different concepts, e.g., a temporal–spatial

approach (viewing language and language users, practices, conventions, and contexts as always emergent, in process, and mutually constitutive (Lu and Horner 2013)), code-meshing (Canagarajah 2013a, 2013b; Young 2004), spatial repertoires (Canagarajah 2018, please refer to 3.1 in this section), translation (Horner and Tetreault 2016); and an ecological approach ("focusing on symbolic resources or composers' symbolic use of their surrounds and reinforcing exclusively human languaging agency" (Jordan 2015, p. 366)). Based on these conceptual discussions, a translingual approach to writing has incorporated the synergy between language and other modes into its conceptualization and theorization (Canagarajah 2015; Horner 2018). Although a translingual approach is developed from different perspectives (such as theoretical, ideological, and pedagogical perspectives), its main purpose is to respond to the rapid development of globalization in writing studies. Therefore, a translingual approach accentuates the normal presence of language difference, underscores the contingent and emergent features of language, advocates for a more open-minded and tolerant attitude toward language and language difference, questions the monolingual and monomodal paradigm in writing teaching and research, and views additional languages and modes as resources rather than impediments in teaching, learning, and using a target language.

A translingual approach has been applied to enrich multimodal composition studies by proposing the term "transmodality" (Horner et al. 2015; Shipka 2016). Horner et al. (2015) argue that the prevailing modality of reason in composing, i.e., the alphabetic/print texts or what they call "SL/MN" (Standard Language/Monolingual Norm)—"the 'norm' of a single, uniform ('standard') language or mode," does not reflect the rapid development and fast change of composing processes in this more and more globalized context. Therefore, based on the terms of multimodality and translinguality, they propose and illustrate the concept transmodality as

> the development and increasingly global reach and use of new communication technologies and networks for these; the increasing, and increasingly undeniable, traffic among peoples and languages; and the consequent recognition by teachers and scholars of composition that the assumption of a monolingual and monomodal norm for composition—as communicative practice and terrain of study—is no longer appropriate, if indeed it ever was. (p. 10)

In addition to the emphasis of the assemblage of modes and the roles of nonhuman elements in the process of meaning-making that Hawkins (2018) underscores, Horner et al.'s (2015) explanation of transmodality brings a critical approach to transmodal discussions, i.e., to resist a monolingual and monomodal norm in composition studies. Shipka (2016) states that "translingual theory and practice affords potentials for expanding the depth and reach of studies of multimodality by urging us toward a consideration of texts, materials, communicative practices, and cross-cultural conventions that may include but are not limited to English speakers and/or varieties of English language" (pp. 254–255). Transmodality, in this sense, challenges SL/MN ideology, highlights both human and nonhuman resources (such as time, space and environment), and advocates for a more open-minded attitude toward different resources in composition teaching, learning, and research.

1.4 Multimodality in L2 Writing

As discussed in the previous sections, one of the biggest effects that digital technology has on writing instruction is the availability of a variety of representational and communicational resources (e.g., image, color, audio, and video) in addition to linguistic resources. The availability of these resources, also referred to as modes/semiotic resources, encourages composition theorists and practitioners to explore the possibilities of composing by taking advantage of them. In composition studies, research has been conducted under names such as multimodal approaches, multimodal composing, digital design, multimodal design, and transmodality (Belcher 2017; Casanave 2017; Horner et al. 2015; Shin and Cimasko 2008; Shipka 2016).

Scholars have started to discuss the benefits and drawbacks of a multimodal/transmodal approach to the teaching of L2 writing. For example, Yi (2014) reviews the empirical research on the possibilities and challenges of multimodal literacy practices in teaching English as an additional language. Her findings show that incorporating multimodal literacy practices in teaching can facilitate instructors to learn more about their linguistically and culturally diverse students and teach language, literacy, and content areas more efficiently. She also describes concerns about employing multimodal literacy practices in teaching, i.e., a heavy focus on narrative writing, a prescribed curriculum, the high-stakes language-dominant testing, and the tacit hierarchy among print and digital/multimodal texts. She calls for more empirical research on multimodal literacy practices and suggests pre- and in-service teachers discussing tensions and challenges of multimodal literacy instruction in order to incorporate digital and multimodal literacies into existing curriculum and assessment more effectively. Yi and Angay-Crowder (2016) analyze the challenges of multimodal pedagogies (i.e., the conceptualizations of terms (such as knowledge, literacy, and modality), the assessment of multimodal elements or components, and the teachers' resistance to and skeptical views of multimodal practices) and provide their suggestions for teacher education in TESOL (e.g., incorporating the discussion of challenges of multimodal practices into TESOL teacher education, resisting modal hierarchies (i.e., text-based linguistic modes are more legitimate than others), reconsidering multiple modes as resources of learning and communicating rather than ways of knowing and communicating, and reconceptualizing assessment to value multimodal resources). In line with these discussions, Yi (2017) appeals for more empirical research on multimodal practices in L2 writing to consolidate the field theoretically, methodologically, and pedagogically.

The effects of multimodal practices on the teaching of L2 writing have been investigated empirically. For instance, Choi and Yi (2016) examine the multimodal teaching practices of two instructors of English Language Learners (ELLs). Their findings show that multimodal teaching practices help ELLs enhance the comprehension of print-based text, gain a nuanced understanding of subject-matter content knowledge, convey the acquired knowledge more effectively, and possess a psychological refuge. Thus, multimodal teaching practices can increase ELLs' sense of

accomplishment and self-esteem. Shin and Cimasko (2008) find that students' synthesis of modes not only contributes to their expression of ideas but also reflects their cultural and national identities and emotional connections. Therefore, they call for explicit instruction of multimodal genres in academic settings to help students reconsider academic norms and value their own linguistic, social, cultural, and multimodal resources. Yi and Choi (2015) explore 25 teachers' perceptions and experience of multimodal practices. Their findings indicate that 23 out of 25 teachers welcome multimodal practices in their instruction because multimodal practices help engage and motivate students in learning, allow students to express themselves better, and facilitate teachers to learn more about their students. Their findings also show teachers' concerns about multimodal practices (such as time constraint, pressure of standardized tests, and less use of academic language or literacy). According to their findings, they suggest that TESOL teacher educators learn about pre- and in-service teachers' views of multimodal practices, and that teachers be provided with opportunities to investigate how ELLs use multimodal resources for meaning-making.

In addition to teaching, how multimodal/transmodal practices could facilitate L2 writers' learning has also been investigated. Tardy (2005) examines four multilingual graduate student writers' expressions of identity in their written texts. The findings show that the use of multiple modes in students' writing processes help them understand and express more about their disciplinary and individual selves. Pacheco and Smith (2015), from a translingual and multimodal perspective (or what they call "multimodal codemeshing"), examine the digital products of four eighth-grade English language learners (ELLs) who speak English and Bahdini, Spanish, Vietnamese, and Pashto, and find that students utilize multiple languages (such as Spanish and Vietnamese) and modes (such as image and sound) to engage audience, express meanings, and reflect their writing experiences. They claim that a translingual and multimodal or a transmodal perspective is necessary to promote both teaching and learning in the classroom because it provides a bigger picture of students' writing with multiple semiotic resources. Smith et al. (2017) further analyze their data (the digital products of three eighth-grade ELLs who speak English and Bahdini, Spanish, and Vietnamese) with their multimodal codemeshing framework and consolidate their findings with more statistics and a deeper and broader discussion. Their findings show that students' composing processes involve composing tools, collaboration with peers, visual brainstorming, and their interaction in different times and spaces. As they state, the technology provides a space for students to comfortably use all their language, cultural, and other semiotic resources for writing.

The conceptualization of multimodality continues, and the term transmodality needs further discussion and refinement; however, their foundational ideas pave the way to realizing their potential in practice. As Shipka (2016) contends, multi/transmodality should not only be discussed from dispositional perspectives but also be applied in practice. Studies discussed in this article have shown both benefits and drawbacks in incorporating multimodal practices into the teaching and

learning of L2 writing. Multimodal practices can benefit L2 writing practice insomuch as they can engage and motivate L2 writing learning, enrich L2 writing pedagogy, and facilitate the understanding and expression of L2 writers' disciplinary and individual selves. The challenges (such as time constraints, standardized assessments, and views of multimodal learning as less academic) of employing multimodal practices in classroom teaching can be mitigated through learning about teachers' views of multimodal teaching practices, discussing the possibilities and challenges of incorporating multimodal teaching practices into classroom teaching with teachers, and offering teachers opportunities to explore how students use languages and modes in their composing processes. The synergy of multiple modes has become a common feature of human communication and interaction. Language, as one mode, always co-constructs meanings with other modes. The study of multimodal practices in L2 writing learning and teaching processes can not only enrich L2 writing studies but also consolidate our understanding of L2 writing as a field with various theoretical, methodological, ideological, and pedagogical perspectives.

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Chapter 2
Methodological Approaches to Examining Multimodal Composing

Youngjoo Yi, Dong-shin Shin, Tony Cimasko, and Kun Chen

Abstract This chapter illustrates key methodological approaches to examining multimodal composing. The first part of the chapter describes the four dominant theoretical frameworks used in multimodal composing studies in TESOL and applied linguistics (social semiotics, systemic functional linguistics, multiliteracies, and sociocultural theories). The chapter then explains various research designs, from case study to quasi-experimental research, that have been employed in multimodal composing research and demonstrates how analyses grounded in different theoretical and analytical frameworks (e.g., multimodal discourse analysis, qualitative data analysis) have been conducted in multimodal composing research, with specific examples of data analysis. The chapter concludes with methodological implications.

Keywords Multimodal composing research methodology · Multimodality · L2 writing · ESL · EFL

2.1 Introduction

In this chapter, we illustrate key methodological approaches to conducting multimodal composing research. Multimodality as an emerging field has been examined across multiple disciplines (e.g., communication, literacy/composition, and education), while multimodal research has drawn on a range of theories that include social

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semiotics, systemic functional linguistics, multiliteracies, sociocultural theories, and conversation analysis, among others. Each theory has uniquely emphasized and developed different aspects of multimodality from various epistemological perspectives and methodological approaches. However, some theories have more commonalities than others. For instance, employing textual analysis, studies grounded in social semiotics and systemic functional linguistics investigate how multiple semiotic resources in a text make meanings as a multimodal ensemble (Halliday 1975; Kress 2003), whereas in adopting ethnographic principles to examine literacy practices, studies grounded in multiliteracies and sociocultural theories focus on what engaging in multimodal literacy practices means for language and literacy learning and identity construction (Barton et al. 2000; Street 1984).

This chapter begins with a brief sketch of the four dominant theoretical frameworks that are often employed in multimodal composing studies in TESOL and applied linguistics (i.e., social semiotics, systemic functional linguistics, multiliteracies, and sociocultural theory). We then introduce different research designs, from case study to quasi-experimental research, that have been used for multimodal composing research and demonstrate how analyses based on different theoretical and analytical frameworks have been conducted in multimodal composing research, with specific examples of data analysis. The chapter concludes with implications based on methodological challenges identified in the multimodal composing research.

2.2 Dominant Theoretical Frameworks in Multimodal Composing Research

This section briefly sketches out the four dominant theoretical frameworks in multimodal composing studies in TESOL and applied linguistics (i.e., social semiotics, systemic functional linguistics, multiliteracies, and sociocultural theory).

2.2.1 Social Semiotics

Although the growing use of multimedia for writing instead of paper-based mediums has brought more attention to multimodal communication for the past two decades, communication in any given instance has never been monomodal and is always a multimodal act (Kress and van Leeuwen 2001; Prior 2005; van Leeuwen 2003). The new digital mediums provide writers with more semiotic resources, including words and non-linguistic resources such as images, sounds, hyperlinks, colors, and videos (Jewitt 2006). In multimodal composing with expanded semiotic resources, writing has become a matter of synthesizing available semiotic resources/modes, which corroborates the concept of writing as *designing* (Kress 2003, 2010; New London Group 1996). Studies grounded in social semiotics tend to investigate how multiple

meaning-making resources/modes beyond language are orchestrated into multimodal texts as a semiotic whole or ensemble. They have shown that multimodal affordances help L2 writers to convey their intended meanings with an increased authorial agency, which entails (re)designing semiotic resources/modes available in the medium of composition. Thus, multimodal composing can also create new meanings through writers' appropriation and redesign of available semiotic resources.

However, the increased authorial agency is instantiated in cultural practices of meaning-making. Given that modes are social and cultural meaning-making resources (Kress 2003, 2010), multimodal texts convey discursive meanings that result from culturally appropriate ways of using semiotic resources/modes (Jewitt and Kress 2003; Kress 2003, 2005). A writer's authorship reflects their configured affordances regarding modes, media, audience, and genres in expressing cultural, social, and political subjectivities in every act of meaning-making. Studies based on social semiotics aim to examine how authors construct a text by employing apt semiotic resources in ways that are appropriate to culturally based meaning-making practices, as well as how authors orchestrate the resources in synesthetic semiosis. The expanded semiotic resources and agency in multimodal composing are a representation of cultural, social, and discursive values.

2.2.2 Systemic Functional Linguistics

Studies based on systemic functional linguistics (SFL) analyze the discourse of multimodal composing; an approach used in these studies is systemic functional multimodal discourse analysis (Kress and van Leeuwen 2001; O'Halloran 2004). Conceptualizing meaning-making as a social and cultural practice, the studies have described the interaction of multiple modes (e.g., language, images, sound) for the creation of meaning (Kress 2010, p. 104). A writer's orchestration of meaning-making resources into a multimodal whole creates ideational, interpersonal, and textual meanings for a text within the contexts of culture and situation. SFL explicates how a text realizes authorial decisions appropriately for specific audiences and purposes that reflect three register variables—field, tenor, and mode—in the context of the situation. *Field* explains the exchanged ideas of a text, *tenor* explains the established relationships between the involved individuals, and *mode* explains the organization of ideas within the medium of communication to facilitate communication (Halliday and Matthiessen 2014; Schleppegrell 2004).

The ideational, interpersonal, and textual meanings of a multimodal text are constructed through each mode and intermodal relations between modes. The orchestration of employed modes construes *ideational* meaning through a transitivity system that entails the participants, processes, and circumstances. The processes are equivalents to the function of verbs in the grammar of a language. These processes are material, mental, verbal, behavioral, existential, and relational; material process describes concrete actions, behavioral process explains physiological and psychological behaviors, and relational process covers relationships between two elements. The

interpersonal meaning describes different social roles, identities, and relationships construed by language use, and is construed through lexico-grammatical resources such as mood, modality, and appraisal resources. *Textual* meaning explains how the information is organized within a medium of communication, and its meaning is realized through the theme and rheme structure (Eggins 2004). The theme is a point of departure for a message, whereas rheme offers new information about the point of departure.

2.2.3 Multiliteracies and Sociocultural Theories

Multiliteracies, a concept proposed by the New London Group (1996), conceptualizes writing as *designing* available modes of representation in the production of multimodal texts in order to convey intended meanings. Having a common theoretical ground with sociocultural theories that view literacy as fluid, multiple, and context-dependent (Street 1984), multiliteracies emphasizes a culturally embedded multimodal textual practice with interactions, ideologies, texts, and artifacts that mediate the practices. Multiliteracies also argues that texts and meaning-making are sociohistorically shaped and contextually situated (Cope and Kalantzis 2009). Situated literacy conveys its own legitimate values and ideologies as a cultural practice, and its use in a given context is shaped by cultural values as well as the specific purposes for which it is used (Street 1984). Studies based on multiliteracies tend to examine how participants use literacy practices in specific contexts and what pattern of social and cultural practices emerges (Barton 2004). Participants' experiences are investigated focusing on what their participation in literacy practices means for those who learn and use the literacy in joint consideration of texts and interactions surrounding their use or production.

Engaged in multimodal literacy practices, a writer appropriates and designs available modes. Available modes as social and cultural meaning-making resources allow individuals to create new meanings in relation to the cultural and individual identities with which they are affiliated. By adopting ethnographic principles, studies of L2 learners' multimodal literacy practices have shown how cultural, social, and discursive values and norms shape individual uses of multimodal texts, ascribed meanings, and identity construction. These studies examine how writers create multimodal texts and what it means to use multimodal texts. They have shown that L2 learners' multimodal composing and their use are shaped by sociohistorical contexts and their social positioning (Cope and Kalantzis 2009).

2.3 Various Research Designs in Multimodal Composing Research

Research synthesis studies on multimodal composing in multilingual contexts (Lotherington and Jenson 2011; Smith et al. 2020; Yi 2014) have demonstrated that the majority of multimodal composing research has been conducted qualitatively. Case studies, ethnography, and action research are the three most frequent types of multimodal composing research. These qualitative designs are most suitable to explore pertinent issues in multimodal composing, such as affordances and challenges of multimodal composing, processes and products of multimodal composing, and perceptions of implementing multimodal composing into classroom practices. In addition to purely qualitative research designs, there are a few studies that have employed quantitative methodological approaches (e.g., a quasi-experimental design and mixed methods designs).

In the following sections, we introduce various research designs that have been used to explore multimodal composing in multilingual teaching and learning contexts.

2.3.1 Case Studies

Qualitative case study has been the most commonly employed research design in multimodal composing research. It is a compelling method in educational research, especially when researchers want to examine a complex, contemporary phenomenon within a real-life context (Yin 2002). Case study tends to generate "an intensive, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process, or a social unit" (Merriam 1998, p. xiii). It is well-suited to addressing the "how" and "why" questions (Merriam and Tisdell 2009). A recent research synthesis (Smith et al. 2020) shows that among 70 empirical studies on bilingual students' digital multimodal composition in secondary classrooms, 30 employed a case study approach. Almost 43% of the multimodal composing research reviewed in this study were qualitative case studies, which clearly indicates that a case study can be powerful for exploring significant issues around multimodal composing, including multimodal composing practices, processes, and products; affordances and constraints of multimodal composing; and implementations of multimodal composing to classroom practices. Multimodal composing case studies have been conducted across various contexts, from K-12 to college/adult teaching and learning contexts across ESL and EFL settings, while employing various theoretical frameworks, such as social semiotics (Jiang 2017; Liaw and Accurso in this book; Nelson 2006; Smith et al. 2017; Yang 2012), systemic functional linguistics (see King and Zhang et al. in this book; Shin 2018; Shin et al. 2020; Unsworth 2006), multiliteracies (see Sultana and Turner and Gilliland et al. in this book; Yi et al. 2017), and sociocultural theories/new literacies (Honeyford 2014).

It is instructive to illustrate how one particular case study was conducted, in which three of the four authors of this chapter explored student's multimodal composing and teachers' implementation of multimodal literacies to classroom practices. Shin et al. (2020), drawing on a case study model (Merriam 2009), investigated a sixth-grade bilingual boy's composition of digital multimodal texts (e.g., PowerPoint slides and web-based posters) and his development of the metalanguage of modal and intermodal resources of language and image. Although some may argue that a single case report may not provide a comprehensive understanding of a phenomenon, a single case study is known for "its descriptive power and attention to context" (Shakir 2002, p. 192). A single case approach in this study seemed to be the most suitable way to gain an in-depth and contextual understanding of the meaning-making process in which the participant was engaged in, rather than revealing some generalizable patterns of multimodal composing practices.

In order to explore *processes* and *products* of digital multimodal composing, Shin and her colleagues (2020) drew on a systematic functional approach to multimodal discourse analysis (SF-MDA), which involves multimodal discourse analyses in accordance with a systemic functional approach. First, the composing processes employed in creating multimodal expository and argumentative texts were analyzed by using codes such as *modes* employed, *meanings* created, *rhetorical choices*, and perceived *audiences.* The analysis then moved on to the multimodal products to examine how the participant, a sixth-grade bilingual boy, used a single-mode, intermodal relations, and metafunctions between multiple modes by drawing on SF-MDA. In other words, Shin et al. first examined a single mode that the participant, Michael, used to create the expository and argumentative multimodal texts by examining the semiotic systems of linguistic and visual modes in relation to ideational, interpersonal, and textual metafunctions that create respective meanings of the text. After this single-mode analysis, Michael's use of intermodal relations between language (e.g., "The Greenhouse Effect") and image (e.g., the image of the Earth in a greenhouse) was examined, especially concurrence, which encompasses complementarity or connection relations. This case study provided an understanding of the complexities of L2 learners' multimodal composing and their ontogenetic development of multimodal semiotic knowledge over time and across contexts.

As powerful as a case study is for examining students' multimodal composing (see Park, Smith et al., and Tseng in this book), it is also useful to explore *teachers' implementation* of multimodal literacies into instruction (see Gilliland et al. in this book; Knobel and Kalman 2016). Choi and Yi (2016), while employing a qualitative case design, examined how two focal teachers incorporated multimodality into teaching ELs in their classrooms. The focal teachers were carefully selected in this multiple case study. Among the 25 teachers who participated two were carefully selected: a fourth-grade social studies and science teacher named Jude and a library media specialist named Savanna. Both teachers had quite limited experience in teaching ELs, but their multimodal projects were considered exemplary because of highly creative designs of their multimodal products and a high level of ELs' engagement with the lesson through multimodal practices. Further, despite the fact that the work of both resulted in such creative products, the two teachers had very different views

of the process; Jude felt very comfortable engaging in multimodal practices, whereas Savanna felt less confident in implementing multimodality in her instruction.

Drawing upon theories and literature of multimodal literacies, the research explored two research questions: (1) How did the two teachers integrate multimodality into teaching ELLs? and (2) What were the two teachers' perceived benefits and challenges of utilizing multimodality to teach ELLs? To answer these questions, an *inductive approach* to analyzing qualitative data (e.g., teachers' reflective online posts, interviews, and field notes) was used, along with conducted a *multimodal text analysis* of the multimodal products (i.e., movies) that the teachers created by drawing upon the analysis done by Hull and Nelson (2005). In their analysis of a movie, the researchers delineated the ways in which multiple modes were employed in each scene of a movie, in a linguistic format. For instance, they created a chart in Word to describe the particular gestures, movements, music, and language, and transcribed the narrations (Choi and Yi 2016, p. 311). Such analyses enabled the researchers to provide in-depth and detailed accounts of how teachers engaged in multimodal pedagogies for teaching ELs.

2.3.2 Ethnography

The definition of ethnography varies somewhat from different perspectives and in different disciplines. From an anthropological perspective, Watson-Gegeo (1988) defines ethnography as "the study of people's behavior in naturally occurring, ongoing settings, with a focus on the cultural interpretation of behavior" (p. 576). She further illustrates four principles of ethnographic research: (1) it "focuses on people's behavior in groups and on cultural patterns in that behavior"; (2) it is "holistic" and thus "any aspect of a culture or a behavior has to be described and explained in relation to the whole system of which it is a part"; (3) ethnographic data collection is guided by explicit theoretical framework from the beginning; and (4) researchers should understand each situation from the perspective of the participants within the situation (pp. 577-578). The primary goal of ethnography is to "provide a description and an interpretive-explanatory account of what people do in a setting (such as a classroom, neighborhood, or community), the outcome of their interactions, and the way they are doing (the meaning interactions have for them)" (p. 576).

This characterization of ethnography distinguishes it from other forms of qualitative inquiry; additionally, it can challenge the combination of ethnography (paying more attention to sociocultural *contexts*) and multimodality (paying more attention to *meaning-making*). With growing attention to multimodal literacies/composing, some scholars have explored the intersection between ethnography and multimodality (Dicks et al. 2011; Flewitt 2011; Jewitt et al. 2016; Kress 2011). Some have engaged more theoretical discussions around ways in which the two traditions could work together. For instance, in his article, "Partnership in Research: Multimodality and Ethnography," Kress (2011) asks "whether and in what ways 'Ethnography' and 'Social Semiotics' can or should be brought together to mutual advantage" (p. 239).

Others have conducted empirical research in which they attempt to combine the two. Despite some differences between ethnography and social semiotics, they have in common that they are interested in "examining the diversity of resources that people use in their everyday worlds, and both do so from a perspective that favors social over cognitive explanations" (Dicks et al. 2011, p. 228). Ethnography can provide rich information about the context in which the social interaction and meaning-making take place. Importantly, the partnership between ethnography and multimodality could provide a "grounded, theorized, detailed, and holistic insights" into the complexities of students' literacy (writing) development and practices (Flewitt 2011, p. 297).

One exemplary study that illustrates ethnography for multimodal literacy and composing is a longitudinal ethnographic project that Toohey and her colleagues (2015) conducted in a fourth-grade Canadian classroom. While drawing on multimodality literature and theories of the material, they explored the types of literacy practices that fourth-grade ELs and their peers in a Canadian school employed in the creation of multimodal texts (videos), and ways in which theories of the material might help researchers analyze how ELs engage in digital literacy activities (p. 463). While the researchers were in the field (the fourth-grade classroom), they gathered data from multiple sources, such as process videos (shootings of the participants while they made their videos with their iPads), field notes of observations, photographs, artifacts (scripts, storyboards, rough drafts), and interviews with students and teachers. For their video analysis, they categorized the interactions they observed into functional coding themes such as writing on paper, reading from the Internet, reliance on L1, and disagreements among children. Interesting interactions happening in the classroom were transcribed and reviewed (p. 468). In reporting their findings, they presented still screen captures (e.g., pictures of recording the video and listening to their iPads) and transcriptions of excerpts from the video footage of interactions among one of the small groups (two ELs and two non-ELs). Such screenshots and transcripts show *a multimodal interaction* of four children negotiating meaning through a complex and dynamic orchestration of multiple semiotic resources and materials (voiced language, gestures, iPad screens, and their video).

Overall, in-depth and detailed accounts of a multimodal interaction are able to show that the video making activities engaged both ELs and non-ELs, not privileging only native English-speaking peers, in various multimodal composing activities. In addition, authors specifically described the challenges they as ethnographers faced (i.e., impossible to "stand at a distance") (p. 469). In other words, they were ethnographers, but at the same time also participants who influenced what was going on in the classroom. This type of description in a research report is unique in ethnography.

A cautionary note should be made here. Although we describe qualitative case study and ethnography in separate sections, it seems that a significant number of "ethnographic case studies" of multimodal composing have been conducted (e.g., Dávila and Susberry in this book; Honeyfored 2014). In fact, some researchers have pointed out that ethnographic case study methods allow researchers to take full advantage of both case study and ethnography, as well as mitigate the limitations of each design by blending them together (Fusch et al. 2017; Parker-Jenkins 2018).

2.3.3 Action Research

Action research has been called by many different names: collaborative action research, participatory action research, critical action research, participatory inquiry, and practitioner inquiry (Herr and Anderson 2014). Further, in some education literature, action research and teacher research are often used interchangeably. Among many definitions of action research, we were guided in writing this chapter by the working definition by Reason and Bradbury (2001):

> A participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities (p. 1).

The essential procedures in conducting action research are cyclical and spiral. Typically, a teacher (along with/as a researcher) first identifies a problem or issue and develops a plan of action (Phrase 1). After this "planning" phase, a researcher takes "action," meaning putting the plan into action (implementing interventions and gathering data). The third phase, often called "observation," is a continuing process of observing and analyzing data as the study proceeds. Finally, during a "reflection" phase, a researcher will reflect on, evaluate, and describe the effects of the action in order to make sense of what has happened and to understand the issue they have explored more clearly.

An example of multimodal composing in an action research format is Jiang's (2017) study that was conducted at a Chinese university. His study was part of a larger research project in which five teachers at an EFL university in China and Jiang (as researcher) had collaborated to implement a digital multimodal composing (DMC) program. Initially, the director of the English department in the university contacted Jiang to find a way to integrate more emerging technologies to teach English in China. To address this issue, Jiang proposed a digital multimodal program, and five classroom teachers collaboratively designed DMC activities and implemented them in their writing instruction. In this study, Jiang did not necessarily examine the processes or products of DMC, but the affordances of DMC for EFL learning while drawing upon social semiotics and digital multimodal composing literature. Five teachers and 22 students in five classrooms participated in this qualitative study. For this article, interviews and participants' written reflection were the primary sources of data, and they were inductively analyzed (Miles and Huberman 1994). In addition to the technological, educational, and social affordances of DMC, Jiang also found evidence of the effects of the action (implementation of the DMC program) for EFL learning (i.e., fostering a sense of autonomy, competence, meaningful purpose, and belonging) (p. 420). Overall, the researcher and teachers identified issues associated with using digital technologies in EFL learning, and successfully implemented a DMC program in university English classrooms.

2.3.4 Design-Based Research or Design Experiment

Design-based research (The Design-Based Research Collective 2003, p. 5) or design experiment (Brown 1992, p. 141) refers to "a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories" (Wang and Hannafin 2005, p. 6). Being situated in an authentic institutional context, design-based research (DBR) typically follows basic research procedures: (a) researchers in collaboration with teachers identify a real-world problem raised in the classroom; (b) design and implement interventions to address immediate needs in the contexts while referring to pertinent literature for solutions; evaluate the impact of the educational intervention and designed learning environments by collecting and analyzing data from interventions; (c) reflect, refine, and modify designs to improve interventions; and (d) advance theoretical understandings and share benefits of design interventions with a larger audience. Despite many commonalities between action research and design-based research, design-based research tends to focus more on *advancing theories* compared to action research. Design-based research can be done more qualitatively or quantitatively depending on how the intervention is examined.

In the field of applied linguistics and TESOL, interest in implementing design interventions so as to solve real problems raised in the classrooms has been growing. Some of the available design-based research explores multimodal composing practices (see Ho et al. 2011; Zhang et al. in this book). For instance, in the chapter by Zhang et al., a collaborative team of researchers/university educators and a classroom teacher worked together to tackle a real problem with writing instruction in a high school ESL classroom in the US. While recognizing that pedagogies developed from SFL have supported multilingual students in content area classrooms, they found that these SFL-based pedagogies tend to be too difficult for teachers to access because of complex metalanguage. In order to address a long-held criticism that SFL-informed pedagogies are too complex for teachers, and to design a more accessible SLF-based writing instruction, the research team designed and implemented an accessible SLF-informed multimodal curriculum (intervention) in a high school ESL classroom. In this sense, this DBR was *goal-oriented*, *theory-driven*, and *intervention-centered*. In addition, the research team employed other core characteristics of DBR, such as *adaptive and iterative* (e.g., refining, re-designing, and re-enacting the curriculum over three iterations), *methodologically inclusive and flexible* (using multiple sources of data), and *research and practice as enhancing each other* (advancing SFL theory-building as well as writing instruction). Considering these core characteristics of DBR and exemplary practice described in this chapter, it is clear that design-based research can be particularly powerful for examining both teaching and learning aspects of multimodal composing (e.g., how an instructional intervention like multimodal composing curriculum can be implemented in

classroom instruction and influence student learning, and how multilingual students respond to multimodal curriculum).

2.3.5 Mixed Methods Research and Quantitative Research

Mixed methods research (MMR) is an emerging methodological approach, acknowledged as a third or alternative research methodology. It ideally includes the benefits of both quantitative and qualitative research approaches (Johnson et al. 2007; see also Smith et al. and Park in this book). MMR has been an increasing presence in the field of applied linguistics, and some multimodal composing research has employed mixed methods designs. For instance, Zheng et al. (2014) conducted mixed methods research to investigate the impact of netbook computers and interactive software on fifth-grade multilingual students' science learning processes and academic achievement in the US. Although the focus of this research was not on multimodal composing processes or products per se, the participants engaged in various multimodal composing activities (e.g., designing multimodal visualizations, PowerPoint slides, and interactive posters), which was considered a science learning process in this study. In this mixed methods research, researchers gathered and analyzed qualitative data (teacher interviews) and conducted a quasi-experimental study, as well.

Finally, we would like to share an overview of quasi-experimental research on the impact of a collaborative multimodal composing intervention on the academic writing development of adolescent newcomers in Belgium (i.e., beginning learners of Dutch as a second language) (Vandommele et al. 2017). One group of students received a task-based in-school intervention, another group received an out-of-school leisure intervention, and a non-intervention group did not receive any writing intervention. Students in both intervention groups designed a multimodal website introducing future newcomers to Flanders, the Dutch-speaking area in the north part of Belgium. Two writing tasks (a narrative writing task and a persuasive writing task) were administered before and after the intervention to measure students' academic writing development. Multilevel analyses showed significant development of academic writing skills for both intervention groups compared to the non-intervention group, although slight differences of types of growth between the two intervention groups were also found. Both groups that received intervention grew more than the group that received none, developing their lexical diversity, complexity, text length, and content quality, while communicative effectiveness grew for the in-school group and syntactic complexity grew for the out-of-school group. Clearly, this quasi-experimental study demonstrates that multimodal composing practices can promote academic writing skills for beginning learners. Importantly, a quantitative study like this can employ multiple measures and tasks to measure writing development, which is not often seen in qualitative research.

2.4 Conclusion

Multiple methodological approaches have been used in multimodal composing research so as to explicate various aspects of multimodal composing, ranging from its affordances and challenges, composing processes and products, to perceptions of implementing multimodal composing into classroom practices. Our review demonstrates that the existing research on multimodal composing for L2 learners provides several methodological implications for future research. First, considering that a majority of multimodal composing studies adopt qualitative methods—particularly short-term case studies—grounded in social semiotics, one of the most important is a need for longer term studies. Studies that have investigated multimodal composing in K-16 settings have been limited in scope, with research often set in one course and/or examining only short-term language learning gains. Even though case studies and other small-scale studies afford qualitative richness (Ajayi 2011; Lotherington et al. 2001; Shin 2018), the approaches have sacrificed the advantages of larger scale studies that could provide more generalizable information. In longitudinal and larger scale studies, researchers can also utilize mixed methods and other approaches beyond qualitative methods to draw on the insights of both qualitative and quantitative approaches.

In addition, future research can examine multimodal composing processes as well as products with longitudinal ethnographic data. Researchers can develop designs drawing on various methodological approaches, such as sociosemiotic ethnography (Iedema 2001; Prior 2013) and SF-MDA (Jewitt et al. 2016). Methodologically, longitudinal sociosemiotic ethnographies complement text analyses, and allow for cultural understandings of multimodal composing over longer stretches of time across contexts, with thick descriptions of composing processes at the micro-textual and the macro-discursive levels.

Another implication would be that L2 learners' multimodal composing in multilingual teaching and learning contexts (re)mixes a variety of genres, modes beyond familiar linguistic and visual ones, and various mediums. In fact, there are quite a few studies that examine composing processes of videos that involve multiple modes, such as language, image, sound, and music. Research methods for investigating videos should be able to illuminate students' appropriation of those unfamiliar modes for multimodal meaning-making practices, as well as their understanding of semiotic systems of the modes and intermodal relations across the modes. Such research designs necessitate various theories beyond the commonly used ones (e.g., social semiotics, multiliteracies) to understand the complexity of this kind of multimodal composing. In a similar vein, those research methods are necessary to examine how L2 writers practice fluid meaning-making processes that flexibly use first and second languages and dialects with other modes for language learning and/or self-expression, as agentive meaning-makers through the exploitation of all available semiotic resources. This kind of comprehensive research methodology will help L2 writing researchers to take the initiative in expanding research into the complexity of

multimodal composing to more effectively address the changing nature of communication, and in addressing emerging possibilities and challenges for multimodal composing research.

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Part II
Multilingual Writers' Engagement with Multimodal Composing

Chapter 3
Multimodal Composing in a Multilingual Classroom: Design-Based Research and Embodied Systemic Functional Linguistics

Maverick Y. Zhang, Ruth Harman, Sahar Aghasafari, and Melissa B. Delahunty

Abstract Informed by design-based research (DBR) and an embodied systemic functional linguistics (SFL) approach, this chapter details how three university educators and an ESOL teacher worked collaboratively to design and implement an embodied multimodal curriculum in a mixed level high school ESL classroom. Data analysis includes intertextual exploration and SFL- informed ideational analysis and logico-semantic analysis of classroom activities and students' final written and artwork. Findings focus on the strengths and challenges in using an SFL-informed embodied curriculum to support multilingual learners in multimodal composing and grappling with globalization and immigration issues. Implications point to the affordances of DBR for bringing high-level theories such as SFL and multimodality into practice and the need for continued refinement in developing an embodied teaching/learning approach with multilingual learners.

Keywords Multimodal composing · Systemic functional linguistics · Design-based research · Immigration · Multilingual learners

3.1 Introduction

Despite recent research on the importance of embodied learning and culturally sustaining instruction (Cummins and Early 2010; DeSutter and Stief 2017; Paris

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2012), high stakes school reform and curriculum mandates too often promote teaching- to-the-test practices that effectively silence the cultural and multimodal repertoires of an increasingly multilingual student population (Flores and Schissel 2014; Molle et al. 2015; Paris 2012). Often lacking are pedagogic practices that afford learners with tangible resources "to appropriate and challenge dominant knowledge domains in our increasingly discursive society" (Harman and Simmons 2014, p. 3). In addition, texts and images in school textbooks often fail to incorporate lived experiences and identifications of multilingual youth (e.g., Chun 2015; Kubota 2004). As many scholars (e.g., Cummins and Early 2010; Harman and Varga-Dobai 2012; Ladson-Billings 2014) indicated, multilingual youth can feel minoritized or challenged both inside and outside the classroom as a result.

Pedagogies developed from systemic functional linguistics (SFL; Halliday and Matthiesen 2004) have been integrated into language education in recent decades in ways that support multilingual learners in overcoming some of these daunting challenges. Critical SFL-based instruction has supported multilingual[1] learners in content areas such as history (de Oliveira 2011), science (Buxton et al. 2019), and English Language Arts (Gebhard 2019). These pedagogies, however, can be difficult for teachers to access due to the complex metalanguage (Harman 2018; Moore et al. 2018). Because of these strengths and challenges, the purpose of our study was to develop an accessible SFL-informed curriculum that could be used across grades and expanded over several iterations. Specifically, our research team, made up of a highly invested ESOL teacher and three university researchers, used design-based research (DBR; e.g., Reinking and Bradley 2008; Sandoval 2013) to design, implement, and reflect on an embodied multimodal curriculum for a mixed level group of high school multilingual learners.

Informed by theories and empirical research on multimodal composing (e.g., Cimasko and Shin 2017; Shin and Cimasko 2008) and embodied SFL instruction (Siffrinn and Harman 2019), our chapter provides details of a year-long research study in a large urban high school. We explore the curriculum design as well as how focal students responded to the semiotic resources (e.g. pictures, videos, maps) and embodied experiences (e.g., interviewing, performing, drawing) we provided to support mixed grade level learners in deepening their knowledge of immigration issues and informational writing in social studies. In the study, we attended to two interrelated research questions: How did focal multilingual learners respond to a multimodal curriculum in terms of their multimodal composing and intertextual resourcing? And in what ways did DBR support the design and implementation of the SFL- informed curriculum? Because of space constraints, in this chapter, we attend closely to our findings related to the first research question. The second

[1] A wide variety of terms are used to describe learners in predominantly English language settings, but whose home language is other than English. These terms include "English language learners," "English learners," and "emergent multilingual learners," among others. In this chapter, we use the term "multilingual learners" because it indicates our non-hierarchical perspective on learners and their flexible use of the available range of semiotic resources to make meaning. We avoid abbreviations that are also commonly in use (EL, ELL, EBL, etc.) as they can potentially dehumanize learners through their overuse.

question is addressed with details in our Curriculum and Methodology sections and a brief summary of key findings at the end.

3.2 Theoretical Framework

3.2.1 SFL and Multimodality

In the theory of SFL, language use is conceptualized as emerging from three simultaneous meaning systems that are generated in and generative of social contexts and interactions. The trinocular view of language includes three meaning systems: ideational (what a text is about), interpersonal (evaluation of who and what the text interacts with), and textual (how the text is organized depending on the channel of communication) (Halliday and Matthiesen 2004). Importantly, through the three metafunctions, SFL connects context, semantics, and lexico-grammatical resources, supporting the development of disciplinary instruction and learning that is developed through meaning-making activities (Schleppegrell 2018).

SFL has been used increasingly in the United States as a teaching and analytic resource in supporting advanced proficiency in first and second language literacy from elementary to higher education contexts (Gebhard 2019). Less research has conceptualized the pliability of SFL as a means to develop culturally sustaining pedagogies that support multilingual youth in conveying their insights through remixing of available modes (Harman and Burke 2020). Yet such dialogic and multimodal approaches (Hasan 2011; Paris 2012) afford learners pivotal resources to appropriate and challenge dominant knowledge domains. In the case of multilingual students, for example, their vast experience of semiotic brokering in their communities (e.g., translating, representing, negotiating) provide them with sophisticated discourse strategies and knowledge to be incorporated into the curriculum (Garcia 2009; Harman and Khote 2018; Molle et al. 2015; Pacheco 2012). Indeed, Unsworth (2006) asserts that "[i]t is now widely accepted that literacy and literacy pedagogy can no longer be confined to the realm of language alone" (p. 55). In other words, dynamic meaning-making needs to be supported through multi-semiotic and embodied instruction that invites all participants to take part in the classroom learning/teaching cycles.

Aligned with SFL, social semiotic theorists of multimodality (Kress 2010; Kress and van Leeuwen 2006) conceptualize meaning-making as emerging from the use of a wide range of modes or channels of communication (e.g., drawing, performance, oral argumentation) in everyday and specialized discourses. As socially shaped semiotic resources for making meaning, modes used in representation and communication can include but are not limited to images, writing, music, gestures, and speech (Kress 2010). To support and complement multimodal composing, our conceptual framework also draws from recent SFL research on embodiment (Harman

and Burke 2020; Siffrinn and Harman 2019) that values the affective and physical domains as key components in generating disciplinary knowledge and robust classroom relationships.

Overall, meaning-making and conceptual understanding emerge from the use and remixing of semiotic resources such as physical interaction through play or theater, music, images, and gestures. Ideologically, semiotic and material choices construct, convey, and privilege both normative and counter-hegemonic meanings. In a reflective multimodal curriculum, therefore, learners may learn to deconstruct and reconstruct the ideological and cultural assumptions inherent in given representations.

3.2.2 Design-Based Research

Researchers in design-based research (DBR; e.g., Moore et al. 2018; Sandoval 2013; Schoenfeld 2014) focus explicitly on bringing theories into practice to solve identified instructional and/or learning issues. In DBR studies, collaboration between researchers and classroom teachers is seen as a critical and indispensable component of the research design. In our case, we decided to use a DBR approach because SFL-informed pedagogies have long been criticized as too complex, not readily accessible to in-service and pre-service teachers. Among recent DBR studies, Moore et al.'s (2018) work is particularly relevant to our current study in the sense that it is focused on the theoretical and pedagogical issues of an SFL-informed genre pedagogy. With the help of DBR, the researchers worked closely with in-service teachers across 20 classrooms and five schools to develop SFL-based approaches to support the disciplinary learning of multilingual learners. In their conclusion, the researchers pointed out that "both SFL and DBR are especially suited to transdisciplinary work, where researchers from different perspectives collaborate" (p. 1045).

In our work, we drew upon previous work in DBR (e.g., Reinking and Bradley 2008; Edelson 2002; Moore et al. 2018; Schoenfeld 2014) in establishing five key characteristics as helpful in theorizing and designing our research:

- Targeted intervention in instructional context
- Research and practice as enhancing each other
- Goal-oriented and pragmatic approach (addressing identified issue in learning or teaching)
- Adaptive and iterative (involving iterative cycles)
- Methodologically inclusive and flexible

In our view, DBR, especially these five characteristics, supports the exploration of SFL-informed inquiry approaches. In the close collaboration among us—an ESOL educator, two applied linguists, and an art educator—we tried to reflect continually on the connections between research and practice. That is, we moved recursively from pragmatic considerations about the classroom context to higher-level theories of language and social semiotics. As Moore et al. (2018) pointed out, "DBR

offers a systematic way of operationalizing high-level theories, such as SFL, and supporting … research that engages teachers and students in collaborative research" (p. 1023). Additionally, we felt that the adaptive and iterative nature of DBR (Reinking and Bradley 2008) aligned with our research purpose, our plan being to reframe/refine the approach and curriculum over several iterations. Ideally, our goal was to build a context-specific instructional theory, similar to what Moore et al. (2018) accomplished over three iterative cycles.

3.3 Curriculum and Methodology

3.3.1 Research Context

The year-long DBR study was conducted in a mixed level (grade 9 -11) ESOL class at a public high school in a small city located in the southeast of the U.S., as part of a two-year funded research initiative at the school. Participants of the study included 19 first-generation immigrant multilingual learners from Central and Latin American countries. The classroom teacher, the fourth author on this chapter, hereafter referred to as "Melissa," self-identifies as a white American female from Columbus, Ohio. Ruth Harman, hereafter referred to as "Ruth," is a university professor and self-identifies as an Irish female. The other two university educators, Maverick Y. Zhang and Sahar Aghasafari, self-identify as an Asian person and an Iranian female.

Similar to Moore et al. (2018), we approached our DBR study in three stages. We see our first stage, during the 2018 fall semester, as a pre-iteration, since it involved exploration of the classroom literacy practice at potential research sites through participant observation and field notes. It was during this stage that we determined through field notes and frequent consultations with Melissa that the main areas for our collaboration would be the following: students' difficulty in writing cause and effect social studies essays; and lack of previous success in writing expository essays in English. Because Melissa had already been exposed to theories of SFL and multimodality in her graduate teacher training (see Harman et al. 2020), she agreed with the university researchers that an embodied SFL approach would be optimal use in designing the intervention for the mixed level student group. The second DBR stage, also our first iteration, was the implementation of the curriculum during the 2019 spring semester. Our planning and design of the curriculum developed from Melissa's expert advice on what would work best with her multilingual students and our field notes from the pre-iteration stage. The third DBR stage, which happened simultaneously with our implementation of the curriculum, involved critical reflection on what we did during each curriculum week, which involved weekly meetings as a research team and several meetings after we had finished with the curriculum. Based on our critical reflections, we designed our second iteration of the project and began implementing it in spring 2020, which, unfortunately, was disrupted by the ongoing global pandemic. We hope to resume this iteration in spring 2021.

From a DBR perspective, curriculum designers need to take into consideration the sociocultural factors at play in the educational context and also the literature documenting previous research approaches, making a DBR practice "methodologically inclusive and flexible" (Reinking and Bradley 2008, p. 21). Our approach, therefore, developed from our year-long engagement with the school and classroom as well as from research informed by SFL and multimodality.

3.3.2 Conjecture Map

We started our curriculum design with conjecture mapping, "a means of specifying theoretically salient features of a learning environment design and mapping out how they are predicted to work together to produce desired outcomes" (Sandoval 2013, p. 2). In other words, the mapping helped us as designers in bridging theories and practices and in addressing specific social and/or instructional issues. In this study, the SFL-informed inquiry approach was based on two interconnected high-level conjunctures: writing develops from a set of multi-semiotic meaning-making processes, and teaching and learning of writing develop through co-construction of meanings and knowledge. To bridge these two high-level conjunctures with the purposes of our classroom teaching and learning practices, as well as the learning outcomes, we adapted the conjecture map from Sandoval (2013), as shown in Fig. 3.1 below.

Figure 3.1 shows how the mapping first laid out the two high-level conjunctures that would inform the design of the curriculum, viewed in DBR as the "design conjectures"—how a design functions (Sandoval 2013). The second stage, the "mediating processes," supported the team in thinking about the necessary resources, task structures, and discursive practices for the operationalization of the high-level conjunctures. For example, we established early on that an SFL-informed Embodied Teaching Learning Cycle (TLC; Siffrinn and Harman 2019) would support our learners in seeing writing as a multimodal and intertextual composing process.

Also illustrated in Fig. 3.1 above, the interconnected outcomes of the mapping were tied directly to the pedagogical goals of the intervention. In other words, the purpose was to support multilingual learners in deepening their disciplinary knowledge, their investment in multimodal composing, and their critical awareness of the socio-political ramifications of current globalization and immigration practices. A key outcome, therefore, was to support their "reading the word and the world," as informed by Freire and Macedo's (1987) critical literacy approach. Likewise, the third outcome "writing to the world" put focus in the design on meaningful writing and reading—making sense of—the ongoing sociopolitical contexts and taking actions to speak out and promote social justice (e.g., Chun 2015; Fairclough 2016).

Overall, the conjecture map helped the research team conceptualize how the higher- level conjunctures/theories would function in the design and make both theories and design accessible to a broader audience (e.g., teaching practitioners). To bring theory into practice, though, we also used an embodied TLC (Siffrinn and Harman

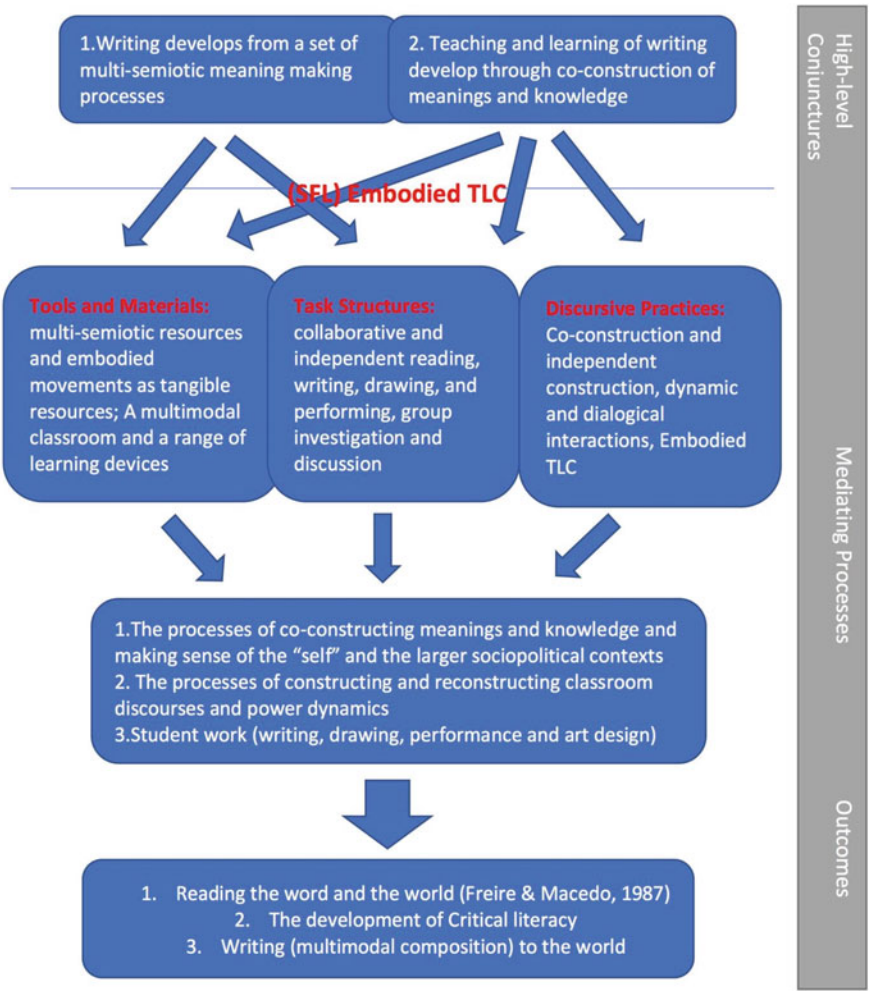


Fig. 3.1 Conjecture Map

2019) that, as shown in the conjecture map, functioned as a means to realize the "high-level conjunctures," "mediating processes," and "discursive practices."

3.3.3 Embodied Teaching-Learning Cycle

The embodied teaching-learning cycle (TLC; see Fig. 3.2 below) adapted from Siffrinn and Harman (2019) guided the overall planning of the curriculum unit as well as specific classroom activities. This pedagogic cycle was developed initially from the

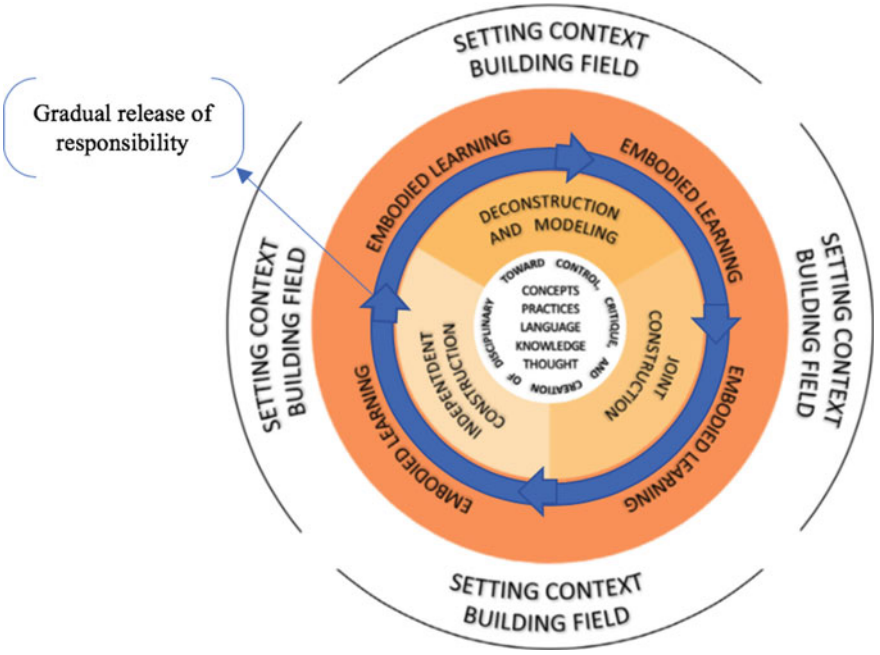


Fig. 3.2 Embodied TLC (adapted from Siffrinn and Harman 2019)

SFL-informed TLC (e.g., Derewianka and Jones 2016; Rothery and Stenglin 1995). In the more recent embodied TLC, physical and multi-semiotic resources function to support students in recursively moving from concrete to abstract understandings of disciplinary concepts. As indicated by Siffrinn and Harman (2019), bringing together physical-material activities with the semiotic affordances of languaging (Halliday 2005/2013), students are in a better position to gain "conscious and deliberate control" (Vygotsky 1986, p. 172) of disciplinary ways of doing and thinking. In other words, the cycle is designed to support students in embodied processes of learning while expanding their use of multi-semiotic resources to make meaning.

In the current study, as illustrated in Fig. 3.2, the research team used the "modeling and deconstruction" stage to support students in analyzing and using the expected patterns of meaning in the informational genre of reporting (e.g., Derewianka and Jones 2016). They also used multimodal activities such as drawing, performing, and discussing to involve students in active realization of the field of activity (e.g., issues related to immigration on the border). In the second stage, students and teachers jointly constructed and enacted texts that elaborated on their understanding of the immigration issues. Support from the teacher was gradually reduced after this point, "as the learners take increasing responsibility for independent use of a range of multi-semiotic resources" (Derewianka and Jones 2016, p. 54). In the final stage of the cycle, students used intertextual resources from the curriculum module to write their own reports about a country. Ideally, we saw this handover of responsibility functioning

as a gradual release of power—a potential restructuring of power relations in the classroom (e.g., Chun 2015) and an opportunity for multilingual learners to take ownership of the whole learning and doing processes (e.g., Cummins and Early 2010; Harman and Burke 2020).

3.3.4 Data Collection

To support investigation throughout the DBR study, we gathered data related specifically to the "mediating processes" in our conjecture map, which involved collection of video recordings of all classroom interactions and artifacts produced by student and teacher participants. As emphasized by Sandoval (2013), "documenting mediating processes in at least one of these two ways is required to connect aspects of a designed learning environment to observed outcomes of its use" (p. 6). Specifically, as shown in our conjecture map (see Fig. 3.1), the artifacts in this research were mostly students' writing, drawing, video recorded performances, and art designs. We also manually collected students' writing, drawing, and artwork throughout the project.

In order to document the design process, Maverick's weekly reflections during the pre-iteration stage, as well as reflections written by Ruth, Sahar, and Melissa during the second stage of the iteration were collected to support reflection on our curriculum designing processes. In this way, our data collection aligned with Reinking and Bradley's (2008) thoughts on rigorous DBR studies. They emphasize that in a rigorous DBR study, the researcher should consider "multiple sources of data for systematic analysis" (p. 54), through which researchers will be able to "acquire a deep understanding of the intervention and its effects" (p. 55).

3.3.5 Data Analysis

The first phase of analysis focused on the strengths and challenges of DBR work in our first iteration. Specifically, we analyzed the documented design, implementation, and critical reflection processes by using the approach advocated by Fairclough (1992) in terms of identifying crucial moments in our work—that is, moments of crisis that demonstrated where the DBR achieved and/or failed to achieve the pedagogical outcomes we intended to realize through the conjectural mapping.

The second phase of analysis used micro-level SFL-informed multimodal discourse analysis (e.g., O' Halloran 2005; Martin and Rose 2003; Martinec and Salway 2005) and intertextuality (Harman 2013; Bakhtin 1986) for a systematic analysis of multiple sources of data (Reinking and Bradley 2008). Through Systemic Functional multimodal discourse analysis (SF MDA), we were able to conceptualize theoretical and practical approaches to analyzing the range of configurations of spoken and written language, visual images, gestures, spatiality combinations in our

data. Within this line of inquiry, O'Halloran (2005) proposed systems for exploration of intersemiosis (i.e. experiential, logical, interpersonal, and textual) for the analysis of mathematical discourse including linguistic, symbolic, and visual elements that supported us in thinking of the interrelationships of image, verbal text, and other material resources. Informed by SF MDA perspectives on multi-semiotic meaning-making, we adapted Martinec and Salway's (2005) SFL-informed logico-semantic analytical framework to explore how these images and texts, as two different modes, enacted ideational meanings. For example, we examined how representational meanings in verbal and visual texts expanded, elaborated, and/or contradicted each other in ways that instantiated the intended macro genre (Martin 2008). In terms of intertextual analysis, we focused on connections between the students' final work and the classroom processes and multimodal artifacts used in the curriculum module, which supported us in seeing how students appropriated resources from the curriculum to construct/co-construct reports and narratives about immigration and globalization.

Overall, the two phases of analyses were interconnected as the second phase of analysis supported the first phase of analysis. For example, the intertextual exploration and SFL-informed ideational analysis and logico-semantic analysis showed the ways in which students were supported by multi-semiotic resources in their multimodal composing, which was an integral part of the DBR theoretical conjecture (Sandoval 2013).

3.4 Findings

3.4.1 Intertextual and Multimodal Patterns in Student Work

To show how focal students responded to the curriculum design and to support analysis of the DBR theoretical conjecture (Sandoval 2013), this section focuses on the final multimodal work of four focal students: Ernesta, Mariana, Raul, and Sanchez.[2]

Picture 1 to Picture 5 in Fig. 3.3 below shows Ernesta, Mariana, and Sanchez's artistic and written work that they prepared for the final module of our curriculum, a public exhibit open to the community and school members. On Fridays each week, with the support of Sahar and Melissa, students drew and decided on how to juxtapose images and texts on large dividers for the exhibit. For example, Sanchez drew an image of "Esperanza," as shown in Picture 1, to establish a clear connection between his lived experiences and the narrative of the novel *Esperanza Rising*[3] (Ryan 2000), which had been used as the textbook for every Friday's classroom reading.

[2] All names of students and schools are pseudonyms.

[3] *Esperanza Rising* (Ryan, 2000) is young adult literature about a young Mexican girl and her family's immigration experience from Mexico to the U.S.

Fig. 3.3 Students' Art Work On Story Panels (Mariana, Sanchez, and Ernesta)

A logico-semantic analysis of the multimodal panels showed that students, including Ernesta above, chose to draw images to expand, elaborate, and exemplify (Martinec and Salway 2005) their description of the push and pull factors of immigration in their written texts. In Picture 4 (Fig. 3.3), Ernesta drew an image of a constrained human body—a disciplined one (Foucault 1975/1979)—and a big strong hand as a powerful and meaningful representation of ongoing sociopolitical problems in Guatemala. The text "Violence" next to the image provides a general concept that could function as the theme of this particular representation, whereas the image gives the detailed information including the nature of the "violence" with specific gender(s) involved and the power dynamics between the "victims" and the "forces:"

the size of the fist is larger than the size of the person's entire body. This particular logico-semantic relationship between text(s) and image(s) is called "exemplification" (Martinec and Salway 2005, pp. 352–354), wherein the verbal text is specified and exemplified by the image. Ernesta's work opens up issues of gender, sexuality, body, discipline, and power relations (Foucault 1975/1979) that just the verbal text would not have provided. Similarly, the logico-semantic relationship of "exemplification" was also identified in Sanchez' work (see Picture 1 and Picture 2), where images of the protagonist in *Esperanza Rising* (Ryan 2000) and of an armed gang member are more general than the adjacent written texts, thus specified and exemplified by these texts.

To further explore connections between students' work and our curriculum, as mentioned previously, we also conducted an intertextual analysis. The analysis showed that in their final multimodal work for the public exhibit, students used intertextual resourcing (Harman 2013) from curriculum activities during the deconstruction and joint construction processes in the embodied TLC. For example, the drawing of maps as well as the mapping of the life trajectory in Ernesta's panel (Picture 5) were informed by the first-week collective storytelling session in which Maverick and Sahar shared their immigration experiences through different types of mapping. Likewise, Mariana's work (e.g., Picture 3) drew upon classroom activities in both week 1 and 2 such as the sharing of the immigrant educator stories (examples can be seen in Fig. 3.4 below) and classroom interactions around these stories. Specifically, through images of a dove, a tree in a closed jar, and the cultivation of plants, Mariana (see Picture 3) intertextually drew from curriculum activities to depict understandings of key issues that her country faced: lack of freedom, lack of educational resources, and poverty.

Our intertextual analysis of the final essays that students wrote for the curriculum also showed that curricular activities including modeling of interviews in the second week, sharing of immigration stories by the researchers and invited guests, and close deconstruction and joint construction of cause and effect essays supported students in developing their final written work. For example, the highlighted parts in Raul's essay below came from intertextual resourcing of materials and embodied storytelling from Maverick, as seen in Fig. 3.4. Likewise, in Sanchez's essay about push factors in Iran, he wrote that "The religion in Iran is very strict, so the woman can't be in the street or outside of their houses without the scarf," which directly drew upon Sahar's multimodal storytelling.

As evidenced above in Fig. 3.4, Raul cited an article by *South Morning China Post* (SMCP) journalist Zhuang Pinghui, the one that was provided both as an online and as a hard copy resource for students to prepare for their week 4 interview, as well as the final essay. In addition to simply viewing the "bad economy" in China as one of the push factors, Raul defined this "bad economy" as "low income and less job," and cited Maverick for further elaboration. Of course, Raul's textual representation of immigration also came from the intertextual resourcing of Maverick's storytelling, as highlighted in the transcripts (Fig. 3.4) above. Likewise, by drawing upon specific resources in Sahar's multimodal storytelling, Sanchez portrayed textual representations of religion, gender, and immigration in Iran with tangible details such as

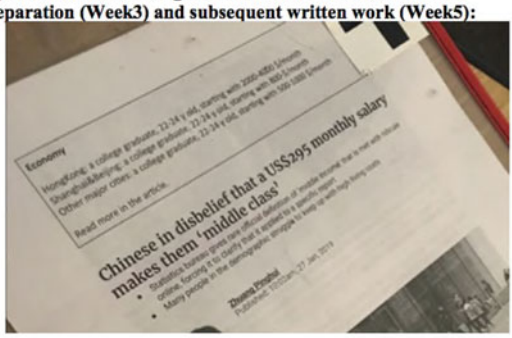
Students' written work	Transcripts and Classroom image
Raul's written work focusing on immigration issues in China: *In China, the population is 1,418,939,329 (Worldometers). The average person living in China makes 3,540 US dollars per year (Zhuang Pinghui). Every year, many people emigrate or leave from this country. In this report, I will … These push factors are: overpopulation, less education opportunities and bad economy (low income and less jobs).* *The third push factor is the bad economy, which means low income and less jobs. The immigration numbers in China have increased in recent years because of the expensive life. The main cause of the bad economy is the imbalanced redistribution and distribution of money and resources (Maverick Zhang).*	**Transcripts of Story Telling (Week1) from Maverick:** *And then another problem was the economy. China has been developing really fast, but people were not really earning a lot of money. … my parents, they were earning like 50USD/month, and that was like 2001, not too long ago. And … when I was at your age, like 10 -12 years ago, my father was…he's a very good engineer, he works like 5 days a week, 8 hours per day …he was earning like 700USD per month.* *But in Hong Kong, we still have problems. The biggest problem … after I got my master's degree, I was earning like 2000-3000USD/month… which was pretty good in China. But the problem was the housing price. … I looked at the housing price and I was like, noooo I can never afford a house… Coz in Hong Kong people are paying 200,000USD to buy a parking spot, not even a house. …I felt like I should probably go somewhere else. That was also why a lot of people they left Hong Kong, even for people who were born in Hong Kong.* **A printed online article given to students for their interview preparation (Week3) and subsequent written work (Week5):** 

Fig. 3.4 Student's Written Work, Transcripts, and Classroom Image

"women," "street," "houses," and "scarf," functioning as everyday concrete entities in the ideational meaning system (e.g., Martin and Rose 2003).

Overall, we can see from our findings that although students' final papers are verbal English only to meet the expectations of the high school mandates, the writing is realized through an intertextual resourcing of multimodal activities that occurred earlier in the curriculum module.

3.4.2 Challenges in Design and Implementation

Based on the analysis of our curriculum design and implementation, we identified strengths of the approach (e.g., agentive intertextual resourcing; creative multimodal composing) and also pivotal challenges. Due to space constraints, this section focuses

only on the challenges and the critical role these challenges play (e.g., Reinking and Bradley 2008) in the design of our future iterations and refinement of the curriculum.

3.4.2.1 Balancing Disciplinary Knowledge and Literacy Development

By analyzing critical moments of tension and conflict (Fairclough 1992) in our design and implementation, we found that it was difficult for us to maintain a dual focus on disciplinary knowledge generation (e.g., social studies curriculum in 9th grade) and writing development for that particular discipline in a mixed level multilingual classroom (e.g., Gebhard 2019; Molle et al. 2015; Schleppegrell 2018). That is, most students in the class needed intensive scaffolding on aspects of cause and effect writing, which needed to be included within the content focus on immigration and globalization issues. In addition, most of our multilingual students were at different levels in reading and writing grade level disciplinary texts (e.g., lexico-grammatical choices, terminology). For example, 10th grade students labeled "newcomers" were put in the classroom alongside 11th grade bilingual learners who had spent most of their school lives in the U.S. As a result, within the limited time of instruction, we could not provide all students the language support they needed while building up their disciplinary knowledge. This challenge of integrating language and content is similar to those brought up by previous studies (e.g., de Oliveira and Schleppegrell 2015; Gebhard 2019) in addressing K-12 multilingual/bilingual learners' various classroom needs and the need to achieve the level of English demanded by both new standards such as the U.S. Common Core and the learning of specific subjects. In our new iteration, we intend to attend more to the drafting of final papers in joint construction activities that will support more cohesion in students' final written work.

3.4.2.2 Overstimulation with Multi-semiotic Resources

In week three, the students were given additional resources to prepare for an embodied interview activity, where they were going to interview guest speakers about their lives before and after immigration to the United States. Based on Melissa's suggestion, the team prepared different learning centers where students rotated to avail themselves of Internet resources, reports on the countries of the guest speakers, and other visual artifacts (e.g., YouTube clips). The aim was to encourage the students to draw from the multimodal resources in preparing for their interviews and written reports on the countries of the guest speakers. However, several of the students chose not to use these resources, and their knowledge of countries such as Nigeria was limited during the interview activity. Through reflections on this critical moment (Fairclough 1992), we realized that the students were not motivated to work on this activity because they did not know the guest speakers and we had not shared our rationale for including these new people in the curriculum. On the contrary, because the team bonded with the students and were very clear about why they were sharing their immigration stories and written accounts of the push and pull factors affecting their lives and their

decisions to come to the United States, there was a high-level use of intertextual resourcing that the students use when directly writing about China, Iran, or Ireland, as evidenced in Fig. 3.4. Another issue that emerged in week 5 of the intervention was that students tended to forget the curriculum activities from the previous weeks. For example, when the students were asked to write their own reports in the independent stage of the embodied TLC, some completely lost track of the essays that had been jointly constructed with the research team. Instead, they sought new information that led to a loss of cumulative knowledge building about the countries and genre expectations in writing about them.

We then identified some key factors that led to the challenges in our approach. Because of tight Internet security in the school, the students could not be agentive in accessing online media platforms (e.g., Facebook, YouTube) to build on their knowledge of the different countries. One other factor that led to the failure at times to be consistent in the unfolding of the curriculum module was that as a research team, we offered the students too many resources. Although the students did not comment directly on this, this over-stimuli could have led to their choice to not include some of the resources. Overall, the problems could be related to the decision-making process (Edelson 2002) and power dynamics among research team members. It also could be related to the undue pressure on multilingual learners in high school, who need to fulfill highly difficult disciplinary tasks in a wide range of subject areas (e.g., Gebhard 2019; de Oliveira and Schleppegrell 2015).

3.5 Discussion and Implications

3.5.1 Multimodality, Agency, and Critical Literacy

Overall, findings from our study show that the embodied multimodal curriculum provided learners with an array of semiotic resources that students could use in creative, critical, and intertextual ways to convey their insights and lived experiences about immigration. Even some of the "newcomer" students can use English language "to generate new knowledge, create literature and art, and act on social realities" (Cummins and Early 2010, p. 42). Of course, we acknowledge that a wide variety of multimodal learning experiences are part of students' everyday lives both inside and outside of school (e.g., Gebhard 2019), and we, therefore, do not claim that the students' final multimodal work was simply a result of the support from our curriculum. However, our analysis did show explicit connections between the curriculum materials and students speaking out about complex social issues.

For example, the agentive choice of artifacts (see Fig. 3.3) supported multilingual learners in articulating their insights about globalization and immigration in meaningful and powerful ways, as elaborated in our logical-semantic analysis on and intertextual exploration of these semiotic choices. Students' agency and deep insights could also be seen in their written work. Though none of the students were

exposed to theories of neo-Marxism or critiques of neoliberalism (e.g., Chun 2017) in our curriculum unit, as shown in our intertextual exploration, Raul cited "the imbalanced redistribution and distribution of money and resources" from Maverick as the main cause of the "bad economy." Bringing news articles and researchers' life stories into their final written work, Raul and many other students were indeed reading the word and the world (Freire and Macedo 1987), weaving multi-semiotic resources into their multimodal composition to explore issues around gender, economy, religion, and immigration from a global perspective.

We see the student work as a good starting point for opening up conversations in future iterations of the curriculum. We also see the affordances of using an embodied multimodal curriculum to position multilingual learners as (potential) civic agents of change and artistic remixers of knowledge (Paris and Alim 2014). As pointed out by Cummins and Early (2010), by bringing their identities in the creation of multimodal texts, students are encouraged to connect what is happening in the classroom with power relations circulating in school and society. This pedagogical move also challenges the devaluation of multilingual and marginalized students' cultures and languages in our society at large.

3.5.2 DBR, High-Level Theories, and Future Iterations

Throughout this chapter, we can see that DBR supported us in conceptualizing and implementing complex approaches, such as SFL-informed multi-semiotic inquiry, in an authentic instructional context, which directly addressed the "intractable instructional problem[s]" (Reinking and Bradley 2008, p. 20) regarding high-level theories/conjunctures such as SFL and multimodality.

More importantly, DBR encouraged us to reflect deeply and identify problems and challenges that need to be addressed in future iterations. For example, as shown in the findings, difficulties arose because of the overabundance of resources offered to the students within a limited period of time. In the next iteration of this work, our intent is to spend more weeks on each curriculum sequence and to refrain from introducing new speakers into the frame of teaching/learning. We also intend to limit the number of different semiotic resources and new concepts being brought into the classroom and focus more on the consistent modeling and joint constructing of these new concepts. To address challenges regarding the development of disciplinary knowledge and literacy, we will focus more on the processes of moving from co-construction to independent construction and provide more individualized model texts and instructions for students at different levels of proficiency (e.g., Gebhard 2019). We may also work on supporting learners in developing more systematic ways of note-taking and cumulative knowledge building, and tailor online resources to a more accessible format. In this way, we hope that students will be better supported to access and make sense of curriculum materials such as online videos and articles (e.g., Chun 2012, 2015).

Bearing the iterative nature of DBR (Reinking and Bradley 2008) in mind, we acknowledge that these problems and challenges may never go away as we keep moving through future iterative cycles. Instead of striving to find out "how it works," we ask ourselves, "How can we find ways to make it work better?" That is, we acknowledge failures and aim to keep refining our approaches to better support multilingual learners in changing classroom contexts.

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Chapter 4
Multimodal and Multilingual Co-authoring in High School Social Studies ESL Classrooms

Liv T. Dávila and Victoria Susberry

Abstract This chapter presents a qualitative study of how newcomer English Learners (ELs) collaboratively engage various semiotic tools in their production of multimodal identity texts in high school social studies classes. Through analysis of students' written work (worksheet, screenplay, and poster), as well as field notes and recordings of classroom interaction, the chapter explores the choices learners make in co-authoring multimodal texts that bridge multiple languages, contexts, and experiences. It concludes by contributing nuanced conceptualizations of multimodal composition that emphasize dynamic relationships between identity formation, translingual practice and civic engagement in an increasingly interconnected and digital world.

Keywords Multilingual · Multimodal · Identity · Adolescent

4.1 Introduction

English learners (ELs) constitute the most rapidly growing segment of the student population in American schools. According to the National Center for Education Statistics (NCES), as of 2016, there are over 4.8 million children in the United States, or nearly ten percent of the entire K-12 student population, who qualify for language assistance in school (NCES 2019). Roughly one-half of this population are ELs between the ages of 14 and 18, and the majority of these students are lower income, non-white, and non-citizens. Adolescent ELs are also more likely than non-ELs to experience poor educational outcomes and limited employment opportunities upon graduation (Velez et al. 2016).

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Development of academic writing and compositional skills is a particular challenge for adolescent ELs who enter the educational system in later grades when they are expected to navigate challenging course content in spite of having fewer years to master the English language. Learning English in school contexts entails learning new academic registers, which necessitates appropriate grammatical and lexical input and scaffolding, including opportunities for interaction and opportunities to tap into linguistic funds of knowledge. Schleppegrell (2004) puts forth the notion of "genres of schooling," which is suggestive of typical text types associated with school-based writing tasks, and can be particularly challenging for ELs to master. Commonly assigned writing genres include personal (recount, narrative), factual (procedure, report), and analytical genres (account, explanation, exposition), each of which involves linguistic choice-making that is dependent upon learners' identities and language experiences. With a view toward these challenges, Lemke (1998) and others (Cope and Kalantzis 2009; Kress and van Leeuwen 2006) have called for a reconceptualized understanding of literacy that moves beyond written words to legitimize alternative forms of meaning-making.

Following this orientation, collaborative and multimodal composition in school is increasingly viewed as an important means of increasing students' engagement and motivation to write (Baepler and Reynolds 2014), and an important learning strategy for writing in a non-native language (Elola and Ozkoz 2017; Stein 2000). Learners have different mode preferences, and for some students, visual expression is more effective for learning than writing alone (Smith et al. 2017), particularly for those who have experienced lapses in formal education, or who have not mastered writing in their primary languages.

Important research has explored the use of multimodal literacies in the writing practices of children and youth (Cummins and Early 2011; Gee and Hayes 2011; Jewitt 2008; van Leeuwen 2015). The research presented in this chapter explores how adolescent newcomer ELs collaboratively engage various semiotic tools in their production of multimodal identity texts in high school social studies classes in the U.S. The content of these courses emphasized civics education and included the topics of immigration, citizenship, and government. The research questions that guide this study are:

1. How do adolescent ELs negotiate civic learning and engagement through the creation of collaboratively-authored multimodal texts?
2. To what extent are transnational civic identities afforded through collaborative multimodal composition?

In addressing these questions, this research sheds light on the relationship between global migration, identity, and translingual, multimodal literacy practices in school.

4.2 Background Literature

This study draws on previous scholarship on collaborative, multimodal, and translingual writing practices to explore local and transnational dimensions of meaning-making among multilingual learners of English. These bodies of literature allow us to attend to how students use and negotiate linguistic and communicative resources (e.g., words, sounds, images, colors, video) in the service of civic learning and engagement.

4.2.1 Collaborative and Multimodal Writing

Multimodal composition is a key component of many adolescent ELs' literacy instructions in school in the United States, and it is increasingly seen as fundamental to the development of literacy in a new language (Comber 2016; Dalton 2012; Yi 2014) and the promotion of democratic, culturally and linguistically affirming classroom learning spaces (Pacheco and Smith 2015; Stein 2007). Multimodal composition involves making "semiotic choices" (Kress 2010) to communicate ideas in different ways and using multiple modes (e.g., writing, visuals, sound, movement), thereby providing authors with means of authentic, person-centered communication. More complex multimodal texts combine semiotic systems of static or moving image, written text, voice, and movement to create meaning that moves "backwards and forwards between the various modes" (Cope and Kalantzis 2009, p. 423).

Collaborative writing projects involving multimodal tools, such as video, audio, and Internet-based research platforms (e.g., Wikipedia) are frequently assigned by K-12 teachers of any content area as a means of increasing student motivation, eliciting peer feedback, and refining writing output (Darrington and Doussay 2015; Elola and Oskoz 2010). Teaching that incorporates multimodal resources can allow for complex levels of thinking and engaging group discussion through collaboration. For example, a study by Smith (2019a) found that allowing the use of multimodal writing tools in the classroom provided a means for students to express their thoughts while also encouraging student-generated discussion. Multimodal tools can support students through composing processes, such as allowing for collaborative discussions and expressing their understanding using complex methods (Compernolle and Williams 2013). In a second study, Smith (2019b) analyzed different types of collaboration that come from using multimodal methods in teaching adolescents. He observed three pairs of 12th graders composing a website, a podcast, and a hypertext literary analysis, and found three different types of collaborative partnerships: (1) designer and assistant collaboration, (2) balanced division collaboration, and (3) alternating lead collaboration. This study offers evidence that multimodal tools allow for more collaborative learning and complex thought. In addition, a study by Ntelioglou, Fannin, Montanera, and Cummins (2014) found that allowing students to collaborate using multimodal tools in writing assignments increased their motivation and effort.

In analyzing the choices ELs make in their composition of collaborative multimodal texts, the current study draws on Cummins and Early's (2011) work on *identity texts,* which incorporate all modalities—spoken, written, musical, visual, and dramatic—to convey past and present stories. Scholarship has pointed to the importance of multimodal writing for immigrant and refugee-background youth as a means of expressing affiliation and exploring identities. For instance, Karam (2017) researched how through multimodal composition, an adolescent refugee EL in the U.S. effectively aligned his interests and experiences with in-school writing tasks. McLean (2010) explored the digital literacy practices of an adolescent immigrant from Trinidad and Tobago and found that this learner created an online "home" that united "her identities as a student, adolescent Trinidadian, Caribbean, and American" (p. 16). Grapin (2019) evaluated different uses of multimodality in the classroom separating them into two different categories: weak and strong. From these results, the author proposes that education must embrace multimodal learning in order to best support ELs, because doing so allows them to utilize the meaning-making resources while engaging with the material at hand.

Allowing ELs to use multimodal tools in writing provides these students with a stronger sense of self-identity within the classroom (Ntelioglou, et al. 2014). Wang (2018) conducted a qualitative case study with ELs in order to assess their use of multimodalities to create written pieces about their biliteracy. Student participants used a combination of words and images to compose multimodal texts to write about their personal journey of English learning regardless of their age, gender, and nationality. Additionally, Bunch and Willett (2013) explored how middle school ELs engage with and produce multimodal social studies-focused writing and found that students were most successful when presented with a meaning-based, dialogic approach to developing literacy.

Existing research underscores the importance of multimodal teaching and learning to create a student-centered classroom that gives learners of English a sense of identity, creates a collaborative culture, and increases students' proficiency in English, while also promoting development in their home language. The research presented in this chapter further expands on this earlier work by exploring the particular nuances of collaborative translingual writing using multiple semiotic tools. In so doing, it accounts for broader contextual variables that factored into students' linguistic choice-making when co-authoring written academic genres.

4.2.2 Translingual Writing

Research points to the benefits of multilingual and multimodal interaction in oral and written formats (Hawkins 2018; Wagner 2018). A translingual orientation to collaborative multilingual composition among ELs suggests there is a "synergy between languages that generates new grammars and meanings" (Canagarajah 2015, p. 419). This orientation acknowledges that languages construct norms that are strategically negotiated in social interactions. Speakers of any language are agentive actors who,

through interaction with others, position themselves within local and global contexts (Alim 2009). Multilingual individuals use features of their entire linguistic repertoire purposefully to fit their particular social situation (García and Li 2014). Translingual writing within classrooms allows for learners to support one another linguistically, socially, and academically, and to connect to different proficiencies, affiliations, and heritages of communities outside of the classroom (Leung 2014).

Research has demonstrated how translanguaging can facilitate the development of academic writing. Velasco and García (2014) conducted research that evaluated five written texts produced by young bilingual writers with varied language background where translanguaging is used in the planning, drafting, and production stages of their writing. They analyzed how and why translingual writing was used, as well as the effect it had on the development of the authors' writing and voice. The authors concluded that translanguaging pedagogies facilitate the development of academic writing in one language while also affirming students' multilingual identities. Kibler (2010) examined the writing practices of bilingual secondary students noting improvements in writing when students are allowed to write collaboratively and using their primary languages. Distinctively, she found that bilingual writers use both languages as they navigate and show expertise in various kinds of writing tasks.

Lee and Handsfield's (2018) research explores how students who are bilingual and bidialectal move across languages to express meaning through code meshing, combing their first language or dialect with standard English. Code meshing is important in the classroom as a means of fostering identity among students while building their literacy skills. The work of reframing dichotomous views of languages requires conscious and continued efforts to unlearn the myth that there is only one correct way to speak or to write.

In sum, existing scholarship points to positive learning outcomes associated with allowing students to use multiple linguistic, digital, and textual tools in their compositional processes in school. The current study expands on this body of work by exploring the nuances within collaborative multimodal and multilingual writing and transnational civic learning among adolescent learners of English.

4.3 Methods

This chapter draws on qualitative research conducted at a public high school in a midwestern city in the United States between 2015–2017.

4.3.1 Research Context

Of the 1,100 students enrolled in the school, roughly ten percent were designated as English learners. Approximately 75% of this population were from Mexico, Guatemala, and Honduras and spoke Spanish, Q'anjob'al, and Quiché

as their primary language(s). Twenty percent of the ELs were from the Democratic Republic of Congo and Cameroon and spoke French, Lingala, Tshiluba, and Fulani. The remaining 5% of students were from China, Vietnam, Morocco, Iran, and Afghanistan.

Data were collected in two sheltered ESL classes (Echevarría and Graves 2014) that met daily for 50 minute periods and emphasized social studies and civics content. There were roughly 20 students with varied linguistic and educational backgrounds in each class. The two ESL teachers of these classes, Mrs. Jones and Ms. López, were both bilingual in English and Spanish and encouraged students to use their primary home languages in spoken and written forms when working within same-language groups as a means of scaffolding content and English language learning. (All participants have been given pseudonyms in order to maintain confidentiality.) They frequently provided written instructions in English, Spanish, and French, the dominant non-English languages spoken by ESL students at the school.

Mrs. Jones and Ms. López also routinely integrated multimodal writing activities into their daily lessons. Although the ESL classrooms were not equipped with permanent computers, students had access to laptops and Chromebooks that the teachers checked out from an audio-visual center accessible to all teachers at the school. Students used both of these resources to conduct research on the Internet, and for writing tasks, which included open-ended assignments and worksheets accessible through the teachers' Google Classroom platforms. The teachers also allowed students to use their smartphones in the ESL classrooms in order to look up definitions on Google Translate. Smartphone use occasionally extended beyond assigned tasks, though, and students were frequently reminded to turn off music or videos that were not part assigned activities.

4.3.2 Participants

The focal students whose writing is presented in this chapter were multilingual in French, and several Central African languages including Lingala, Tshiluba, and Swahili. These students were literate in French and were developing writing skills in English (Table 4.1).

These students (like their peers in the ESL classroom) could be considered technologically savvy as they all had smartphones that they carried with them during the school day and often plugged into outlets in the ESL classroom. While none of them had computers at home, they frequently used computers at school and the public library.

Table 4.1 Participants

Name	Age	Language	Grade	Arrival to US
Reine	16	French, Lingala	11	2012
Marie	16	French, Lingala	10	2013
Joie	15	French, Lingala	11	2013
Laure	14	French, Lingala	9	2014
Malik	17	French, Lingala, Tshiluba	11	2015
Amadou	16	French, Lingala, Tshiluba	11	2016
Auguste	18	French, Lingala	11	2017

4.3.3 Data Collection and Analysis

The focus in this chapter is on students' texts while also attending to individual, contextual, and material factors that influenced their composition. Individual factors include students' language backgrounds, and immigration experiences. Contextual and material factors include the task students were to complete and the resources they used to complete them. Data were collected by the first author using ethnographic methods, including prolonged classroom observations in the two focal ESL Social Studies classrooms, interviews with students and teachers, and artifact collection of handwritten and typed texts and drawings. Observational data were recorded in handwritten field notes, and interviews and classroom interactions were audio-recorded. Photographs were taken of students' ungraded handwritten assignments, and hard copies of typed writing assignments were collected when available. Artifacts presented in the findings section are transcribed using original spellings in order to illustrate instances of translingual writing, for instance, how students tap into literacy in French as they write in English. While a total of 23 writing samples were collected, the three writing samples presented in this chapter were purposefully selected because they showcase how the focal students singularly and collectively navigate languages, experiences, and identities as they negotiate means of expressing themselves through texts and images.

To explore students' choice-making with regard to multimodal composition, we coded data around the themes of translingual writing, digital images, drawings, use of technological resources, and social studies content. These themes were further condensed into codes related to participants' identities as Congolese immigrants who had recently arrived in the United States. In the following section, we present the three illustrative examples that provide a deeper analysis of students' choice-making in their composition of translingual writing.

4.4 Findings

This section addresses the overarching focus of this study on processes through which adolescent newcomer ELs collaboratively engage a variety of semiotic resources in their production of multilingual and multimodal identity texts. The three writing samples presented below correspond to the two guiding research questions and showcase (a) how the focal students negotiate civic learning and engagement through the creation of multimodal texts (Figs. 4.1 and 4.2), and (b) how transnational civic identities are afforded through multimodal composition (Fig. 4.3).

4.4.1 Civic Learning and Engagement Through Multimodal Composition

4.4.1.1 Exploratory Writing on Multiculturalism in the United States

Collaborative writing was a mainstay of the focal ESL classrooms, and Mrs. Jones and Ms. López encouraged and supported multimodal composition throughout their teaching. Students in turn were socialized into drawing on multiple semiotic tools in their written work. The first example (Fig. 4.1) is an exploratory text written by Auguste, Reine, and Amadou as an in-class Think, Pair, Share writing activity. The class primarily enrolled newcomer ELs who had been in the United States for between two months and two years, or had limited literacy in their first language and English. Auguste had finished the equivalent of high school in the Democratic Republic of Congo and had developed academic literacy in French. He had lived in the United States for one month and had no prior English language or literacy learning experiences. Reine had lived in the United States for two years and had learned to write in French during the past two years of her schooling in the Democratic Republic of Congo. Amadou had lived in the United States for one year and had begun to acquire literacy in French in the year prior to migration.

As a context for their writing, students had been asked by Ms. López to work in groups of three to complete the Think-Pair-Share worksheet on which they were to write about multiculturalism in the United States, referencing their own immigration experiences. The writing prompt, included on the PowerPoint slide in English, Spanish and French, read: "Do you believe the United States is multicultural and diverse? Why or why not?" The sample below illustrates the students' collaborative translingual practices used to convey their responses.

Transcription:

In the first column on the top left, Reine wrote,

I think

Yes

Because American have many contry for example: africa, Mexico, India, Isia (Asia), China and Korea

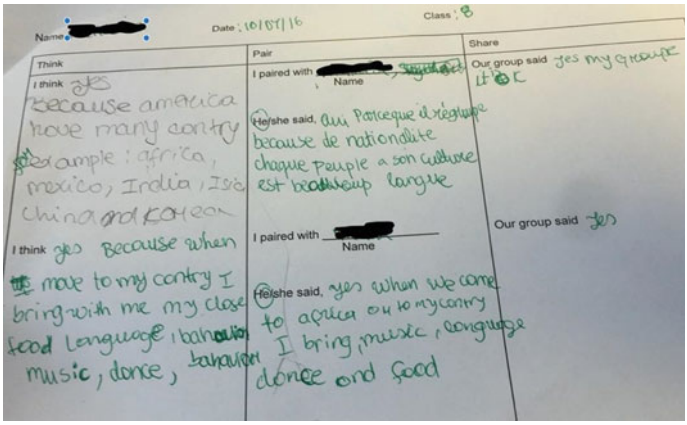


Fig. 4.1 Think, Pair, Share Writing Activity

Below, she continued,

Yes Because when I move to my country I bring with me my close (clothes) and language, behavior music, dance.

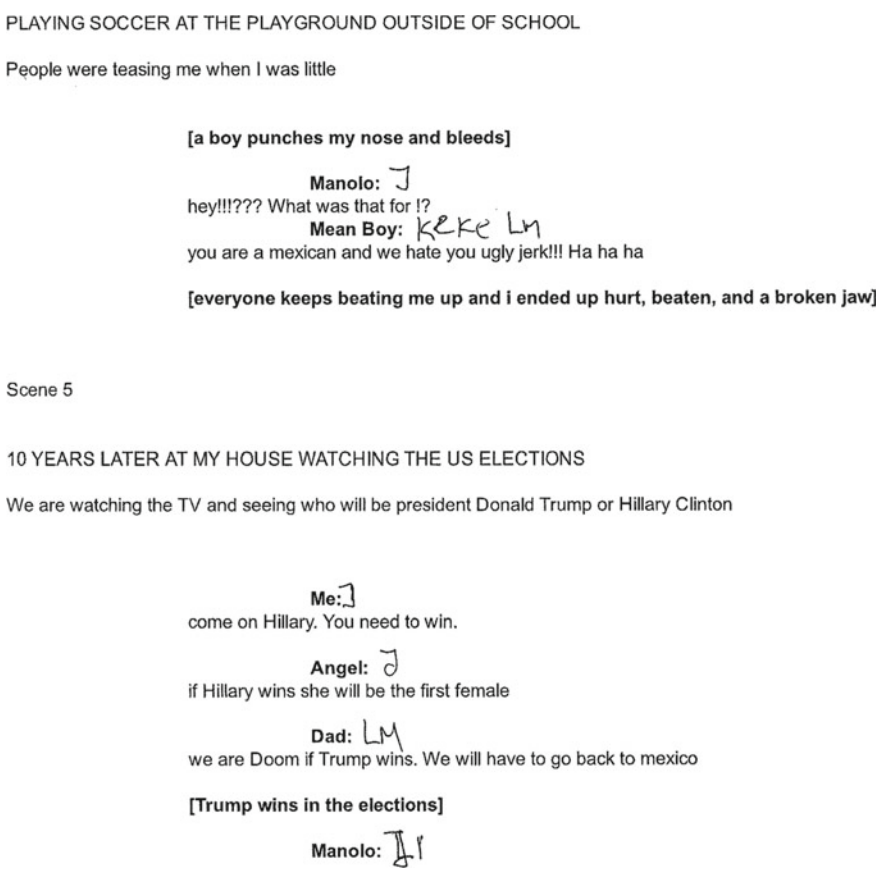
After completing the left column, Reine interviewed Auguste (in French) and wrote his response on her paper entirely in French in the middle column: *Oui parceque il regroupe beaucoup de nationalite chaque people a son culture est beaucoup de langues* [Yes, because people of many nationalities come [to the United States]. Each group has their own culture and a lot of languages.]. Below she recorded Auguste's second response which she translated into English: *Yes when we come to Africa ou (or) to my contry I bring, music, language, dance and food.* In the third column, Reine recorded her group's consensus on their response to the initial question: *yes, my groupe (group) it's ok.*

We see instances of translingual writing and multimodal semiotic choice-making through voice and text in each of these columns, including the middle column, written mostly in French. Notably, Reine's use of "my country" indicates identification with a physical location (i.e., the country I currently reside in) that being the United States, as opposed to the Democratic Republic of Congo. These multilingual writers use different multilingual composition strategies such as back translation (where Reine translates Auguste's response from French to English) and rehearsing (where Reine tries out words they may most accurately convey her intended meaning, whether they are semantically, grammatically, and orthographically correct) (Velasco and García 2014), to convey personal meaning and material association. Here we see Reine's linguistic dexterity in her translation of Auguste's response from French to English and how students serve as informal translators for newcomer peers (Leonard 2017).

4.4.2 "Helping Immigrants" Screenplay

The second writing sample, a screenplay, was collected in Mrs. Jones's intermediate ESL civics class, the focus of which at the time of data collection was immigration to the United States. Toward the end of this particular unit, students were assigned a group project in which they were to compose and record a screenplay documenting experiences of immigration (though not necessarily their own). Students worked in groups of three or four over the course of two weeks to complete this project.

The screenplay below involved writing about and performing an experience that three out of four members of the group did not share. This text was written collaboratively by Reine, Joie, Marie, who are from the Democratic Republic of Congo, and Pedro, who immigrated from Jalisco, Mexico five years ago. This excerpt, while written entirely in English, exemplifies experiences shared by many newcomer immigrants in school, including alienation and bullying.



PLAYING SOCCER AT THE PLAYGROUND OUTSIDE OF SCHOOL

People were teasing me when I was little

[a boy punches my nose and bleeds]

Manolo: J
hey!!!??? What was that for !?
Mean Boy: keke LM
you are a mexican and we hate you ugly jerk!!! Ha ha ha

[everyone keeps beating me up and i ended up hurt, beaten, and a broken jaw]

Scene 5

10 YEARS LATER AT MY HOUSE WATCHING THE US ELECTIONS

We are watching the TV and seeing who will be president Donald Trump or Hillary Clinton

Me: J
come on Hillary. You need to win.

Angel: J
if Hillary wins she will be the first female

Dad: LM
we are Doom if Trump wins. We will have to go back to mexico

[Trump wins in the elections]

Manolo: J!

Fig. 4.2 Excerpt from Screen Play Entitled, "Helping Immigrants"

In this screenplay, the group took up the topic of immigration policy, which dominated the headlines nationally and locally before and after the Trump election, when this data sample was collected. Composing this text as a group allowed the students to express concern over and resist anti-immigrant sentiment, which is seen mostly clearly in Manolo's final statement:

> If Trump builds the Wall how am I gonna be able to see my Abuelita? Let make every people from the different country to be welcome here. We have to help these people.

In this statement, we see the students grapple with implications of the proposed constructed border wall between the United States and Mexico on transnational family dynamics. The modes of text and voice in the form of oral performance interplay with each other to simultaneously emphasize meaning and emotion (Cope and Kalantzis 2009; Lemke 1998). This particular text exemplifies the influence of emotional and personal characteristics–in this case, fear and sadness over separation from a loved one–on the stories that students compose. The discussion (in English and Lingala) was recorded while students were rehearsing their performance and further illustrates students' negotiation of their stories and roles:

> Pedro: (reading the script)
>
> Reine: That was perfect, oh my gosh!
>
> Marie: But you have to speak together at the same time!
>
> Reine: Oh eko sala eloko te oko bebisa lisusu esi to kenda ki deja bien! (Oh it doesn't matter. You're ruining it even when we were doing fine!)
>
> Pedro: Let's go again.
>
> [Pause]
>
> Reine: Omoni nga nazo sala trois eloko yango ezo zua mua retard soki olingi bongo eko sala eloko te (You see, I'm doing three things at once. That's why it's taking time.)
>
> Marie: Eh to tiaki na biso yango te! (laughs) (Hey we didn't turn [the video recorder] on!) Pedro, why don't you turn when you start? (Why didn't you turn it on when we started?)
>
> Reine: Ready, set, go!
>
> Pedro: Ssshhhh—
>
> Marie: Wait, zela (wait)!
>
> [Pedro, Reine and Marie read through the entire script.]
>
> Reine: That's perfect!
>
> Marie: Awww, I miss my sister, my cousin everyone [off script]!

The students' practice was cut short by the ringing of the bell signaling the end of the period. What was evident in their rehearsal was their investment in portraying personal stories that frequently accompany experiences of migration and resettlement. Composing this script using multiple modes (e.g., text, voice) allowed these students to explore, present, and find meaning in others' and their own experiences of separation from family, whether temporary or permanent, voluntary or involuntary. Through this script, we also see students' emotional responses to policies that reinforce their systematic exclusion which they may be hesitant to articulate if composing this text alone (Compernolle and Williams 2013). The opportunity to act out these

scenes as characters in a performance perhaps created a distance between themselves and the personal challenges they confront as minoritized immigrants in a time of tightened immigration restrictions. Taken together, the examples in this section illustrate how through their multimodal compositions, students engage with transnational forms of belonging, and grapple with personal experiences of migration, and social integration and exclusion in the U.S.

4.4.3 Affordance of Transnational Civic Identities

The expression of transnational civic identities (of belonging both here and there) is evident in the two previous examples as students consider what being a Congolese immigrant in the U.S. means (Fig. 4.1), and the notion of family and belonging in two nations (Fig. 4.2). The final example of collaborative multilingual and multimodal composition captures processes of deliberate meaning-making and, more specifically, how the co-authors make choices about what aspects of their lives and communities they wish to portray to those outside of their community.

This informative writing expressed through a poster (Fig. 4.3) that Reine, Marie, and Joie created as part of a display for "Multicultural Night," an event that was to take place in the evening that showcased the languages and cultures of many students at the school. In addition to the poster, Reine, Marie, and Joie choreographed a dance which they performed at the event. At the top of the poster, students wrote words in English and French: "*Justice, Paix, Travail"* (Justice, Peace, Labor), the national motto of the Democratic Republic of Congo. Positioned throughout the poster are pictures the students found on the Internet, including ones of then-President Joseph

Fig. 4.3 Multicultural Night Poster

Kabila. Also included are pictures of popular Congolese musicians they were able to print off using computers in the school library.

Reine: Pona nini bozo sala Drapeau? (Why are you guys doing the flag?)

Marie: Toko presenter yango lobi, to bina ko, nga mutu nazo bela nako tiah musique ndenge nini (We're going to present it tomorrow. We're going to dance, and I'm sick! How am I going to put the music?)

Joie: We have to get it done.

Marie: Kasi to get it done ebongo nga na lobi nini? (Then let's get it done, what did I say?)

Joie: Today is the last day [to work on it].

Reine: Tika boye, boye eza bien. (Leave it like this, this is good.)

Marie: To– tala eloko ya kokata zua nini oyo paier ya pe kata yango. (let's—look, this is something to cut get a paper and cut this.)

Joie: Tala biso tozo sala yango awa (We're doing it over here.)

Marie: Etoile, mettre içi, etoile, etoile [singing]. (Star, to place here, star, star).

Joie: Awa ti awa (from here to here) [pointing at the stripes in the center of the flag]

The following interaction in Lingala, French, and English was recorded as the students were working on the poster during class.

In addition to negotiating the placement of visuals on the poster, the activity highlighted the students' collective semiotic choices to represent the Democratic Republic of Congo as a modern democracy rich in culture. In their deliberate choice of visual design at the level of the whole text, we see how the students prioritized certain meanings while backgrounding others.

This affirmation of their identities as Congolese immigrants in the United States was crucial for their engagement in multimodal literacy practices. The accessibility of technologies (the Internet, printer) that students used to research and display their work also provided them with ways of showcasing their identities to a wider audience.

4.5 Discussion and Implications

The chapter emphasizes the dynamic relationship between identity formation, translingual practice and collaborative civic engagement in an increasingly interconnected and digital world. The three examples presented in the previous section demonstrate multimodal composing processes and practices of adolescent multilingual writers with an emphasis on individual and contextual factors that influenced the semiotic choices they made (Kress 2010; van Leeuwen 2015), and how they use them to make meaning. The samples include personal, analytical, and factual written texts as written "genres of schooling" (Schleppegrell 2004) and center around students' identities as recent immigrants to the United States, what they have had to leave behind, and what they have brought with them in terms of material possessions and linguistic and cultural knowledge.

The students' writing experiences were not unlike those of multilingual adolescent writers explored in earlier research (Karam 2017; McLean 2010; Smith et al.

2017; Smith 2019a, b; Wagner 2018). In this and other research, collaborative and multimodal composition affords learners opportunities to shape their identities as newcomer immigrants and English language learners, who are developing civic understanding across multiple local and global contexts (Bunch and Willett 2013; Ntelioglou et al. 2014). The examples presented in this chapter further underscore how collaborative multimodal translingual writing expresses and reconstructs multifaceted identification, while showcasing students' linguistic and social resources. In addition, these writing samples illustrate how the focal students straddle local and global contexts of being and belonging through language(s), visuals, and sounds.

In certain cases, students' ability to access and complete grade-level work was limited by their newness to the English language and literacy. To compensate for this, Mrs. Jones and Ms. López allowed students to fluidly draw on their multilingualism, their experiences of immigration, and of being immigrants in the United States. Multilingualism was viewed by the teachers as an asset, and students were given agency over their language use, which encouraged the development of awareness of context-specific communicative norms (Canagarajah 2015). Students were encouraged to use their primary languages at all stages of their writing, from planning and research, to synthesizing, writing, and talking about their work in front of others. Though not highlighted in this chapter, the teachers in this study emphasized the importance of critical media literacy and knowing how to interpret online texts as fact-based or not, and provided students with tools to engage their own and others' texts in multiple modalities, including images, font styles, colors, to explore more deeply how knowledge is positioned, presented, and consumed.

Like texts presented in Cummins and Early's (2011) edited volume, the sample texts showcased here carry specific functions: to provide information (the Think-Pair-Share worksheet), to tell a story (screenplay), and to express creativity (the poster). The collaborative multimodal structure of these assignments generated co-constructed knowledge around topics of culture, language, immigration, politics, and national identity. Our research expands upon this and other research by emphasizing how transnational civic identities are afforded through collaborative and multimodal composition. The processes of semiotic choice-making involved in these compositions, which were captured through ethnographic data, point to a process of identity negotiation and development, and suggest that the textual representations and portrayals of transnational civic identities can carry as much weight as the identities themselves.

Several questions warrant further exploration on topics that were not addressed in this study. For example, future research could investigate students' development of writing over time and whether or not translingual and multimodal composition leads to greater retention of new vocabulary and grammar along with spelling and punctuation. Other research could explore whether certain kinds of multimodal tools are more conducive to learning over others, and at what point such tools detract from creative and collaborative writing. Attention to the assessment of collaborative multimodal writing projects is also needed using quantitative or qualitative measures. Finally, additional research that analyzes translingual multimodal writing through the lenses of race, gender, class, and documentation is much needed, and would yield important

insight into power dynamics in relation to literacy, civic values, and transformative pedagogies. Users of online media must equally develop an understanding of the ethics of using multimedia as a tool for learning, particularly in light of the rampant use of the Internet to distribute false information to mass audiences. An orientation toward sociocritical literacies (Córtez and Gutiérrez 2019) is key to establishing equitable learning environments in and outside of school.

4.5.1 Implications for Teaching

Multimodal learning methods are helpful in facilitating the development of a learner-centered classroom that gives students a sense of identity within the classroom, creates a culture of collaboration, and increases their knowledge of the English language while also promoting development in their home language.

Multilingual students in English-medium schools benefit from structured opportunities to develop writing skills in varied genres. Such opportunities can be further enriched when students work collaboratively across languages and experiences. The following recommendations leverage students' knowledge while encouraging new learning:

1. Link curricular content to students' experiences.
2. Provide written instructions, worksheets, and other texts in one or more of students' primary languages.
3. Allow students to work on writing assignments in same-language groups through the planning, editing, and production processes.
4. Group students with mixed proficiency in English in order to promote peer-to-peer scaffolding of language and literacy.
5. Provide students with multiple opportunities to showcase their knowledge and identities through images, songs, and videos.
6. Ask students to orally present their work to others and provide opportunities for critical reflection and feedback.

These pedagogical approaches (and others) are important for adolescent ELs who face daily reminders of their marginalization in schools and society. They shed light on the ways in which such learners actively contribute to wider discussions around the relationship between literacy (multimodal or not), citizenship, and belonging.

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Chapter 5
"Dear Future Me": Connecting College L2 Writers' Literacy Paths to an Envisioned Future Self Through a Multimodal Project

J. Hannah Park

Abstract This study investigated how 78 ESL students responded to an assignment to create a multimodal video addressing their future selves, in five sections, of a freshman composition course at US universities. Content and multimodal analyses of the multimodal videos were conducted. The findings suggest that students reflected on how they had increasingly become academically literate selves and envisioned their future selves, especially in relation to their career goals. The students employed multiple modes (i.e., language, sound, and image), language as a primary mode, and language-image intermodal relations. This chapter concludes with suggestions for future L2 research and writing pedagogy.

Keywords L2 writers · Multimodal project · Future self · Content analysis · Multimodal analysis

5.1 Introduction

This chapter reports the findings from a study that explored multimodal projects that L2 student writers created in freshman composition courses at several American universities. Previous research on multimodal approaches to L2 composition in writing activities, especially in college-level freshman rhetoric and composition classes, has tended to focus either on the kinds of modes availed and used in a project or on how they were orchestrated for a multimodal ensemble (e.g., Nelson 2006; Shin and Cimasko 2008). Yet, relatively little is known about the topics or contents that are portrayed in the multimodal texts or ensembles that L2/multilingual students design. Thus, the present study focused on both qualitative content analysis and multimodal analysis of an assignment (i.e., a multimodal project) by asking students to write a letter to their future selves, encouraging their use of multiple modes. Using a holistic perspective that coupled content analysis with multimodal analysis, the research attended to topics discussed and identities expressed in their as well as ways in

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which they utilized and orchestrated multiple semiotic modes in their multimodal composing. Two questions guided my study: (a) What did L2 first-semester college students portray in their multimodal composing projects? and (b) How did they utilize and orchestrate multiple semiotic modes in their multimodal compositions?

5.2 Social Semiotics in Multimodal Composing

Social semiotics and multiliteracies in multimodal composition informed the research. Recent studies have increasingly emphasized important aspects of multimodal composing (MC) as tools for sharing knowledge, self-expression, cultural diversity, and creativity (Early et al. 2015; Elleström 2010, 2020; Guichon and McLornan 2008; Kress 2003, 2009). Language needs not be the primary or only mode of communication, but one of many communicative resources (Jewitt and Kress 2003; Kress and van Leeuwen 2001). Early et al. (2015) addressed the fact that in any communication event, there exists multimodality. As much as social semiotics (Halliday 1978) is one of the core theories of how socially constructed meanings arise from multimodal ensembles of modes, any literacy event constructed with multiple modes should be considered as resulting from the integration or synthesis of diverse modes, rather than the simple sum of each.

Previous studies have investigated multimodality from the perspectives of both the students who are the authors of multimodal texts and the teachers who intend to implement these new genres for students' learning by teaching them how to reorganize digitally crafted stories across modes. Investigating the students' perspectives, Yang (2012) reported on two ELLs' multimodal digital storytelling process. With Kress' (2003, 2009) notion of *design* and van Lier's (2004) notion of *affordance* in mind, Williams (2014) addressed students' responses to multimodal assignments to explore the best ways to teach pop culture genres such as videos or podcasts. Cimasko and Shin (2017) delineated the remediation process that took place when an L2 writer turned an argumentative essay into a multimodal digital video, exploring how the orchestration of semiotic resources was influenced by her textual identity construction work. More recently, Shin et al. (2020) examined a sixth-grade multilingual writer's digital multimodal composing (narrative and argumentative multimodal texts) and his development of the metalanguage of modal and intermodal resources of language and image.

From the perspectives of teachers and practitioners who wish to know about the effectiveness of multimodal projects in creating conducive learning environments in their classes, several studies have addressed multimodal learning outcomes and teacher–student experiences (e.g., DePalma and Alexander 2018; Vandommele et al. 2017; Zarei and Khazaie 2011). To explore more tangible indicators of learning outcomes with multimodal instructions, Guichon and McLornan (2008) investigated the effectiveness of multimodality for L2 learners. Using the students' written summaries, they found that exposure to a text created through several modes increased text comprehension, and subtitles given in L2 were more beneficial than

when delivered in L1. Furthermore, Jiang and Luk (2016) investigated the experiences of students and teachers, reporting on multimodal text construction as motivating/engaging environments. Some studies highlighted the tension between the traditional mode of essay writing and non-linguistic modes of multimodally enhanced projects, and the issues arising from these new literacy practices are implemented in the curriculum. Choi and Yi (2016) described how two in-service teachers integrated multimodal practices into the existing ELL curriculum, addressing the benefits and challenges of using multimodality to teach ELLs.

Despite pedagogical benefits and several different types of multimodal composing represented in previous research, multimodal composing studies have paid relatively less attention to the content of multimodal texts and ways to examine the storylines and information that students choose to organize. Additionally, more attention is needed on how these multimodally constructed products can become windows into students' growing awareness about their future selves, as well as how educators and curriculum developers can better situate these non-linguistic modes of composition into a traditional writing curriculum. I tried to address these significant gaps in this study.

5.3 Method

5.3.1 Participants and Setting

The participants were 78 international undergraduate students (37 male, 41 female) representing approximately 22 countries, enrolled in six sections of a required freshman composition course in US private and public universities over four semesters (fall 2015, 2016, and 2017, plus spring 2016), specifically designated for international students. Most students were in their first college semester, but a few were sophomores or juniors. They represented a wide range of home countries and first languages from Africa, the Americas, Australia, East Asia, Europe, and the Middle East. Their majors were also quite diverse, representing business and economics, sciences education, communication, and political. Their ages ranged between 19 and 22.

The course introduced students to academic writing, engaging them with three thesis-driven, multiple-draft academic essay projects as well as a research paper. The course also introduced the concept of rhetorical situation and covered a wide range of topics such as expressing voice and tone as well as points of view in writing, accurate paraphrasing, summarizing, and quotation based on MLA documentation guidelines, followed by a discussion of aspects of public writing and civility. As the first assignment of the semester, students wrote an initial personal essay in which they described their first and second language literacy histories, reflecting on the journeys they had taken to become the highly literate persons they had become. At the end of the semester, they composed a final reflective multimodal letter to their future selves

using iMovie, Window Movie Maker, Camtasia, PowerPoint slides, or video editing software of their choice. In doing so, they reminded themselves of necessary writing skills that they should have gained and highlighting the crucial role that writing would likely play in their educational and career goals. For this final assignment, in my role as an instructor, I first introduced the concept of multimodal composing, followed by an explanation of the project topic, video length requirements, and suggested tools to create videos also written as a handout. I then showed several sample videos composed by L2 freshmen in previous semesters. All six classes met in computer-equipped rooms.

5.3.2 Data Sources, Procedures, and Analysis

The primary data comprised the students' multimodal letters to their future selves as a final assessment (N = 78). Most videos were between 1.5 and 4.5 minutes long. Secondary data sources included reflection essays, multimodal transcription tables, and the initial personal literacy essays describing the process of learning to read and write from childhood and continuing to college. As part of the consent form, demographic information was also collected on the last day of the semester to determine students' linguistic and cultural backgrounds. All students consented to allow me to use their class compositions for research purposes. Both multimodal projects and literacy essays were downloaded for analysis from Canvas and Blackboard after final grades had been posted.

The content analysis of the multimodal projects can best be described as inductive, interpretive, and qualitative (Lincoln and Guba 1985), influenced by socially constructed identities (Norton and Toohey 2002) and relying on the open and selective coding procedures common to qualitative research approaches to develop themes from the data (Graneheim et al. 2017; Hashemnezhad 2015). Pseudonyms were assigned and nine videos created by students from three linguistic/cultural groups were chosen for the development of the initial analytical codes, before completing the multimodal analysis of all students' projects. Each video was analyzed in terms of narration, images and description, text and words, and sound/music, with several iterative reviews of the data to establish emerging themes and to explore how each mode was combined with others and what types of meanings seemed to be intended by the students.

Multimodal analysis (Jewitt 2009; Lotherington et al. 2019; Machin 2007; O'Halloran 2008, 2011) was conducted based on the frequency counts of the three modes, language, image, and sounds for single-mode analysis (see Appendix 1). For the intermodal analysis, the pairs of the language and image, language and sound, and sound and image relations (see Appendix 2) were analyzed to determine their efficiency and orchestration.

5.4 Findings

The findings will start with a presentation of the results from global content analysis with respect to the kinds of topics or contents L2 first-semester college students portrayed in their multimodal composing projects. The findings are organized according to key terms to explain how the students utilized and orchestrated multiple semiotic modes in their multimodal compositions.

5.4.1 Portrayal of Literate Selves Through Multimodal Composing

The content analysis of 78 videos demonstrates that through multimodal composing, students depicted their own becoming of literate selves, not only in the current academic setting but also in their envisioned selves and chosen careers. The following will describe the primary findings in terms of what they portrayed in their multimodal composing projects.

The most popular topic discussed in the videos is students' reflection on and awareness of how they had increasingly become academically literate persons. In other words, many students in their videos portrayed their perceived growth in academic literacy (writing) skills. Most students, including Cristine, Nora, and Yejin, described the strengths and improvements they had made in their writing over the semester as well as the areas in which they would have to continue to work, which indicates their awareness of becoming literate selves. For instance, Adaia from Panama showed her own photo taken at a conference where she volunteered, while narrating in her video, "I can say that I have grown a lot as a writer, comparing my paper in high school and my first research paper from high school" (emphasis added). Another student from Mexico, Roberto, designed his video with quite a long introductory comment to himself:

> Throughout this semester you have learned a great deal about yourself. You have become a highly skilled communicator and writer. In this video I am going to show you what you a have learned and *why writting [sic] matters to you*… It all started out with Paper 1: *How you became a literate person* (emphasis added).

Roberto's video clearly showed a high degree of awareness about how he had become more skillful with writing and his increased awareness of the value and meaning of writing in his life.

Another significant and frequent topic addressed in many videos is the students' e*nvisioned future selves,* especially related to their career goals. For instance, Adaia established meaningful connections between writing and her future career/self by narrating in her video, "Since I am a communication and marketing major, I imagine myself using writing skills I developed a lot…writing corporate emails and letters…write advertising campaigns and marketing plans for the company I work for." She concluded her video by bridging academic literacy skills she had gained from the

writing course with those that would be eventually useful for her career and would play a pivotal role in her future job. In addition, Tuyen from Vietnam also clearly expressed her future goals and wishes, by stating in her narration, "First of all, I want to get a job, start saving enough to pay my parents… I want to travel around the world and work as many jobs as possible, and learn as many languages as possible. The experiences I gain will be written in a book that I will publish one day." Tuyen, who was recognized as a creative writer by her classmates, connected all her life experiences to envisioning herself as a writer who writes her stories.

Similarly, Yejin (from South Korea) also envisioned her future self as a writer through multimodal composing. She started her video by sharing her view of writing, narrating writing as "thoughtful activities for communication" and as a "really careful and thoughtful way of communication for myself and for people who were audiences including her family and friends." Then, she explained how she had grown and closed her video by envisioning her future self as a writer, need to improve her "grammar and vocabulary in psychology area," her current major. Another intriguing example is that Abdullah from Saudi Arabia, who continued to have difficulty in keeping up with coursework due to his low English proficiency but was able to depict his dream of becoming a lawyer in his multimodal project by carefully coordinating some pictures (e.g., pictures of scales of justice) and inspiring quotations. His video finishes an image of a yellow diamond sign with "BRIGHT FUTURE AHEAD" in it. As such, many students expressed their envisioned selves, goals, careers, plans, and wishes while connecting to their then-current learning and lived experiences and practices (e.g., academic writing).

5.4.2 Orchestration of Multiple Modes for Meaning-Making and Self-expression

5.4.2.1 Single-Mode Analysis

A frequency count of each mode used in the multimodal videos (see Appendix 1) shows that students used the linguistic mode in all video projects (100%), followed by image (87%) and sound (76%) modes.

Language Focus. To specify what aspects of language the students resourced, the language mode was categorized into modal resources (see Appendix 1). The language was first categorized as written and spoken: Written language included any letters used such as subtitles, titles of the scenes, and captions. Spoken language included student narration and any oral language in the added video clips. Next, whether they used L2 and/or L1 was counted for both written and spoken. Within the mode of language, all 78 students used English, their L2 (100%), and 8 students used their L1 (10%). Most students used written language (95%), of which 55 used subtitles specifically (74%). Of the spoken language use (44%), 32 students used narration (94%), and the rest used other forms of spoken language. Regarding the use of L2 in

their videos, written language was used the most overall (99%) followed by spoken (38%). Among the uses of L1, written language was also used the most (100%), 3 of which used subtitles: however, spoken language or narration never occurred in the students' L1. Seven students (9%) used both L1 and L2 in their videos.

Among the 10% employing their L1, Atefeh from Baghdad added the national flag of Iraq that bears the phrase "Allahuakbar" ('الله اكبر', "God is Great") written in Kufic script as the very first scene of her video. She then used L1 again in the final scene of the video, a screen-captured photo edited from her high school graduation with greetings from her friends congratulating her with a written comment, "Finally done," in L2. She then added two sentences in Kurdish along with emoticons. In the multimodal table, she wrote, "The writing's [*sic*] below my graduation picture was from my friend saying "congrats you did it we believe in you and towards you doctor degree" in Kurdish. She further explained, "The last photo was my High School graduation. That was the happiest moment of my life and from there I knew that the life I wanted if [*sic*]coming soon as long as I keep working hard and I chose this photo to show future me during graduating from this university how time flies by." As another example, Yahya from Libya subtitled in L2, "In Libya, we are speaking Arabic. Arabic alphabets are completely different. and we write from right to lift [*sic*]" while showing Arabic calligraphy and images of the Arabic alphabet. Additionally, Li-Hua from China used "加油" ("Jiāyóu") at the end of her video, meaning "Hang in there" or "You can do it."

Overall, students showed more preference for written language over speaking on-screen or off-screen narration. 74 students (95%) used written language in one or more instances with 34 using subtitles, whereas 31 students (40%) also used spoken language. 12 students (15%) used all sub-areas of written and spoken languages including subtitles, titles, and narration. Only one student used solely oral language by narrating the entire video without using any written language or subtitles.

Image Focus. For the image mode, the frequency of student-owned photos, borrowed images, self-created visuals, and video clips were counted. Photos were utilized the most (68 students, 87%), followed by 38 students using video clips (49%), and 35 using borrowed images (45%). Only a few students created their own images (17 students, 22%). The types of photos they added ranged widely from photo shots of their home countries, high school years, and family, to photos of recent travels, college years, new social circles and friends, school and social activities, current school work, essay drafts, and textbooks.

Some students borrowed images as metaphors in noteworthy ways. For example, Mateo added a video clip of a flowing river to explain the improvement in his writing fluency, and Fahad added an image of a gavel to indicate his career goal as a lawyer. Mohammed incorporated a photo of a baby frowning and crying to express frustrations and challenges in completing writing assignments while showing a muscled arm to show his strength and improvement, and an ankle with the Achilles tendon indicated with a red arrow to show weakness and areas of improvement. Some students used the fast-moving video clips to express the pace of their lives.

Among the self-created images, Tuyen from Vietnam used software to record her drawing and handwriting during the entire video, and others used screenshots of a

video meeting with the instructor and edited them by adding emoticons, symbols, and flowers using photo apps. Two students used Wordle, and three students edited several video clips that they filmed and organized strategically. Students most often used video clips of essays scrolling to show their progress. Other strategies included adding handwritten messages, using a variety of fonts, and zooming in and out of the photos.

Sound Focus. Students preferred background sounds (wordless background music) over music with lyrics, and if they used lyrics (36 students or 46%), they showed a strong preference for lyrics in their L2. Among students who used lyrics, 5 included lyrics in their L1 (6%) and 31 used English lyrics (40%). As for the background sounds, most (n = 59) used only one background sound, whereas a number of students (n = 5) added two to three different background sounds in their videos.

Sound mode analysis points to interesting applications by students of L1 lyrics. Among five students who used L1 traditional music, three added traditional Arabic music that had either chants or lyrics, and one student, Atefeh, used L2 lyrics that resembled the L1 music. Her account is included in the multimodal table: "The song I chose called Lay, Lay, Lay, la. I chose it because it has the [*sic*] calm but deep voice/meaning to it. It reminds me of my Iraq and all I been [*sic*] through." The other student, Sunju from South Korea, chose background music played with Asian musical instruments.

5.4.3 Intermodal Analysis

To describe inter-relations among the chosen modes, the analysis was categorized into three pairs: (a) language and image, (b) language and sound, and (c) sound and image (see Appendix 2).

Language and Image. Language and image mode combinations were used in complementary ways among the three pairs, with most students (91%) showing a firm grasp of how to combine the modal resources of language and image. In addition, examining the 12 students who used all three L2 language modal resources (subtitles, captions, titles, and speaking/narration) in their videos reported that they also used the language and image mode pair to effectively complement one another (92%), with the exception of one student. This may be an indication that when students develop control over the use of all or most of the L2 language modal resources at once, they also seem to be more multimodally competent, being able to resource each mode and interrelate language–image relations more strategically. In one example, Alejandra, who used a variety of fonts and word art throughout her video, added a message in L1 that stated, "Hola 2022" on the first page, "Espero que después de estoyaestes mas pa alla que pa aca jajaja" (Spanish slang), which [I translated to] mean, "I hope you are tipsy after finishing the video hahaha." While showing a variety of video clips and photos that matched the lyrics and songs, she demonstrated control over her message and deployed the language and image mode combination strategically to express her feelings and sentiments.

However, language and image modes were frequently combined less successfully. They often clashed or were redundantly combined. For example, three students did not add any images, only video clips of essay scrolling or speaking directly into the camera throughout the video. The other three mismatched images with their narration or presentation, such as the example of students making a presentation about their college years and talking to their future selves about writing progress and essay drafts, while showing images such as national flags and video clips of snowy or rainy weather.

Language and Sound. Compared with language and image mode combinations, the language and sound pairings seemed much less effectively configured, with 55% of all video content featured conflicting coordination between language and sound.

The important determiner of whether coordination of the language and sound modes succeeded was whether the lyrics, melodies, or genres of music/background sound matched the content of the video presented in the language mode. Among the students, 43 did not coordinate language and sound modes well, choosing lyrics or melodies that were inappropriate to the context, or showing images that did not fit the meaning that their language conveyed. For instance, while talking to her future self about her writing progress, Zheng-Xin chose to add the song "Happier" by the band Marshmello. Even her explanation about choosing the song did not present a convincing reason why she chose it: "I chose Marshmello—Happier for many reasons. Yellow is a strange colour that has the ability to reflect both brightness and sadness at the same time. The song was meant to be a sad melancholy, which was uplifted with the electronic music by Marshmello. Although the song [Marshmellow's] Happier. [*sic*] speaks of a failing relationship, whereas the music video draws inspiration from a bond between a dog and its owner." In addition, Waleed from Saudi Arabia added the subtitle, "Fadl Shaker…BaadaAal Bal" (فضل شاكر...بعدا عالبال) to indicate the name of the L1 lyric song he chose, which did not match the content of the video presented in the language mode; likewise, neither the lyrics nor the traditional Arabic melodies aligned with what he wrote in his reflection essay: "In addition, in my massage [*sic*] for my future college life is keeping the writing skills improve since the things that I had learn writing class, I will try to reread my book of writing over and over time to be successes in my life, as well as I will try to write my journals for my life here unite I leave this land going home sharing my literacy with my folks. I hope you having a great family time during this summer."

On the other hand, the 22 students who matched language and sound well shared a tendency to strategically use song lyrics to imply their current state of mind, feelings, and sentiments toward schoolwork or the stage of life they were in. For example, Katia from Mexico used the song "Enjoy the Ride," and the lyrics "Hope when you take that jump/You don't fear the fall/Hope when the water rises" played between her subtitles. Additionally, students seemed to have carefully considered their song selections. Shivsha from Bangladesh who used the song "It's Near" by Dj Quads stated in her reflection essay, "I chose this because it's from a genre that I enjoy, and since I myself am the audience, it will increase the audience's interest towards the video. It also has a relaxing, uplifting tone to it which I thought well-suited the subject matter." Hamza reported using similar criteria. "The song that I chose was,

Samantha by Dave ft. J Hus. I chose this song because I think the beat is very nice, and I like the original song too. It starts off slow to make it intense and then the beat gets faster… It fits perfectly with my description and video…" Although the majority of the students were was less competent in pulling language and sound mode combination together compared to with language and image combination, those who were successful all thought carefully and strategically about their selections.

Sound and Image. Similar to the language and sound combinations, only 27 students (35%) combined sound and images well. In one such example, Yoko showed video clips filmed while traveling in a car while using the song "A Thousand Miles" by Vanessa Carlton, followed by photos taken at an airport and her school library on her desk with textbooks and essay drafts. She used the song's lyrics in L2 (English) along with matching scenes and changed some of the words in the lyrics to more closely reflect her situation: "… Never had I imagined that how hard it would be… I may not be the best but I am far from the worst (original lyrics)… and I'm still not done but sure am half way there (original lyrics)… You have done a millions of work but another journey will be waiting for you to come." Alejandra used three video clips that she filmed while playing "Believe" by Justin Bieber, "Dancing on My Own" by Calum Scott, "Psycho" by Post Malone and featuring Ty Dolla $ign, and "El Problema" by Ricardo Arjona played as background music to her video clips. In the reflection essay, she provided translations of the songs "El Problema" ("The Problem") and "ClavadoEn Un Bar" ("Stuck in a Bar") by Maná, which reflected her sentiments well.

However, 51% of the students did not demonstrate competent use of sound and image combinations. One frequent issue was difficulty in hearing narrating voices or to concentrate on the modal resource of the images due to the volume of the background music. The other issue was that students chose songs, melodies, or lyrics that did not match the image or that were not well aligned with the images. For example, Mohammed used a very traditional Arabic lyric with chanting melodies while talking about his experience editing essay drafts. Another student added content that expressed how stressed he felt but with peaceful piano music. Vinh from Vietnam only showed himself narrating in front of the camera with no music added to complement the content of his message.

Overall Assemblage. Considering how students assembled all the modes of language, image, and sound, and whether they used synergistic interactions among the chosen modes, the results showed that students overall did not use the chosen modes efficiently. In addition, the intermodal analysis indicated that the frequency of modes used was not in proportion to the synergistic interactions among the chosen modes. Even when some students used one modal pair well, they usually failed to add in the third mode strategically. Only a handful of students were able to use all three modes of language, image, and sound strategically.

5.5 Discussion and Implications

This study illustrated how students produced multimodal messages to reflect on their trajectories toward an envisioned future, contributing to a better understanding of how the design of the assignment generated the content of their products as well as the the thought and work processes involved in multimodal composing. The findings underscore the power of allowing students—newcomers to an American educational experience—to reflect on their history from childhood, the reading and writing experiences of their current college years, and to envision new literacy challenges in their careers, all tied to a growing awareness of possible future selves. This meaningful multimodal and multilingual literacy practice afforded opportunities to L2 freshmen to develop another dimension of academic literacy, as they grappled with new language socialization experiences in their first semester of college (Jiang 2017; Lim and Polio 2020). Teachers may wish to design and present multimodal assignments in conjunction with particular writing skills and course content in a way that promotes critical thinking, rhetorical knowledge, and genre awareness.

This study bears empirical and pedagogical implications. One contribution is the inclusion of participants representing a range of diverse backgrounds, allowing for the exploration of linguistic and cultural responses to the project through more in-depth qualitative content and multimodal analyses (Graneheim et al. 2017; Jewitt 2009; Kress 2009; Lincoln and Guba 1985). The project paves the way for further investigations of meaningful literacies for L2 and international writers. In addition, practitioners, especially those teaching compositions to L2 students, may want to consider implementing multimodal assignments that encourage the development of thesis statements and supporting details as well as formulating counterarguments and refutations for expository and argumentative essay writing.

Future researchers may wish to investigate how students become cognizant of the great variety of modes available for their use in composing mediums, and how their increased semiotic repertories may help them to develop creative writing skills. Although L2 writing programs still privilege traditional alphabetic essays over multimodal ones, L2 students' literate lives are increasingly becoming multimodal (Yi et al. 2020). Future studies may also focus on the issues faced by practitioners as they implement this new practice, to allow for a better understanding of how to situate and define new multimodal literacy tools, and to prepare college students effectively to engage in increasingly multimodal academic work.

Appendix 1

Single-Mode Analysis Conducted on the Language, Image, and Sound Modes and Their Modal Resources (N = 78).

Modes			Total	Percentage (%)
	Modal resources			
Language	L2	L2 written (subtitles, captions, scene titles)	77	99
		L2 spoken (narrations, on-screen speaking)	30	38
	L1	L1 written (subtitles, captions, scene titles)	8	10
		L1 spoken (narrations, on-screen speaking)	0	0
Image	Photos		68	87
	Borrowed		35	45
	Self-created		17	22
	Video clips		38	49
Sound	Lyrics L1		5	6
	Lyrics L2		31	40
	Background sound (one)		59	76
	Background sound (many)		5	6
	L1 traditional music		6	8

Note. Percentages do not add up to 100 because students could use more than one of the subcategories

Appendix 2

Intermodal Analyses Conducted on the Language–Image, Language–Sound, and Image–Sound Relations (N = 78).

Intermodal analysis		Total	Percentage (%)
	Relations		
Language and Image	Complementary	71	90
	Disagreeing/redundant	6	8
Language and Sound	Complementary	22	28
	Disagreeing/redundant	43	55
Sound and Image	Complementary	27	35
	Disagreeing/redundant	40	51

Note. Percentages do not add up to 100 because students could not use one of the modes

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Part III
Affordances and Constraints of Multimodal Composing in Multilingual Contexts

Chapter 6
Design and Opportunity in Critical Multilingual/Multimodal Composing Pedagogy

Marsha Jing-ji Liaw and Kathryn Accurso

Abstract This chapter analyzes the affordances of critical multilingual/multimodal composing pedagogy for fifth-grade Chinese–English dual immersion students in the USA. Based on a year-long ethnographic study of one teacher's practice and her students' multilingual/multimodal compositions, we highlight two findings: (1) this pedagogy afforded students a more dynamic text production process and (2) it expanded the range of meanings and identities they constructed and enacted during literacy instruction. As a result, students produced robust compositions that demonstrated their development of a wide range of semiotic forms beyond language. We conclude by offering recommendations for readers interested in transforming L2 literacy instruction using this approach.

Keywords Bilingual education · Biliteracy development · Dual language immersion · Identity · Social semiotics

6.1 Introduction

就是一個填空式的寫作!這樣才可以寫得完…連填空式的可能要三天，三天才寫得完。沒錯!

> [I'll do fill-in-the-blanks so that we can finish [the unit] on time… But even fill-in-the-blanks might take three days for students to complete. Yep, that's right! It takes three days to finish writing like that.] (translated in English)
>
> - "Hu Fei," fifth grade teacher in a Chinese/English dual immersion program

Writing instruction in immersive language classrooms tends to be heavily focused on students' production of "page-bound, official, standard forms of the national language" (New London Group 1996, p. 61). Even in bilingual classrooms, students

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tend to be rewarded for textual production in a single target language at a time, rather than for engaging in a meaning-making process that effectively draws on all available communicative resources (García 2009).[1] In the current era of accountability, this focus on teaching students to write specific standardized forms in a single target language has collided with increasingly strict curriculum pacing guides and increasingly narrow criteria for demonstrating learning outcomes (Flores and Schissel 2014). As a result, many language teachers feel pressured to use writing assignments that measure little more than students' ability to "correctly" reproduce standardized written language forms in the target language in a short amount of time. This trend is illustrated in the quote above, from fifth-grade Chinese immersion teacher Hu Fei (henceforth Hu Laoshi, or "Teacher Hu," as her students called her) during a curriculum planning meeting. To meet the demands of form-focused literacy teaching expectations, monolingual ideologies, time pressures, and a culture of accountability, Hu Laoshi settled on what felt like a safe choice for the culminating activity of her Chinese literacy unit: a fill-in-the-blank writing assignment.

However, L2 literacy scholars have cautioned that decontextualized writing curriculum, instruction, and assessment can constrain students' language learning rather than supporting it (e.g., Gebhard 2019; Yiet al. 2020). These and other scholars argue that language use in the real world is social, dynamic, multimodal, and often multilingual or multidialectal; it involves much more than correctly filling in a blank in an interaction. Therefore, literacy instruction must account for the interrelation of languages, cultures, learners' identities, and the variety of communicative modes in different environments (Cope and Kalantzis 2015; New London Group 1996). Moreover, these scholars argue that L2 literacy instruction may be more effective if it prioritizes learner agency over correct textual production.

In response to these limitations of form-focused literacy pedagogy, a growing number of L2 literacy scholars have been advocating for a critical *multilingual/multimodal composing pedagogy* (Bezemer and Kress 2016; Cope and Kalantzis 2015). Such pedagogy considers that language is one mode of communication, so *multimodal* implies language and at least one other mode, while *multilingual* implies multiple languages in conjunction with other modes of communication (Jewitt 2008). The essential premise of this aspect of the pedagogy is that by weaving together multiple forms of content such as oral, written, and computer-mediated language(s), video and/or voice recordings, graphics, photographs, drawings, music, and tactile representations, students can create richer meanings than a single language or mode may allow for on its own. Moreover, research demonstrates that as learners negotiate multiple communicative modes, including multiple languages, they have opportunities to enact a wider range of identities (e.g., Norton and Toohey 2011). Further, this pedagogy is *critical* in that its goal is not only to teach L2 learners to comprehend and use multiple languages in conjunction with other modes but also to effectively engage with "student values, identity, power, and design" (Jewitt 2008, p. 245). This approach to L2 literacy instruction aims to empower learners to develop

[1]For more on the ways, dominant monolingual ideologies have shaped the teaching and learning of world languages, see Achugar (2008) and Canagarajah (2006).

contextualized knowledge and meaningfully interpret, analyze, critique, and produce texts where they are entitled to bring all their cultural experiences and identities to bear as well as integrate all their semiotic resources.

However, as this pedagogical approach is relatively new, scholars are still working to understand what specific affordances and constraints it presents in unique contexts of teaching and learning. Therefore, the purpose of this chapter is to analyze what opportunities critical multilingual/multimodal composing pedagogy afforded one class of fifth-grade Chinese–English dual immersion students in terms of their meaning-making process, identity construction, and textual production. Specifically, we explore:

1. How does Hu Laoshi's use of critical multilingual/multimodal composing pedagogy influence bilingual students' process of text production?
2. What meanings and identities do bilingual students construct as they engage in this pedagogy?

6.2 Conceptual Framework

6.2.1 Decentering Language, Even in a Theory of Language Learning

As we alluded to in the introduction, this chapter understands language learning and its use as a social, dynamic, multimodal, and often multilingual or multidialectal process. In dual-language classrooms, in particular, language learning and use involve the complex interrelation of languages, cultures, learners' identities, and a variety of communicative modes. Yet the behavioral and psycholinguistic theories of language that have dominated language pedagogy for decades do not well account for the relationship between language and identity, language and power, or the interplay between language and other semiotic systems such as gestures and images (Gebhard 2019). These language and language-learning paradigms have focused so exclusively on linguistic forms that they leave teachers ill-equipped to recognize, value, and take on these other very important factors in language teaching and learning. In response to these limitations, critical multilingual/multimodal composing pedagogy draws on social positioning theory and social semiotic theory to decenter language—even in language teaching—to broaden teachers' understanding of language and language learning to include the relationship between language, power, identity, meaning, and meaning-making.

6.2.2 Social Positioning Theory: Understanding Power and Identity in L2 Literacy Learning

Social positioning refers to the process of negotiating different identities, discourses, and power dynamics across contexts and language varieties (e.g., Davies and Harré 1990). From this perspective, identity is not singular or static, just as literacy practices are not singular or static. Rather, a person's identities and literacy practices are both multiple and dynamic, constructed across time, space, and communities as a person accepts, resists, or struggles with different social positions. Social positioning is agentive and individual as learners make sense of themselves and what literacy means in different contexts. Yet it is also heavily dependent on others and the ways they take up, reject, or otherwise interact with an individual in a particular situation.

In L2 scholarship, social positioning theory shifts attention from the product of literacy instruction to the learning process, providing a basis for examining the tensions, struggles, and disconnections in identity that L2 learners experience as they engage in situated literacy practices (e.g., Lin 2008; Norton 2006). This shift can support teachers and researchers in identifying critical teachable moments that support learners in developing shared ways of knowing, thinking, believing, acting, and communicating to interact with each other, engage in cultural practices, and participate in discourse communities (Gee 2001). In other words, understanding learners' dynamic identities alongside their literacy practices can shape teaching and learning in ways that better support learners in becoming long term, participating members of multilingual discourse communities. By decentering language, social positioning theory can help teachers understand the complex identity work taking place through language. Thus, it offers teachers a framework for seeing the language classroom as space where students are not one thing or another thing (e.g., monolingual or bilingual, beginner, or fluent) but are in the process of becoming part of a wider range of discourse communities.

6.2.3 Social Semiotic Theory: Understanding L2 Literacy as Weaving Together Multiple Modes of Communication

The social semiotic theory maintains that while language is one way people construct social identities and represent their content knowledge, it is not the only way they do that (Halliday and Hasan 2012). Rather, people make these kinds of meanings *multimodally* by weaving together a variety of modes such as textual, audio, visual, tactile, and spatial into coherent multidimensional texts (New London Group 1996). Importantly, from this perspective, texts are "multimodal semiotic entities" (Kress 2011, p. 36), not just alphabetic written products. Therefore, writing is not the only, or even most important, semiotic work that takes place in the literacy classroom (Cope

et al. 2018). This theory, when applied to L2 literacy education, shifts the focus toward processes of multilingual and multimodal composition and text production.

This is not to say that all modes are equal or are equally valued in schools. Different modes have different meaning-making potentials in different contexts, depending on where a person is, how they use different modes, and in what ways institutions acknowledge them (Kress and van Leeuwen 2006). Further, every mode conveys different meanings depending on whether it is used alone or assembled with other modes. Building relations between different modes such as image, written text, and audio can produce a rhetorical effect to extend, elaborate, or/and enhance meanings (e.g., Kress 2011). Thus, while people create the same kinds of meanings using different modes (e.g., representing ideas, constructing and maintaining social roles), they are not simply repeating the same meanings using different modes. People construct new meanings by assembling different configurations of multimodal resources. Therefore, from a social semiotic perspective, L2 literacy can be understood as a multilingual/multimodal process in which a learner assembles a text through a process of using various semiotic resources to "establish cohesion both internally, among the elements of the text, and externally, with elements of the environment in which texts occur" (Kress 2011, p. 36). Social semiotic theory decenters language by considering it one of many semiotic systems, which can help widen teachers' view of the meaning-making options available in a given situation, culture, and historical moment.

Critical multilingual/multimodal composing pedagogy draws on the concepts of social positioning and multimodality to support teachers in designing and implementing instruction that supports students' multimodal meaning-making, not just language teaching. In the following sections, we present ethnographic data showing how Hu Laoshi took up these concepts in designing Chinese literacy curriculum for one class of dual-language fifth graders and how her students interacted with this pedagogy.

6.3 Methods

Over the course of one academic year (2016–2017), we used critical ethnographic case study methods to explore processes of L2 literacy teaching and learning in Hu Laoshi's fifth-grade classroom (Carspecken 1996). Conventionally, ethnographic methods aim to describe "what is" while leaving the environment under study undisturbed. Critical ethnography differs in that the researcher joins their participant(s) to explore *why* something is and take actions to change it (Carspecken 1996). In this study, Marsha, a Taiwanese Chinese–English speaking biliteracy scholar and first author of this chapter, was the primary researcher. She took an active observer role in Hu Laoshi's classroom, co-planning curriculum, collecting data, and conducting interviews with both Hu Laoshi and her students. Kathryn, a white, predominantly English-speaking L2 literacy researcher from the USA and second author of this

chapter served as a "critical partner" for data analysis and interpretation (Young 1999).

6.3.1 School and Classroom Context

This study took place at the "New England Chinese-English Bilingual School" (NECEBS), a K-12 public charter school in Massachusetts, USA. NECEBS followed a one-way immersion model, also known as an additive bilingual model (García 2009). Students learned basic interpersonal communication as well as academic content in Mandarin Chinese (普通话), the standard language used in China. Students also received academic instruction in English but in separate classes. Ultimately, the goal at NECEBS was for students to develop academic fluency and mastery of two languages. Most instruction at NECEBS was anchored in the Common Core State Standards, with the exception of Chinese literacy instruction. There are no national Chinese literacy standards; therefore, the Chinese curriculum was organized by theme, with each themed curricular unit lasting approximately 4–8 weeks.

At the time of this study, Hu Laoshi, a dual-certified Chinese language and elementary teacher from Taiwan, was the fifth-grade Chinese literacy teacher. She was beginning her fifth-year teaching at NECEBS. Her class consisted of 19 students, 11 girls and 8 boys. All students identified English as their primary home language, though one student was learning Chinese as a heritage language and had some exposure to Chinese in her home. When these students reached Hu Laoshi's classroom, they already had 3–5 years of experience studying Chinese. Nearly all students reported feeling comfortable speaking in Chinese, though only one in five felt comfortable reading and writing in Chinese. Hu Laoshi was interested in designing a Chinese literacy curriculum that was more motivating for her students and better aligned with topics they were covering in their other classes. Therefore, she invited Marsha to collaborate with her to redesign her literacy curriculum to be more interdisciplinary and engaging.

6.3.2 Focal Student

In this chapter, we focus on how one focal fifth-grade student, "Mei-mei," interacted with the redesigned literacy curriculum. Mei-mei had been a student at NECEBS since Kindergarten and was considered by most teachers to be a "strong student" with English literacy skills that typically exceeded expectations. She was born in the USA to a European American father and a half European American mother. Although her grandmother is Taiwanese, Mei-mei neither considered herself a heritage language learner nor did she view Chinese as a necessary language for her everyday communication at home and school. She simply reported that she wanted to master the language so she could communicate with her grandmother. Mei-mei was quite familiar with

technology and preferred to do assignments in Hu Laoshi's class on the computer. We selected Mei-mei as the focal student for this chapter because despite her keen interest in technology, strong English literacy skills, and motivation to learn Chinese, her L2 literacy development was progressing more slowly than she wanted, a feeling common among many L2 learners (Kramsch 2009).

6.3.3 Curricular Context

Together, Hu Laoshi and Marsha (the first author) planned four curricular units that combined Chinese literacy goals with social studies content standards around the topic of state history. Each unit lasted 6–8 weeks and was implemented between September 2016 and May 2017. As they collaborated, Marsha introduced Hu Laoshi to the concepts of social positioning and multimodality and prompted her to consider their implications for designing literacy activities. This chapter focuses on the second of these four codesigned curricular units, which tackled the "History of Massachusetts." The unit lasted from November 2016 to February 2017.

As Fig. 6.1 illustrates, Hu Laoshi attempted to integrate Chinese literacy goals with content relevant to students' other disciplinary experiences in this curricular unit, while also enacting pedagogical principles from social positioning theory and social semiotics. Throughout the unit, students engaged in experiences where they tried to learn about and assume multiple perspectives of people in Massachusetts history, for example through field trips to historic villages, or reading and writing different historical accounts. As a culminating project, students were asked to compose and produce a video that presented multiple perspectives on some aspect of Massachusetts history

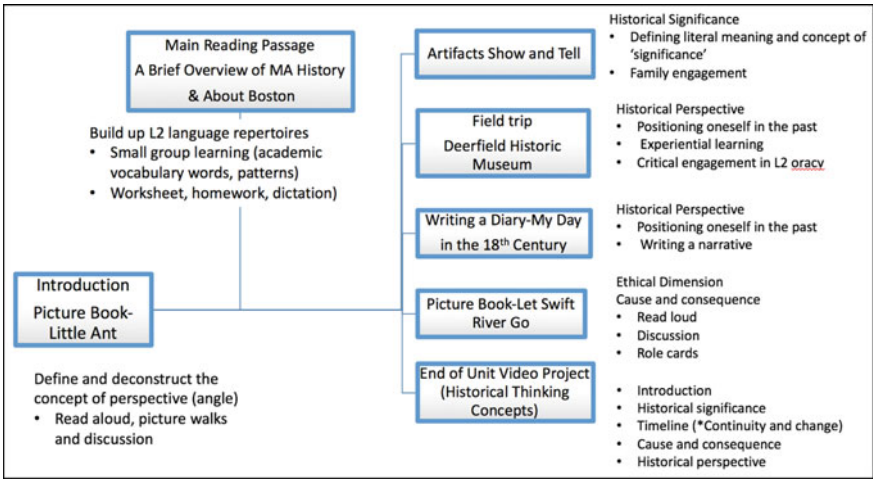


Fig. 6.1 "History of Massachusetts" curricular unit outline

through text, images, and voice for an audience of teachers and peers. The videos were produced on iPads using an app called Explain Everything, which allowed students to combine media, image, text, and voice recordings. Students particularly loved the interactive whiteboard function of Explain Everything, where they could record live audio while simultaneously interacting with objects on the screen. For example, they could simultaneously speak, write, draw, highlight, annotate, search the Internet, create animation, or take photos.

In composing their videos, Hu Laoshi intended students to use Chinese disciplinary language associated with the subject of social studies as well as with expressing stances on historical events. Students were allowed to choose their own topics focusing on people, places, objects, events, or even sports. They were allowed to conduct research on that topic in whatever language they chose, but Hu Laoshi expected students to write and narrate their final video in Chinese. Students who chose the same topic were encouraged to work together during research and composition, but each student ultimately produced their own individual video. In addition to the multimodal resources available in the app, students drew on a variety of other semiotic resources available in the classroom, including Chinese resources curated by Hu Laoshi such as assigned texts and sentence frames, digital technologies such as online dictionaries, web resources that provided information and images related to their various topics, and interactions with their peers.

6.4 Data Collection and Analysis

Marsha observed Hu Laoshi's class two to three times a week during the Massachusetts History curricular unit, for approximately three hours for each visit to make a thick description of students' composing and social positioning processes and to collect the videos they composed. During these visits, she generated participant-observation field notes and analytical memos, audio and video recorded classroom interactions, collected curricular materials, and samples of student work. In addition, she conducted 30-minute pre- and post-unit interviews with students in small groups. Interviews were conducted bilingually. Since Marsha is bilingual and biliterate in Chinese and English and has spent substantial time in bilingual Chinese–English classrooms in New England, she used her knowledge of the language, context, and participants to translate all Chinese data into English, checking translations with two other Chinese–English bilingual professionals.[2] Because of the multimodal nature of classroom artifacts collected during this unit, images were also transcribed for data analysis (Kress and van Leeuwen 2006).

[2]Author 1 translated all classroom texts for meaning instead of word by word, following Marshall and Rossman's (2011, p. 165) assertion that the essence of translation is to produce "insightful and meaningful data." However, we recognize the risks in remaking meanings by translating classroom artifacts for the purpose of reaching academic audiences (e.g., Birbili, 2000). To mitigate these risks, translations were reviewed by two bilingual education professionals, followed by member checks with Hu Laoshi and/or the bilingual student authors themselves..

Qualitative analysis of the data began with a grounded approach to opening the data and building initial themes (Charmaz 2014). Initial themes included students' use of prior knowledge, identity construction, L1 skill transfer, uses of technology, meaning-making processes, textual practices, alternative perspectives, and sense of social issues. Then, drawing on the analytical frameworks of social semiotics and social positioning, we coded the data for modes, intermodal relations, identity negotiation, and exploration of power dynamics. Finally, we performed multimodal discourse analysis on the students' videos to understand the ultimate selections they made in using different modes to construct knowledge and identities (e.g., Bezemer and Kress 2016). These complementary analytical approaches allowed us to triangulate and nuance our findings regarding processes of multilingual/multimodal meaning-making and dynamic identity negotiation in the bilingual classroom and provided the means for "making visible" semiotic work that may otherwise have gone unnoticed or been taken for granted (Bezemer and Kress 2016, p. 38).

6.5 Findings: Affordances of Multilingual/Multimodal Composing Pedagogy

Based on grounded analysis of interview and observation data combined with multimodal discourse analysis of student texts, we highlight two main affordances of multilingual/multimodal composing pedagogy as implemented by Hu Laoshi: (1) it supported a more dynamic text production process in which L2 Chinese learners were able to draw on a wider range of semiotic resources and experiences to make meaning and (2) this more dynamic process afforded students opportunities to construct and enact a wider range of meanings and identities in academic spaces.

6.5.1 Dynamic Composing Focused on Ideas Rather Than Forms

Hu Laoshi's implementation of critical multilingual/multimodal composing pedagogy afforded L2 Chinese learners opportunities to focus on their ideas first and language forms second as they worked to produce their final videos. In Mei-mei's case, she shifted from a monolingual recall process to a dynamic, iterative, multilingual process of identifying and writing down her ideas, and then constructing them for an audience using multiple modes. In form-focused Chinese literacy lessons, Mei-mei struggled to remember and produce Chinese words her teacher had emphasized in prior lessons. Even when she successfully produced the target language, she reported feeling limited in her ability to express her true ideas on a topic and questioned whether that was even the point of literacy instruction. She shared, "I feel a little limited in [assignments that only ask me for] Chinese because I don't

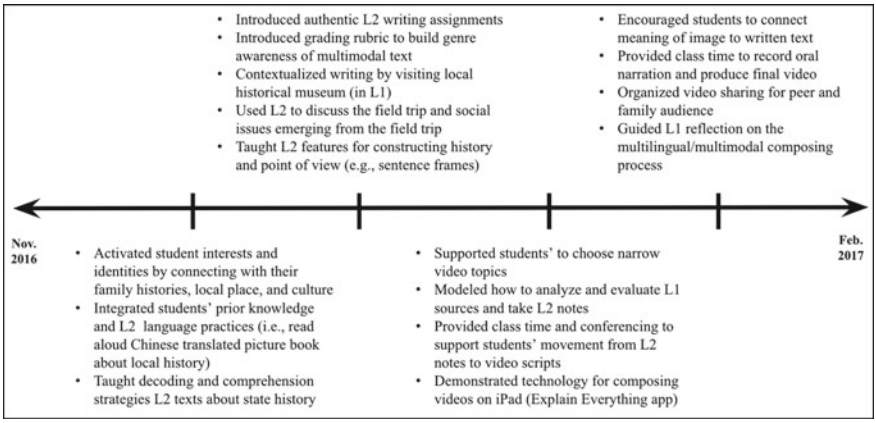


Fig. 6.2 Hu Laoshi's Scaffolding of a dynamic text production process (field notes, Nov. 2016–Feb. 2017)

know as much Chinese as English." Much L2 literacy scholarship has documented similar feelings of limitation in form-focused literacy instruction (e.g., Schissel 2019; Steinman 2002). In form-focused instruction, L2 learners often perceive that they are to provide the exact word, phrase, or sentence structure the teacher desires. They do not feel free or able to construct their own ideas or fill-in-the-blank with any effective word or phrase. As Mei-mei expresses, this constraining notion of linguistic competence as producing the "correct" word is at odds with the expansiveness of her thoughts.

In contrast, our analysis demonstrates how critical multilingual/multimodal composing pedagogy afforded Mei-mei classroom space to work out a much more dynamic text production process in which she was able to draw on her full semiotic repertoire to construct her own ideas about the content being covered and tailor the way she shared her ideas using sophisticated knowledge of her audience (see Fig. 6.2). In her post-unit interview, Mei-mei described how her composing process in this unit differed from her experience with more form-focused literacy pedagogy. She reported:

> Thinking in two languages is helpful. When I have ideas in English and then I want to write in Chinese, I feel I have more I can do it because I have an idea in English. It's more difficult than other [assignments], but when I have my own ideas it's probably more advanced. I was doing a lot of research in English and then translate it into Chinese from English… and that was a little difficult because sometimes there are things that you have to change a little bit. I would read something in English and I would change it to be more kid friendly in English and then I would translate to Chinese. That way, I'd be writing something down that I actually understood rather than something I read somewhere else… [My goal] is definitely to think of a kid friendly idea when I have my own ideas…but it's hard to translate [all of my ideas] into Chinese because some of the words I don't know in English.

Along with Fig. 6.2, this interview excerpt illustrates how Mei-mei's composing process was much more dynamic than simply recalling and regurgitating a desired

language form. Mei-mei describes thinking and conducting research in English, translating her thoughts into Chinese, revising her written English drafts into "kid friendly" oral language, translating the text again, adjusting translations "a little bit" to be right for the context. During this process, Mei-mei was constantly making analytical decisions about what modes to use, and further, what language to use as she learned new information, integrated it into her existing knowledge, developed insights, and considered her audience. Using two languages in a way that felt fluid and productive to her allowed Mei-mei to develop her ideas and produce an extended written text for her teacher and peers in her L2 Chinese. Further, this pedagogy provided opportunities for her to draw on digital tools as part of her meaning-making process. Mei-mei reported, "When I work digitally, I have more resources that I can use…[Plus] I'm good at using iPads. And my dad is a software developer, so I know a lot how to use these things."

However, Mei-mei noted that the linguistic part of this process was not always easy and that she felt a tension between producing "proper" Chinese words and sentences to represent her own ideas. This tension meant that the multilingual/multimodal project was more challenging for her than simple cloze activities, even as it allowed her to produce more extended Chinese writing by drawing on her prior experience expressing advanced ideas in oral and written English. In the focal unit, where content and ideas were meant to be the starting point for composition, Mei-mei felt worried that her Chinese syntax and vocabulary choices may be incorrect. On the other hand, in prior units where populating specific syntactic structures was the starting point for composition, Mei-mei worried that her complex ideas were being reduced into overly simple sentences, coming across as childlike, even for a 10-year old.

From an instructional standpoint, this finding is important because it demonstrates the possibilities of a literacy pedagogy that more closely approximates the dynamic and social nature of meaning-making, where ideas give rise to semiotic processes and forms (e.g., Kress 2011). As Kress would argue, meaning is important, ideas are not fixed, and learners should be able to take advantage of more ways to mean.

6.5.2 Multimodal Assembling Supports Resourceful Meaning-Making and Dynamic Identity Construction

As L2 Chinese learners engaged in a more dynamic multilingual/multimodal composing process, we found that they also constructed a wider range of meanings and identities in the literacy classroom. In addition, they were more agentive than during strictly form-focused instruction. The data suggest these were positive responses to the way the pedagogy positioned students as much more than L2 writers; it acknowledged their social worlds, multiple identities, and agency in the classroom. Further, Hu Laoshi acknowledged multiple communicative modes as complementary, related, and legitimate for engaging in literacy instruction, and students were

encouraged to weave together different semiotic resources to make a coherent final product.

Students responded productively to these affordances. In Mei-mei's case, as she composed, produced, and presented the video shown in Appendix A, she was not just a Chinese writer, but a critical thinker, a designer of meanings, an oral narrator, *and* an L2 writer. Multimodally, Mei-mei positioned herself as a knowledgeable person regarding local history, a fluent orator of written Chinese, an opinionated/emotive person sharing an impassioned response to historical events she found outrageous and out-of-line with her developing sense of culture and ethics, and a child trying to use her experience to speculate about why something beyond her comprehension might have happened (i.e., an analyst of historical causes/effects). As Kress (2017, p. 47) puts it, she was a "designer and rhetor" who assembled modes and languages to deliver content messages, and at the same time, messages about who she was relative to that content and to the languages she was composing in.

We illustrate how Mei-mei constructed a cohesive ensemble of modes to shape these meanings through a detailed analysis of one frame of her video, Frame 4 from Appendix A. Following Kress (2011), we show how Mei-mei resourcefully used color, writing, layout, images, and audio (Appendix B). Frame 4 is entirely black and white, a choice that established the emotional tone of the frame. Because we live in a naturally colorful world, Mei-mei's choice of black and white as a color scheme here constructs a degree of removal from reality, establishing her stance on the events she reported as being "unreal" or outrageous (Accurso et al. 2019). In addition, she layered quite dark images, constructing her point-of-view that the Salem witch trials represented a dark time in Massachusetts history. On top of these images, Mei-mei layered written text, also in the color black. She positioned this text at the top center of the frame, sending the message that these written words are the primary meaning makers in the frame while the image is there for emphasis and extension of the ideas and tone constructed through the written words.

Mei-mei constructed concrete information and events through her use of action verbs (e.g., *killed*, *arrested*) and named participants (e.g., *many innocent people*). When we consider the range of choices available to Mei-mei for constructing this information, we can see that her word choices also reveal her stance toward the information (e.g., Halliday and Hasan 2012). For example, Mei-mei constructed Abigail and Betty as *innocent people* rather than *convicted witches* and described the outcome of the witch trials as people being *killed*, a more charged term than, for example, *died.* Mei-mei's use of passive voice reinforces this meaning. In Chinese, passive voice tends to imply imbalanced power relations, reflecting Mei-mei's awareness of a social hierarchy and its impact on the trials. However, Mei-mei did not simply note this imbalance. She positioned herself relative to it. For instance, she included hedges to avoid judging the accused women (e.g., *we don't know why…but*) and she used the third person to create distance between herself and the dominating opinion of the time (e.g., *many people think…*).

Mei-mei's choice of images emphasizes and extends the meanings she made through writing. In Frame 4, she layers two images, the front page of a newspaper and

a drawing of a courtroom scene. The typical purpose of a newspaper is to report information about events, which reflects one of Mei-mei's primary purposes in composing this video. Likewise, the drawing presents information about the topic of the video but it also constructs a point of view by presenting those events from a certain perspective. For example, in the drawing, the characters are not looking at or engaging the viewer, suggesting they are simply offering information about *this history* Mei-mei constructed with written words (Kress and van Leeuwen 2006). The relative position of these characters to one another extends Mei-mei's meaning regarding unequal power dynamics—the accused are shown lower in the frame relative to the judges.

While Mei-mei's color, writing, layout, and image choices construct her relationship to the social studies content she is constructing, her audio and video choices construct her relationship to her audience and the local context in which she is composing and presenting. With the audio, Mei-mei constructs herself as a fluent Chinese reader and user. In her recorded narration, she read the written Chinese text aloud with a calm and clear voice and at an appropriate speed. In addition, Hu Laoshi noted that Mei-mei more than met prosody expectations; she followed the text exactly and was "smooth and natural," meaning she was familiar with the written Chinese characters, sentence structures, and content in her video. Mei-mei managed the rhythm, linguistic tones, and intonation precisely and paused in meaningful places, which supported her audience's understanding of the written and spoken Chinese (Eggins and Slade 1997). Further, because she knew her peer audience had varying levels of Chinese reading and listening skills, she supported their meaning-making experience by including a visual pointer in the video (☝)so they could read along as they listened to her narration.

Though her final video included only Chinese, Mei-mei constructed a biliterate identity through the composing process, meaning she positioned herself as a competent user of two languages in her local language community—the L2 literacy classroom. This was important to Mei-mei in the context of her dual immersion school, and though she was proud to already be recognized among teachers and peers as highly literate in English, she did not feel she had been as successful before in being seen as literate in Chinese. Reflecting on her video after the unit, Mei-mei commented, "I think it was pretty good … each time I read through it, I still learn things that I didn't know before—because sometimes you immediately translate some things… so I'm pretty impressed with it." Evidently, she was quite satisfied with her video, flexible use of two languages, and Chinese writing.

As Mei-mei's interview excerpts here and in the previous section demonstrate, she was aware that this pedagogy demanded different things of her as a thinker, language user, and meaning maker than other literacy pedagogies she had experienced. Her interviews and final video show that she responded to the affordances of this pedagogy by agentively framing herself not just as a rote voicer of facts, but going deeper to form an opinion on historical events and how they affected her to communicate these ideas in her L2 in ways that were effective within her local language community. While social positioning theory maintains that students' identities are always multiple and in process (e.g., Norton and Toohey 2011), this finding makes clear that one strength of multilingual/multimodal composing pedagogy is the way it activates

and supports such multiplicity rather than constraining students' literacy practices to narrower notions of what L2 literacy looks like in official classroom spaces (e.g., producing predetermined language forms). Additionally, as Mei-mei's video illustrates, a pedagogy where students are encouraged to generate meanings and semiotic forms by engaging all their identities can ultimately result in L2 writing of the same or greater complexity as cloze activities (Bezemer and Kress 2016). Liaw (2019) offers a detailed account of linguistic complexity in bilingual students' videos, including Mei-mei's.

In sum, our analysis of Mei-mei's multimodal assemblage warrants the claim that individual modes have meaning-making limitations but can be combined to achieve "intensity, framing, foregrounding, highlighting, coherence and cohesion"(Kress 2017, p. 46). Moreover, this analysis demonstrates Mei-mei's remarkable resourcefulness in circumventing what she viewed as the constraint of her own Chinese writing proficiency. Using the affordances of critical multilingual/multimodal composing pedagogy, she made rich meanings by assembling modes and drawing on both her English and Chinese proficiencies. As Bezemer and Kress (2016, p. 131) described it, Mei-mei's video showcases creativity and innovation in "finding apt signifiers, distributing meaning over the available modes, exploiting the distinct potentialities of each, and demonstrating sensitivity to [her] social and material environment." This pedagogy presented Mei-mei with an opportunity to "make visible" (p. 5) knowledge and identities that were previously invisible or unavailable in Chinese literacy instruction that was strictly form-focused and textual.

6.6 Implications: Reframing "Literacy" to Privilege the Process, Not just the Product

Though this chapter presented Mei-mei's case as a way of illustrating our findings, in the larger study, these trends bore out in the experiences and compositions of other learners, as well (Liaw 2019). Thus, this chapter is meant to represent the affordances critical multilingual/multimodal composing pedagogy held not only for Mei-mei, but potentially for all teachers and students responding to the demands of new standards that aim to support multilingual competence within "local and global communities," including in schools (e.g., ACTFL *World-Readiness Standards for Learning Languages*).

Therefore, based on these findings, we recommend that L2 teachers and literacy researchers who wish to take up critical multilingual/multimodal composing pedagogy shift their thinking to privilege the composing process, not just the product. What we are suggesting is different from the well-known "process approaches" to writing used in monolingual classrooms for English text production (e.g., Lucy Calkins' *Writers Workshop*). Rather, we first propose teachers do some reframing within their own minds: reframing the notion of *language* to see it as a construction of knowledge and identity rather than a set of forms, reframing *literacy* as semiotic

work beyond strictly "pen and paper," and reframing *composing* to see it as a process of multimodal assemblage. Second, we recommend enacting these process-oriented understandings of language, literacy, and composing through a teaching and learning cycle where teachers:

- Plan for robust compositions that meet their learning goals
- Create instructional space for students to engage with and be supported in using multiple languages and modes to learn, contextualize, and communicate new content knowledge
- Recognize and reward students' creative and critical uses of multiple modes to construct meanings and identities throughout the composition process
- Analyze students' final compositions to reflect on their semiotic work and design subsequent literacy instruction.

Through this cycle, teachers may discover that critical pedagogies and multimodal projects lend themselves not only to different learning processes and outcomes than strictly form-focused writing tasks but also to greater student engagement and a wider range of identity activations, too, as Hu Laoshi did. Though the video project described here took much longer than the 3 days Hu Laoshi lamented spending on a unit-ending writing assignment in the quote that opened this chapter, the findings from this study suggest that it was time well spent.

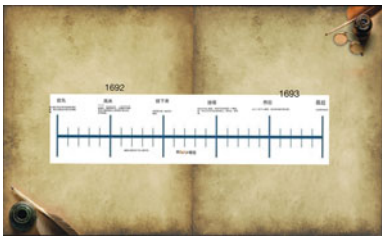
Appendix A

Multilingual/Multimodal Transcription of Mei-mei's Video

Frame	Time	Screenshot	Transcription of Mei-mei's Chinese Narration [English Translation]
1	00:23		说到**塞勒姆**/,(.) 就一定要提到很**恶名招展【昭彰】**的女巫审判**//(..)** [Speaking about Salem, we must mention the notorious Salem witch trial.] 你**知道**吗↑?(.) 二十个人在女巫审判里**被杀**死/,(.) 还有(.h)**两百**多人**被控**//(..) [Guess what? Twenty witches were killed in the Salem witch trials, and more than 200 people were accused.]

(continued)

(continued)

Frame	Time	Screenshot	Transcription of Mei-mei's Chinese Narration [English Translation]
2	00:23–00:37		女巫审判对塞勒姆的人很有历史意义/,(.) 因为这件事情发生了以后/,(.) 很多的人觉得塞勒姆是一个不好的地方//。(..) [The witch trials were historically significant to people in Salem. Why is that? Because after this incident happened, many people think that Salem is a bad place.] {我认为, 在未来, 女巫审判不会一样的重要, 因为只有对麻州的人有意义。} [From my perspective, I don't think the witch trial will be as important in the future because it's only meaningful to people in Massachusetts.]
3	00:38–03:03		首先阿比盖尔和贝蒂开始做起奇怪的事//。(.)他们说(.)是因为她们在被着魔//。(..) [At first, Abigail and Betty started to do weird things. They said it was because they were bewitched.] (*1692*) 再来(.)提圄【图】芭(.)(tituba),(.)薩【萨】娜奥斯本(.)(sanaaosi ben),(.)和薩娜古德(.)(sanagu de)(.) < 被控 > 因为(他;因为)塞勒姆的人觉得她们是女巫/, 还有(..)被(.)捕(Gu)//。 (1692) [Next, Tituba, Sarah Osborne and Sarah Good were charged because people in Salem think that they are witches and [they are] arrested.] <薩娜古德 > 和四个别人(.)被杀死//。 接下来/< 多罗西古德 > (.)(她四岁/)(.)被控//。 (+两只)狗(two dog's icon)(+<也 >)被控// <接 > 着(.)-**Giles Corey**(.) 被控/,(.h) 但他不会说他是一个魔法师,(.) 所以人们方石头在他身上。(。) 两天后,(.) 他死掉//。 <然后 > -<比十二 > 多个人(.)被控/,但法官说她们是无辜//。 最后,(.) 女巫审判结束//。 [Sarah Good and four others were killed. Next, Dorothy Good, only 4 years old, is accused. Two dogs were accused. Subsequently, Giles Corey was accused, but he would not say he was a wizard so people threw stones at him (coerce him to plead?). Two days later, he died. (1693) Then, more than 12 people were accused, but the judge said they were not guilty. Finally, the witch trials ended.]

(continued)

(continued)

Frame	Time	Screenshot	Transcription of Mei-mei's Chinese Narration [English Translation]
4	03:04–03:29		这段历史不知道是为什么开始的/,(.) 但很多人觉得是(..)因为阿比盖尔和贝蒂要(..)有人(.)注意她们//。 [We did not know why this history started, but many people think the reason is that Abigail and Betty wanted people to pay attention to them.] 它的结果是(.h)很多无辜的人(.)被控或(.) < 被捕(bu4) >//。 [The consequence was that many innocent people were killed or arrested.]
5	03:30–04:11		如果我生活在(.)1692-(+到)1693的(.)塞勒姆/, 我会很害怕/,(.) 因为很多无辜人被控/。(..) [If I lived in Salem in 1692–1693, I would be very frightened because many innocent people were accused.] 如果(.)一样的事情发生在现在/,(.) 很多人会知道(.) > 不是真的 <//,会停止 > 这一件事情 <//。 如果以前人(.)们知道女巫不是真的/, 女巫审判(.)就不会发生。 [If the same thing happens in the present, many people will know this is not true and will stop these things. If people in the past knew witches were not real, the witch trial would not have happened.]
6	04:12–04:23	*(image unavailable due to copyright)*	谢谢! [Thank you]

Image credits
Frame 1: Adapted from Matteson, T. H. (1855). *Trial of George Jacobs, August 5, 1692* [oil on canvas]. Peabody Essex Museum, Salem, Massachusetts. Reprinted with permission.
Frame 2: Adapted from Baker, Joseph E. (1892). *The witch no. 1*. Retrieved from https://www.loc.gov/pictures/item/2003677961/
Frame 3: Student created. Reprinted with permission.
Frame 4: Adapted from Ellis, E. S. (1887). *Witchcraft delusion scene in court*. In The Youth's History of the United States. New York: The Cassell Publishing Company. Retrieved from http://ushistoryimages.com/salem-witchcraft-trials.shtm
Frame 5: Adapted from Lossing, B. J. (1912). *Deliverance from witchcraft by prayer*. In Harper's Encyclopedia of United States History. New York: Harper and Brothers Publishers. Retrieved from http://ushistoryimages.com/salem-witch-trials.shtm

Transcription Notation

Bold and font sizes	= emphasis
(.) (..) (…)	= pauses (more dots show longer pause)
//	= final pitch contour with a definite fall, signaling an end of an idea unit
/	= an idea unit with a small fall, signaling a nonfinal pitch contour
↑?	= final pitch contour ends in a rise, signaling a question

(continued)

(continued)

Bold and font sizes	= emphasis
>text<	= the enclosed speech was delivered more rapidly than usual for the speaker
<text>	= the enclosed speech was delivered more slowly than usual for the speaker
strikethrough	= miscue or missing tone
+	= adding words to complete a meaning unit

*Adapted from Atkinson, M., & Heritage, J. (1984). Transcript notation. In M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. ix-xvi). Cambridge University Press

Appendix B

Multimodal discourse analysis of Frame 4 from Mei-mei's video

	Mei-mei's semiotic choice	**Contribution to meaning/function or purpose in this video**
Color	Black and white images; black text	Establishes emotional tone: Choice of black and white constructs removal from reality, perhaps showing her stance on the events as being "unreal"
	Use of darkness	Darker color choices construct what Mei-mei views as a dark time in Massachusetts history
Writing	Uses action verbs and named participants to construct events (*…many innocent people were killed or arrested*)	Tells concrete information
	Uses *innocent people* rather than *convicted witches*	Communicates her stance on the information
	Hedges to avoid judging the accused women (*We didn't know why…but*)	
	Uses third person to create distance between herself and prevailing opinions of the time (*many people think…*) Passive voice	
Layout	Text is positioned at top center, image is behind	Lets readers know that words are the primary meaning makers while the image is there to emphasize and extend the ideas and tone of the text
Image	Focalization: characters are not looking at viewer (i.e., are simply offering information to the viewer)	Accused people are shown lower relative to judges

(continued)

(continued)

	Mei-mei's semiotic choice	Contribution to meaning/function or purpose in this video
	Accused people are shown lower relative to judges	Shows that unequal power dynamics were at play in this event, extending the meanings made with written language
Audio	Clear voice; appropriate rate of speech; manages prosody (rhythm, linguistic tones, intonation, meaningful pauses)	Constructs identity as a fluent Chinese reader and speaker
Video	Uses pointer to indicate written word as it is read aloud	Manages the needs of an audience with varying levels of Chinese reading and listening skills; supports their meaning-making experience to read along as they listen to her narration

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Chapter 7
Expanding Meaning-Making Possibilities: Bilingual Students' Perspectives on Multimodal Composing

Blaine E. Smith, Irina Malova, and Natalie Amgott

Abstract This chapter examines the perspectives of 98 bilingual 10th-grade students who participated in three multimodal instructional units in an English Language Arts class. Based on a qualitative analysis of design interviews, written reflections, and video observations, this study presents the main themes of students' perspectives on the affordances of multimodal composition, including unique opportunities for conceptualizing through visuals and sounds, communicating in innovative ways, expressing identities, and contextualizing literature. Main constraints discussed by the students are also presented ranging from various technical issues to "finding the right mode." Building on these perspectives, this chapter concludes with implications for research and practice when integrating digital multimodal composing into the multilingual classroom.

Keywords Multimodal composition · Bilingual · Student perspectives · Adolescents · Social semiotics

7.1 Introduction

Although important strides have been made in understanding bilingual youth's multimodal composing processes and products, study findings are often presented from a researcher's or teacher's gaze (see Smith 2018). A complementary view of students' experiences with creating digital products in schools from *their* perspective is also needed for understanding the affordances and constraints of conveying meaning

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through multiple modes. These student insights can be beneficial for effectively integrating digital multimodal projects in the multilingual classroom to support academic learning. Student perspectives offer valuable implications for the teacher's scaffolding process by contributing to an understanding of how they conceptualize content, communicate their ideas, and infuse their identities while multimodal composing. Additionally, teachers can understand and address stumbling blocks students might encounter.

The handful of studies that have specifically examined bilingual students' perceptions of digital multimodal composing illuminate how they positively perceive the multiple points of entry offered by communicating through visuals, sound, text, and movement for communicating complex ideas and aspects of their identities (DeJaynes 2015; Jiang and Luk 2016; Smythe and Neufeld 2010). In particular, this research demonstrates how multimodal composition fosters positive identity expression for Latinx and newly arrived immigrant students (Streng et al. 2004; Vinogradova et al. 2011) as well as the ability to shape with agency how they are positioned to others (de los Ríos 2018; Ivković 2019). These insights into students' perspectives are often captured in out-of-school contexts (e.g., Omerbašić 2015), and more research is needed to understand bilingual students' viewpoints and experiences with creating a wide range of digital projects in schools for academic purposes.

To address this need, we examined the viewpoints of 98 10th-grade bilingual adolescents who participated in three multimodal instructional units in an English Language Arts (ELA) class. Based on design interviews, written reflections, and video observations, this study presents the main themes of students' perspectives when considering the learning potential and challenges of multimodal composing in the multilingual classroom.

7.2 Theoretical Framework

This study was guided by a social semiotics (Kress 2003, 2010) view of multimodality that emphasizes how various modes—including, but not limited to, visuals, sounds, text, motions, and gestures—are integral in meaning-making. Meaning occurs through the complex interaction between different modes, and the unique interweaving of modes communicates generative messages that no single mode communicates on its own (Jewitt 2009). Orchestrating multiple modes can create distinct opportunities for multilingual students to leverage cultural and social capital (Ajayi 2015; Bailey 2009), to express identities in ways not typically afforded by written texts (Cimasko and Shin 2017; Cummins, et al. 2015; Hull et al. 2010), and to "braid" home literacy practices with school practices to craft and develop multilingual narratives (Noguerón-Liu and Hogan 2017; Zapata 2014).

Central to a social semiotics perspective is the understanding that each mode is comprised of its own semiotic resources for communication. These unique modal

affordances—based on their social histories, cultural uses, and material features—offer potentials that render specific modes more suitable than others for certain communicative tasks (Kress 2010). As described by van Leeuwen (2004):

> Semiotic resources are the actions, materials and artifacts we use for communicative purposes, whether produced physiologically—for example, with our vocal apparatus, the muscles we use to make facial expressions and gestures—or technologically—for example, with pen and ink, or computer hardware and software—together with the ways in which these resources can be organized. Semiotic resources have a meaning potential, based on their past uses, and a set of affordances based on their possible uses, and these will be actualized in concrete social contexts where their use is subject to some form of semiotic regime. (p. 285)

Research describes how bilingual students often demonstrate and express different modal preferences for how they choose to communicate (Smith 2017; Smith et al. 2017). For example, one student might be able to express personal emotions visually in a way that is not possible through writing, whereas another student might prefer to rely on the specificity of the linguistic mode to convey their message. Some researchers have highlighted how bilingual students perceive different modes having different communicative affordances, including sound, visuals, and movement (Ajayi 2015; Ho et al. 2011; Kim 2018; Skerrett 2019; Smith 2019).

In relation to the current study, we are interested in how students identify the affordances and constraints of different modes for communicating their intended message and supporting their learning in an ELA classroom.

7.3 Related Research

Previous research on multimodal composing emphasizes the benefits from researcher and teacher viewpoints but has less frequently explored students' perspectives. In first language (L1) contexts of English Language Arts settings, some of the few studies examining viewpoints demonstrate how students explained their specific modal choices while composing (Dalton et al. 2015; Jocius 2013; Smith 2017). Students have described feeling affirmed in their identities as multimodal composers (Dallacqua 2018), even if they have previously been positioned as low achievers (Jocius 2017). By seeking student perspectives, some research have further indicated how the flexibility of multimodal composing acts as a bridge for students in L1 contexts to integrate their out-of-school literacies into their academic learning (Taylor 2018).

In bilingual settings, research emphasizes the multiple benefits students perceive for composing multimodally. Students have expressed their views of composing as a means to affirm their multilingual and multicultural identities (Cummins et al. 2015; DeJaynes 2015; de la Piedra 2010; Vasudevan et al. 2010), discuss critical community issues (Amgott 2018; Anderson and Macleroy 2017), share their work with a wide audience (de los Ríos 2018), maintain their home country language (Omerbašić 2015), and rehearse while language learning (Jiang and Luk 2016). The autoethnographic nature of many multimodal projects has facilitated bilingual student

connections to a larger heritage community, while also leveraging their identity reflections to envision their future selves and identities (de los Ríos 2018; Kumagai et al. 2015). Further, student perspectives reveal feelings of empowerment by sharing their out-of-school identities and experiences with peers (DeJaynes 2015), which has often facilitated discussion and action on local issues (de los Ríos 2018; Goulah 2017; Honeyford 2014). Students additionally described being encouraged through composing that involves collaborating with their families, heritage languages, and cultures to decolonize and restore the agency of their peers' perceptions of their countries and communities (Cummins et al. 2015; Pacheco and Smith 2015).

Linguistically, bilingual students' insights emphasize the importance of multimodal online spaces for linguistic and cultural growth. Learners of English commented that multimodal projects support an iterative composing that involves reviewing and correcting their language mistakes, and that this challenge motivates them to spend more time practicing English (Jiang and Luk 2016). Multilingual students have further conveyed the affordances of multimodal composing for translanguaging—or making use of multiple languages, registers, and/or varieties—to communicate with different audiences concurrently or to express themselves as individuals with dynamic identities (Kim 2018; Pacheco and Smith 2015). Translanguaging while multimodal composing allows heritage bilinguals and language learners to leverage non-linguistic modes to promote cross-cultural and linguistic connections (Anderson and Macleroy 2017; Kumagai et al. 2015).

7.4 Methods

Building upon this research, we examined the following guiding research question and sub-questions: What are bilingual adolescents' perspectives on multimodal composing in the ELA classroom?

- What do students view as the affordances of communicating with multiple modes in the ELA classroom?
- What do students view as the constraints of communicating with multiple modes in the ELA classroom?

7.4.1 The Setting and Participants

This study was conducted in four 10th-grade English Language Arts classes at an urban Title 1 charter high school in a major southeastern city in the USA. The school was situated in a community composed of Cuban exiles and families who immigrated from Central and South America. Out of the 98 participating students, 96% had a heritage language other than English (Table 7.1).

Table 7.1 Self-identified Demographics of Students (N = 98)

Age	Gender	Race/Ethnicity	Heritage Language	Birthplace
83, 15-years old	58, male	76, Latinx	75, Spanish	51, USA
15, 16-years old	40, female	19, White	9, French	18, Cuba
		2, Asian	6, Italian	9, Spain
		1, Black	4, English	8, France
			2, Portuguese	6, Italy
			1, Cantonese	2, Argentina
			1, Catalan	1, Canada
				1, China
				1, Colombia
				1, Nicaragua

7.4.2 Multimodal Composing Units

Students participated in three multimodal composing units throughout the school year. All students in the four classes were invited to participate in the study, and those who declined were still able to engage in the planned multimodal curriculum. The first unit was a four-and-a-half-week poetry unit at the beginning of the fall semester. The culminating project centered on designing a hyperlinked PowerPoint that analyzed the multiple layers of meaning in a poem. Students were provided a handout with 13 poems that represented a range of authors (e.g., Langston Hughes, Maya Angelou, Pat Mora, Walt Whitman, Emily Dickinson). Each poem uniquely connected to the unit theme of identity, including engaging with issues of biculturalism, racial identity, belonging, and/or immigration. The second unit was three weeks in length and occurred at the beginning of the spring semester; it involved students creating a persuasive podcast on a controversial topic (e.g., wall at the Mexico border, gun violence in schools, etc.). The third unit was at the end of the school year and four weeks in length. Students composed a video that explored a literary theme from Kurt Vonnegut's short story *Harrison Bergeron* (1961). Selected by the teacher, this satirical dystopian story occurs in the year 2081 and describes a society where citizens wear handicaps to promote "equality" (e.g., the beautiful are forced to wear masks and the strong carry weights).

For each of the units, students participated in a multimodal composing workshop (Smith and Axelrod 2019) intended to cultivate intentional designing for targeted purposes and audiences. The units followed a similar scaffolded sequence that involved explicit instruction, combined with opportunities for students to analyze a variety of examples, receive peer feedback, reflect on their process, and follow their own unique modal preferences (Smith 2017; Smith et al. 2017). Students could choose their composing tools and with whom they collaborated for each project.

7.4.3 Data Collection

Multiple data sources were collected to gain bilingual students' perspectives on their experiences with digital multimodal composing in the classroom. All 98 students completed a written reflection after each of the three digital projects (294 total reflections). In these, students answered a variety of open-ended and Likert-scale questions about the topics, including the affordances and constraints of communicating with multiple modes, how they analyzed literature through multimodal composing, and their collaborative composing processes.

In addition, 63 of the students participated in a 30-minute semi-structured design interview after at least one of the three multimodal projects (108 total interviews). Using a laptop that recorded the screen and audio, students individually pointed out elements of their work and explained the reasoning behind specific design decisions. Students also discussed their overall experience and views on digital multimodal composing in the classroom.

Finally, video observations were also collected for six small groups of students for each of the three multimodal projects (n = 27). Each small group also shared research laptops with screen capture software that recorded their composing activities during in-class workshops. This software tracked the movements of their mice, websites visited, and all media used and edited. The accompanying audio was also recorded during the composing process, which provided insights into verbal interactions. Time-stamped video logs were created for all screen capture files that recorded students' compositional actions (e.g., image search, image design, audio search, audio remix, voice record) and collaborations.

7.4.4 Data Analysis

Qualitative data analysis (Glaser and Strauss 1967; Corbin and Strauss 2015) was an iterative process that involved three phases. First, each of the three student's reflections and interviews was open coded to develop emergent categories. This phase involved identifying, naming, and categorizing the different viewpoints students shared on their experiences with multimodal composing in the classroom. During this phase, we regularly met to discuss and refine emerging categories on students' perspectives. The second phase of analysis focused on refining the codes we initially developed and systematically developing relationships between them. This step involved organizing our open codes into categories and sub-categories. Again, we refined these categories across all of the data sources and discussed disconfirming evidence. For the final phase of analysis, we circled back across all of the data sources (e.g., interviews and reflections) to conduct selective coding (Corbin and Strauss 2015). We also examined the screen capture video logs to see if there were examples of each code from the process data. The goal for this final focused analysis

was to validate whether our final overall categories were abstracted enough to encapsulate students' perspectives for the variation in composers and digital projects. We worked to strengthen the trustworthiness of our findings by triangulating different sources and methods (Erlandson et al. 1993). We also strove to forefront students' perspectives so that we could understand their experiences through their eyes.

7.5 Findings

In the following, main themes are presented focused on bilingual students' perspectives on the affordances and constraints of multimodal composing in their ELA class.

7.5.1 Conceptualizing Through Multiple Modes

Students described how working with visuals, music, and videos helped them to conceptualize literary themes in the early stages of their composing processes. In many instances, meaning-making with non-linguistic modes often preceded students' written notes or other textual aspects of their projects and provided a thematic foundation from which they constructed their analyses.

By conceptualizing through visuals, students collaboratively laid the analytical groundwork for their multimodal projects. This process involved conducting online image searches with abstract keywords (e.g., "culture" and "identity"). Next, students visually brainstormed by viewing and assessing multiple images produced from their searches. These viewings sparked generative conversations and connections to themes in the literature they analyzed. For example, Maddie and Isabella initiated their analysis of Langston Hughes' "Harlem" (1958) by searching for keywords that "stood out," including "dying dreams," "forgotten dreams," and "lost dreams." With one side of their shared laptop screen displaying the poem and the other side designated for conducting searches, they engaged in productive discussions related to their search results and developing interpretations. Maddie described how working with images first aided her analytic process: "I thought putting images first would help me to understand the poem better with seeing it visually than just reading it. So, I thought we will put images first, so it would make it easier to find more literary devices." Many students detailed following a similar strategy of using images as a springboard in their literary analyses. Some students also multimodally conceptualized themes by watching videos or listening to music at the beginning of their composing process. For example, Alvaro explained how music helped him "a lot to understand a theme" when interpreting *Harrison Bergeron.*

Conceptualizing through visual and aural modes also helped students to gain a sensory understanding of the literature, including being able to "see" the content. This pattern of being able to "visualize" literature through multimodal composing

was echoed in several student responses. For example, Aurora explained, "I liked working on these projects because they made me 'see' literature and it makes me understand it better." Examples of visualizing included students searching for and viewing images of difficult vocabulary (e.g., "imperialism") as a means to better grasp the content to gain an effective understanding of different scenes originally depicted textually. Students revealed how experiencing the content through more than one mode challenged their initial readings of the text and to "think outside of the box and not stay so straight forward with [their] ideas" (Caleb).

7.5.2 Innovative Meaning-Making Through Multiple Modes

Students described how using multiple modes allowed them to "think in a different way," which included expanding their options for communication. They detailed the ways in which they flexibly leveraged the unique affordances of specific modes to express meaning creatively, and many explained how they thought a specific image or song could better encapsulate their ideas than through writing alone.

With a broader communicative palette to work from, students often described specific modal preferences (Smith 2017; Smith et al. 2017) when creating their projects. For example, Claudia saw the benefits of using sound to persuade others for her soundscape on immigration: "I personally prefer sound because you're more into it. It's like a movie but in your head." Javi expressed a visual preference for communicating his understanding of the main themes in the Langston Hughes poem "I Too": "The pictures say so much, so when you take out the pictures, the text is kind of hollow."

Students' perspectives also demonstrated how they enjoyed being able to break free from the constraints of traditional writing assignments and to have more freedom in creatively selecting and combining different modes to convey their thinking. Across the final reflections, a majority of students explained how they favored the multimodal projects compared with traditional written essays:

> Cuz with written assignment you have to have something specific—a body paragraph, your introduction, your ending. But in a video, it can be in a different order, and you can add different things.. .. It does not have to be one thing. (Li)
>
> It helped because it allowed us to explore themes in a fun nontraditional way. We also got to do it the way we wanted, we got to explain things in our own ways. (Sabrina)
>
> I prefer to analyze literature through multimodal projects… The traditional written assignments are more robotic and in multimodal projects I can be more creative and show more about what I think. (Liz)

In responses like these, students' reasons for preferring multimodal composing ranged from having more flexibility, agency, and creativity in how they expressed ideas.

7.5.3 Identity Expression Through Multiple Modes

Communicating through multiple modes afforded opportunities for many students to express their identities in meaningful ways. Students explained how they were able to connect the ELA content to their bilingual and bicultural experiences, personal emotions, and out-of-school interests.

A theme throughout student perspectives was how they infused aspects of their own identities through their orchestrations of multiple modes. Mateo, for example, found ways to make linkages to the country he immigrated from when he was 13 years old when analyzing the poem "Legal Alien" by Pat Mora.

> I was from Argentina and I moved here and some people thought, "Oh, he can't hang out with us cuz he doesn't speak English"… [referring to image] This is my Argentina's flag. So, in this poem I felt related to the author cuz like I said, it [developing a bicultural identity] happened to me too. When I came here, first of all I considered myself Argentinian because everything was new, but now I consider myself American and Argentinian at the same time, so I feel related to the poem.

Other students echoed a similar design sentiment about being able to "show their individuality" and insert themselves "into the projects" by selecting personally meaningful visuals and sounds ranging from national flags, cultural songs, images of food or locations, and heritage language use. For example, Tara said, "Through visuals we can actually make ourselves a part of the story" when discussing her hypertext project on a poem by Maya Angelou. Sergio revealed how they selected a specific song for their video analysis project: "We picked that since it kind of relates to us—we are Cubans."

Relatedly, students shared how using visuals and sounds allowed them to forge an effective connection to the ELA content. Brianna explained the emotional power of multimodal composing:

> It [multimodal composing] gives more emotion compared to an essay. Although an essay is faster, this does give more emotion…I think people would be more affected through sound than an essay.

Angel also described his experience with creating the video theme analysis, "It's different because you get to act it and feel the emotions rather than reading it…It gave us an idea of what it could be like to be in the story."

Finally, students multimodally represented aspects of their out-of-school interests in numerous ways, including hobbies, skills, and relevant current issues. Students also described how they were able to make linkages between the class content to movies, television shows, music, and video games they enjoyed. For example, Celeste explained how her group was inspired by visuals and sounds in the television show, *American Horror Story*. She described in detail how they integrated similar "creepy" effects, including flashing lights, loud thunder, and masks on characters. Making these multilevel connections through interweaving media helped students "see how literature connects to real life" (Celeste).

7.5.4 Contextualizing Literature Through Multiple Modes

Students contextualized the literature by traversing networks of hyperlinked multimedia and informational websites to interpret the social and historical climate surrounding the work they analyzed. Many students explained how their process of contextualizing through multimedia aided them in "understanding" the literature, empathizing with the author, and "connecting the past to the present" (Amada).

To provide insights into the literature they analyzed, students referenced online multimedia resources when composing on their laptops. Instances of contextualization included reading informational web pages, watching related videos, viewing historical photographs, and listening to music from the time period. Contextualizing during their multimodal composing processes also offered students a window into authors' lives and their possible exigence for writing. Many students also explored authors' experiences and mental states—examples included Emily Dickinson's isolation, Carl Sandberg's experience in the military, and Maya Angelou's sexual assault as a young girl—which offered an elucidating and empathetic lens for analyzing their poem.

Additionally, students described using their digital projects as a vehicle to share what they learned through their contextualizing processes. William, for example, considered his audience when incorporating historical photographs depicting culture in the USA during the 1920s, including jazz music from the Harlem Renaissance era in his analysis of Langston Hughes' "I, Too" (1926) (Fig. 7.1):

> [W]e used different modes…Even though this poem did not literally give you the background of his time period, I think we kind of made it, so a reader who came and never heard this poem before would understand completely: "OK, this is who the author is, this is where he wrote it, this is when it was written." We gave a whole basis; we made it into a movie, I think. We made the poem into a movie.

Figure 7.1 shows that William combined photographs, videos, and music to convey the historical context of the poem "I, Too" by Langston Hughes (1926).

Multiple modes and online resources mediated students' processes by providing accessible ways to understand and share the context surrounding the literature they analyzed. As Maddie confessed to Isabella while composing their hypertext: "We are learning things I did not know!"

7.5.5 Constraints with Multimodal Composing

Along with sharing the affordances of multimodal composing, students also described constraints they encountered. The most common challenge revolved around various technical issues throughout their composing processes. Many students explained they had difficulty with some of the composing programs (e.g., iMovie, Audacity, and PowerPoint), including combining media, hyperlinking, and using different editing features: "Creating the video was harder than a written analysis. I don't work well

Fig. 7.1 William's hypertext poetry analysis that Combined Photographs, Videos, and Music

with all of those programs, so working with iMovie was difficult for me" (Elisa). Because of these technical stumbling blocks, students explained how they "had to ask for help a lot" from the teacher and their peers.

The second most common constraint with multimodal composing shared by students involved selecting "the perfect mode" to encapsulate their ideas. Steve explained, "I struggled with trying to find the right types of modes that sync really well with the theme of the poem." Lena shared a similar constraint, "We struggled to find some certain images that represented what we meant and how we felt."

Other constraints revolved around students not feeling they had enough time to complete their digital projects—especially if they did not have reliable access to a computer at home—along with confusion about exactly how the teacher wanted them to express ideas through multiple modes. A handful of students stated that they would have preferred to type their projects because they are more familiar with the academic writing medium and its expectations:

> I personally prefer to write because I think it's less work and it can be done in less time…Some of us are better writers while some of us are better are making multimodal videos. (Paula)

Finally, some students encountered difficulty when trying to make each group member's designs cohere into one final project. "Putting it all together" was a challenge, as well as making sure their use of modes accurately represented their intended ideas.

7.6 Discussion and Conclusion

This chapter examined the perspectives of 98 bilingual 10th-grade students who created three digital multimodal projects in their English Language Arts class. Qualitative analysis revealed how students overwhelmingly viewed affordances of multimodal communication, along with some common constraints, when they were asked to communicate through multiple modes. These findings support and extend current digital literacies research on multilingual youth while also underscoring the need for eliciting student voices and supporting their multimodal composing processes.

The students' view that multimodal composing afforded valuable opportunities to express their bilingual and bicultural identities and out-of-school interests echoes previous research (Smith et al. 2021; Yi et al. 2019). Multimodal composing offers multiple entry points and meaningful opportunities for multilingual students to connect to their lifeworlds and experiences while also working toward academic goals (Cummins et al. 2015; Honeyford 2014; Smith 2018). Furthermore, the students' expressed a preference for digital multimodal composing over traditional academic writing aligns with previous research that describes how bilingual students are more engaged, motivated, and connected to their digital projects when they have more flexibility, agency, and creativity in how they express ideas (Jiang and Luk 2016; Goulah 2017).

This study also provides insights into how bilingual students were able to engage with academic content in new and innovative ways through their multimodal projects. Students described how they conceptualized literary themes through visuals and sounds as well as gained a unique sensory and affective understanding of the content. Through layering multiple modes, students made multilevel connections to "understand" the cultural and historical context of the literature they analyzed. These findings point to the potential for how multimodal composing can mediate learning in different content areas (e.g., de Oliveira and Smith 2019; Grapin 2019; Vandommele et al. 2017; Zheng et al. 2014).

Future research should continue exploring the possibilities of multimodal composing for mediating and transforming academic learning. As these findings are situated in a specific instructional context where students created three distinctive multimodal projects, much more needs to be understood about multimodal composing-to-learn (Smith 2019) across different composers, contexts, content areas, genres, and digital tools. It would also be beneficial if future research continued to examine how multimodal composing might support language learning and bilingual students in different stages of their academic, linguistic, and social development.

These findings also have implications for integrating multimodal composition into the multilingual classroom. As demonstrated, students voiced various constraints with multimodal composing ranging from technical difficulties, to making their collaborative projects cohere, and "finding the right mode" to accurately represent their thinking. A few students—particularly those who excelled at writing—were initially disoriented when asked to communicate their thinking through visuals, texts, sound, and movement. Although the classes participated in a scaffolded workshop

model (Dalton 2013; Smith and Axelrod 2019), which involved explicit technical instruction, combined with opportunities for students to analyze a variety of examples, receive peer feedback, reflect on their process, collaborate, and follow their own modal preferences, some students still encountered various challenges. This finding underscores the importance of scaffolding students' processes and the need for more work in this area. A related challenge is teacher preparation for these rich pedagogies. With growing number of teachers learning to work with bilingual students (Helman 2012; Lucas et al. 2008), research should prioritize investigating barriers for the integration of technology in the classroom and ways educators can effectively collaborate with students of varying linguistic proficiencies and schooling experiences (Ajayi 2010; Yi and Angay-Crowder 2016). Furthermore, it is important for educators to consider the specific affordances and constraints different modalities and digital tools offer bilingual students for meaning-making.

Finally, these findings emphasize the importance of valuing bilingual and immigrant students' voices that are often marginalized. Students are frequently overlooked as stakeholders in education, although they are the principal recipients of curricular implementations like multimodal composing. It is thus crucial that educators and researchers center bilingual students' experiences by listening to and learning from their perspectives.

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Chapter 8
Exploring Pre-service EFL Teachers' Learning of Reflective Writing from a Multimodal Composing Perspective: From Inter-semiotic Complementarity to the Learning Transfer of Genre Knowledge

Ming-i Lydia Tseng

Abstract This research explores how four pre-service Taiwanese EFL teachers as L2 writers used multimodal composing tasks to facilitate their reflective writing and acquisition of the reflection genre. Drawing upon theories of multimodality, transfer, frameworks of analyzing inter-semiotic complementarity, and reflective writing, data analysis shows that inter-semiotic relations between multimodal composing and genre writing may contribute to the transfer of genre knowledge, as evident in genre features at linguistic and rhetorical levels in L2 writers' texts and their reported genre awareness. Implications of research findings for genre-based academic writing pedagogy centered on a multimodal composing perspective are presented.

Keywords Genre · Multimodal composing · Reflection · Transfer · Writing

8.1 Introduction

Interest in the pedagogical application of multimodality has been growing over the past two decades since it was adopted by the New London Group (1996) to depict multimodality as the process of integrating semiotic resources for representing and making meaning. In the context of L2 education, scholars have researched L2 students' participation in multimodality-mediated activities, such as webpage composing (Shin and Cimasko 2008), PowerPoint presentations (Tardy 2005), digital storytelling (Yang 2012), and digital video projects (Hafner 2014, 2015). These studies revealed the effects of multimodal composing on expanding authorial agency, by highlighting increased motivation and learner autonomy through the (creative) use of multimodal resources to express their voices and configure their positioning in

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socio-cultural contexts (Cimasko and Shin 2017; Hafner 2015; Hafner and Miller 2011; Yi and Angay-Crowder 2016). However, multimodal literacy instruction has been questioned because it may divert learners from the foundational kinds of interactions for successful L2 acquisition, especially those with the limited material and social capital to access digital media for writing (van Leeuwen 2015), and with the urgent need to acquire basic literacy skills (Mollo and Prior 2008) and pass standardized writing tests (Qu 2017). Such reservations started to appeal to scholarly interest only recently by exploring a timely and salient issue: the potential of L2 writers' engagement in writing as orchestrating semiotic resources into multimodal texts (Jewitt and Kress 2003) for enhancing academic genre acquisition and enculturation (Belcher 2017).

There is a paucity of prior studies evaluating how genre-based multimodal composing tasks that L2 writing teachers present in academic writing courses foster L2 learners' genre acquisition (Dzekoe 2017; Molle and Prior 2008). Some studies have been conducted to investigate L2 learners' texts of argumentation, narratives, and poster presentation posters, yet they have not studied transfer in genre composition from producing multimodal texts to writing alphabetic monomodal texts. To fill this gap, a qualitative case study was conducted (Yin 2018) to explore to what extent "learning transfer" of the specific genre, reflective writing, took place, as the pre-service Taiwanese EFL teachers as L2 writers engaged in multimodal composing and genre-based writing tasks.

The research contributes to scholarship on L2 learners' remediation from digital to nondigital mediums or the reverse for academic and professional learning, which remains largely unexamined despite its significance. Remediation can result in a "transformation process" for learners developing a conscious awareness of genre, and becoming more skillful academic writers (Belcher 2017, p. 83). This study adds a new layer to the existing research on multimodal composing for L2 academic literacy learning (Cimasko and Shin 2017) by investigating how multimodal composing tasks as procedural support in a genre-based writing instruction facilitated learning transfer to assist L2 writer's genre acquisition. It addressed two research questions:

1. What kind of relationship between visual and linguistic modes in multimodal composing contributes to ideational meanings in EFL writers' alphabetic monomodal texts of reflection as an academic written genre?
2. To what extent does EFL writers' engagement in multimodal composing tasks facilitate learning transfer of genre features and contribute to the target genre acquisition?

The specific concepts drawn upon to inform this research design include the notions of *design* (Bezemer and Kress 2008; Kress 2010) and *inter-semiotic complementarity* (Royce 2002) from multimodality, a social semiotic framework of the *reflection* genre (Ryan 2011), and *learning transfer in L2 writing* (DePalma and Ringer 2011).

8.2 Literature Review

8.2.1 Multimodality: Design Approach and Inter-semiotic Complementarity

This study is guided by social semiotic theory (Kress 2003, 2010), drawing upon the notions of *design* and *inter-semiotic complementarity*, to explore how semiotic resources in different modes were chosen for L2 writers composing multimodal and written texts of reflection. "Design" is considered as the fundamental principle (Bezember and Kress 2008; Jewitt and Kress 2003) of multimodal communication, which involves deploying and orchestrating semiotic resources of different modes to make meaning, including "image, writing, layout, speech, moving image" (Bezemer and Kress 2008, p. 171). It also explains the dominance of digital technologies in communication transforming "writing" from paper-based, linear, merely linguistic to screen-based, dynamic, and multimodal (e.g., Dzekoe 2017; Cimasko and Shin 2017; Royce 2002; van Leeuwen 2015).

Multimodal composing takes a design-based approach, which highlights how multimodal resources, including linguistic and non-linguistic ones, interact and sustain each other to make meaning. This may not be made available by deploying one modal resource in isolation (Kress 2010). The writer as a designer often has to "understand the specific ways of configuring the world which different modes offer" (Hyland 2009, p. 59), synthesizing linguistic and non-linguistic modes with their distinct features to provide an orchestration of meaning that accounts for their interests, intentions, purposes, and target audience's characteristics in the particular context of communication (Bezemer and Kress 2008; Kress 2010). Fundamental to multimodal composing is the concept of "inter-semiotic complementarity" (Royce 2002), which refers to how different semiotic modes "collaborate to realize complementary inter-semiotic meanings when they co-occur on a page or the computer screen" (Dzekoe 2017, p. 193). There were few empirical studies on "inter-semiotic complementarity" (Royce 2002) in L2 students' writing; the most relevant one to the present research is Dzekoe's work (2017) on students' improvement of quality in the revision of their argumentative essays from visual posters. Dzekoe's (2017) research findings suggested that textual evidence of "inter-semiotic complementarity" contributed to L2 students' progress in writing argumentative texts. Similarly, this study draws upon "inter-semiotic complementarity" in terms of three sense relations—*inter-semiotic synonymy, inter-semiotic antonymy, linguistic repetition*; brief definitions of three sense relations with examples of the present research data are presented in a later section. Notably, despite not situated in bilingual contexts, ground-breaking work by Ryan (2012) and Ryan and Barton (2014) on an integrated model of reflection, which draws insights of reflection, multimodality, and disciplinarily, underlines the use of multimodal resources as triggers to constitute a reconstructive reflection. While textual strategies in different modes were identified in terms of structural and performative elements of a multimodal reflection in the

area of creative industries in higher education (Barton and Ryan 2014), investigations on the relationship between different modes for representing meaning-making as captured by "inter-semiotic complementarity" in L2 students' academic writing remain scant.

A number of empirical studies showed that multimodal composing enables L2 students to engage in the process of semiotic synesthesia of multimodal resources as "affordances" (Kress 2003). These multimodal affordances are contingent upon the design of multimodal composing tasks. L2 students draw upon these affordances to achieve the objective of project-based learning, such as to facilitate communication in English for specific purposes (Hafner 2014), to (re)construct disciplinary identity (Hafner 2015), to create meaning alternatives of their multimodal composition or digital storytelling (Nelson 2006; Yang 2012), and to promote cooperative learning and learner autonomy (Hafner and Miller 2011). Nevertheless, the relevance of multimodal composing to L2 learners' language and literacy development is considered, invoking a recent debate on the role of "language" (Belcher 2017; Manchoń 2017). The value of the training of L2 writing on the use of semiotic resources instead of linguistic ones remains debatable, whether it can empower students with the expansion of repertories for literacy practices or deprive them of developing essential skills for academic learning (Qu 2017). Research on multimodal composing tasks to support L2 students writing academic genres (Dzekoe 2017) has only started to emerge.

8.2.2 Transfer in L2 Writing: Genre Knowledge and Awareness

The value of transfer is widely recognized for academic and professional learning, since learners are able to apply or reshape what has been learned in one situation to another, unfamiliar situation (Perkins and Salomon 1996). "Adaptive transfer" (DePalma and Ringer 2011) has recently been proposed in academic writing to emphasize that transfer is socio-cognitive in nature; it is defined as an individual's application of their prior knowledge to mediate future learning tasks in a new context. While transfer has been included as a key purpose in discipline-specific literacy courses in English for Academic Purposes (EAP) contexts, the area of transfer in academic writing is still under-researched. Prior L2 writing scholarship on transfer has shown the difficulty for L2 learners making learning transfer (Duppenthaler 2004; James 2009), but the transfer of learning academic writing is not clear.

Recent studies of transfer (Green 2015; James 2014) suggest that some evidence of learning transfer in EAP can be found. Task similarity and difference influence transfer in some EAP contexts, and transfer tends to be task-specific (James 2009). These studies have shed new lights on learning transfer in L2 writing, that L2 learners transferred something from some tasks, yet failed to transfer another; however, they

focus more on transfer at the language level such as lexical and grammatical accuracy rather than the genre level. Regarding genre-based pedagogy, previous studies mostly discussed how L2 learners improve linguistic sophistication, appropriateness, and organization after analyzing and practicing rhetorical moves and features (e.g., Flowerdew and Cosltey 2017; Yasuda 2011). The findings indicate L2 writers need to build knowledge of antecedent genres, that one previously learned and draws upon in new writing contexts to practice "cross-genre awareness" (Yayli 2011) and to develop "adaptive transfer" (DePalma and Ringer 2011). In this study, linking multimodal composing with learning transfer is novel. It goes beyond transfer at the language level to include how L2 learners transfer genre knowledge to (re)produce genre features, specifically, how multimodal composing tasks triggered L2 writers to transfer their acquired knowledge of the reflection genre to write reflective papers. Sustaining genre knowledge is crucial to genre acquisition and genre awareness development.

8.3 Methodology

8.3.1 Context and Participants

The research reported in this chapter was conducted in an elective professional writing class (18 weeks, 2 credits, meeting 100 min per week) at a research-oriented private university in Taiwan. The author was the instructor and researcher. This course was designed as a capstone course, linking discipline-related professional training with academic literacy learning. The class met for 100 minutes per week. In addition to the regular class meeting, students needed to participate in a TESOL-oriented professional practicum, service-learning project, or internship program for Week 8 to Week 12 during the semester. There were three individual student-teacher conferences spread over the 18 weeks.

Twelve third- and fourth-year English majors between the ages 20 and 21 were enrolled. Their English proficiency varied, but all had achieved an upper-intermediate level (reaching a TOEIC score of 785). They had learned English writing skills for composing short essays and used relevant multimedia tools, including PowerPoint, Prezi, Photoshop Editor, iMovie, and Movie Maker. Eight of the students also took courses in the center for teacher education and were considered pre-service EFL teachers. At the end of the semester, 10 students signed consent forms to provide their multimodal texts, written reflections, learning journals, and interview responses. Pseudonyms were used and related measurements were taken to protect their anonymity and confidentiality. For the scope of this chapter, four pre-service EFL teachers were chosen as the participants in this case study (Yin 2018): Alice, Esther, Vivian, and Theresa. The main criteria of participant selection were their willingness to participate in this study and capabilities of elaborating details of their reflections in English. The author, as a teacher-as-the researcher, supervised and

assessed the participants' composition and learning of the reflection genre as shown in their multimodal and written texts.

8.3.2 Curriculum

The study lasted for 18 weeks. The instructor adopted genre pedagogy to teach academic writing with an emphasis on multimodal composing tasks as procedural support for genre composition. This pedagogy included a number of activities. First, following the principle of genre-based instruction on explicit instruction, the instructor introduced a particular framework for reflective writing recommended by the institution (see Table 8.1). This framework is adapted from Ryan's (2011) academic reflective writing model, which is grounded in a social semiotic perspective, specifically the integration of Systemic Functional Linguistics (SFL) (Halliday and Hasan 1985) that views language as (re)constructed in the social context and the genre-based approach (Martin 2007) that considers generic structures and linguistic resources deployed to achieve the social purpose of text. The specific framework is used in this curriculum for the instructor to explicate reflective writing as an academic genre in terms of specific generic structures and linguistic resources, and to have discussions with students based on analyses of sample reflection texts published as academic journal articles. Second, given the importance of learner training in

Table 8.1 A Framework of Reflective Writing (adapted from Ryan 2011, p. 105)

Text structure (5 Rs framework)	Linguistic resources
Macro-theme (key idea) **Report and Respond** • **Report**: recount a critical incident/issue. • **Respond**: provide reasons for responding to the particular incident/issue; to preview key themes of this reflection	• Nominalization—turn verbs into nouns to say more with less words, e.g., *the implementation of multiple intelligences model…* • Language of comparison/contrast, e.g., *similarly, unlike, just as, in contrast to, on the contrary* • Causal reasoning and explanation, e.g., *as a result/consequence of, result in, because, due to, therefore, thus, accordingly* • Adjectival groups as attitude markers to appraise and show evidence, e.g., *the well-designed curriculum and the highly-interactive classroom discussion illustrate that…* • Adverbial groups to show reason, e.g., *according to* Kress (2003)… • Temporal links, e.g., *after or prior to the examination of students' feedback…*
Hyper-themes (supporting evidence) **Relate and Reason** • **Relate**: relate the incident/issue to personal or professional practice, and/or other similar experiences. **Reason**: use relevant theory to explain how and why the incident/issue occurred; evaluate it from multiple perspectives	
Reinforce macro-theme (sum-up and plan) • **Reconstruct**: to hypothesize about different possible responses/solutions; reframe future actions and show new understandings generated from this reflection	

the implementation of multimodal and digital literacy tasks, three-week workshops were offered, equipping students with advanced skills in utilizing multimedia tools to create multimodal artifacts. Students also received explicit training on the integration of multimodal resources (particularly linguistic and visual modes) to express ideas and present arguments. Third, in two 100-minute classroom sessions, all students delivered individual oral presentations about their reflections on teaching practicum experiences, followed by peer feedback and class discussions. Each presentation was about 15 minutes, based on the topic of the participant's reflection paper. Students also submitted their transcripts and PowerPoint slides. Fourth, students engaged in two other composing tasks and produced their digital posters and videos about their TESOL-related professional learning experiences. After completing their digital posters and videos, students worked in groups to discuss how they selected different modal resources to compose three multimodal texts in three multimodal composing tasks—PowerPoint slides, digital poster, and video—for fulfilling their communicative purposes. Fifth, students completed their final drafts of reflection papers of about 1,500–2,000 words. Texts generated from multimodal composing tasks and written reflection papers were related to TESOL-related professional learning experiences, but reflection papers focused on detailed reflections and in-depth analyses. Sixth, students attended interviews based on stimulated-recall questions. Each interview lasted approximately 50 minutes. The teacher-as-the researcher guided individual students to elaborate on their choices of integrating different modal resources in multimodal composing tasks and reflected upon what they could transfer from multimodal composing to reflective writing.

8.3.3 Data Collection and Analysis

This case study involved collecting and analyzing multiple data sources to provide an in-depth description of learning transfer generated from multimodal composing to foster the pre-service EFL teachers' learning and writing of the reflection as an academic genre. The data collection included multiple data sources, including four participants' multimodal texts (PowerPoint slides, digital poster, video), drafts of their reflection papers, learning journals, and interview responses. The participants' multimodal texts and monomodal texts of reflective writing constituted main data sources, while learning journals and interview responses provided useful supplementary information about contextual details. The interview was conducted as an in-depth discussion through stimulated-recall questions. Apart from the interviews, which were conducted in Mandarin Chinese, the participant's first language, other data sources were documented in English. Verification of accuracy of transcribed interview data was performed by the researcher and two well-trained research assistants with MA degrees in TESOL.

Data collection and analysis were conducted simultaneously, which allowed the implementation of member checking, discussing, and confirming with the participants about the interpretation of the analyzed data to avoid confusion (Yin 2018). To

answer the first research question regarding the connection between linguistic and visual modes to represent ideational meanings in EFL writers' multimodal composing that may impact their composition of monomodal texts of reflective writing, an inter-semiotic analysis was conducted. Inter-semiotic analysis centers on the notion of "inter-semiotic complementarity," which emphasizes different semiotic modes "to produce a coherent multimodal text" (Royce 2002, p. 193). Thus, inter-semiotic analysis has been undertaken at two levels—analyzing each mode separately and then analyzing how these modes are synthesized for making meaning in the production of a multimodal text (Dzekoe 2017; Royce 2002).

The analysis was based on Royce's framework of inter-semiotic complementarity (2002) that explicates multimodal sense relations for the ideational meaning encoded in a multimodal text. More specifically, drawing on inter-semiotic complementarity, I analyzed explicit and implicit clues of complementarity between visual and linguistic modes in the participants' multimodal texts generated from three multimodal composing tasks: PowerPoint slides, digital poster, and video. While Royce's framework (2002) discussed six sense relations of multimodal inter-semiotic ideational meanings, I focused on three sense relations that are relevant to this data analysis (see Appendix for examples). First, *inter-semiotic synonymy* refers to the expression of similar ideational meanings as encoded in linguistic and visual modes. Second, *inter-semiotic antonymy* depicts the presentation of opposing or conflicting ideational meanings as encoded in linguistic and visual modes. Third, *inter-semiotic repetition* explicates the repetition of the same ideational meanings as encoded in linguistic and visual modes. It is noteworthy that in the student's digital video, sound was used simply as the background music to signal the beginning or end of the video. Verbal text in the video refers to the student' oral speech; it is distinguished from sound as a linguistic description of utterances presented either in subtitles or written transcripts.

The participants' interview data served as a useful source to understand their perceptions of connections between multimodal composing and genre-based writing tasks. The research design and the theoretical framework of inter-semiotic analysis were explained to the second rater, a doctoral student in TESOL, who had participated in joint research projects on multimodal discourse analysis with her supervisor, and taught academic writing and technology-enhanced reading courses at the tertiary level. The researcher and the second rater coded 50% of the data from four participants. The inter-coder agreement calculated was 88%.

In response to the second research question on transfer, a social-semiotic-based framework of reflective writing (Ryan 2011) and the notion of adaptive transfer (DePalma and Ringer 2011) were adopted to investigate to what extent four participants transferred related genre knowledge of reflection from what they learned in creating multimodal texts of reflection to composing a monomodal text of reflection paper. Related genre knowledge was scrutinized in terms of crucial linguistic elements and rhetorical features of reflection. The analyses of how semiotic resources were used across multimodal and monomodal texts generated insights into the

contribution of multimodal composing to facilitating L2 learners' genre acquisition. These insights can promote the multimodal-design approach to teaching and learning academic genres.

8.4 Findings and Discussion

8.4.1 Participants' Multimodal Artifacts and Reflection Papers: Inter-semiotic Connections

In this study of multimodal composing tasks in a genre-based writing instruction, the participants' learning of reflective writing was affected to a certain extent by the interdependence of different modal resources for making inter-semiotic meaning (Dzekoe 2017; Royce 2002). The analysis of inter-semiotic complementarity of each participant's three multimodal texts of reflection (PowerPoint slides, digital poster, video) in relation to their written texts of reflection shows that in general the participants tended to maintain relatively similar ideas and organization structure between multimodal and written texts of reflection (Table 8.2).

As shown in Table 8.2, different modal resources used in and across multimodal composing and genre-based writing tasks established inter-semiotic connections in three significant ways. Based on the analysis of inter-semiotic complementarity in three multimodal texts, 30 of the 67 items of inter-semiotic complementarity constitute *inter-semiotic synonymy*, similar ideational meanings encoded in visual and linguistic modes. Only five items reveal *inter-semiotic antonymy,* oppositional ideational meanings encoded in visual and linguistic modes. In addition, 32 items are of *linguistic repetition* relation, same ideas encoded in visual and written modes by the use of the same words and phrases. Apart from the 67 items of inter-semiotic complementarity, five images in this research data were noted, yet showed no connection with linguistic texts and thus failed to constitute inter-semiotic complementarity.

Since each participant drew on the same general topic of reflection in three multimodal composing tasks and a genre-based writing task, the inter-semiotic analysis revealed inter-semiotic relations across visual and linguistic modes in multimodal

Table 8.2 Inter-Semiotic Complementarity Analysis of the Participants' Multimodal and Written Texts of Reflection

Participant					
Sense relation	Alice	Esther	Vivian	Theresa	Total number: each sense relation (4 participants)
Inter-semiotic synonymy	8	9	9	4	30
Inter-semiotic antonymy	2	1	2	0	5
Linguistic repetition	11	9	7	5	32

texts. The dominant one is *linguistic repetition* and the least frequent one is *inter-semiotic antonymy*. In light of the inter-semiotic analysis, I examined each participant's monomodal text of reflective writing to explore whether three inter-semiotic relations—*inter-semiotic synonymy, antonymy, linguistic repetition*—between visual and linguistic modes in multimodal texts contribute to similar or different linguistic descriptions in the participants' written reflections. The differences between mode changes across multimodal texts and monomodal text of reflection are further discussed in the section on transfer of learning for the participants' acquisition of the reflection genre.

The analysis illustrates that 58 of 62 items of *inter-semiotic synonymy* (N = 30) and *linguistic repetition* (N = 32) between visual and linguistic modes in multimodal texts are recontextualized to indicate similar ideational meanings conveyed through linguistic descriptions in alphabetic monomodal reflective writing, while four items do not appear in the participants' written reflections. For example, Alice used two visuals in her PowerPoint Slides to depict multimodal pedagogy adopted in her teaching practicum sessions. She later explicated multimodal pedagogy as interconnected with the multiliteracies framework concerning four guiding principles—situated practice, overt instruction, critical framing, and transformed practice—in the written text of a digital poster. The evaluation of how multimodal pedagogy affects young pupils' English language learning was briefly presented in her video through visual diagrams and linguistic descriptions. That evaluation was elaborated in greater detail in her written reflection.

Likewise, similar ideational meanings between visual and linguistic modes are evident in Esther's three multimodal texts regarding cultural factors in EFL instruction. In Esther's digital poster and video, there are visuals (one visual for a poster and two visuals for a video, see the Appendix for visuals) to indicate individualism and collectivism as two major social norms, along with linguistic description of how the two social norms in education systems based in different societies impact EFL students' learning styles to some extent. Similar ideas were discussed in-depth in Esther's written reflection by referring to excerpts from five students she taught in teaching practicum and service-learning projects. Intriguingly, Vivian used several metaphorical images to represent the ways in which her English teaching practices are shaped by a wide range of interactions and interpretations, and ideational meanings conveyed through these images often are aligned with linguistic descriptions. Two clues of *inter-semiotic antonymy* (5/67) are found in Vivian's multimodal texts. These two instances consist of the picture of a teacher as a candle in the darkness in Vivian's PowerPoint Slides with an explanation in her oral presentation regarding the lack of appreciation of her dedicated teaching from a specific group of students she encountered, as well as one visual collage in her poster to indicate her identity as a "super passionate" teacher to inspire passive learners interacting actively in class yet encountering many failures. These contrasting ideational meanings conveyed through two visuals and related linguistic descriptions are documented in Vivian's written reflection through the language of comparison/contrast and causal reasoning and explanation.

This finding, based on inter-semiotic complementarity of visual and linguistic modes in multimodal texts in relation to the creation of monomodal texts, affirms the results of previous research: the use of multimodal resources can enhance ESL/EFL students' development of meaning-making to varying degrees (Hafner 2015). It is then assumed that multimodal composing tasks allowed the four participants to have broader multimodal experiences expressing their ideas in written reflections. In what follows, the discussion moves to how inter-semiotic complementarity could make opportunities available for learning transfer.

8.4.2 Participants' Acquisition of the Reflection Genre: Learning Transfer

The impact of multimodal composing tasks on the participants' learning of reflective writing was scrutinized by two inter-related analyses. First, the results of inter-semiotic complementarity serve as the basis of exploring whether similar or different ideational meanings through inter-semiotic relations in multimodal texts are recontextualized in the participants' written texts of reflection paper. The items of inter-semiotic complementarity recontextualized in written reflections as illustrated above were then examined with respect to the features of the reflection genre: text structure and linguistic resources (Ryan 2011). Specific features of the reflection genre were identified as they appear in parts of inter-semiotic complementarity in multimodal texts and in written texts. Second, these genre features were analyzed in light of interview data about the participants' perceptions of multimodal composing. Combining the analysis of genre features with students' accounts provided insights for making inferences about learning transfer. The participants may adaptively transfer the knowledge of the reflection genre learned in composing multimodal texts to writing alphabetic monomodal texts of reflection as an academic genre. More specifically, the participants, being pre-service teachers, need to acquire genre knowledge for academic literacy learning (Hedcock and Lee 2017) and pedagogic knowledge for being TESOL professionals (Yi and Angay-Crowder 2016). Due to the scope of this chapter, it focuses mainly on genre knowledge. Some data excerpts regarding the analyses of inter-semiotic complementarity and of the reflection genre features are presented in Table 8.3 (see also Appendix).

The analysis of the features of the reflection genre in terms of text structure and linguistic resources reveal that among all items (N = 67) of identified inter-semiotic complementarity in multimodal texts, 58 are related to text structure (5Rs: report, respond, relate, reason, reconstruct) and recontextualized in written texts of reflection, predominantly about the macro-theme: report and respond (N = 38). Some are about the hyper-theme: relate and reason (N = 14), and a few about reinforcement of the macro-theme (N = 6). With regard to linguistic resources specific to the reflection genre, the three most frequently used types are (i) expressions to show causal reasoning and explanation (e.g., *as a result of, the main consequence, thus,*

Table 8.3 Analyses of Inter-Semiotic Complementarity and Features of the Reflection Genre

Features of the reflection genre: text structure	Inter-semiotic complementarity: selected data excerpts		
	Visual and linguistic modes in multimodal texts	Inter-semiotic sense relation	Written text of the reflection paper
Macro-theme: **report and respond**	[From Alice's PowerPoint slides] (a) *linguistic description*: designing gamification-based activities can be used to stimulate young learners' motivation and creativity (b) *visual*: see Appendix -visual 2	***linguistic synonymy***: gamification-based activities can motivate students	[From Alice's reflection paper] gamification is a process for integrating game mechanics into something that has been utilized to motivate participation, engagement, and creativity. The evidence of this was from my teaching a practicum in fall 2017: highly motivated and responsive students
Hyper-theme: **relate and reason**	[From Vivian's digital poster] (a) *linguistic description*: FJU students as mediators, like a bridge, in a cross-cultural communication-based service-learning project (b) *visual*: see Appendix 2-visual 4	***linguistic repetition***: mediator ***linguistic synonymy***: culturally hybrids	[From Vivian's reflection paper] Just by interacting with others from a different background, our own disposition and values are reconstructed, in effect we are all culturally hybrids as experienced in this service-learning project. We gradually learn how to be mediators between two parties, Taiwanese primary school students and American students

accordingly), (ii) adjectival groups to show and appraise related evidence (e.g., *the interactive class dynamics, the highly motivated and responsive students*), and (iii) phrases of comparison and contrast (e.g., *unlike, on the contrary, in contrast to, similarly*).

Furthermore, the analysis of the participants' learning journals and interview data point to one of the strengths of approaching writing as the integration of multimodal resources to communicate with audiences effectively. However, their perceptions of knowledge transfer from multimodal composing to writing academic genres were varied. Alice and Vivian considered whether multimodal composing tasks allowed them to explore ideas, words, phrases, syntactic structures, and refine ways of organizing their reflection papers. Alice indicated in an interview that "the use of images along with short descriptions in multimodal composing tasks helped to get more inspirations for constructing arguments in [their] reflection papers." Vivian reported that her learning to write the reflection genre was a "dynamic" process; in her learning journal, she wrote

> I learned to be creative and critical. I adopted creative ways to present arguments more appealing to the audience, those interested in my teaching practicums and service-learning projects. I develop critical thinking skills, critically evaluating how to help young pupils develop intercultural awareness and communicative competence.

Juxtaposing Alice's and Vivian's texts with their learning journals and interview responses demonstrates that Alice and Vivian appeared conscious of transferring knowledge from multimodal composing tasks to writing their reflection papers. However, Esther showed hesitation when commenting on the connection between multimodal composing and monomodally writing a reflection. Esther's responses align with inter-semiotic complementarity in her multimodal and written texts, most instances about the repetition of ideas and scarce ones about inter-semiotic synonymy. Esther found it difficult to transfer her understanding of organizing ideas by weaving visuals with linguistic texts to write a reflection paper. She stated:

> Although I am not a visual person, I find the integration of semiotic resources for composing texts powerful. I become more familiar with the organization pattern, 5Rs to organize arguments and ideas better in my reflection paper. Yet I still find it difficult to transfer those to reflective writing. After all, I can only rely upon the written language.

While Esther hinted that "mode" might affect her acquisition of the reflection genre, Theresa was most skeptical about the value of multimodal composing for genre writing, having noted relatively few instances of inter-semiotic complementarity in her multimodal and written texts. Theresa suggested that multimodal composing stimulates her creative thinking in presenting arguments to appeal to the audience. However, she raised a concern about the practical value of multimodal composing tasks. In her learning journal, Theresa wrote, "Multimodal teaching is a trendy approach, but shouldn't we put the focus of academic writing on written language itself?" She further elaborated her ideas in the interview:

> The lectures on the grammar of visuals expanded my perspective of constructing arguments through images, yet the linguistic descriptions in my digital poster and video are rather short.

> Multimodal composing allows me to make creative work, but does not assist me in learning or practicing formal writing skills. These skills are more essential for me to compose academic genres accurately and appropriately. Also, I want to write a "critical" reflection.

Another issue worth mentioning is appropriating resources pertinent to L2 learners' disciplinary enculturation (Hafner 2015, 2017). Crucial to disciplinary enculturation is learning the norms of the target community concerning ways of thinking, doing, meaning, and being in the world (Prior and Bilbro 2012). These forms are (re)constructed by the operation of pedagogic devices through pedagogic discourse (Bernstein 1996). As Bernstein (1996) argues, the pedagogic device as the ensemble of principles or procedures regulates through pedagogic discourse the transformation of knowledge into pedagogic communication. Pedagogic discourse is classified into two kinds. Vertical discourse is regarded as a top-down discourse in which knowledge is defined by official domains, such as the state and the institution. In contrast, horizontal discourse absorbs knowledge from everyday life in local contexts, such as family or peers, and might be affected by pedagogic devices and their power structures. Pedagogic discourse is constructed by "a recontextualising principle which selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order" (Bernstein 1996, p. 147). As shown above, within the framework of genre-based instruction, four participants in this study tactically chose semiotic resources to take account of linguistic, rhetorical, and contextual elements for composing the reflection genre. Vertical discourse and horizontal discourse underpinned the participants' processes of selecting, recontextualizing, and appropriating visual and linguistic modes for making ideational meanings. Institutional expectations inherent in vertical discourse were endorsed, evident in the transfer of genre features from multimodal texts to written texts of reflection, as discussed in the following.

The analysis of multimodal and monomodal texts of reflection shows that Alice, Vivian, and Esther employed 5Rs-text structure of reflection, foregrounded attitudinal lexis and used expressions for causal analysis or comparison to present their authorial position as novice TESOL professionals. They (re)produced genre features to satisfy the community's requirements and legitimized their arguments with plausible supporting details. Alice's comment captured these three participants' learning transfer of genre knowledge.

> My classmates and I have discussed our "reflection" on learning of reflective writing. We think we became more creative in presenting arguments with examples from our practicums or internships, more critical of how and what we teach, and more aware of what is required in a reflection paper.

To Theresa, what is valued most in the acquisition of the reflection genre for disciplinary enculturation is "criticality." Theresa explained that "how criticality is framed in the particular way and accepted by the disciplinary community is fundamental to determine the writer's reflection being critical and evaluative in the eyes of community gatekeepers." Theresa's remark illustrated the notion of criticality defined by Banegas and de Castro (2016, p. 455): a social practice of critical thinking,

identifying and questioning assumptions by evaluating and analyzing evidence logically. However, Theresa pointed out that because of insufficient in-depth critical discussions about disciplinary learning, genre-based instruction with multimodal composing tasks was not conducive to fostering the participants' competence in adopting or altering the community's conventions to articulate alternative viewpoints critically. Theresa ended with her interview with a provocative question: "Multimodal composing tasks expanded our linguistic repertories, having more affordances to write the reflection genre appropriately, but how can criticality be transferred from one context to another across multimodal and monomodal texts of reflection?" What Theresa meant by transfer not only includes evidence of direct transfer, but more importantly the transfer of criticality, critical thinking associated with epistemology in the particular discipline, TESOL. Overall, the four participants' responses pointed out the need to further strengthen the integration of multimodal composing tasks into the genre-based instruction, particularly appropriateness and criticality of target community norms of reflective writing. Relevant implications are elaborated on in the next section.

8.5 Conclusion and Implications

This case study aimed to explore the transfer of genre knowledge through multimodal composing in developing pre-service EFL teachers' ability to write in the reflection genre. Genre-based instruction for reflective writing with multimodal composing tasks as procedural support was implemented. The participants' capacity to make meaning through multimodal composing was tracked through inter-semiotic complementarity in their multimodal and written monomodal reflections. Additionally, a framework of reflective writing as an academic genre and the notion of "transfer" was applied to examine the extent to which inter-semiotic complementarity contributes to the learning transfer of genre features.

The findings affirm the potential of multimodal composing for the participants' development of target genre knowledge (Dzekoe 2017; Hafner 2015). Multimodal composing tasks may facilitate the participants' awareness of linguistic and rhetorical aspects in writing the reflection genre. The learning transfer of specific linguistic expressions and generic structure with macro-themes and hyper-themes in the reflection appeared to take place. Despite some variations among four participants, they seemed to adaptively transfer genre features or reveal their genre awareness, similar to two prior studies (Cheng 2007; Shrestha 2017). This indicates that multimodal composing tasks carried out in this research enabled the participants to pay more attention to "language" rather than "context" in genre composition. However, "criticality" inherent in the reflection genre for disciplinary enculturation was not made visible. As contextual underpinnings cannot be separated from the use of multimodal resources for meaning-making, it suggests that multimodal composing tasks emphasize both "language" and "social context" for genre acquisition. At a broader level, genre-based writing instruction grounded on a multimodal composing perspective

requires a pedagogical shift from *learning to write* to *writing to learn* (Manchón 2011), because the aim of having students express language that has been already acquired through writing is not sufficient for what is required to acquire academic genres for enculturation. Instead, instruction needs to encourage students to take on the role of writer as designer, drawing upon and orchestrating different modal resources to compose genre texts for disciplinary learning. To achieve this purpose, the curriculum that intertwines genre-based writing instruction with multimodal composing as procedural support through different phases of genre acquisition needs to be carefully planned and implemented. Explicit scaffoldings are essential for L2 students to explore multimodal resources made available in multimodal composing tasks or in other pedagogic or non-pedagogic settings. Also, students need to understand contextual factors that determine the appropriateness of resources and discourses in the reception and production of genres. Such an understanding will allow L2 writers to better acquire target genres through multimodal composing.

This chapter contributes to the growing body of research on multimodal literacy and L2 students' academic enculturation, particularly for pre-service and in-service teachers (Yi and Angay-Crowder 2016). However, the linkage between multimodal composing and genre acquisition is not the only area worthy of scholarly attention. In terms of studies on learning transfer in academic literacy, multimodal composing has not examined much in genre-based writing instruction that privileges written language (Dzekoe 2017). Future studies on learning transfer may examine the influence of multimodal composing by taking account of both textual and contextual dimensions of genre composition, particularly the interplay among contextual features such as purposes and audience. Transferring pedagogic knowledge is also important as L2 pre-service teachers compose genres across contexts for disciplinary enculturation (Hedgcock and Lee 2017), yet it is beyond the scope of this study and requires further investigations.

As this case study is limited to four participants, a larger study may be built on this one to further evaluate the contribution of multimodal composing tasks for facilitating L2 students' acquisition of target genres through learning transfer. With regard to writing reflections for academic and professional learning, future studies should investigate L2 learners' production of multimodal texts, with a thick description of learning transfer of genre knowledge in various disciplinary contexts of L2 writing.

Appendix

Inter-Semiotic Complementarity: Three Sense Relations

Sense relation: Definition	Example	Visual
Inter-semiotic synonymy: The expression of similar ideational meanings as encoded in linguistic and visual modes	Example 1: a visual in one participant's (Esther) digital video is about two social contrasting social norms, collectivism and individualism. Words and phrases in the subtitle and written transcript of the digital video are used to explicate how two social norms are shaped and shown in different societies or cultures	[Visual 1] 
	Example 2: a visual in one participant's (Alice) PowerPoint Slides about to be creative by playing games. Words and phrases in the written transcript are used to discuss the impact of implementing gamification-based activities to stimulate young learners' motivation and creativity	[Visual 2] 

(continued)

(continued)

Sense relation: Definition	Example	Visual
Inter-semiotic antonymy: The presentation of opposing or conflicting ideational meanings as encoded in linguistic and visual modes	Example 3: A visual shows a group of active learners in a classroom in one participant's (Alice) digital poster, which is meant to show a contrast between discussion learning styles in the written text	[Visual 3] 
Inter-semiotic repetition: The repetition of the same ideational meanings as encoded in linguistic and visual modes	Example 4: Visuals in one participant's (Vivian) digital poster indicate FJU students (non-native English speaking pre-service teachers) as mediators, like a bridge, in a cross-cultural communication-based service-learning project. The same phrases are repeated in the linguistic description in the poster	[Visual 4] 

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Part IV
Pedagogical Issues Concerning Employing Multimodal Composition Pedagogy

Chapter 9
Designing a Better Place: Multimodal Multilingual Composition

Nicole King

Abstract This case study, situated within an ethnographic study of second- and third-grade students at a French–English dual language immersion school in the USA, seeks to shed light on how a multilingual second-grade teacher, M. Brahim, and his students navigated the multimodal composition process during an end of the year project on "How to Make the World a Better Place." This study provides an ethnographic look at the design process of the students' projects using a variety of mediums (e.g., PowerPoint, YouTube, trifold boards). In this chapter, I will discuss the pedagogical process of M. Brahim, the multimodal multilingual composition process of the students, and the importance of the display of the designed products.

Keywords Multimodal composing · Multilingual · Dual language education · Early childhood education

9.1 Introduction

Students utilize multiple modes of communication throughout their daily lives, with their peers and families, and in their classrooms. Research has clearly established the benefits of multilingual multimodal classroom practices, including benefits to academic language and literacy, increased content knowledge and critical awareness, negotiating social identities, and clarifying expression (Ajayi 2008; Danzak 2011; Early and Marshall 2008; Skinner and Hagood 2008; Yi and Choi 2015). Now, studies highlighting multimodal composition and design processes are occurring more frequently in both L1 (Smith and Dalton 2016) and multilingual spaces (Cimasko and Shin 2017; Hafner 2014, 2015; Smith et al. 2017). However, there remains a lack of robust scholarship exploring the process of composition across languages, modes, and mediums (Canagarajah 2011; Smith et al. 2017), particularly

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on the emergent role of the audience in this process. This case study presents an ethnographic description of the pedagogical strategies, multimodal multilingual composition practices, and the role of the audience that mediated multilingual students' design process during an end-of-the-year project in a second-grade French immersion classroom in the US Midwest, consisting of culturally and linguistically diverse students.

For this project, students employed a variety of mediums to plan, design, and present the world as a better place. Students utilized paper with text, image, and color in order to plan scripts, trifold designs, and PowerPoints. While students were allowed choice in their preferred medium, assemblage of mediums (Toohey and Dagenais 2015), or multimodal ensembles (Jewitt 2006; Jewitt and Kress 2003) of products, pedagogical supports were provided both during the project and throughout the school year to scaffold the students in their designs. In doing so, he "position[ed] […] the work of the text maker […] as transformative of the resources and of the maker of the text" (Kress 2000, p. 400). This design process allowed students to engage in agentive authorial decisions throughout both the multimodal design process and product (e.g., Cimasko, and Shin 2017). In addition, students knew that their works would be part of a "Gallery Walk" for the entire school to view. The introduction of an identified audience further impacted the multilingual students' multimodal design process and products (e.g., Smythe et al. 2014; Thumlert et al. 2014; Toohey and Dagenais 2015). Taken together, this project, M. Brahim's pedagogical strategies, the variety of products designed, and the role of the audience throughout the design process, sheds light on multilingual multimodal composition at the early elementary level.

Specifically, this case study was guided by the following questions:

1. What pedagogical strategies supported multilingual multimodal composition for second-grade students in a bilingual classroom?
2. What choices did the multilingual students make in the design process and product?
3. How did the role of audience mediate mode and medium choices by the multilingual students?

To investigate these questions, I employed the lenses of genre-based pedagogy (Martin 2009), systemic functional linguistics (Eggins 2004; Halliday 1994), and social semiotic theories of multimodality (e.g., Bezemer and Kress 2008; Kress and van Leeuwen 2001).

9.2 Theoretical Lenses

9.2.1 Genre-Based Pedagogy and Systemic Functional Linguistics

This case study is informed by systemic functional linguistics (SFL) (Eggins 2004; Halliday 1994) and genre-based pedagogy (Martin 2009). SFL presents a social semiotic view of meaning-making contextualized by audience and purpose. This framework consists of three metafunctions that convey the emergent, multiple meanings of language in context. The ideational metafunction pertains to the ideas (e.g., who, what, where, when) that are conveyed in texts and realized by the register variable of field. It is at the level of register that the metafunctions, or multiple meanings, become realized within a context of the situation; register variables shape the staged, functional genres of communication. The interpersonal metafunction communicates the relationships, power dynamics, level of formality, and frequency of contact between communication partners, or interlocutors, and it manifests through the register variable of tenor. Finally, the textual metafunction imparts the cohesion and coherence of co-constructed texts through the register variable of mode.

Given the depth and breadth possible with an SFL analysis, I will draw on the concepts of processes and textual design to focus discussion on the role of agency by the students and the connection to the audience. There are six processes, or verb types, within this framework: material (actions), behavioral (bodily actions), mental (thoughts), verbal (statements), relational (connections between nouns or participants), and existential (statements of existence (Derewianka and Jones 2016; Eggins 2004; Halliday 1994). When looking at the field, a transitivity analysis will highlight the agency interlocutors design into their texts (New London Group 1996); specifically, a transitivity analysis looks at how interlocutors ascribe meaning in communication and determines the role an interlocutor chooses to take up (Eggins 2004). Texts can be examined based on their cohesion and coherence. Cohesion examines the degree of consistency in the elements of the text and the ways they reference to each other; coherence investigates the degree to which a text communicates meaning within a particular context of the situation.

Genre-based pedagogy informed by SFL is a method of functional literacy instruction, with a focus on the function and purpose of texts (Derewianka and Jones 2016; Martin 2009). It utilizes a teaching and learning cycle that consists of four processes: (1) building the field, (2) deconstructing a text, (3) co-constructing a text, and (4) individual construction of a text. Teachers are able to demystify the stages of a classroom text and provide students with the necessary vocabulary, structure, and purpose to utilize and construct assignments.

9.2.2 Social Semiotic Theories of Multimodality

Systemic functional grammar shares similar theoretical foundations to both genre-based pedagogy and social semiotic theories of multimodality and multimodal texts. Across these three related theories of meaning-making and design, the focus is given to the role of choice as interlocutors ascribe meaning in context together. Bezemer and Kress (2008) frame their social semiotic lens of multimodality with the question, "What exactly is the relation between the semiotic designs of multimodal learning resources and their potentials for learning?" (p. 168). The connection between sense-making and considerations of learning transforms this question and perspective into both pedagogy and an epistemological stance. Within this stance, they draw upon the concepts of mode and medium, among others. Modes are resources with the potential for meaning-making within a given culture, which have been developed over time through social exchanges (Bezemer and Kress 2008). The New London Group (1996) originally identified the visual, spatial, gestural, auditory, linguistic, and multimodal as grammars for communication. Color was later identified as having functional grammar (Kress and van Leeuwen 2002), and "image, writing, layout, speech, moving image" (Bezemer and Kress 2008, p. 171) have also been identified as modes. Medium is the material (e.g., paper, video, slides) through which a design is realized and meaning becomes communicated (Bezemer and Kress 2008; Kress 2010; Kress and van Leeuwen 2001). However, the meaning is not stagnant.

"Resemiotization is about how meaning making shifts from context to context, from practice to practice, or from one stage of a practice to the next" (Iedema 2003, p. 41). In classroom spaces, resemiotization might look at how meaning changes across genres or across different audiences. A related concept is remixing, which relates to the pedagogical practices of modifying the existing materials or mediums to design something new (Hafner 2015). Hafner identified four components of remixing related to pedagogy: "chunking" (combining materials to make new meanings), "layering" (adding modes to products), "blending genres" (combining materials from multiple genres), and "intercultural blending" (combining aspects of local text with text from a larger context) (p. 504).

Finally, I draw upon the concepts of production pedagogy with multimodal texts (e.g., Smythe et al. 2014; Thumlert et al. 2014). Within this perspective, students engaged in the multimodal design are framed as knowledgeable designers, with agency of their decisions. Further, pedagogy related to production directly relates to the role of an audience, functionality, and authenticity of text.

Through these lenses, I will shed light on the pedagogical practices, multimodal composition processes, and the role of audience during a month-long project on Designing the World as a Better Place.

9.3 Methodology

9.3.1 Research Context

The research context for this study was a second-grade classroom in a public, dual language French immersion school, École des Arbres, in the Midwestern USA. This school received Title 1 funding indicating that at least 40% of the students received free and reduced lunch. This school is a culturally and linguistically diverse context with teachers and students representing 23 different countries. This setting included 21 students who were learning French through content-based, dual language instruction; 13 of these students provided consent and assent to participate in this particular study. The following guidelines defined the language of instruction school-wide: 100% instruction in French in kindergarten, 90% in first grade, 80% in second grade, and followed this gradual model until 50% of instruction was given in French in fifth and sixth grades. The classroom teacher, M. Brahim,[1] was from Tunisia and was multilingual in French, Arabic, and English, as were a few of the students. Rhumba, who was originally from Sierra Leone, spoke French at home. Corey, who was originally from Jordan, had lived in Canada, and spoke French, Arabic, and Japanese. In addition to being multilingual, the class was also ethnically diverse, and the students represented a wide range of socio-economic statuses and cultural backgrounds. Participant information for the students and teacher are displayed in the Appendix.

I obtained access to this research site through a research and curriculum partnership between the school and a local university. Over time, my positioning as participant-observer evolved into a classroom assistant, as I became more familiar with the teacher, students, and the routines and language practices within the classroom. Students talked to me as an adult who could answer questions about assignments, pass out materials, contribute to classroom discussions, and serve as a chaperone on field trips, and was interested in their daily lived experiences. They were comfortable answering questions and allowing me to take pictures of their work process and product. My role as a classroom assistant continued after data collection for this particular study. I maintained a productive and reciprocal relationship with the multilingual teachers and students at École des Arbres for two years as this ethnographic study continued.

9.3.2 Data Collection and Analysis

Data sources included photographs, field notes, participant observation, artifact collection, student journal entries, and interviews. Data collection for this particular

[1] All names and places are pseudonyms. Indications of personhood follow French stylizations. M. is monsieur.

study occurred during the month of May 2017. However, I was a participant-observer in this classroom prior to data collection for this study, thus my analysis and understanding of the context were influenced by a broader research study. During this time, I engaged in participant observation and classroom assistance twice weekly, while the class was engaged in morning journaling, "ethical conversations" (Brahim 2017), and literacy instruction. Topics of these conversations included walking away from physical altercations, access to healthy lunches, and animal testing (e.g., for medical reasons); they were often related to events in the students' lived experiences. These conversations provided an opportunity for M. Brahim and the students both to engage in conversational French using language and content related to the current or previous units and to build rapport with students on topics meaningful to them. Literacy instruction was guided by genre-based pedagogy (Martin 2009) and informed by systemic functional linguistics, particularly the importance of building the field in language learning (Eggins 2004). While the genres of instruction had previously aligned very closely to genres identified by Martin (2009) and Derewianka and Jones (2016), including fictional narratives, personal narratives, scientific reports, and timelines, among others, the genre for the month of May allowed the students greater choice in design, process, and product. M. Brahim did not introduce the genre through the teaching and learning cycle (Martin 2009) that he had used for the entirety of the spring semester of literacy instruction; instead, he asked the students to think about how they could make the world a better place and how they could design a project appropriate to their audience to convey this message.

Marie's journal entry was indicative of my data collection process as a classroom ethnographer (e.g., Blommaert and Jie 2010; Heath and Street 2008). Throughout the "Designing the World as a Better Place" project, I took photographs of the students' design process, completed projects, and journal entries related to the projects; interviewed the students; interviewed the teacher; and took field notes. A variety of data sources were selected to triangulate the findings related to multimodal multilingual design and composition, similar to the work of Ntelioglou and colleagues (Ntelioglou et al. 2014). Taking photographs of the students' design process, talking to them as they completed their projects and talking to them about how they would talk about their projects during the Gallery Walk were of the ethnographic stance I took toward data collection. These artifacts and conversations shed light on the design choices meaningful in the context and students' thoughts toward the role of audience.

Throughout the process of data collection, I engaged in iterative and recursive data analysis. I open-coded (Strauss and Corbin 1998) the photographs, interviews, and field notes for modes of communication (e.g., visual, text, spatial), mediums of communication (e.g., paper, presentation software, videos, posters), languages (e.g., French, English, translanguaging), connection across modes of communication, and composition process. In coding the composition process, I noted the use of planning strategies (e.g., writing a script for a video, outlining) and medium of planning strategies. During the analysis of the finished products, I also began to code for multiple mediums or resemiotization (Bezemer and Kress 2008) of mediums, as the finished products reflected additional phases of composition (e.g., trifold boards with

drawings, writing, glued commercial and student-made texts). The use of commercially produced texts combined with student drawings and text could also be considered remixing (Hafner 2015; Knobel and Lankshear 2008). The additional phases of the analysis indicated the complexity of the messaging across the multimodal multilingual design process and products.

9.4 Findings

This study sought to shed light on the actions and choices of the teacher and his students, as they engaged in multilingual multimodal composition. Specifically, the findings report on the pedagogical strategies that scaffolded and supported the second-grade students throughout the composition process, the choices students made in their design processes, and how the role of audience mediated mode and medium choices by the students. This section is organized to discuss (1) the pedagogical processes utilized by M. Brahim to scaffold the students' multimodal multilingual composition process and (2) the students' multimodal multilingual composition process through the lenses of SFL and social semiotic theories of multimodality. The role of audience in the students' design process and overall products traverses the first two research questions and will be expanded upon in the Discussion section.

9.4.1 Pedagogical Process

Throughout the school year, M. Brahim utilized the teaching and learning cycle of (1) building the field, (2) deconstructing a text, (3) co-constructing a new text, and (4) student construction of new texts in order to teach genres of literacy (Martin 2009). He applied this process to fictional narratives, letters, scientific reports, and timelines, among others. The stages of a letter are clearly identified on the left side of the chart paper (e.g., date, greeting, body of the letter, closing, author). In addition, the beginning of each sentence is color-coded in red marker, and components of the body of the letter are numbered to indicate the expectation of the body of the letter is to include multiple sentences. This process of co-construction occurred after M. Brahim built the field for necessary vocabulary and language forms (e.g., first-person conjugation of the verb to have) and after M. Brahim and his students deconstructed sample letters. The teaching and learning cycle guides students through the expectation that composition is a multi-step process. Thus, the students were well versed in the importance of the composition process and the affordances of multimodality. The image in Fig. 9.1 conveys information through multiple elements of design, including spatial positioning, color, and text. Over time, the multilingual second-grade students had been socialized into multimodal composition processes throughout the nine months of literacy instruction during the school year, as M. Brahim discussed in his interview.

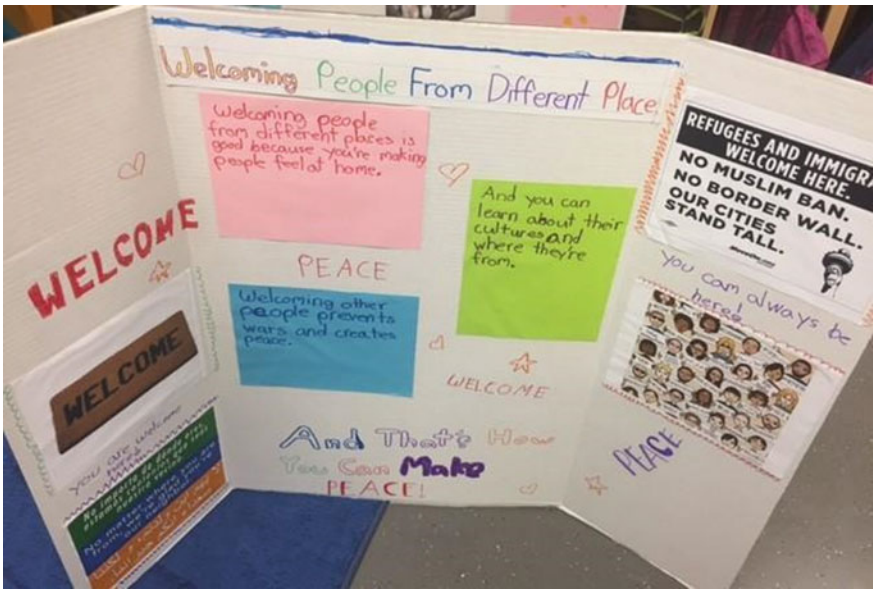

Fig. 9.1 Kelly's completed proposal

For the project Designing the World as a Better Place, M. Brahim provided students with the materials to construct their own proposal (M. Brahim, interview, May 5, 2017). The genre of proposals consisted of an introduction explaining a problem or concern the students noticed within their context of culture and then reasons why their proposal would solve this issue. Students had access to Chromebooks, paper, trifolds, and video cameras for them to select the mediums of their projects and their planning processes. Inherent within his original directions was also the role of audience. In this short excerpt of dialogue, M. Brahim and DJ discuss the expectations of the finished projects and presentations that will accompany them.

1. M. Brahim: Tu as fini? [Are you finished?]
2. M. Brahim: Leve les mains, si tu as fini une [Raise your hand, if you have finished a]
3. video. [video.] (to the class)
4. DJ: no
5. M. Brahim looks at DJ.
6. M. Brahim: Leve les mains, si tu as fini. (to the class)[Raise your hand, if you are finished.]
7. DJ: Help me write a script.
8. M. Brahim: Hi, my name is DJ. Let me tell you about one thing to make the world a better place.
9. M. Brahim: Qui d'autre? [What else?]
10. M. Brahim: Write a script from the beginning and rehearse.
11. M. Brahim: If you need a paper it's right here.

12. DJ: Don't chop down trees.
13. M. Brahim: Give reasons why it's not a good thing.

In this short conversation, M. Brahim checked on the progress of DJ's video creation on forest conservation. Once M. Brahim realized that DJ had not completed his video, he modeled how to introduce the video: "Hi, my name is DJ. Let me tell you about one thing to make the world a better place." In SFL-informed genre-based pedagogy, this sentence would serve as the introduction, or the introductory stage, of the genre. The second stage is the list of reasons for this idea; this stage will constitute the majority of the genre. While DJ vocalized his proposal "don't chop down trees," M. Brahim called upon DJ to think of reasons for this action. However, while M. Brahim's comments helped DJ to structure his proposal, he did not voice the reasons for DJ; DJ was responsible for forming the reasons for his proposal using the resources available and his partner.

Another pedagogical process M. Brahim drew upon in conversations to structure students' proposals was using translanguaging (García 2009, 2011) of the flexible use of multiple languages to make meaning. M. Brahim had discussed his use and perception of translanguaging frequently in both informal conversations and formal interviews, while I was a participant-observer in his classroom:

> I use that aspect of SFL which you know is bilingualism/translanguaging to allow for that continuous communication that's happening and therefore there's learning for everyone. Not just for those who have mastered the French language, but for others. (M. Bramli, Interview, May 2, 2017)

M. Brahim focused communication on meaning-making connected to content and language standards in French, English, and, at times, in Arabic with Corey (a student originally from Jordan). To this end, the students wrote, presented, or recorded their scripts in both English and French depending on their meaning-making choices. Further, in this project, students extended their communicative meaning-making repertoires by presenting their proposals in multimodal formats. The connection between translanguaging and multimodal repertoires is well researched in multilingual classroom research (Kirsch 2018; Li and Ho 2018; Martínez-Álvarez and Ghiso 2017; Melo-Pfeifer 2015; Pacheco and Smith 2015) and affirms M. Brahim's intent on meaning and communication.

M. Brahim's pedagogical practices both throughout the school year and specifically during this project in the month of May scaffolded students with the necessary structural and communicative practices to convey their proposals multimodally and translingually, as evidenced through observation and interview. His decisions empowered the students as agentive learners who designed multimodal texts conveying ways to make the world a better place.

9.4.2 Multimodal Multilingual Composition Process

The multilingual second-grade students navigated across a variety of modes throughout the composition processes in the development of their projects. Many of the projects reflected multiple productive sequences as the students selected and revised mediums of expression, including journal paper, commercially available materials, video modeling, Google slides, Google docs, and text and images drawn directly on trifold boards. Even the script-writing process reflected how the students revised their designs multimodally.

A frequent design choice by the multilingual students was to utilize resemiotized materials in coordination with self-made materials. For instance, Kelly's proposal was on "Welcoming People from Different Places," as seen in Fig. 9.1. In her design process, she wrote messages of welcoming on construction paper using markers, utilized commercially made products, and wrote messages using markers directly on her trifold board. Her overall product more clearly reflected resemiotization of words and pictures within her design, as she used markers directly on the trifold board to write messages and to outline some of the materials on the board for focus and effect.

Throughout her design, Kelly wrote "welcome" and "peace" multiple times on her completed proposal in a variety of colors and utilizing both block and outline letters. Further, she also selected agentive material processes (e.g., welcome) and causative relational processes (e.g., make) to connect directly to her audience and intensify or graduate her message.

Hafner (2015) identified the four components of multimodal remixing literacy practices as "chunking, layering, blending, and intercultural blending" (p. 506). Kelly employed all four practices in the design process and product of her proposal. She chunked and resemiotized self-made and commercially produced elements to express her proposal of welcoming and peace. She layered a variety of written materials (i.e., printed, typed, and in multiple colors) with a variety of visuals (i.e., self-drawn hearts and stars with images of people and the torch from the Statue of Liberty) to present her ideas in various yet cohesive mediums. She mixed genres by utilizing messages of welcome in the printed text and a commercially produced welcome mat to emphasize her proposal of welcoming people. Finally, she designed her work through intercultural blending by selecting multilingual, commercially made welcome yard signs recognizable outside of the school community withdrawn welcome messages typically found on notes passed by students in this class. Kelly remixed and resemiotized throughout her design process to develop a product meaningful beyond her classroom context.

While Kelly remixed commercially available and self-made materials, some students utilized only self-made materials in their design process and product. For example, Lola primarily used the mediums of lined paper and a pencil to write her script for her proposal of keeping the oceans clean. Her preferred process to the draft was to write first in print and then utilize cursive to convey her ideas with purpose and authority. However, her multimodal picture utilized glitter, glue, and paper in its design and a projector with a document camera for its display, as seen in Fig. 9.2.

Fig. 9.2 Lola's multimodal proposal

Lola employed capital letters spatially designed to reflect the movement of water and animals that live in water to visually express her proposal. Her message was strengthened with the inclusion of a baby turtle and a jellyfish that swim in the middle of her message. She further clarified the meaning of her proposal to keep the beaches clean by personifying the turtle and the jellyfish and using the word "me" to refer to the sea animals. Her design using text, image, spatial layout, and gestural intent projected the possibility that the turtle and the jellyfish are the authors of this message. From the perspective of SFL, the turtle and the jellyfish utilized a causative relational process in the command form to convey their message. Lola appropriated her understanding of SFL in order to design a multimodal proposal with clear communicative intent and maintained through the sequences of design, product, and presentation.

While Kelly used the Chromebook minimally to print off images, many students utilized their Chromebooks through the design process. For example, Belinda wrote out a rough draft of her proposal on Donations on lined paper first, then she utilized Google Slides to develop the ideas of her proposal, and finally she employed a remixing of self-made and premade materials to communicate her proposal on Google slides. While Belinda created multiple slides on the reasons why donations would help to make the world a better place, during her design process, she decided to hand-write the slides using construction paper and affixes them to her trifold board. Belinda's color choices are particularly cohesive across the different elements of her design; pink, green, yellow, blue, red, purple, and orange are used to thread her meaning-making. With the exception of pink, they are all primary or secondary colors, and their semiotic salience resonates with the context of the situation, in this case, a second-grade classroom. As "textual cohesion can also be promoted by "colour coordination," rather than by the repetition of a single colour" (Kress

and van Leeuwen 2002, p. 349), it seems possible that Belinda determined that the message of her proposal could be more meaningfully and cohesively designed utilizing construction paper, markers, images within a color scheme, and text and image are drawn directly on the trifold board. The text remained quite similar across the different mediums; however, her focus on making others happy through donations was conveyed more clearly on the trifold.

9.4.3 Role of Audience

The role of audience impacted both the pedagogical decisions and students' medium and mode selections throughout the design process and during the proposal presentations. As discussed previously, Lola carefully considered how her design would be viewed by an audience during the Gallery Walk, which led her to request the use of a document camera to enlarge her work. During the Gallery Walk, the multilingual students and teachers across grade levels came to the second-grade corridor to view the students' completed products. Further, the use of a causative relational process in the command form demonstrated her awareness of audience and the role of language in persuasion and proposing.

Similar examples are present in the student projects employing more of a two-dimensional design (e.g., Google Slides, posters, trifold boards). However, some students selected to design YouTube videos that would be accessible beyond the direct school community participating in the Gallery Walk. For instance, Jared wrote a script and blocked a demonstration video on how to compost. In his video (see Fig. 9.3), he introduced himself, discussed the role of composting, and modeled a multitude of objects (e.g., food, leaves, paper, cardboard) that could be composted. He staged his video from multiple vantage points, including his garden for the introduction, the garage to tear up cardboard, and then by the tumbling composter along the fence line.

Jared's multimodal proposal reflected his composition process decisions in his medium selection and in how the modes present in his proposal video would convey his message to the audience of YouTube. He selected the medium of video, which allowed him to communicate short narratives in his proposal of the different objects that could be composted, and on the resulting compost material that serves as a fertilizer. In terms of mode, he designed meaning visually, spatially, gesturally, with sound, and through cohesive multimodality (New London Group 1996). The context for his video was primarily in a very lush garden; the viewer could see the benefits of composting, as he talked about the process of composting. He blocked the spatial layout such that the composter was almost always visible, as were the garden and an object being composted. The only scene in which he is the focus for the viewer was during his introduction when he described composting and its benefits. Gesturally, he modeled tearing up materials, emptying them into the composter, and spinning the composter. Throughout the video, his narration matched his actions and his setting. The overall message to the viewer was that composting is easy to do and has a

Fig. 9.3 Jared's composting proposal

multitude of benefits. His process and product were guided by the awareness that his proposal would be viewed by his classmates, other teachers and students at `*E*cole des Arbres, and anonymous viewers on YouTube.

9.5 Implications

This case study sought to shed light on the multimodal multilingual design process of second-grade French–English dual language students during a month-long classroom-based project on Designing the World as a Better Place. Students resemiotized (Iedema 2003) and remixed (Hafner 2015) materials in order to design videos, posters, and trifold boards to convey their efforts of composting, welcoming people, protecting beaches, engaging in charity, and making donations, among others. Throughout the process, M. Brahim's use of SFL, genre-based pedagogy, and translanguaging scaffolded the students' awareness of communicative intent and meaning-making. Because the students were familiar with the process of composition and the multi-stage nature of text, and had access to multilingual and multimodal practices, they were able to successfully design, compose, and present their work at the school's Gallery Walk and beyond. Further, their design process illustrated the complex nature of design, resemiotization, and remixing, as the students considered how to use their materials to convey their ideas through text, image, color, and video.

Finally, as with previous research (e.g., Cimasko and Shin 2017; Smythe et al. 2014; Thumlert et al. 2014), the multilingual students' designs were influenced by the role of audience. The students' decisions in both framing and transitivity focused their message on agentive, material processes and causative relational processes in which the audience could engage to make the world a better place.

While additional support may have been helpful in the design of mediums to convey meaning, the mediation of SFL on the students' message was apparent. By planning this project at the end of the year, M. Brahim ensured that his students experienced the maximum amount of SFL appropriation and genre-based pedagogy. These supports allowed the students to convey their messages powerfully and multimodally. This study furthers the role of SFL as a scaffold in multimodal composition and pedagogy.

As schools become more culturally and linguistically diverse, a focus on how multilingual students engage with meaning-making in context is requisite for teacher education, classroom pedagogy, and research. Supporting multilingual students' development of language and content through SFL informed genre-based pedagogy (Gebhard and Harman 2011; Martin 2009) and multilingual multimodal design processes and practices (Smith et al. 2017) represent some of the many ways forward for both research and practice.

Appendix

Participants at French Immersion School: École des Arbres

Name (Pseudonym)	Sex M/F	Grade	Languages spoken
M. Brahim*	M	Teacher	French, Arabic, English
DJ	M	2	English, French
Marie	F	2	English, French
Jared	M	2	English, French
Jordan	M	2	English, French
Corey*	M	2	French, Arabic, English, Japanese
Belinda	F	2	English, French
Lola	F	2	English, French
Rhumba*	M	2	English, French
Tricia	F	2	English, French
Kelly	F	2	English, French
Jenna	F	2	English, French
Tara	F	2	English, French
Kyle	M	2	English, French

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Chapter 10
Development of Literacies Through Multimodal Writing in L2 Classrooms: Challenges and Prospects for Teachers

Sabiha Sultana and K. C. Nat Turner

Abstract Drawing on sociocultural theories of literacy and empirical studies of multimodal media production (MMP), this chapter examines pedagogical issues related to employing multimodal writing pedagogy in L2 classrooms. Using authors' personal reflections as researchers in two different settings, this chapter investigates the impacts of multimodal composing on in-school and out-of-school literacies and potential tensions in implementing multimodal pedagogies in classrooms. Additionally, it proposes guidance teachers can find helpful in multimodal writing in L2 classrooms. This study contributes to educators' and teachers' understanding of pedagogical concerns, which they find helpful to execute multimodal pedagogy in L2 classrooms.

Keywords Second language (L2) · Multimodal media production (MMP) · Multimodal pedagogy · Critical media literacy · Literacy

10.1 Introduction

As the authors of this chapter, we present two case studies of multimodal texts composing in two different settings: a graduate course, which required Sultana (first author) to compose an MMP in her L2 at a large public university in the northeast United States; and an ethnographic doctoral study of Turner (second author) on MMP by urban middle school students in California. Reflecting on our experiences, this chapter delineates the potential to incorporate multimodal texts composing into L2 writing classrooms for the development of students' multiliteracies and the pedagogical challenges encountered by both teachers and students in enacting multimodal pedagogies. Using our personal reflections as teachers, students, and researchers, this

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chapter proposes some guidance teachers can find helpful in teaching and assessing multimodal writing.

10.2 Literature Review

Research shows the positive impact on learners' motivation and learning achievement of producing multimodal texts (Nair et al. 2013) in a second language (L2) classrooms (Black 2005; Thorne et al. 2009) because the process of new types of text production provides students with enormous opportunities to conceptualize, think in a different way, act, and reflect on texts (Cope and Kalantzis 2009a, 2009b; Kress, 2003, 2010; New London Group 1996). Multimodal texts include drawings, comics, picture e-/books, brochures, flyers, newspapers, storyboards, print advertisements, e-/posters, digital presentations, social media posts, multimodal media production (MMP) (Turner 2008), and the like. Multimodal pedagogy requires students to create and reflect on these types of text which develops their multiliteracies (New London Group 1996). It also establishes a pedagogy of hope, especially for English learners (ELs), in which they are free to compose landscapes where a different reality is a possibility and to produce multimedia texts documenting their efforts toward creating such spaces. In addition to language skills, ELs develop their multiliteracies throughout the process of creating multimodal texts (Sultana and Turner 2019).

Literacy and new media scholars have expressed the need to open up empowering avenues for youth to critique, produce, and distribute media (Hull and Shultz 2002; Mahiri 2004; Morrell and Duncan-Andrade 2004). Many after-school programs in the United States include language in their mission statements echoing calls for uses of media and digital technology in ways that will empower youth to express their voice (Campbell et al. 2001; DUSTY, n.d.; Youth Outlook, n.d.; Youth Radio, n.d.; Youth Sounds, n.d.). Sholle and Denski (1993) have identified this process of using media and technology to develop a voice within historically marginalized communities as a central component of critical media literacy.

According to Sultana and Turner (2019), critical media literacy "is the skill to identify, analyze, and produce multimodal texts aimed at addressing social inequality" (p. 4). Likewise, multimodal media production (MMP) has demonstrated its effectiveness as a tool to cultivate critical media literacy. Additionally, creating multimedia texts like MMP potentially helps students to represent social justice issues about communities that are suffering under oppressive conditions of poverty and human rights violations to express their voice, thereby shaming the oppressor into changing their actions.

In line with critical media literacy research, the significance of multimodal composing for ELs' language and literacy development emerges. Students around the world have been producing multimodal texts in schools and out-of-school contexts for nearly three decades now. However, over the past five years, Web 2.0 sites have made it convenient to upload and share user-generated multimodal media content, essentially revolutionizing how people communicate, represent, and organize themselves

(Yang 2007). Scholars studying new literacies have developed a body of research that justifies multimodal composing in L2 classrooms (Ajayi 2008; Belcher 2017; Cimasko and Shin 2017; Sultana and Turner 2019; Yi and Choi 2015; Yi et al. 2019); however, there is a need for more studies to investigate pedagogical issues concerning multimodal composition pedagogy in classrooms.

10.3 Research Questions

The case studies are guided by the following research questions:

- What are the impacts of composing multimodal texts on in-school and out-of-school literacies?
- What are the potential tensions in implementing multimodal pedagogies in classrooms?

10.4 Methodology

10.4.1 Case-1

K. C. Nat Turner conducted an ethnographic examination of a learning site as a part of his doctoral study that incorporates multimodal composing and its implications for the literacy development of urban middle school youth. This yearlong study took place for an academic year in one of Fanon middle school's (FMS) (Pseudonym) extended day programs named digital underground story telling for you(th) (DUSTY) in the San Francisco Bay Area. DUSTY is an MMP course created as a literacy intervention and developed through a university–community partnership founded by Professor Glynda Hull and Michael James which brings together undergraduate and graduate students with instructors from the community to work with academically low-achieving African American, Chicano/Latino, and Asian youth from the community (Hull 2003). The MMP course's mission was to improve literacy learning by giving students access to cutting-edge information and communication technologies (ICT) and "empowering uses of those technologies; and safe places to go for cultural enrichment after school" (DUSTY, n.d., para. 4). The lead instructor at DUSTY's FMS site was a 33-year-old African American, independent hip-hop artist, and had taught since 2002. He was teaching lyric writing and digital storytelling. Another teacher was a 19-year-old, African American, self-proclaimed gangster rapper, and had taught since 2005. He was hired by DUSTY to teach beat making to students. Most students in the DUSTY program were seventh graders who had self-selected the program, but some were recommended by administrative staff. A set of 22 Latino, European, and Asian undergraduates, enrolled in an education course at a nearby university, volunteered as tutors in the DUSTY program throughout the year helping

the middle school students with their homework, college prep program, writing, and multimodal media productions. This study explores the multimodal pedagogy and curriculum used by two teachers and 22 tutors, the literacy practices of seven multilingual focal students from sixth and seventh grades, and the multimodal media they produced using qualitative methods including participant observation, interviews, and the collection and analysis of artifacts (Turner 2008).

10.4.2 Case-2

Sabiha Sultana, the first author of this chapter, conducted a critical examination of a graduate class that incorporates multimodal texts composing to develop the course participants' critical media literacy. This semester-long study took place in a large public university in the northeast during Sultana's Master of Education program as an international student in the United States. The graduate course, titled "Researching New Literacies: Multimodal Media Production (MMP) and Social Justice," required the eight enrolled graduate students to showcase their multiliteracies by creating MMPs on social justice issues related to their lives. Guided by the pedagogy of multiliteracies (New London Group 1996), this study investigates the possibilities for literacy development through these students' production of multimodal texts for research purposes. Among the eight students, three, including Sultana, speak English as their L2. Each of them created their multimodal texts in English and gave presentations of their MMPs at a conference for scholarly feedback, and uploaded them onto YouTube for public use. For instance, Sultana's MMP can still be accessed at https://www.youtube.com/watch?v=_Dh466e3Mps. Using participant observation in the graduate class and analyzing the media produced by the students, Sultana explores the pedagogy the instructor used to involve the graduate students in creating their MMPs and the critical literacy development of the participants through creating and researching their own media.

10.5 Results of the Studies

10.5.1 Findings from Case-1

The results show that the curricular content of the MMP course the DUSTY teachers and undergrad volunteer tutors enacted consisted of instruction in lyric writing, beat production, music theory, digital storytelling, public service announcements (PSAs) creation, discussions, research, college preparation, and writing, most of which involved substantial ICT skills. The teachers used a variety of pedagogical strategies to achieve their curricular goals and content including (1) computer-mediated discussions, (2) modeling of various software for students (using a projector, screen,

speakers, and neighboring computers), (3) group work, (4) listening to hip-hop music, (5) MMP, (6) discussions of important community issues, (7) conducting community research, (8) watching videos and deconstructing how media is magnified by combining modalities, (9) discussions of hip-hop lyrics, (10) writings about self, family, relationships, and community, (11) traditional lectures, (12) the Socratic method, and (13) kinesthetic beat making using hands and feet. Most of these pedagogical strategies were consistent with students' interests and motivations for joining the course. The results show that the traditional lecture method failed to motivate students. Thus, the teachers used a multimodal pedagogy to engage students in hands-on activities and literacy practices, which are similar to how students learn in out-of-school contexts. The teachers enacted these pedagogical strategies in order to lay the foundation for students' multiliteracies. For example, by having each student keep a composition notebook in which s/he regularly wrote on topics like self, family, relationships, and community, students began to observe and reflect with pen and paper, an important aspect of the writing process. Generally, these strategies engaged students and motivated them to participate in a variety of literacy practices.

The findings reveal that the course provided students ample opportunities to use the target language. For example, during the course of the year, students produced different genres of multimodal texts including digital stories, hip-hop music videos, and hip-hop songs for a variety of audiences. The various genres of texts that students produced required them to use different types of language. For instance, the language students used in their PSAs was different than what they used for their hip-hop music videos and songs.

One key finding in this study was that students today bring with them a host of digital literacies that are not accessed in the way schooling is currently done. However, literacy practices that students bring to school can be used to enhance school learning. For example, ICT literacies can be used to design, conduct, and report on research projects through the production of multimodal media. The process of text production afforded students the opportunity to practice a variety of literacies that prepared them for the flexibility and problem solving necessary for participation in future academic, civic, and social contexts. For instance, the focal students Turner observed improved their writing, ICT literacies, and mathematical literacy, according to the teachers as well as the students themselves. In addition to these literacies, there were other important skills that included the ability to work collaboratively, an attitude oriented toward attending college, greater self-confidence, and perseverance. With regard to writing, students learned to observe and reflect on their communities and translate their emotions and personal experience into text. This process involved selecting important themes and finding language to express them first on paper and then through the intertextual format of MMPs. ICT literacies provided a battery of skills to navigate through an increasingly hyper-mediated society. The teachers recognized that students would need these skills to function in both academic and work environments. ICT literacies also provided the motivation to engage students in other kinds of academic assignments. As a result, students were more adept at locating and collecting information, according to their teachers. Mathematical literacies included the ability to manipulate mathematical patterns

into musical notation using the beat-making software. This ability included many discrete mathematical skills like division and fractions. The beat-making project inspired students in part because it was a form of a social practice prevalent in their community. Collaborative learning allowed students to work as a social network on MMP. Disrupting traditional notions of authorship, these networks involved students in specific roles to complete PSAs, hip-hop music videos, and songs. Students gained self-confidence by producing their own MMPs which empowered them as authors and artists engaged in creative work while promoting a message of social change. From conception to completion, students persevered through project development as well as other assignments required of them. Students also had to overcome many obstacles to success such as malfunctioning computers by using their resourcefulness to maximize the potential of the program. MMP allowed students' assignments to be geared toward conveying their knowledge to an "authentic" audience of peers, teachers, family, and community. Having an authentic audience with which students identify and communicate their knowledge makes learning more relevant to their lives and to the lives of people in their community. Therefore, teachers and students used the MMP course to enhance students' ability to meet the demands of future educational frameworks, employment, and social transformation.

Other findings point to the transformative power of learning how to produce multimodal texts using the vast information available in cyberspace. For example, the teachers incorporated writing as a form of self-expression to give students an open-ended and emotionally invested curriculum that enabled the development of skills critical for academic and lifelong learning. In the lyric writing activity, the teacher asked students to freewrite, complete a community research project, and write about their lives after listening to hip-hop lyrics. While students' writing on a technical level needed much revision and correction with regard to grammar and style, what was impressive about their work was the quality of reflection they produced. The teacher was able to construct assignments that enabled them to make text-to-self connections and then later to make self-to-text connections when they wrote their own lyrics. Their produced multimodal texts and articulated the findings of their research on issues facing their communities in creative ways. The following is a sample of lyrics by a student:

> I live in East Newton.
> There's a lot of different kind of people in my neighborhood.
> It is very dangerous cuz there's a lot of gang bangers & shoot people,
> sometimes me & my family get scared.
> ……

Since having students engaged in ICT practices required teachers' ICT skills as well, Turner recommended hiring a full-time computer/technology teacher at each school who would be responsible for instructional technology and training all teachers and students. These teachers would be required to maintain specific technological standards at the lab and would have authority to make sure that computers could handle the latest math, video editing, web publishing, and similar programs.

Additionally, Turner found instability in the context and organization of the site where the MMP course operated, due to teacher abandonment, and severely limited time for planning and preparation. These issues affected the ability of the course to capitalize on how well positioned it was to engage students in literacy development. Teachers and students also found that the time they had for media production was limited by concerns for safety, preparation, for standardized tests, and a malfunctioning computer lab. For instance, although the program started at 3:46, the official homework time was even increased to a full hour to facilitate more time for standardized test preparation, leaving only about 40 minutes per day to work on their multimodal media production. Collectively, these constraints limited the power of the MMP course, the effectiveness of teachers, the MMPs students produced, and the learning outcomes of students.

10.5.2 Findings from Case-2

The findings reveal that the instructor engaged the students in multistep procedures to research social justice issues, create their MMPs, and reflect on their developed MMPs. They began the inquiry and consultations with the course instructor in the fall semester of 2016, analyzing the secondary literature, pictures, videos, and existing MMPs provided by the instructor, and following his guidelines for selecting topics from their lives that would have a long-term effect on society. The students chose their topics to portray with MMPs to raise awareness in their context. The participants also searched for resolutions of the issues they explored, which they depicted through their MMPs.

The findings show that there were a number of reading and writing exercises involved in the process of MMP that developed students' multiliteracies. In the beginning, they chose their topics (e.g., language discrimination among multilingual learners, social dispositions against women, juvenile justice, queer identities) through research of literature and societies, and then wrote think pieces explaining the rationale and process of producing media addressing the topics. They then wrote chronological storyboards to organize the order of the media. They had to carefully read documents and literature from primary and secondary sources, choose background music and moving and still images from Google, newspapers, databases, or magazines, or take the images themselves. Afterward, they wrote narrations that were used with their own voice over with the visuals in the production, and they wrote research papers analyzing their own media.

For the three students, who speak English as their L2, the process of writing storyboards, scripting the digital stories, and writing the research papers provided them with ample opportunities to develop their English writing skills. For instance, while identifying topics, collecting research data, analyzing those data, writing narrative stories, and visualizing those stories with multimodal texts, they were immersed in digital and print media texts written in English, which worked as linguistic data. They then had to decode and comprehend the data to make meanings in their own words.

They were exposed to linguistic input that accelerated their producing linguistic output in English. They needed to outline and write narrative stories in English using multimodal texts, which were natural tasks to achieve both linguistic and non-linguistic goals. Therefore, MMP helped to develop their English skills.

Analysis of the students' MMPs shows that the course developed students' technological skills through hands-on activities creating their own media using different software. For example, the instructor used to demonstrate how to use several software applications to compose videos, how to add subtitles and relevant background music with the visuals, and how to determine the right length of visuals to attract the audience. Technological showcasing in the class involved only WordPress and I-movie, but the participants created their MMPs using diverse software like Windows Movie Maker, Free Audio cutter for cutting voices and background music, Camtasia, Microsoft PowerPoint for screen recording, Atube catcher for audio/video editing and converting, Paint for image editing, digital cameras, and cell phones (Sultana and Turner 2019). Their produced media show how they were able to use out-of-school technical skills with in-school learned theories and research.

The findings show that the course developed students' critical media literacy throughout the process of analyzing existing texts and producing new texts for the MMPs. For instance, Sultana (2016) chose the topic "social dispositions toward Bangladeshi women and the resulting effects on their creative development" to display through her MMP. Drawing on the Freirean emancipatory model (Freire 1970) and critical literacy theory, Sultana read her world critically and understood her identity as a woman in Bangladesh throughout the process of creating her MMP. For example, Sultana's MMP depicts people's perceptions about women in Bangladesh and its consequences. She showed how society perceives women in Bangladesh, the consequences of this perception, and how it hinders their creative development using still images, subtitles, background music, and screenshots from online newspapers. Therefore, the findings of this study illuminate how multimodal text production in classrooms can be used as a strong pedagogical tool to develop students' critical media literacy.

10.6 Discussion

10.6.1 Impacts of Multimodal Composing on In- and Out-of-School Literacies

The findings of these two case studies highlight the uses of multimodal text production in classrooms as strong pedagogical tools that empower learners with language skills, content knowledge, and critical media literacy for social transformation. For instance, the studies show how learners develop their multiliteracies throughout the process of analyzing existing texts and creating new multimodal texts, and how

this process develops their skills to address social justice issues in their communities for civic consciousness. Additionally, they show how the process of writing storyboards and scripts for digital storytelling develops ELs' English writing skills in different genres (Sultana and Turner 2019; Turner 2008). MMP pedagogy follows the principles of task-based, project-based, problem-based, and inquiry-based learning. Drawing on learners' interests, these pedagogies engage them in real-world activities and meanings (Willis 2007) in which language works as a tool to complete non-linguistic tasks (Ellis 2009). For instance, MMP tasks require ELs to naturally immerse in English while investigating, analyzing, and producing texts. This immersion in plenty of linguistic input stimulates ELs' output in English because these processes promote natural language acquisition rather than learning. Thus, MMP pedagogy develops ELs' English skills naturally. Drawing on the impact of multimodal text production, we argue that multimodal composing is an effective pedagogy that can be used in L2 classrooms to develop learners' language and literacy skills across the K-16 context. Since ELs are engaged in multimodal and multilingual communications in diverse settings (Gee and Hayes 2011; Kim 2015; Lam and Warriner 2012; Yi 2010), these students develop their competencies to use different semiotic resources in making meanings of discourses and to present self-identities to the masses while communicating in English (Cimasko and Shin 2017; Nelson 2006; Sultana and Turner 2019; Yi et al. 2019).

Marginalized urban youth, including many multilingual students, today face the real problem of learning how to read and write their world (Freire and Macedo 1987). In the studies described here, we wanted to identify strategies educators, teachers, and parents could use to empower their students and children with the skills to not only survive, but also be citizens capable of challenging injustice in their communities. In both cases, representing themselves as artists and researchers in a "republic of minds" (Levy 1956/1998), students resisted epistemological racism, sexism, ageism, and classism by producing knowledge drawn explicitly from their unique lived experience (Delgado-Bernal 1998). The students' multimodal media artifacts and the meanings embedded in them gave a glimpse into how they see themselves in relation to the immense amount of information in cyberspace from which they drew their work. Our findings in the described studies show that multimodal media production is an efficient method for developing students' language and literacies at all ages because of the various literacy practices it employs. In other words, multimodal text production is an excellent vehicle for having students engage in "a range of…social practices, eliciting an enormous amount of reading, writing, research, analysis, and argumentation" (Squire 2006, p. 23). This form of instruction teaches students how to exhibit linguistic as well as critical thinking skills and work collaboratively on media projects with the explicit goal of solving issues in their own communities.

10.6.2 Pedagogical Issues Concerning Multimodal Composition

Despite the positive impact of multimodal literacy practices in L2 classrooms, researchers, teachers, and educators point out some challenges for integrating multimodal composing into classroom practices. For instance, traditional school contexts, class routine and duration constraints, fixed curricula, high-stakes standardized testing, teachers' and students' access to digital tools and technological readiness, and teachers' perceptions of language learning, text production, and literacy all serve as obstacles to carry out multimodal literacy practices in L2 classrooms (Yi and Angay-Crowder 2016; Yi et al. 2019). In the following section, we discuss pedagogical issues related to employing multimodal composition pedagogy in a classroom context.

10.6.2.1 Assessment of Multimodal Texts

The first case shows that students' preparation for standardized texts worked as a constraint for the DUSTY program. Enacting multimodal composing in L2 classrooms and preparing students for high-stakes tests at the same time was a dilemma for teachers. The difficult job for teachers is to align the required national (e.g., Common Core) and international (e.g., TESOL) curricular standards of listening, speaking, reading, and writing skills with multimodal composition skills. Too often, teachers find assessing a new medium for language development a rigorous job. Creating rubrics can help teachers in this respect. For example, in the case of creating a rubric for students in grades 6-12 for assessing their written script for media production, a teacher can draw on the Common Core "Anchor Standards" for writing, including "Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience" (National Governors Association Center for Best Practices, Council of Chief State School Officers 2010, n. p.). Therefore, teachers need to be empowered to create and use rubrics for assessing multimodal projects aligning required standards that demonstrate learners' language and literacy skills.

Additionally, in both cases, the researchers show which activities developed what literacies of students throughout the process of multimodal text production. Assessing the impact of multimodal composing on L2 learners' language and literacy skills development is a complex issue since media composition is not an isolated text to be assessed. Assessing multimodal texts is different than assessing traditional reading and writing skills. Apart from writing and speaking skills, other skills like problem solving and critical thinking involved in media composition follow a gradual progression and need to be documented to understand learners' development. In this case, rather than using summative assessment to assess the multimodal test as a product, teachers and researchers should rely on formative assessments (Pandya 2012) to ascertain the effectiveness of student processes in creating multimedia texts that

reflect their' microlevel production skills such as the sense of audience, coherence, and cohesion in presenting ideas in the written script.

10.6.2.2 Perceptions of Multimodal Composing Instruction

The first case shows that the headteacher prioritized students' preparation for tests and homework, reducing the duration of multimodal text production for students. Most of the time, teachers' and educators' perceptions toward multimodal composing work as a barrier to incorporate it into L2 classrooms. The traditional idea of reading and writing practices can make teachers believe that learners' multimodal projects, which blend visuals, written language, and audio, "can offer a way to bypass the need to compose extended text in English" (Ware 2008, p. 47). However, this tension is legitimate. For instance, Paige Ware (2008) finds in her study that while ELs created PowerPoint presentations as multimodal literacy practices, they only displayed and summarized information rather than exhibiting analysis or synthesis skills in text production. ELs need English skills to "gain access into the social, academic, and workforce environments of the twenty-first century" (Kasper 2000, p. 106); however, multimodal composing may not be able to engage ELs in extensive writing, which is a challenge to developing linguistic competence in English. In this case, engaging students in writing extended narrative stories first and then having them make multimodal presentations of a small portion of the writing using storytelling or infographics can be used as a solution to this problem.

10.6.2.3 Managing Class Time for Production

In both cases, the teachers' pedagogical strategies combined multimodal text production time with reading exercises and discussions. While teachers are constantly striving to prepare lessons on multimodal composing by engaging students with semiotics, how much time is devoted to producing the multimodal texts by learners, especially for those who need more time for technological readiness? Based on the pedagogical framework in both cases, it is evident that multimodal text production requires a significant amount of time on top of allotted content learning time. Effective time management strategies are vital to successfully carry out media production in L2 classrooms because a lack of structure robs valuable instructional time. In a context where learners need to develop their technological readiness, learners' technical skills should be addressed first. In this case, teachers can combine similar themed topics and classes to assign one group project for a group of students. In the United States, where secondary teachers have the freedom to plan classes on their own, they can accommodate class time according to required tasks. When considering diverse learners' linguistic levels and technical readiness in L2 classrooms, composing tasks are most effective when learners are allowed to finish them at a comfortable pace and in ways that reflect learners' own cultures.

10.6.2.4 Students' Access to Digital Tools

Both cases show the importance of students' access to digital tools that let students produce their multimodal texts. For instance, in the first case, the researcher states that a malfunctioning lab worked as a barrier to students' MMP production. The tools of multimodal composition and understanding of the binary code making up the hyper-mediated world in which young people grow up today can be used to build new landscapes for their futures. Technological determinists like Postman (1992) use a language of moral panic and argue that technology is a "particularly dangerous enemy" (p.xii). Others look at digital technology as an educational, economic (U.S. Department of Education 2004), or democratizing (Sclove 1994) panacea. Buckingham (2003) takes a different approach and argues that students must be equipped with the ability to understand and be active participants in their technologically mediated world. Disparities in access to digital technology, advanced learning principles, and digital literacies between better resourced and under-resourced schools have existed since digital technology first began being integrated into schools (Zeni 1994) and continue to exist. Critical theorists and neo-Marxists have argued that the function of schools in society is to reproduce and legitimize inequality in the larger society (Bourdieu 1993; Bowles and Gintis 1976). However, public schools, after-school programs, and community technology centers have historically given students in low-income communities access to technologies as well as forms of social capital that are part of being associated with an institution they otherwise would not have had (Gordo 2004). Hence, "teachers often face challenges to accommodate these two distinctive groups of students when they try to integrate multimodal literacies into classrooms" (Yi 2014, p. 164). School administration, policymakers, teachers, and educators need to recognize the necessity of digital literacy first and they should ensure infrastructural support, such as providing both teachers and students with laptops, internet access, and other tools, to successfully incorporate multimodal composing into L2 classrooms. In the case of limited technological resources, teachers can assign multimodal group projects to at least ensure shared access to technological facilities for all students.

10.6.2.5 Teachers' Readiness for Multimodal Pedagogy

In both cases, the teachers prepared effective pedagogical frameworks combining technological pedagogical content knowledge (Mishra and Koehler 2006) that engaged students in multimodal text production through hands-on activities to develop their multiliteracies. Thus, another potential tension is teachers' readiness to conduct multimodal composing activities in L2 classrooms. However, teachers' professional development for their readiness can serve as a hindrance as well. Most of the time, the provided teacher training places too much emphasis on technological skill development and overlooks teachers' empowerment to introduce authentic literacy practices that incorporate those literacy skills. As a result, teacher training fails to enable teachers to support their students in developing literacies, integrating

content knowledge and technological skills (Lankshear and Knobel 2003; Miller 2008, 2010). Additionally, this situation may lead teachers to assess technological skills rather than language skills. To address this issue, teachers' professional development should focus on identifying what practices count as literacy practices and how to incorporate both digital literacy and linguistic skills through multimodal composing.

10.7 Conclusion

Multimodal pedagogy can be used as a tool to empower marginalized urban students including multilingual students to raise their voices against social oppression. Many after-school community programs that give youth access to equipment for MMP are criticized for being little more than babysitting and for neglecting to prepare students with the skills they will need in future careers (Hobbs 2004). Goodman (2003) recognizes the challenges of in-school versus out-of-school media education, particularly for low-income students of color, and suggests a method of media education that combines technology integration, media literacy, and community arts models. Goodman suggests that all three models be employed to liberate low-income students of color from racial and economic oppression. Like Goodman, our research speaks to educators and teachers wishing to understand how to combine curriculum and pedagogical strategies to form a praxis that moves away from production and performance exclusively, but in addition to the development of language and multiliteracies that will empower students and their communities (Freire 1970; New London Group 1996).

The use of various media and digital technologies has shifted from being peripheral learning devices to the central methods of acquiring and distributing information in the past couple of decades. Whether due to the demands of "new capitalism" (Gee et al. 1996), the availability of inexpensive technology, or the fundamental desire of all human beings to communicate and creatively express themselves, people make meaning increasingly multimodally using written-linguistic, visual, audio, gestural, and spatial patterns of meaning (Australian Association for the Teaching of English, n.d.). Communication historically has always been multimodal, from drumming, smoke signals, coats of armor, hairstyles, gesture, and speech, among many others (Finnegan 2002). The technology available today allows us to extend our virtual selves across the world in real time (McLuhan 1964; McLuhan and McLuhan 1988). Tangible multimodal texts produced for authentic audiences that can be watched, evaluated, and discussed (Blikstein 2008) and the variety of literacy practices that go into their production in the present study were all evidence of literacy development (Yi et al. 2020). Therefore, educators and teachers are encouraged to identify ways that engage students in multimodal text production ensuring their technological access and readiness.

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Chapter 11
Living the Narrative: Multimodal Blogging by Chilean University EFL Students

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Abstract In a multi-skill course with institutionally imposed competencies and final assessments, a teacher developed a multimodal approach to support students' learning to write problem-solution narratives. In analyzing students' collaboratively written blog posts, we argue that the multimodal assignment fostered students' embodied experiences, development of voice, and investment in their writing processes. Students made use of the affordances of the blog genre to design image-rich descriptions of outings, writing posts in a unified voice, and commenting from their own perspectives. We offer suggestions to teachers wishing to implement similar activities in language-learning contexts.

Keywords Blogs · Intertextuality · Embodiment · Images

> First, they told me about a very special date, Halloween. They said that it's a well-known celebration here on earth, it's celebrated normally by kids who go to people's houses with a costume that they choose and ask for candies, saying "Trick or treat". I found it very interesting because in my planet we didn't celebrate it, so I asked them if we can do it too, and they agreed! So, we walked around the neighborhood, the girls went dressed as witches and I was a vampire, I spent a really great time asking for candies!
>
> *From post "Hallo-week!" November 5, 2018*
>
> I'm sorry, but you look more adorable than creepy as a vampire haha. It seemed like you really spent a good time asking for candies, but DON'T FORGET to brush your teeth after eating your candies (read it with your mom's voice).
>
> *From student response to "Hallo-week!" November 5*
>
> OMG you look so cute on your vampire costume. It suits you very much. I'm very happy that you got to celebrate Halloween, and even ask for candies. I usually give out candies

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> to kids in Halloween, but this year I celebrated with some friends. It was fun, but I missed give candies too. Well, mainly because when I give candies I usually keep some for myself. Hehe. I really like candies too.
>
> *From student response to "Hallo-week!" November 9*

The above exchange, representative of many in our data set, is excerpted from a blog post and comments written by students in a university English as a foreign language (EFL) pedagogy program in Chile. In a multi-skill course with externally imposed competencies and final assessments, the teacher developed a multimodal approach to support students' learning to write problem-solution narratives. Multimodal composing is rare in this program; competencies focus on discrete skills, with writing assessed through brief on-demand handwritten texts. This situation appears to be common worldwide; little research to date has considered multimodal blogging in EFL teaching contexts. In analyzing students' collaboratively written blog posts, we argue that the multimodal assignment fostered students' embodied experiences, development of voice, and investment in their writing processes.

11.1 Blogs as Multimodal Composition

Blogs are a contemporary genre that can engage writers in multimodal composing in ways that are rarely possible in more traditional text-only writing tasks. In this chapter, we draw on Kress's (2003, 2010) theory of multimodal composing, which considers the integration of multiple modes (e.g., words, image, sound) in representing ideas. Rather than solely *writing,* in multimodal composition, students *design* their pieces, drawing on the relative affordances (possibilities for representation) of each mode for enhanced meaning-making, focusing less on written conventions and more on the realization of their intended messages (Kress 2010). Along with considering the potentials of the modes themselves, selecting modes for representation also depends on what designers know about what readers expect and know (Kress 2003). Designers always have choices of how to represent their intended meanings (Kress 2003, 2010).

Designers benefit from additional aspects of multimodal composition that take their process beyond what is possible in text-only writing. Bazerman (2004) describes how designers can integrate aspects of intertextuality into their work through connections to other texts (written or multimodal), to other areas of the text they are creating, or to contemporary language usage and popular culture. Embodied "interactions with the world" (Bourelle et al. 2019, p. 90) push designers to greater levels of creativity and imagination. Creativity, Bourelle and colleagues suggest, requires student designers to connect ideas in novel ways that challenge their usual perspectives on the world. Through physically experiencing what they intend to present in their assignments, students develop alternative ways of understanding. "Unlike many 'traditional' texts, multimodal compositions afford composers the ability to engage all the senses, and thus embodiment is a necessary consideration when engaging

in multimodal composing" (Wysocki et al. 2019, p. 23). Murray (2014) adds that visual forms are eloquent and can often convey emotions and imagination better than words: "…one of the most vital roles for images is that they thrive in the domain of the unutterable or unsayable" (p. 329).

Limited research has considered how multimodal composition theory can be applied to pedagogy through blog assignments. Among benefits identified in the literature is a greater sense of audience awareness, in which designers make conscious choices based on what they know about potential and actual readers. The interactive nature of blogs, where readers can respond to the main post through comments, gives designers the sense of having a real audience and of participating in a community (Blackstone and Wilkinson 2012). Student bloggers show metacognitive awareness of the rhetorical situation:

> Audience becomes a complex concept (instead of writers writing to the teacher or to 'everyone' or 'anyone') they must wrangle with—one that requires writers' use of rhetorical knowledge and critical-analysis skills that enable them to make conscious choices and be able to articulate why they made them for a particular audience. (Ferruci and DeRosa 2019, p. 221)

Blogging also gives student designers more options than in most college-level writing assignments, as they must not only choose a topic, but also think about framing, image selection, and overall design. Designers should make choices based on their purposes for text (such as persuading readers or eliciting an emotional response) (Wysocki 2004). Not all blog activities are successful, but Wysocki and colleagues (2019) argue that taking risks is part of the learning inherent in creating blogs. Furthermore, Bourelle and colleagues (2019) "argue that multimodality should not be limited to a final product; instead, instructors can and should promote multiliteracies during various stages of the composing process" (pp. 87-88). Although blogging has become less popular in the wider world, it continues to hold great potential in language teaching contexts, offering second language writers opportunities for multimodal composing to audiences beyond just their teacher (Bloch 2018; Reinhardt 2019).

Limited research has examined multimodal composition through blogging in EFL settings. In one recent study, Jiang (2017) found that blogs allowed Chinese university students to use multiple modes to represent ideas, rather than only employing spoken or written English. The students reported feeling engaged with the task and with language learning, as they were able to express their views creatively and demonstrate their language competence. In addition, the blogs provided more authentic contexts for using English and facilitated greater peer interaction with classmates, as the wider audience gave students the feeling that people appreciated their efforts (Jiang 2017). Similarly, in English for Academic Purposes courses in Japan and Singapore, blogging allowed students to read each other's posts and comment, leading to collaborative learning (Blackstone and Wilkinson 2012). Students appreciated being able to personalize their blogs for greater self-expression. Summarizing the research on blogging in EFL contexts, Reinhardt (2019) highlights the fact that the author is not anonymous, which can be both positive and negative: "…tasks that emphasize an

external audience seem to be a double-edged sword, because awareness of that audience can both empower and intimidate L2 learners" (p. 10). Reinhardt cautions that students may be concerned with issues of face and unwilling to write on particular topics or for an unknown audience.

Taken together, the literature to date suggests that multimodal blogging has the potential to give EFL learners access to real-world audiences and to extend their learning beyond solely alphabetic writing. This chapter illustrates how a collaboratively written class blog allowed EFL students in Chile to draw on multimodal representational modes in posts that also supported them to write from another person's perspective, potentially reducing the face-threatening nature of public blog posts.

11.2 The Project: "My Life with Freddy"

11.2.1 Context

Universidad de Atacama (UDA) is a state university located in the Chilean city of Copiapó; it is the only tertiary education institution in the third region of the country. Founded in 1857, the university is mainly focused on careers related to mining. However, its Faculty of Humanities and Education includes English Pedagogy as a career within the Languages department. This program prepares students to teach English in every level of education, meaning preschool, primary, and high schools as well as language institutes for adults. The academic staff includes specialists in EFL, literature, linguistics, and teaching methodologies.

The English Pedagogy program at UDA follows a competency-based curriculum where the characteristics of the competent graduate are distributed developmentally across the curriculum (Albanese et al. 2008). Course goals and objectives are reoriented by the presence of the competencies because students must evidence that they have achieved each competency before advancing in the curriculum. Courses in this nine-semester program are divided into three developmental areas: pedagogy, electives, and English language and culture. Because most incoming students are still developing their English language proficiency, the first two years of the program focus primarily on written and oral language learning. The project described in this chapter took place in the second-year course titled Communicative Competence, which was designed to foster the four language skills in an interactive, student-centered approach (Wright 2011). Teaching activities are adjusted to students' interests and needs, since this approach considers that the affective and cognitive areas interrelate to determine classroom success.

11.2.2 Participants

This chapter examines blog posts and responses written by twenty-one students (4 male and 17 female) enrolled in Communicative Competence during the 2018 academic year. These second-year L1 Spanish speakers had an average English fluency level on the CEFR scale of A2-B1.[1] They generally struggled to compose original texts and connect ideas within and across texts in all genres. Unlike other cohorts in the program, this group of students had not come together as a close community of learners, and individual students sometimes expressed resistance at working with certain classmates; they were divided into four groups which did not interact at all. Deisy Campos (second author) was the teacher of this class. She is a Chilean L1 Spanish speaker holding an MA in English Language and Culture with 18 years of experience teaching English in both EFL (Europe and South America) and ESL (United States) contexts.

11.2.3 Intervention

The focus of this chapter is the multimodal, collaboratively written blog posts that Deisy added to her standard instruction during the second semester of the second-year Communicative Competence class. One instructional goal of the course was for students to be able to tell stories (orally and in writing) following a problem-solution pattern, which covers four steps that are common as the organizational structure of narratives (Hyland 2018): (1) setting the scene, (2) describing the problem, (3) explaining an attempted solution, and (4) evaluating the success of that solution. To supplement individual assignments in which students related brief problem-solution narratives, Deisy introduced the ongoing blogging activity titled "My Life with Freddy," focused on Freddy, a stuffed toy space alien who was depicted as an exchange student at UDA from Neptune University.

In the first class, all students were asked to respond to a blog post written by Deisy in which Freddy introduced himself and described his first day at UDA. Deisy's post included photographs showing the toy Freddy in various places described in the post, such as meeting with a professor and visiting the university cafeteria. After dividing the class into pairs or groups of three, Deisy told the students that Freddy would spend one week with each group so they could take him sightseeing and experience life in Copiapó; the adventures were to be described in a blog entry written as if Freddy was telling the story. Students took the stuffed toy and had one week to send their story to Deisy to upload; the post had to include pictures of the activities carried out, and in each entry, Freddy had to ask for assistance regarding a problematic

[1]The Common European Framework of Reference for Languages (CEFR) establishes reference points for six levels of language proficiency (from A1 to C2), with the A2-B1 range suggesting learners have developing competency in talking and writing about topics of interest (Council of Europe, n.d.).

situation. Teachers edited the written text for grammatical clarity before posting (so the posts could serve as class readings). Every week, the rest of the class individually commented on the post with opinions and advice to resolve Freddy's problem. Betsy (first author) performed the role of Freddy's bossy mother and commented alongside the students. After each entry, Deisy provided general language feedback to the class.

11.2.4 Research Questions

This chapter examines the student written blog posts and comments to answer these questions:

- In what ways did students make use of multiple modes of representation in the multimodal collaboratively written blogs?
- In what ways did students demonstrate creativity and humor in their blog posts and responses?

11.2.5 Data Collection and Analysis

In this chapter, we examine the eight collaboratively written blog posts and the individually written comments at the end of each post. Post length averaged 671 words; comments were each approximately 200 words.

Our analysis process began with the systematic reading of the main posts and responses in chronological order. Taking an inductive qualitative approach, we highlighted words, phrases, and sentences in the posts that indicated ways the student writers were taking up the spirit of the assignment with respect to writing from Freddy's perspective for a non-judgmental audience (beyond the teacher) and responding directly to the character of Freddy. We then created a spreadsheet on which to track students' incorporation of multimodal elements such as inclusion of intertextual references (to previous blog posts and to external cultural elements; Bazerman 2004), use of humor and reference to the senses (Wysocki et al. 2019), coherent integration of images with text (Kress 2010; Murray 2014), embodied experiences (Wysocki et al. 2019), and collaboration. We selected three representative posts for which to analyze students' individually written comments looking for references to past and future posts, proposed solutions to problems posed in the current post, and allusions to popular and Chilean culture.

Our purpose in this chapter is to analyze the blogs as a collective whole rather than to consider individual student development. Each post was written by a different team of two to three students, so we cannot compare across posts for language or rhetorical change. We can, however, see the posts and the students' comments as evidence of how this particular group of L2 writers drew on the affordances of multimodal composing to write in ways that the traditional EFL curriculum did not support.

11.3 Findings

The findings reveal that students took the assignment seriously and used it not only to practice multimodal writing in English, but also to express their creativity and voice concerns about Chilean culture and society. The table in the appendix lists the nine blog posts (the first written by Deisy) and shows word count, topics and activities covered, and the number of photos in the post.

11.3.1 Multimodal Representation

In contrast with academic assignments where meaning is conveyed solely through words in written or spoken modes, the blog posts engaged students in representing their stories both visually and in words.

11.3.1.1 Use of Images

The blog assignment required students to include photographs to accompany their written texts, but Deisy did not specify how many photos or what should be included in the photos. Wysocki (2004) points out that in multimodal analysis, it is important to analyze not just the photograph alone but how it interacts with the written text to make up the overall design. In these blog posts, the student designers made ample use of the photographs to extend their written texts and allude to previous posts and to popular culture, as well as to illustrate activities mentioned in words.

Figure 11.1 shows five photographs from different blog posts in which students posed Freddy within the contexts of their narratives. The photo on the top right is from the first student written post, "Caldera," and shows Freddy at a natural juice stand. This portion of the post links to the initial post, where Freddy mentioned being vegetarian; here students took him out for food and introduced him to some plant-based foods he could eat. This photo also illustrates the embodied experience of planning and doing before writing the story: the students had to talk with the juice vendor to explain the project, set Freddy on the counter, and take the photo. We saw throughout the posts evidence of the students' engagement with the project to the extent of potential embarrassment being seen around town with a stuffed toy.

The photo on the top left is from the post "Doggy Friends." Building on earlier posts where Freddy commented about being afraid of dogs, the student designers introduced Freddy to the *perros callejeros* (stray dogs) that live on the UDA campus. Stray dogs are a national concern in Chile, with some residents considering them a serious safety and health problem and animal rights activists arguing for humane treatment (Generación 2019). Following a meeting with a student's pet dog, however, Freddy wrote in this post, "I think I want a dog, they are so soft and happy, and maybe having a little friend could be a good experience."

Fig. 11.1 Photographs of Freddy Posed in Locations and Wearing Costumes

Two photos show how the students extended previous posts' posing of Freddy to add costumes to the toy. In the post "Don't Stop Me Now!" the students took Freddy to the cinema to see the movie *Bohemian Rhapsody,* a biography of musician Freddie Mercury. The photo on the bottom left shows a Freddie Mercury-style mustache on the toy, posed next to the movie poster. The photo bottom center, from the post "Hallo-week," illustrates the costume the students put on Freddy while they took him out trick-or-treating while dressed in costumes themselves. Though not a traditional Chilean holiday, young Chileans have embraced Halloween as an opportunity to dress up and show off fanciful costumes.

The photo on the bottom right from the post "FreddyGo!" shows Freddy at a beach. This post references previous posts where Freddy commented about not being able to swim and wanting to learn. The post also includes a sequence of photos showing Freddy with various video games (Pokemon Go on a mobile phone and playing a desktop computer game). Mobile games like Pokemon Go had recently been adapted to include Chilean myths and a pokemon named "Chorolagi" who visits different renowned places of Chile (Matteucci 2018).

Figure 11.2 is taken from the post "Mystical Freddy." This final post was written by two students who had custody of Freddy during Christmas and New Year's (the university had holidays on December 25 and January 1, with classes held during the

Fig. 11.2 From the Post "Mystical Freddy" (Jan. 3, 2019) Showing Use of Photo Editing Tools and Effects

days in between). Not only is this post more than twice as long as the previous posts, but the student designers made ample use of photo editing software to illustrate their more fantastical tale. The story revolved around the students wanting to perform a ritual to release the soul of a pet cat that had just died. In narrating their visits to the cathedral and cemetery, the students included manipulated photographs of Freddy sitting on the lap of Santa Claus on the city plaza, smoke surrounding a mysterious house, and auras radiating out of Freddy sitting in a garden. Figure 11.2 is a collage showing Freddy and a student with the cemetery and the park behind mist effects. The darkness of the photo hints at the supernatural powers described in the narrative. This post addressed issues of societal acceptance for people considered different from the norm, with Freddy expressing feelings of uncertainty about whether or not he fits in, as well as gratitude for the students who helped him find a community.

11.3.1.2 Intertextuality

All student-designed posts and comments contained elements of intertextuality, which Bazerman defines as "the explicit and implicit relations that a text or utterance has to prior, contemporary, and potential future texts" (2004, p. 86). Intertextuality appeared frequently in comments as students proposed solutions to problems posed in the main post or in previous posts. For example, the post "Discovering Pool"

ended with a request: "P.S: I want to give my followers a name, do you have any suggestion? Comment down below. ☺" In the comments responding to this post, five students suggested names for the followers, one proposed that Freddy conduct a survey, and two apologized for not having a solution. The following week's post concluded, "P.S. I couldn't choose among all the comments a name for my fans, so I mixed them like this: 'Cherryfreddyners' I'm not good with names either, but I hope you like it!" This solution takes up several recommendations from the comments on the previous post, indicating that the student designers had carefully read what their classmates had written and made use of those ideas in their response. Other references to past blog posts revisit Freddy's professed fear of dogs and his desires to get a bicycle and learn to swim.

We also noted intertextuality that anticipated future posts, especially in the comments. For example, three comments to the post "Discovering Pool" anticipate the following week's activities. One of the authors of the subsequent post, P–, commented:

> So about J–'s birthday, it's going to be interesting, she told me that there's going to be lot of sauces, one made of chickpea, and is weir[d] to me, because I can't stand eating chickpea, and I promised to taste it, but I keep refusing to do it, sorry J–, luv u haha!

The following week, P–'s co-written post described Freddy's participation in J–'s birthday party, where he ate vegan foods and met a puppy, among other activities.

Student designed posts also made references to global and local pop culture, as in the post "Don't Stop Me Now!", where students took Freddy to see *Bohemian Rhapsody* (a highly popular movie at the time all across Chile) and to a punk music gig. About the concert, Freddy wrote, "the place didn't really smell good, 'it smelt like teen spirit' (which is actually a mix of teen's sweat and feet) but it was awesome, I felt like the ultimate rebel!" Here the student designers reference the US band Nirvana's well-known 1991 song. Posts also referred frequently to Chilean food and local culture as the students took Freddy to activities around the Atacama region and gave him advice in the comments section about what to eat to cure his stomachache.

11.3.1.3 Embodiment

The task assignment led students to considerable physical engagement when it was their turn to take Freddy on an adventure. "Creativity and invention are sparked by dialogic interactions with the world—words, images, people, sounds—that challenge writers to rethink and reimagine their own experiences" (Bourelle et al. 2019, p. 90). Unlike traditional writing assignments, where students may tell a story developed solely from their imagination, in this project, students took the Freddy toy to the locations discussed in their posts, posing him with objects (such as a pool cue or plate of food), people, and animals. Their narratives and images show how the student designers ate, danced, and traveled alongside Freddy. In this way, the posts illustrate how "multimodal compositions afford composers the ability to engage all the senses,

and thus embodiment is a necessary consideration when engaging in multimodal composing" (Wysocki et al. 2019, p. 23).

The students took the choice of activities and scenarios seriously. As the appendix shows, in every week's post, the students took Freddy out into the city and region and engaged in multiple activities with people beyond their classmates (including family, friends, and even store owners). Their choices illustrate ways that they saw the assignment as an opportunity to actually *do* what they were writing about rather than simply explain it.

Another innovative feature of the blog posts is that in writing the texts, the student designers embodied Freddy himself. The main posts are all written in Freddy's "voice" rather than in students' individual voices, maintaining a consistent perspective as a naive newcomer to UDA who is unfamiliar with local customs. We see how this revoicing allowed students to speak through the toy and make statements about their community without as much concern for possible loss of face (Reinhardt 2019). Several posts present students' advocacy for local social concerns such as pollution caused by the mining industry. On a road trip described in the post "Don't Stop Me Now!", Freddy wrote about the experience of stopping near a mine facility: "…she insisted 'Copiapó is a mining town so you have to meet places like these', we arrived there and I disliked it so bad, the smell was terrible, but I put a smile on my face anyways." Despite the social pressure to maintain a positive attitude towards the mining industry (the financial backbone of the entire region), these student writers used Freddy's voice to express their distaste for its environmental consequences. In the post "Doggy Friends," the writers reference the ongoing issue in Chile of stray dogs: "We went to feed some doggie friends from the university with the girls, and they told me that we have to take care of animals and adopt them, not buy them, because there are a lot of little friends on the street that need a home." Speaking through Freddy allowed the students to discuss issues and share small moments that might not otherwise have been appropriate topics for academic writing. These topics were directly relevant to students' lives, rather than the neutral topics covered in their coursebook. This meaningfulness may explain why the students were able to use richer language in their posts.

We further noted how the entire assignment seemed to minimize the strong discord among members of the class. Writing comments directed to Freddy allowed students to at least pretend that they were not addressing their classmates. The responses were polite and lengthy, full of positive perspectives and offers of help and advice (as the comments excerpted in the epigraph illustrate). In this process, students also embodied a Chilean cultural practice of offering foreigners not only help, but also an explanation of local customs and beliefs. They chose focal areas that they considered important to show to outsiders. Seeing Freddy as a stranger, in need of support, brought the students together online in a way they were not able to do in person.

11.3.2 Creativity and Humor

Throughout the blog posts, the students expressed themselves with creativity and humor. Though not explicitly required to do so, each post was developed with attention to originality, as students tried to avoid taking Freddy to the same places or activities as their classmates had done earlier. They embraced the character of Freddy, directing their comments to him (as illustrated in the excerpt at the beginning of this chapter), and appeared genuinely invested in helping him solve the problems he encountered in his visit to Copiapó.

As illustrated in Fig. 11.1, students made an effort to dress Freddy up for Halloween and added a mustache to make him look like the character Freddie Mercury in the movie they attended. In discussing the film, the students also made the humorous connection between the character's name and Freddy's backstory:

> …the movie was about someone who had the same name as I do, 'Freddy', which i actually found very funny, I think he is from Mercury or something like that, … I even took some pictures of me with a moustache like his (the man was extraordinary, I was quite surprised that he was from Mercury because that planet is very small).

Another aspect of humor is seen in the designers' careful posing of Freddy in photos with objects, people, and animals mentioned in texts. For example, in the post "Freddy's Adventures," a four-frame photo series shows a baby holding onto and biting down on the toy. The accompanying text reads:

> I thought the baby was going to eat me, because she threw herself in my direction with her mouth open! Can you believe that? I was so scared, so I screamed "AHHH!" but quickly P– took D– away and let me know that she doesn't have teeth yet, so I only got covered by baby drool.

This comment is also an allusion to earlier posts where Freddy had expressed fear of being eaten by dogs.

The student designers further used humor in addressing cultural issues that might otherwise have been touchy subjects for discussion in society. For example, some Chileans had taken up vegan diets in defiance of the meat-heavy traditional foods of the country. Many students picked up on Freddy's initial search for vegetarian food at the university, and some (as we noted earlier) joked about their personal dislike of this diet while still trying to accommodate his needs. Individual student responses to Freddy's posts further highlighted the humor in everyday language. When Freddy reported being treated for a stomachache with *agüita de oregano* (a folk cure) and commented on the suffix -ita to the word for water, one student responded "You know, for me is really normal to use words in diminutive like 'agüita', 'cosita', 'pelito', etc. But, I understand that it can sound funny for some people but, it's just that using those words makes everything sound so much cute."

11.4 Discussion

This chapter examined the multimodal blog posts and accompanying comments designed by students in a Chilean university EFL course. The analysis shows that students took advantage of the relative openness of the assignment to make use of the multimodal affordances of the blog genre, as well as the embodied nature of the task itself, developing posts that show humor and audience awareness. In this section, we discuss features we found valuable about the assignment.

For one, the activity gave students an opportunity to experiment with voice and play with language. Writing in Freddy's voice instead of their own may have helped them overcome some of the issues noted in earlier EFL blogging research where students reported being intimidated by the idea that an unknown audience would be judging their language choices (Reinhardt 2019). In their comments, they could then respond as themselves. The students found ways to explain local culture as they were really living it (birthday parties, stray dogs, dying pets, problems with the mining industry) rather than through stereotypical "culture" description tasks that often focus on national culture (music, holidays, dance) instead of students' everyday experiences. Going to gigs and to the cinema further indicates a sense of sharing with other (imagined) readers around the world.

In addition, the designing process foregrounded student choice (any topic was relevant if they could incorporate Freddy) and embodied experience (doing before writing), two factors missing in most of the writing assignments in their coursework. Collaboration seemed to be helpful as well; students were able to draw on their partners for ideas. Especially when the task required them to be silly, this might have been helpful as they were not doing something potentially embarrassing alone. In a few cases, however, students were paired with classmates with whom they did not get along. We noted that in these cases, the posts consisted of two separate activities, each with one member of the team. The student writers nevertheless maintained Freddy's voice throughout, so it did not come across as problematic in the final post. Classmates' responses also maintained a positive tone addressed to Freddy, even when they knew that the actual writers of the post were classmates with whom they did not have a good relationship. Neither were humorous comments directed meanly at classmates but rather at situations where all could laugh together.

It is important to note that we did not provide any instruction in multimodal composition. An earlier course on information technology had introduced students to tools like Prezi, and they drew on what they already knew about blogging, audience, and integration of images. Most students were active users of various social media platforms (especially WhatsApp and Instagram), so they were already immersed in considerations of image framing and selection as well as the relative affordances of image versus text in communication. Multimodal composing requires designers to make such choices with their purpose and audience in mind. As we did not inquire into their composing processes, and students completed their posts and photographs outside of class time, we cannot make any claims about how they approached the assignment or made design choices.

11.5 Conclusion and Implications

For students with little opportunity to use a second language outside the classroom, multimodal blogging activities bring real-world language use to their development of classroom skills. This project has several implications for teachers working in similar curricular contexts:

- Collaboration for multimodal work is valuable. Working together allowed students to get creative, share the planning, and possibly also overcome the embarrassment of carrying a stuffed toy around the city. Collaboration in online writing has also been shown to foster greater peer scaffolding and feedback, and writers receive input throughout the process on how others are receiving their intended messages (Hsu and Lo 2018).
- Consider scaffolding the multimodal design process. In this class, Deisy was teaching the problem-solution pattern for narratives in the context of individual written and oral texts, but did not provide any additional support for students in writing the blog. They followed her initial post and built on that model, drawing on what they already knew about blogs and about image design. In a context where students are less familiar with multimodal composition or where instructional objectives include specific aspects of multimodal design, the teacher may need to provide more scaffolding in the form of lessons on image and text integration, uses of intertextuality, or other features.
- Understand the blog platform. An IT specialist set up the platform and uploaded each post for us, but a free blog site (e.g., Blogger, WordPress) or website platform (e.g., Weebly, Wix) would work for a class blog. If the teacher or IT specialist uploads posts, students do not need individual accounts; if students are responsible for uploading their own posts, then all students need access to the site.
- To grade or not to grade. This assignment was ungraded except for participation, which we believe allowed students to have fun and not worry as much about linguistic accuracy. If students post more frequently, however, it seems important to give them credit for their work, but without stifling creativity. Further research is needed into how teachers can fairly and effectively grade multimodal collaboratively written texts (Wysocki et al. 2019).
- How public to make the blog? We did not share the URL for this blog outside the class, so while technically it was public, in reality, only the students could read and comment on the posts. This may have saved face for students, but it also meant that the posts did not really have the broad and unknown potential audience that is a feature of blogging in the literature. Teachers must balance between these two aspects in developing a multimodal blogging project, considering their particular students' attitudes and vulnerabilities. Further research is also needed into the effects on students' language learning, perspectives, and willingness to take risks depending on the degree of publicness of a class blog.

This chapter has shown how a whimsical premise—a space alien exchange student in the Chilean desert—can promote EFL students' active engagement

with language use through multimodal composing. The blogging activity gave the students a friendly, non-threatening environment in which to use English for a real communicative purpose, writing to a character who was a student like themselves.

Appendix

"My Life with Freddy" Blog Posts

Date	Title	Word count	Topics	Activities	# of photos
25-Sep	Me	248	Intro to Freddy Neptune history First day at UDA	Getting set at UDA: meeting students and professors in the department, eating lunch at the cafeteria	6
5-Oct	Caldera	331	Visit to Caldera City	Spending time at the beach: eating fries at food truck, buying juice, and watching ships and boats	6
12-Oct	Discovering pool	365	Playing pool Vegetarian diet	Hanging out at UDA, playing pool, cooking lentil burgers at a student's house	5
19-Oct	Freddy's adventures	482	Life with babies Vegan birthday party Stomachache	Participating in a slumber party at a student's house, attending a birthday party	12
29-Oct	Doggy friends	440	Cycling Adopting animals	Meeting a dog at UDA, getting to know a student's dad and his bike, meeting her adopted dog (Rocket)	5
5-Nov	Hallo-week!	528	Halloween Hanging out at Kaukari Park	Trick or treating in a student's neighborhood, watching horror movies, hanging out at park	6

(continued)

(continued)

Date	Title	Word count	Topics	Activities	# of photos
13-Nov	Don't stop me now!	731	Mining Punk gig Movies Love	Visiting a mining town outside Copiapó, going to the cinema and a gig at a bar, rescuing Freddy's love	10
13-Dec	FreddyGo!	429	Video games Surfing	Playing "Pokemon Go" and "Roblox", getting to know a student's gamer family, surfing and hanging out with a dog at the beach	10
3-Jan	Mystical Freddy	2065	The death of a pet Christmas Paranormal activities Religion	Meeting a cat just before it dies, getting to know Santa Claus, going to haunted house to find a gem and perform a ritual, going to a cemetery	11

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Epilogue: Moving Forward: Towards the Transformation of L2 Writing Education for Multilinguals' Multimodal Composing

Abstract This chapter discusses all the previous chapters, focusing on expanded theoretical and methodological frameworks, contributions to multilinguals' multimodal composing that relate to enhanced understanding of multimodal meaning-making, multimodal affordances for language development, and innovative multimodal pedagogy and teacher knowledge. By reviewing the contributions and limitations of the book, the chapter presents theoretical, methodological, and pedagogical implications for multimodal writing research and pedagogy that contribute to transforming L2 writing education for the multimodal composing of multilinguals. This transformation will endorse multilingual writers' identities, fortify language development, develop robust multimodal assessments, expand theoretical and methodological frameworks, and promote collaboration among researchers and practitioners.

Keywords Multimodal composing research · Multimodal composing pedagogy · L2 writing · ESL · EFL

Introduction

The importance of multimodality in second language (L2) writing has risen along with the growing use of computer technologies in communications, but multimodal composing is still relatively new and under-researched in the field of L2 writing studies (Yi et al. 2020). A comprehensive investigation of multimodal composing is necessary to expand L2 educators' understanding of multimodality and to explore continuing questions regarding its role in L2 language learning and development. This volume addresses the need for more research through a collection of empirical and theoretical studies of multimodal composing in action in K-16 ESL and EFL contexts. Included in this collection are nine empirical studies investigating the nature, affordances and constraints, and pedagogical implications of multilingual learners' multimodal composing, as well as two reviews examining theoretical and methodological

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issues in this line of research. Collectively, the studies make significant contributions to the current understanding of L2/multilingual learners' multimodal composing by advancing the development of theories, expanding research methodologies, and enhancing pedagogies. This epilogue presents theoretical, methodological, and pedagogical implications for multimodal writing research and pedagogy. Through a synthesis of the contributors' chapters, perspectives, and voices, it will illustrate future directions for researchers, practitioners, and teacher educators.

Contributions to Multilingual Research on Multimodal Composing

Theoretical and Methodological Issues

The research on multimodality draws on various theoretical and methodological frameworks to explore meaning-making processes, products, and practices. Chapters 1 and 2 present primary theories and methodologies that help researchers and practitioners analyze, describe, and/or evaluate the multimodal composing of L2/multilingual writers. Chapter 1 explains multimodality in L2/multilingual writing by tracing its intellectual roots and reviewing its historical development. Reflecting the complexity of multilinguals' language learning and use, Sun and his colleagues maintain that multimodality in L2 writing should be investigated based on the concept of "transmodality" (Hawkins 2018) to better understand the negotiability, permeability, and fluidity of the boundaries among languages and other modes in meaning-making. To understand multilinguals' multimodal composing, Yi and her colleagues (Chap. 2) describe key methodological approaches to examining both product and process aspects of multimodal composing in TESOL and applied linguistics. Those methodologies are grounded in the four dominant theoretical frameworks in multimodal composing studies—social semiotics, systemic functional linguistics, multiliteracies, and sociocultural theories. Each theory has explicated different aspects of multimodality with various epistemological and methodological approaches (e.g., multimodal discourse analysis, systemic functional approaches to multimodal analysis (SF-MDA), qualitative data analysis).

These theoretical and methodological chapters equip researchers with expanded knowledge about research methodologies to more fully understand various aspects of multimodal composing in multilingual contexts. In addition, they provide several implications for future research on multimodal composing to expand the research methodology of current research studies. Considering that a majority of studies adopt qualitative short-term case studies grounded in social semiotics, the need for longer-term studies is clearly one of the most important. In addition, researchers can utilize mixed methods and other approaches beyond qualitative methods to draw on the insights of both qualitative and quantitative approaches. Given that few studies examine multimodal composing processes as well as products with longitudinal

ethnographic data (Cimasko and Shin 2017), studies can develop research designs drawing on various methodological approaches such as sociosemiotic ethnography (Iedema 2001; Prior 2013) and SF-MDA (Jewitt et al. 2016). Such research designs necessitate the employment of diverse theories beyond commonly used ones (e.g., social semiotics, multiliteracies) to understand the complexity of multilinguals' multimodal composing.

Multilingual Writers' Engagement with Multimodal Composing

The studies in this volume push the field of L2 writing to expand its theoretical and conceptual views of what counts as composing and as a text by employing broader semiotic approaches to L2 writing (Yi 2017). To this end, Chapters 3–5, investigating the nature of multilingual learners' multimodal composing from a social semiosis perspective and a systemic functional linguistics (SFL) approach (Kress 2003, 2010; Shin, et al. 2020; Unsworth and Mills 2020), show the multifaceted complexity of multimodal and multilingual meaning-making processes. Zhang and his colleagues (Chap. 3) demonstrate that high school ESL students' compositions of multimodal written texts and artwork about globalization and immigration issues were designed based on synesthetic and intertextual composing processes through an SFL-informed ideational analysis and a logico-semantic analysis. To explain what constitutes a synesthetic ensemble, Park's study (Chap. 5) illustrates the orchestration of employed modes and intermodal relations among the modes in multimodal letters that undergraduates composed in U.S. freshman composition courses. In investigating composing processes, Dávila and Susberry (Chap. 4) illustrate dynamic relationships between identity formation and translingual multimodal practice of civic engagement in an increasingly interconnected and digital world. As such, these studies demonstrate how multilingual writers are meaningfully engaged in composing to produce multimodal texts.

These studies of multilingual writers' engagement with multimodal composing lead us to rethink texts, writing, meaning-making resources, and communicative competence in L2 education. When one considers that all forms of communication have been always multimodal, multimodal composing is no longer an option but an inescapable reality. Thus, non-linguistic meaning-making resources are as important as linguistic resources in L2 writing, although monomodal alphabetic writing continues to dominate L2 writing studies. A wide range of multimodal texts (e.g., picture books, PowerPoint slides, video documentaries) that multilinguals read and write are *legitimate texts*. Another fundamental issue to consider is how we define writing to acknowledge L2/multilingual writers' multimodal writing and literacy (Casanave 2016). Multimodal composing entails a conceptual shift from conventional to hybrid and from canonical to flexible meaning-making practices that can be creative, yet are still grounded in discursive and cultural practices (Kress 2010).

Multimodal composing invites us to reconsider what it takes for multilingual writers to be able to interpret, design, and evaluate multimodal texts. Primarily, writers should be able to select and orchestrate apt semiotic resources into multimodal ensembles with a balanced view that non-linguistic modes are as important as the linguistic mode in L2 writing (Yi et al. 2020). This kind of reconceptualization will better explicate multilingual writers' composing processes beyond their finished products, in order to explore what constitutes multimodal composing.

Affordances and Constraints of Multimodal Composing

When they engage with multimodal writing, writers take advantage of a range of affordances and face increased challenges that come with access to expanded meaning-making resources. Although every chapter presents affordances of multimodal composing, Chapters 6–8 in particular highlight benefits of multimodal composing in K-12 language and literacy instruction, including innovative communications, increased semiotic resources, expression of identities, and language learning affordances. For instance, Liaw and Accurso's study (Chap. 6) points out that multimodal pedagogy afforded students a more dynamic text production process, and expanded the range of meanings and identities they constructed and enacted during literacy instruction. Besides stressing the affordances for meaning-making and identity expression that are available through multimodality, Smith and her colleagues (Chap. 7) explore communication in innovative ways and contextualization of the literature, showing that multilingual adolescents had more flexibility, agency, and creativity in expressing ideas and were more engaged, motivated, and connected to their digital projects. Despite providing L2 learners with a wider variety of multimodal affordances for composing, scholars who are most interested in L2 learner language development from the perspective of second language acquisition express concern about or resistance to re-conceptualizing L2 writing from a multimodal perspective (Manchón 2017). Tseng's study (Chap. 8) gives direct attention to this concern, by showing how learning transfers from multimodal composing to traditional forms of writing by college EFL students, as evidenced in genre features at the linguistic and rhetorical levels in the students' texts and their reported genre awareness. Although it is critical to examine the role of multimodal composing in language development, it is worthwhile to note that the affordances of multimodal composing go beyond language development toward the development of multimodal communicative competence with linguistic and non-linguistic modes (Yi et al. 2020).

Along with multimodal affordances for representing and communicating ideas, L2 writers also face multiple challenges in composing multimodal texts (Shin and Cimasko 2008). Smith and her colleagues (Chap. 7) describe constraints ranging from technical difficulties to "finding the right mode" that appropriately represents the thoughts of multilingual high school students as they produced their multimodal texts. The most common technical challenges arise around various technical composing programs like iMovie, Audacity, and PowerPoint that include combining media,

hyperlinking, and using different editing features. On the other hand, the technical difficulties led to more collaborative interactions among the students to find solutions. Engaged with various multimedia authoring tools, students had expanded meaning-making modes beyond words. However, students who have been educated to use only traditional academic writing encountered difficulties in thinking through visuals, words, sound, and movement, even with scaffolding on multimodal composing. In a similar vein, the study done by Zhang and his colleagues (Chap. 3) echoes similar challenges that students had in multimodal composing due to the overabundance of meaning-making resources offered to them within a limited period of time.

Innovating Multimodal Pedagogy and Teacher Knowledge

In terms of pedagogical enhancement, all studies in this volume describe in detail how multimodal curriculum and instruction were designed and implemented in classes with multilinguals. In particular, Chapters 9–11 vividly illustrate examples of how multimodal composing curricula can be integrated into all classes regardless of ESL or EFL contexts. King (Chap. 9) demonstrates how a second and third grade teacher designed a multimodal curriculum that allowed multilingual students to navigate the multimodal composing processes in creating texts on "How to Make the World a Better Place" using multimedia authoring tools (e.g., PowerPoint, YouTube, trifold boards). Similarly, based on critical reflections of their personal experiences with multimodal projects in school and out of school, Sultana and Turner (Chap. 10) present potential tensions in implementing multimodal pedagogies in multilingual classrooms. They present a range of issues including a lack of robust assessments of multimodal texts, skeptical perceptions towards multimodal composing, difficulties managing class-time for production, students' lack of access to digital tools, and teachers' lack of expertise in multimodal pedagogy. Gilliland, Galdames, and Quiroz's study (Chap. 11) introduces an example of addressing teacher readiness issues by showing how a teacher educator developed a blog assignment to support students' learning to compose multimodal texts of problem–solution narratives. All the pedagogies we present in this volume contribute to L2 educators' (re)conceptualization of L2 writing instruction, especially multimodal approaches to support L2/multilingual students' writing practices.

For successful multimodal instruction, these studies underscore the importance of scaffolding multimodal processes for students, providing more support for students to use multimedia technologies, and securing student's access to technologies. Teacher preparation for rich multimodal pedagogies as well as assessment of multimodal composing and texts are emphasized. With growing numbers of teachers working with bi/multilingual students (Helman 2012; Lucas et al. 2008), research should prioritize investigating ways to integrate translingual multimodal composing in the curriculum and instruction and ways that educators can effectively collaborate with students of multiple languages, varying linguistic proficiencies, and different

schooling experiences (Ajayi 2010; García and Otheguy 2020; Yi and Angay-Crowder 2016). Furthermore, it is important for educators to consider ways to integrate digital tools and specific affordances and constraints that different modes of these tools offer to bi/multilingual students for meaning-making.

Future Directions and Implications

This edited volume illustrates the complexity of multimodal composing in L2/multilingual learning and teaching contexts, presenting critical issues concerning the research and pedagogies of multimodal composing. The book aims to broaden the agenda for L2 writing research and pedagogy through a comprehensive collection of empirical and conceptual studies that invites L2 writing professionals to consider emerging possibilities and challenges for multimodal composing research and pedagogy. The studies collectively present compelling evidence for the significance and benefits of multimodal composing in L2 learners' language learning. However, we would also like to reflect on the limitations of the book, which L2 researchers can continue to explore in a sustained way at the intersection of multimodality and L2 writing. Findings and limitations from reported research and discussions in this volume allow us to propose several broad directions for future research.

Endorsement of Multilingual Writers' Identities. Studies have pointed to the expression of identity as one of the key affordances of multimodal composing (Danzak 2011; Honeyford 2014; Skinner and Hagood 2008; Smith et al. 2017). To achieve this, researchers need to account for a wider range of identities in various contexts to more comprehensively understand the benefits and constraints of multimodal pedagogies for diverse L2 learners (Ajayi 2008; Hur and Suh 2012). Considering that L2 learner's identities are socially constructed in specific contexts of situations (Norton 2013), researchers should prioritize investigating ways to design authentic multimodal tasks that are meaningful to L2 writers. Also, researchers should more explicitly reflect upon what specifically constitutes authenticity, creating studies to better understand its multiple dimensions. These efforts include rethinking audiences, meaningful uses and applications, and methods of distribution beyond teachers and classmates. For identity expression, multilinguals flexibly use their first and second languages and dialects with other modes for language learning and/or self-expression. Studies in this book show the importance of multilinguals' translingual multimodal composing (e.g., Dávila and Susberry). Future research into multimodal composing can examine how translanguaging and plurilingualism create pedagogical contexts in which bi/multilingual writers can use their full semiotic repertoires as agentive meaning-makers (García 2009; García and Otheguy 2020; Piccardo 2013). To further investigate the influence of L2 writers' identities in multimodal composing, researchers can ask how individual identities and contextual factors influence the choices made during multimodal composing.

Fortifying Language Development. Although our book attempts to offer ways to promote the development of L2 proficiency through a multimodal composing

curriculum, some critics might maintain that studies of multimodal composing pay less attention to language development based on the linguistic mode, and require more evidence of how multimodal composing fortifies L2 learners' developing language proficiency (Manchón 2017). Addressing these concerns, L2 writing scholars can further explore affordances and constraints of multimodal composing in multilingual contexts. Those explorations could answer how multimodal composing can facilitate L2 learners' metalanguage development and what might be lost when multilingual writers engage in multimodal composing for multimodal communicative competence (Harman 2018; Shin et al. 2020).

Development of Robust Multimodal Assessments. L2 educators who are skeptical of promoting multimodal literacy will be convinced only with empirical data showing student gains in different areas of language and literacy through multimodal practices over longer stretches of time. In response to this, consistent and reliable assessment tools should be used to measure the language and literacy gains that result from students' multimodal composing, something that has proven challenging to teachers due to the fact that assessment of multimodal composing differs from that of language-based composing (Burke and Hardware 2015; Hafner and Ho 2020; Yi et al. 2017). Researchers can contribute to designing better assessment tools for various genres beyond narratives, by examining existing tools and creating new and more effective ones in a variety of contexts.

Expansion of Theoretical and Methodological Frameworks. Research into identity, metalanguage development, and multimodal communicative competence through multimodal composing in K-16 settings underscores the need for longer-term studies. A majority of studies of multilinguals' multimodal composing have often been designed as short-term qualitative case studies looking at composing activities and produced texts. Although case studies or other small-scale studies allow for qualitative richness (Harman and Shin 2018; Lotherington et al. 2008), drawing on the advantages of larger-scale or longitudinal ethnographic studies, researchers should examine both composing processes and composed products. In particular, more L2 research can show how L2 writers develop metalanguage and semiotic knowledge for multimodal composing over longer stretches of time, with thick descriptions of composing processes at the micro-textual and the macro-discursive levels. In longitudinal and larger-scale studies, researchers can utilize mixed methods and other approaches to draw on the insights of both qualitative and quantitative approaches. These diversified methodological approaches contribute to expanding theoretical frameworks originally developed in L1 contexts (e.g., multimodality, multiliteracies) beyond methodological challenges, to conducting research on multimodal composition in multilingual contexts as well as responding to the challenges that accompany this line of research.

Importance of Collaboration. Studies point to greater student achievements obtained through multimodal composing and literacy pedagogy (Early and Marshall 2008; Hepple et al. 2014; Nelson 2006; Rance-Roney 2010; Royce 2002; van Leeuwen 2015). However, future research can address several key pedagogical issues in promoting multimodal composing in L2 writing classrooms. Considering

many teachers and administrators in K-16 ESL and EFL settings still remain skeptical of multimodal composing and advocate for traditional monomodal literacy, collaborative partnerships among researchers and teachers are essential (Gebhard 2019; Unsworth and Mills 2020; Ware and Hellmich 2014; Zhang et al., in this volume), to find clear evidence of enduring gains of multimodal pedagogy in language learning and ways to convince school personnel of the benefits of multimodal literacy pedagogy. Their collaboration can explore how instructors address curricular, infrastructure, and/or administrative barriers or challenges to multimodal composing instruction, and how multimodal pedagogy leverages L2/multilingual writers' literacy practices outside of school, or vice versa. Furthermore, researchers and teacher collaborators can explore the kind of teacher training that is necessary in implementing multimodal composing pedagogy for L2/multilingual writers.

In conclusion, we have provided several broad directions for future research that emerge from the studies of this volume, along with associated research questions to expand multimodality into K-16 education in ESL and EFL context. Although this volume collectively answers some of the questions, the majority have not been fully answered. We now invite the L2 writing community to continue to further explore these questions in order to better support L2/multilingual writers in the contemporary communicative landscape, where ongoing shifts in ways to represent and communicate meanings occur. We believe that such collective explorations into multimodal composing in multilingual learning and teaching contexts will contribute to the expansion and development of the L2 writing field.

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