

Translingual Home to School Connections: Including Students' Heritage Languages and Cultural
Experiences in the Curriculum through Family eBooks

By

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For my grandpa who always believed in me

For my husband who inspires and sharpens me

To my daughter who radiates joy, curiosity, love, strength, and hope

And who I believe in more than anyone

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CHAPTER 1

INTRODUCTION

Emergent bilinguals comprised 9.6% of all kindergarten through 12th grade students in U.S. schools during the 2014-2015 school year, and several states experienced increases in emergent bilingual student populations of more than 40% from 2009 to 2015 (NCELA, 2017). Student populations are becoming more diverse amidst a growing cultural gap between predominantly white, female teachers and culturally and linguistically diverse families (Sleeter, 2001). Furthermore, many U.S. schools are English-dominant contexts, where English is privileged as the language of instruction, and students and families learn that English is the language of power at school (Murillo, 2012). Moreover, demographics are changing as part of a globalized, connected, and digitized world. As people and information cross material and immaterial boundaries, they construct new practices for communicating in multimodal, multilingual, and digital ways (Fraiberg, 2010). As a result, educators are increasingly tasked with: 1) teaching more diverse classrooms of students, 2) partnering with families and communities with whom they may not share a linguistic and cultural background, and 3) preparing students to participate as literate members of a digitized and globalized community.

Educators could respond to these tasks as challenges to overcome and problems to fix, taking a deficit perspective (Stein, 2004). They might treat cultural and linguistic diversity as a problem to be fixed in pursuit of developing conventional, standardized English and meeting narrow curricular goals (Genishi & Dyson, 2009). They might believe that families lack the requisite resources to support their children's academic success and either dismiss parents as a

problem, or try to change families to make up for families' perceived deficiencies (Lee & Bowen, 2006). Lastly, they might provide students with fewer opportunities to develop as digital composers because of lack of access to tools, time in the prescribed curriculum, and knowledge of how to meaningfully integrate technology with literacy instruction (García & Kleifgen, 2010).

Alternatively, educators could respond to these tasks as rich opportunities to support student learning, enhance the curriculum, and build *translingual home to school connections*. *Translingual* refers to how languages are always in contact and mutually influencing each other, emphasizes how communication transcends individual languages, and involves a synergy of languages, sign systems, and modalities (Canagarajah, 2013). Speakers engage in *translingual practices*, or *translanguaging*, as they purposefully mix codes, languages, voices, and modes in communities where diversity is the norm. Hornberger and Link (2012) propose that translanguaging is also an instructional practice, and the goal of *translanguaging pedagogies*, or *translingual instructional activities*, is that students use their languages together to make meaning and develop literacy in both languages (García & Kleifgen, 2010). Teachers build on students' myriad, multimodal, and multilingual discursive practices—practices which are a normal part of being and knowing in diverse communities (García, Woodley, Flores, & Chu, 2012). Teachers can do this by constructing translanguaging spaces in the classroom where students and teachers translanguage to build background knowledge, develop metalinguistic awareness, compose *translingual texts* (compositions that reflect a synergy of languages and sign systems), engage students, and disrupt linguistic hierarchies (García & Wei 2014).

Furthermore, *home to school connections* refer to ways of strategically using families' learning resources, such as their heritage languages and cultural experiences, as part of school learning activities (Dantas & Manyak, 2009). Connections occur as family members contribute

to the curriculum through physically participating in classroom instructional activities as readers, composers, and presenters (González, Moll, & Amanti, 2005; Naqvi, McKeough, Thorne, & Pfitscher, 2013; Zapata & Laman, 2016), or through contributing heritage language and cultural content to classroom instructional materials (Allen, Fabregas, Hankins, Hull, et al., 2002; Durán, 2016; Louie & Davis-Welton, 2016). Moreover, a growing body of research focuses on the affordances of using digital tools to learn about students' linguistic and cultural resources, and shows promising ways to virtually include families' heritage languages and cultural experiences in the curriculum through *digital, translingual instructional activities* (Cummins, Chow, & Schechter, 2006; Martínez-Álvarez & Ghiso, 2014; Pacheco, Smith, & Carr, 2017; Rowe & Miller, 2016; Taylor, Bernhard, Garg, & Cummins, 2008). Overall, building translingual home to school connections requires that families and teachers learn from each other's cultural and linguistic resources and *funds of knowledge*, and know how to include them within instruction (Rios-Aguilar, Kiyama, Gravitt, & Moll, 2011).

For educators working in English-dominant contexts with multilingual classes, it is also necessary to disrupt the hegemony of English-only in their schools as part of building translingual home to school connections. Yet there is not much guidance for these teachers in the literature because the majority of studies that describe translanguaging pedagogies take place in dual language schools (Gort & Sembiante, 2015; Velasco & García, 2014) or bilingual complementary school settings (Creese & Blackledge, 2010; Martínez-Roldán, 2015). The sociopolitical context of these settings differs from a classroom setting governed by English-only policies. Researchers working in English-dominant schools have shown that translanguaging does not occur merely because there are bilingual and multilingual speakers present in the classroom community, or even when students are invited to share in their heritage languages

(Brown, 2014; Rowe & Miller, 2016). This research suggests that the processes involved with supporting translingual instruction vary substantially depending on the setting, and require a focus on the power dynamics of translanguaging in English-dominant schools. Furthermore, only a few studies of translanguaging pedagogies explore the potential for involving students' families as contributors to translingual instructional activities and materials (Alvarez, 2014; Durán, 2016; Rowe & Miller, 2016; Zapata & Laman, 2016). Findings from these studies suggest that 1) family and community members play a valuable role as sponsors of students' heritage language literacy, and 2) families can contribute to translingual instructional materials and activities for the classroom through digital content. More research is needed to develop digital, translanguaging pedagogies that invite family participation and study their impact on students' translanguaging practices in the classroom, particularly in English-dominant contexts where teachers may not speak the heritage languages of their students.

Human capital theory provides a theoretical lens for examining the power dynamics that shape translingual home to school connections in English-dominant schools. Research has shown how teachers, families, and students access resources to activate as capital in exchange for educational benefits (Lareau, 2011). However, families from non-dominant groups have fewer opportunities to activate capital because of how they are excluded from power relationships in schools (Lareau & Horvat, 1999). Much of the research on home to school connections builds on the premise that families from non-dominant groups lack the requisite capital to support their children's academic success because their *habitus* (constellation of dispositions) is not aligned with the school *field* (institutional structure of social relationships) (Lee & Bowen, 2006). Inherent in this premise is a deficit perspective. If researchers and educators only focus on what non-dominant families lack and how to fix families to ensure they have more capital, then they

ignore the capital and funds of knowledge that families do have (Carter, 2003). In the family engagement literature, scholars cite human capital theory as a way to explain the inequities in the school system, the achievement gap, and the reasons why lower class parents tend to be less involved in school than their middle to upper class counterparts (Robinson & Harris, 2014). The potential solutions posed to address these problems focus on increasing non-dominant families' and students' capital so that they can more successfully interact with a system that rewards dominant cultural expressions. However, these solutions perpetuate the dominant culture and maintain the status quo.

My study offers a critique of the way human capital theory has been applied in the home to school connections literature, and I focus instead on how to transform the school field, disrupt the valorization of only dominant forms of capital, and value non-dominant forms of capital in exchange for educational benefits. Instead of telling non-dominant parents that they need to change how they interact with their children and with the school, the school needs to change what they recognize and value as student and family engagement in academic activities and provide benefits to families in exchange for this engagement. Yet there is a lack of research on the mechanisms that support non-dominant students' and families' activation of their heritage languages and funds of knowledge as linguistic and cultural capital in fields of unequal power relationships, such as English-dominant schools (Rios-Aguilar et al., 2011).

Many scholars have called on educators to include students' heritage languages, cultural experiences, and families in instruction as part of efforts to implement translanguaging pedagogies, build on students' funds of knowledge, and support culturally and linguistically diverse student learning (Au, 1998; García & Kleifgen, 2010; Genishi & Dyson, 2009; González et al., 2005). Furthermore, teacher education programs are focusing more attention and resources

on how to meaningfully engage diverse students and their families (Cochran-Smith, Villegas, Abrams, Chavez-Moreno, Mills, & Stern, 2015). Despite repeated calls to include students' heritage languages and funds of knowledge in the curriculum, there are only a few practical guides in the literature for how teachers can do this work, particularly primarily English-speaking teachers working in English-dominant schools with multilingual classes (Durán, 2016; Jiménez, David, Fagan, Risko, Pacheco, Pray, & Gonzales, 2015a; Jiménez, David, Pacheco, Risko, Pray, Fagan, & Gonzales, 2015b; Louie & Davis-Welton, 2016; Naqvi et al., 2013; Pacheco et al., 2017; Pacheco & Miller, 2016; Rowe & Miller, 2016; Zapata & Laman, 2016). Therefore, my study addresses these gaps in the literature: 1) few studies focus on how to implement translanguaging pedagogies in English-dominant school settings; 2) few studies explore how to include families as contributors to translanguaging pedagogies; and 3) few studies describe the co-constructed processes of activating students' linguistic and cultural resources as capital in the classroom. My study contributes solutions to several lingering questions and problems posed in the literature:

- How do educators develop pedagogies that integrate bilingual students' complex translingual practices?
- How do educators learn about their students' families, cultural experiences, and heritage languages? How do digital tools support that process?
- How do students represent their families, cultural experiences, and heritage languages in the classroom? How do digital tools support that process?
- How do educators, students, and family members activate cultural and linguistic resources as valuable and shared curricular resources?

- How do educators create a supportive context for translanguaging and sharing in English-dominant schools?

In response to these lingering questions, my study is organized around three goals: 1) examining ways that students represent their heritage languages, families, cultural experiences, and relationships in translingual, family eBooks for classroom use; 2) exploring participants' processes for composing translingual eBook messages; and 3) identifying instructional features that support translanguaging and sharing in the classroom. I use *translingual eBooks* to describe how eBooks featured purposeful mixing of multiple languages through digital writing, voice recordings, and visual design. Furthermore, I use the term *family eBooks* to emphasize how families are both featured in and contributed to eBooks through digital photos, voice recordings, and heritage language writing. Overall, I describe how to build translingual home to school connections where families' contributions open possibilities for a primarily English-speaking teacher to participate in digital, translingual instructional activities with her multilingual class in an English-dominant school.

Research Questions

The following research questions guided this study:

1. *How do students represent their heritage languages, families, cultural experiences, and relationships in family eBooks for classroom use?*
2. *What processes do students and adults use as they compose translingual eBook messages?*
3. *What are the features of eBook events that promote an instructional context supportive of translanguaging and sharing about families and cultural experiences?*

In order to answer these questions, I analyzed data from a yearlong, qualitative study of second graders' translingual eBook composing and presenting, in an urban, English-dominant school. The study objective was to promote translanguaging and sharing about families and cultural experiences through home and classroom translingual eBook composing and presenting activities. This research documents participants' processes of composing in multiple languages and features of instructional conditions that support translanguaging and sharing in classroom literacy activities.

Overview of the Dissertation

The dissertation is divided into seven chapters. In this chapter, I have outlined the study objectives in relation to the current research on translingual instructional activities in English-dominant schools, described how I will contribute to this growing body of work, and provided the research questions that guided the study. In Chapter 2, I discuss the theoretical framework for the study, showcase findings from a review of the translanguaging and home to school connections literature, and describe how I designed the study to provide needed insights on creating translingual curricular opportunities with teachers, students, and families. Chapter 3 details my research methods, and in it I describe the research design, study site, participants, rationale for my selections, and my researcher role and positionality in the classroom. I also provide details about the methods for data collection, data sources, and eBook activity framework. The chapter concludes with an outline the methods of data analysis for each research question and a discussion of study strengths and limitations.

The subsequent three chapters detail study findings and are organized around research questions. In Chapter 4, I present findings on students' multimodal, translingual, family eBooks, and I describe how students represented their languages, families, and cultural experiences in

eBooks. Chapter 5 details findings from in-depth analysis of six students' composing sessions, and in it I discuss participants' processes for composing translingual eBook messages. Chapter 6 presents a set of instructional features that supported translanguaging and sharing in the classroom. Finally, Chapter 7 contains an overview of the study's findings in relation to each research question, a discussion of this work's contributions, directions for future research, and implications for practice.

CHAPTER 2

LITERATURE REVIEW

This chapter reviews the theoretical, conceptual, and empirical literature that guided this study. First, I outline the theories that grounded my study design and framework. Then, I examine the existing empirical literature on translanguaging instruction, with a particular focus on studies that are situated in English-dominant school contexts, engage families and communities, and explore multimodal, digital, translingual composing practices. Lastly, I examine some of the gaps in the literature, and I make an argument for qualitative research that addresses constructing translingual home to school connections through eBook composing and presenting in English-dominant classrooms.

Theoretical Framework

This study is grounded in several theoretical perspectives: 1) translanguaging theory; 2) sociocultural theories of literacy; 3) human capital theory; and 4) theories of multimodality. Although these theories come from diverse disciplines, they provide a foundation for understanding the underlying conditions of implementing translanguaging pedagogies in English-dominant schools. In the following sections, I will briefly describe each theory and outline how the theory guided the assumptions that underlie this study.

Translanguaging Theory

First, I draw on translanguaging theory to describe how people select from a repertoire of language practices, not separate language systems, and mix their linguistic resources to fit the social purpose and audience (Velasco & García, 2014). Moreover, Canagarajah (2013) outlines a

translingual orientation to literacy and emphasizes how communication transcends individual languages and involves a synergy of languages, sign systems, and modalities. *Translingual* connotes how languages are always in contact and mutually influencing each other. A translingual orientation is built on the premise that, “Language is only one among many semiotic resources that go into text construction and literate interaction,” and speakers bring diverse semiotic resources to interactions (Canagarajah, 2015, p. 418). As such, translingual communication involves native speakers, monolinguals, bilinguals, multilinguals—all speakers (Canagarajah, 2013). Although speakers may have different proficiencies in different languages, Canagarajah (2015) argues that all speakers have a basic *competence* for translingual communication, as they purposefully mix codes, languages, voices, and modes in communities where diversity is the norm. Therefore, everyone has the potential to develop *translingual awareness* of how and when to use languages, voices, modes, and semiotic resources together, and *translingual proficiency* at effectively engaging in translingual practices for specific contexts and purposes (Canagarajah, 2013).

Hornberger and Link (2012) propose that translanguaging is also an instructional practice, and translanguaging theory signals a shift in pedagogy away from English-only instruction and some dual language program policies. English-only instruction and dual language programs that require strict language separation position bilinguals as two monolinguals in one person (Cummins, 2007), and often the goal of English proficiency is situated above heritage language development (García, 2014). Furthermore, students in these programs may miss out on opportunities for cross-linguistic transfer because of the emphasis on language separation to avoid confusion (Naqvi, Schmidt, & Krickhan, 2014).

In contrast, the goal of translanguaging pedagogies is that students use their languages together to make meaning and develop literacy in both languages (García & Kleifgen, 2010). Translingual instructional activities are responsive to emergent bilingual students' actual language practices (García & Sylvan, 2011). Teachers build on students' myriad, multimodal, and multilingual discursive practices—practices which are a normal part of being and knowing in diverse communities (García et al., 2012). Teachers can do this by constructing translanguaging spaces in the classroom where students and teachers translanguage to build background knowledge, develop metalinguistic awareness, develop critical thinking skills, engage students, and disrupt linguistic hierarchies (García & Wei 2014). Moreover, teachers and students co-construct translingual practices to develop translingual proficiency for classroom literacy activities, regardless of their proficiencies in each other's languages (Canagarajah, 2013).

Translanguaging pedagogies have the potential to rupture the hegemony of English-only in many U.S. schools. By translanguaging, students and teachers validate students' translingual practices and integrate those practices with school language practices (García et al., 2012). Furthermore, translingual instructional contexts provide students with more equitable opportunities to participate in classroom activities because they can use all of their linguistic resources, instead of just English. In such contexts, students are positioned as competent language users and valuable members of the academic and social community of the classroom (Palmer, Martínez, Mateus, & Henderson, 2014). Finally, students have opportunities to leverage translingualism to support them to meet dominant literacy standards (Canagarajah, 2015).

Assumptions guiding study. Translanguaging theory had a significant impact on study design, enactment, and data analysis. Specifically, the following assumptions grounded my

study: 1) languages are always in contact; 2) language is one semiotic resource among many; 3) speakers engage in translanguaging practices as they purposefully select from a repertoire of semiotic resources to communicate; 4) all speakers have basic translanguaging competence; 5) translanguaging is a normal part of communicating, being, and knowing in multilingual communities; and 6) providing students with opportunities to translanguage as part of instructional activities has the potential to disrupt linguistic hierarchies and help students meet curricular goals. I designed eBook activities to provide students and adults with opportunities to engage in translanguaging practices as they combined multiple languages and modes in eBooks. Operating under the assumption that all speakers have translanguaging competence, all participants (children and adults), regardless of their varying proficiencies in their languages, were encouraged to translanguage to meet study curricular goals of composing translanguaging eBooks. Lastly, translanguaging eBook composing and presenting activities represented a stark contrast to the English-only curriculum, and participants' translanguaging practices were foregrounded as important for engaging in classroom literacy activities.

Sociocultural Theories of Literacy

Second, I draw on sociocultural theories of literacy (Gee, 2003) and the notion of literacy as participation in sociocultural practices, situated in specific Discourses, and negotiated and constructed by members of social communities. Scholars working from this paradigm recognize how students and families use their complex cultural and linguistic resources for distinct social purposes that vary according to context (Barton & Hamilton, 1998). Heath's groundbreaking study, *Ways with Words*, described differences in communities' distinct 'ways of taking' meaning from print (Heath, 1983). Heath forged a new way of looking at home literacy practices that accounted for the rich variety of literacy experiences in which children participated, before

they were socialized into school literacy practices. She conducted an ethnographic study to examine how three communities, that differed by social class and race, developed literacy practices. Heath showed how school literacy practices were most closely aligned with the home literacy practices of Maintown children, leading to possible academic advantages for Maintown children. Heath's ethnographic work also described Roadville and Trackton children's rich cultural resources for literacy, and she challenged earlier assumptions that these students' cultures were deficient in some way. Instead, Heath uncovered ethnocentric literacy practices in schools that tacitly devalued Roadville and Trackton families' complex ways with words while privileging Maintown families' literacy practices. Applying this perspective to students' and families' complex literacy practices counters deficit perspectives that Dudley-Marling and Lucas (2009) and other scholars have exposed at work in previous research on non-dominant communities language and literacy practices.

Furthermore, Cambourne (1995) also countered deficit perspectives by pointing out that since students were capable of complex learning outside of school, their issues with learning in school were a result of discontinuities between the pedagogies enacted in each setting, not due to personal or cultural deficiencies. In response, Cambourne (1995, 2000) developed a theory of the conditions that enable language learning out of school and then applied those conditions to literacy learning in school. Cambourne (1995) defines *conditions* as the interaction between states of being and indispensable circumstances that together enable learning. Cambourne (1995, 2000) outlines eight conditions for literacy learning: *immersion, demonstration, engagement, expectations, responsibility, approximation, use, and response*. According to Cambourne's theory, children need many opportunities to observe how language is used and for what purposes, as well as to practice their developing language and receive feedback on how to

modify approximations. Moreover, Cambourne (1995) found that learners need to be free to ‘have a go’ at trying what is being demonstrated, or make approximations, before they are able to fully use language conventions. Learners are more likely to engage with demonstrations when they do not feel anxious, and when demonstrations are given by people they trust and want to emulate. Therefore, valuing learners’ approximations and building positive relationships with students are important conditions for language and literacy pedagogies. Cambourne’s (1995, 2000) overall goal was to put learning theory into practice in classrooms, and promote literacy learning for all students, instead of framing students and families as deficient.

The *funds of knowledge* concept was also developed to disrupt deficit perspectives and showcase families’ resources. Vélez-Íbañez and Greenberg (1990) introduced the term funds of knowledge to describe household practices within working-class, Mexican communities. Their work emphasized how families strategically use their cultural resources to contribute to the functioning of the household economy. Moll, Amanti, Neff, and Gonzalez (1992) expanded on the funds of knowledge concept by focusing on home visits as a way to change teachers' beliefs and knowledge about students’ families. Teachers become ethnographers who learn about families’ funds of knowledge, such as candy-making, canning, repairing cars, farming, and roofing, and then include those funds of knowledge in the curriculum. For example, Moll et al. (1992) describe a teacher who designed a unit plan on making and selling candy and invited a parent to make candy in the classroom. Many subsequent studies have utilized the concept of funds of knowledge as both a way to signal a resource-based perspective and as a research tool to learn from families (Allen et al., 2002; McIntyre, 2009; Ramirez, 2003; Smith & Riojas-Cortez, 2010).

Moreover, families' cultural and linguistic practices constantly shape and are shaped by local literacy practices and the values and power structures they embody. Official literacy curricula value standardization and meeting benchmarks (Genishi & Dyson, 2009). When value is only placed on standardization towards a monolingual, mainstream norm, then emergent bilingual students and their families will continue to be evaluated unfairly as deficient (García & Kleifgen, 2010). Translanguaging pedagogies invite families to bring their literacies and languages to school contexts where those practices are not inherently valued (Compton-Lilly, Rogers, & Lewis, 2012). Therefore, making home to school connections in ways that reframe families' literacy practices as resources involves attending to these power dynamics.

Scholars working from sociocultural perspectives on literacy have reframed multilingual families' home language and literacy practices as resources for literacy development (Heath, 1983). Funds of knowledge research also has emphasized families' resources, and signaled a resource-based perspective of families' literacy practices and heritage languages (Moll et al., 1992). Although cultural and linguistic differences between teachers and families are often framed as barriers to home to school connections, or as challenges to overcome, families can leverage their heritage language resources as assets in support of translanguaging pedagogies.

Assumptions guiding study. Based on principles from sociocultural theories of literacy and funds of knowledge research, the following assumptions guided this study: 1) literacy practices are situated, negotiated, and constructed; 2) families' language and literacy practices and funds of knowledge are resources for school learning; 3) the conditions of language and literacy learning involve valuing approximations and building relationships; and 4) translingual curricular invitations may encourage students and families to bring their linguistic and cultural resources into contexts where they are not inherently valued. Therefore, I designed study

activities as responsive to how participants negotiated literacy practices during eBook activities, and I analyzed participants' co-construction of meaning. Moreover, I created opportunities to both learn about and include students' cultural and linguistic resources in the literacy curriculum. Lastly, I worked with the classroom teacher to develop norms to value students' resources and participants' approximations (in all languages), and to build positive relationships with students and families.

Human Capital Theory

Third, I draw on human capital theory to address the ways that schools can either support or discourage students and families from translanguaging and sharing in English-dominant contexts. According to Bourdieu (1986; 1994), patterns of social inequity continue to be reproduced in society because of the valorization of particular forms of cultural expressions (of the dominant culture) over other forms (of the non-dominant culture). Families from non-dominant groups have less access to economic resources to convert into cash. This lack of economic capital interacts with a lack of cultural and social capital, leaving poor families at a disadvantage in society (Robinson & Harris, 2014). Social capital refers to the actual or potential resources embedded in and accessed through social relationships (Lin, 1999). Cultural capital refers to the constellation of knowledge, preferences, tastes, codes of conduct, and consumption patterns that stem from one's upbringing (Robinson & Harris, 2014). Much of the research on home to school connections builds on the premise that families from non-dominant groups lack the requisite capital to support their children's academic success because their habitus is not aligned with the school field (Lee & Bowen, 2006).

However, schools privilege middle-class child-rearing and literacy practices above the practices of non-dominant families (Lareau, 2011). Multilingual families learn that English is the

dominant language of many U.S. schools (Murillo, 2012) and that their heritage languages and translanguaging practices are not valuable or useful in school (García & Kleifgen, 2010) even though translanguaging is a vital part of their everyday practices outside of school (Orellana, 2009). As a result, the dominant orientation among families and teachers becomes language as problem, rather than language as resource (Ruiz, 1984). Language orientations affect how people perceive the value of translanguaging, and shape how they use (or do not use) their heritage languages in certain fields. In their recent article connecting translanguaging and human capital theories, Smith and Murillo (2015) not only examine linguistic resources and literacy practices, but also identify what these resources *do* for people in multilingual communities: What value do they have, what exchanges do they facilitate, and what social connections do they create? For many students who attend English-dominant schools, translanguaging is not valued and does not facilitate exchanges within the official school curriculum. This partially explains why bilingual students may not use their heritage languages, or be reticent to do so, in English-dominant classrooms, despite invitations to translanguage (Brown, 2014; Pacheco et al., 2017; Rowe & Miller, 2016; Zapata & Laman, 2016).

Yet teachers, students, and families could disrupt linguistic hierarchies and transform the school field by constructing a system that positively values heritage languages and cultural resources—so that resources *do* something for them in the classroom. One critique of Bourdieu's conceptualization of human capital is that he takes a deterministic view of capital activation and argues that people with power will always determine what valuable capital in a field is.

However, from a constructivist perspective, all the participants in a field are jointly constructing what is considered valuable capital in a dynamic and fluid way. Therefore, students and families

are not permanently locked into a system that devalues them—there is hope for transformation if all participants are willing.

Together, teachers, students, and families could co-construct opportunities to *activate* their heritage languages and funds of knowledge as linguistic and cultural capital. *Linguistic capital* encompasses language resources and practices, intellectual and social skills, and means of communication that are acquired and used in specific contexts for social purposes. Activation of these resources as capital refers to the process by which individuals exchange their resources to achieve a specific goal. For example, students activate linguistic capital in the classroom when they use their heritage languages to complete an academic writing task, translate a text, or interpret discussion ideas. For example, students activate funds of knowledge as cultural capital when they share about their families' skills and knowledge (e.g., making tortillas, working in construction, celebrating holidays, using technology) to connect to books read in class, learn about other's funds of knowledge, and become part of the curriculum in discussion and literacy materials.

Furthermore, as students share about their funds of knowledge and heritage languages, they also activate social capital because they engage in classroom interactions that build their social relationships with peers and teachers and position them as co-constructors of the curriculum. These social relationships facilitate students' access to educational resources such as peer and teacher support for school work. Lareau and Horvat (1999) point out that activating capital requires inclusion in social relations of power, and they describe how schools exclude working class and poor families. In contrast, when educators include students' and families' resources in the classroom, students and their families can take up more powerful positions in the school field.

Assumptions guiding study. Human capital theory is important to this study's theoretical framework because it provides insights into the ways that unequal power dynamics in schools shape the possibilities for implementing translanguaging pedagogies in English-dominant schools. Thus, the following assumptions guided this study: 1) when schools privilege English and dominant forms of capital, students and families learn that their heritage language and cultural resources are not useful in the school field; 2) the processes of activating capital are co-constructed and jointly negotiated; and 3) teachers, students, and families could disrupt unequal power structures and linguistic hierarchies by co-constructing students' resources as valuable capital. Since my overall study goal is to disrupt linguistic hierarchies in an English-dominant school, I designed curricular opportunities for students, families, and the classroom teacher to *use* heritage language and cultural resources as part of classroom literacy activities. As a result, participants placed value on these resources as tools for learning, communication, sharing, and teaching, and they activated resources as capital.

Multimodality

Fourth, I integrate theories of new literacies and multimodality to examine the potential affordances of using tablets and digital photography to support translanguaging pedagogies and home to school connections (O'Brien & Voss, 2011). As composers of multilingual, multimodal eBooks, children have the opportunity to purposefully coordinate dynamic and complex semiotic resources and demonstrate sociolinguistic flexibility (Genishi & Dyson, 2009), tenets of multiliteracies (New London Group, 1996). Young children use multiple modes to make meaning and explore print as part of page-based composing (Dyson, 2008). Given the proliferation of handheld, touchscreen devices in America's homes and classrooms, children also have experience using images and audio-video recordings as part of digital composing.

The use of digital technologies during literacy events provides new possibilities for transmediation as children draw on a full range of digital, design elements and modes to mediate their communication goals. Siegel (2012) argues that transmediation allows children to generate and multiply meanings as they draw on multiple sign systems. Leland and Harste (1994) suggest that a good literacy curriculum promotes students' flexible use of multiple semiotic resources and ways of knowing, and they further argue that such a curriculum is more democratic because children whose dominant way of knowing is something different from language have ways to express themselves and find their own voices. Photovoice projects are built on this premise that people use images to represent their experiences and have a voice in their communities. Furthermore, photos enable participants who cannot read or write to represent their knowledge about community needs and strengths to powerful stakeholders such as politicians and organization leaders (Wang & Burris, 1997).

Multimodal composing is a way to privilege multiple ways of knowing and multiple languages, even in an English-dominant classroom. Moreover, students have opportunities to develop as digital, multimodal composers, and meet literacy standards that place an increasing emphasis on composing with digital tools (Dalton et al., 2015). Yet a shift to a Literacy 2.0 curriculum requires creating opportunities for students: 1) to produce dynamic, interactive, collaborative, widely-distributed digital compositions; 2) to explore digital tools, to play, and to create reactive texts; and 3) to build on their popular culture and media interests in the classroom (Wohlwend, 2010). Fraiberg (2010) adds a multilingual requirement to this list in his *Composition 2.0: Multilingual and Multimodal Framework*. He argues that, as composition moves into the twenty-first century, composers continually tie and untie languages, texts, narratives, sounds, images, and ideologies throughout far-flung networks. Therefore, students

also need curricular opportunities to play with mixing languages and modes in the context of globalization.

Assumptions guiding study. Multimodal, translingual, digital composing practices are part of the fabric of daily communication and coordination in our world today. As such, language arts curricula are evolving to keep pace with Literacy and Composition 2.0. This study builds on the assumptions that: 1) children’s composing is multimodal; 2) transmediation of images, text, sounds, and languages provides opportunities to generate new meanings; and 3) multimodal composing has the potential to privilege multiple ways of knowing in the classroom. Through composing translingual, multimodal eBooks, participants in this study had opportunities to mix languages, sounds, images, color, and text in order to represent their families and cultural experiences, communicate their messages, and express themselves.

Literature Review

In this section, I describe contemporary trends from research literature regarding *translingual home to school connections*. My goal is to identify ways researchers and educators have implemented translingual instruction in English-dominant schools, to examine families’ contributions, and to explore the use of digital tools. More specifically, I review studies in which 1) participants engage in translingual practices in English-dominant classrooms; and 2) families contribute to translanguaging instructional activities and materials. The studies are grounded in translanguaging theory principles (e.g. supporting participants to use languages together for academic purposes) and implemented in preschool, elementary, and middle school settings (PreK-8), or in out of school settings, but where the activity was school-related. The rationale for looking at studies conducted in formal education settings (classrooms) is to examine how

teachers and families contribute together to translingual instructional activities, given the social conditions at schools.

Although the primary context of interest in this review has been U.S. schools, scholars in Canada and the United Kingdom are also researching translanguaging home to school connections. Many schools in these countries are multilingual like U.S. schools, and this research provides insights as to how to engage multilingual families in English-dominant settings. Furthermore, the research in this area is overwhelmingly qualitative. Studies reported using qualitative methods of data collection, including interviews, focus groups, participant observation, and artifact collection.

Based on my review of the literature, I identified the following steps involved with building translingual home to school connections in English-dominant schools:

1. Learn about and include students' and families' linguistic and cultural resources: *Make them visible, audible, and tangible in the classroom.*
2. Provide curricular opportunities for students to translanguage and share for explicit purposes and audiences: *Make resources valuable.*
3. Enact a translingual pedagogical orientation and create a supportive instructional context. *Make translanguaging pedagogies practical and sustainable.*

In the following sections, I will describe these steps, provide descriptions from representative studies, and discuss gaps in the literature base. I conclude by outlining how this study's research questions address existing gaps.

Learning about and Including Students' Linguistic and Cultural Resources

In order to create translingual home to school connections, educators and researchers first need ways to learn about students' and families' linguistic and cultural resources, and to make

those visible in the classroom. Students' and families' resources are often marginalized in English-dominant schools, and their languages and experiences may not be represented in the official curriculum (García & Kleifgen, 2010; Murillo, 2012). Therefore, educators have to make an additional effort to learn about their students' resources and provide pathways for making them part of classrooms where diversity is the norm, but monolingual and dominant ideologies may prevail (Genishi & Dyson, 2009). Researchers have examined several strategies for learning about and including students and families in these contexts: 1) engage family and community members as classroom volunteer readers and composers; 2) exchange translingual texts across home and school boundaries; and 3) compose multimodal, translingual, linguistically and culturally relevant literacy materials with digital photography, sound, and text.

Engage families as classroom volunteers. Several studies engaged families by inviting parents to volunteer in the school (Anderson, Anderson, Gear, 2015; Cummins et al., 2006; Iddings, 2009; Naqvi et al., 2013; Sneddon, 2008; Worthington, Maude, Hughes, Luze, Peterson, Brotherson, Luchtel, 2011; Zapata & Laman, 2016). As parents participated in school activities as volunteers, they contributed their linguistic and cultural resources as shared social resources (Cohen, 2011) for the school community. For example, Naqvi et al. (2013) describe *dual language book* (DLB) reading sessions in kindergarten classrooms in a diverse Canadian school district. *Dual language books* are books written in two languages, usually with English on one page and another language on the other page. They are designed to be read simultaneously in both languages, either by one reader or two. DLB's were read in four languages: English, French, Urdu, and Punjabi. Only two languages were used in each session, and English was always one of the languages. Books were read to children three times a week. Classroom teachers usually read the English parts of the books, while adult volunteers read the other

languages. Volunteer DLB readers included family members of children who attended the school, as well as members of the community. As volunteer readers participated in classroom literacy events, they shared their cultural and linguistic knowledge with children and teachers, which then became a shared community resource for learning.

Additionally, teachers have engaged parents as composers in their heritage languages in English-dominant classrooms. Zapata and Laman (2016) report on findings from three English-dominant elementary schools where teachers implemented translingual writing instruction. In their efforts to learn about and include students' translingual practices, teachers invited family and community members to the classroom to write in their heritage languages during writer's workshop. One mother wrote in Japanese alongside her daughter, taught students some Japanese characters, and taught the class how to say Japanese phrases. Another mother demonstrated how to make tamales for the class, showed photos of a *Día de los Muertos* (Day of the Dead) celebration, and read poetry composed in Spanish. Although the presentation was entirely in Spanish, and only seven students in the class spoke Spanish, the entire class was engaged. When family members were included in the classroom as composers, they became models of heritage language literacy in an otherwise English-dominant space. Moreover, they taught teachers and students about their languages and cultures, which then became shared social resources for writing in the classroom.

Worthington et al. (2011) also describe including parents as volunteers in the classroom. In this study, nine teachers participated in focus group interviews with researchers. Two of the teachers were Spanish-English bilinguals. The remaining teachers only spoke English. The study was situated in Head Start Programs located in the Midwestern part of the United States. They found that teachers practiced an *open door policy*, and family members were always welcome to

participate in classroom activities. Teachers also invited families to share about their cultures, which families appreciated. Teachers reported using bilingual parent volunteers as interpreters and translators in the classroom as a way to communicate with children and other parents.

Although Worthington et al. (2011), Naqvi et al. (2013), and Zapata and Laman (2016) describe classrooms with parent volunteers, they differ in their study goals. Naqvi et al. (2013) designed their study to identify culturally and linguistically responsive teaching practices related to reading DLB's. Their goal was to support children's use of their heritage languages for classroom literacy learning. Furthermore, the teachers from Zapata and Laman's (2016) study were committed to taking translingual approaches to writing instruction, and supporting their students' translingual practices. In contrast, the goal of the Worthington et al. (2011) study was to identify challenges teachers faced while working with emergent bilingual students and families as well as resources teachers used to cope with those challenges. Teachers reported that they valued students' and families' bilingualism, but they only utilized families' linguistic resources to overcome communication barriers, rather than build on those resources as part of bilingual literacy development.

Overall, when family members are included in classroom activities, they share their cultural and linguistic resources with teachers and students. Consequently, families' heritage languages become shared social resources for instruction. However, the extent to which these resources are visible and useful in the classroom depends on how teachers frame cultural and linguistic diversity. In the Worthington et al. (2011) study, teachers framed language differences as a problem to solve instead of as a resource to activate, like the teachers in the Naqvi et al. (2013) and Zapata and Laman (2016) studies. Welcoming families as classroom volunteers is an important first step towards learning about families' resources. When teachers also include

family members as contributors to the literacy curriculum through book reading and composing, they send the message that diversity is a resource in their classrooms.

Exchange translingual texts. Researchers have also described home to school connections where translingual texts move across home to school boundaries, creating opportunities for teachers to learn about students' and families' heritage languages and include them in classroom literacy activities (Al-Azami et al., 2010; Cummins et al., 2006; Durán, 2016; Peterson & Heywood, 2007; Rowe & Fain, 2013; Smith & Riojas-Cortez, 2010; Taylor et al., 2008). For example, Al-Azami et al. (2010) conducted a study of British Bangladeshi children, aged 7-11, attending London primary schools. Children were primarily Bengali speakers, and Bengali has a different script from English. Teachers sent home a picture book with the words blanked out and invited parents to add their own transliterated captions, or captions with Bengali represented by Roman script. They put the title in transliterated text to encourage and model transliterated captions. When children brought their transliterated texts to school, they read their texts to their teachers and peers. As they read the Bengali and then compared their texts to English versions, they discussed language form, meaning, and differences. Al-Azami et al. (2010) found that transliteration was an aid for children to represent Bengali in English, but children also realized the limitations of English letters to represent Bengali sounds. There were no standard spellings in transliteration, which led to metalinguistic awareness of how written symbols represent oral language. Children also realized that if their transliteration was read out loud by a non-Bengali speaker then it would sound anglicized, possibly not being understood. Transliteration made a communicative bridge where otherwise would have been a script barrier between parents and teachers, and provided a way for teachers to include families' languages in classroom literacy activities.

Additionally, researchers have explored translingual text exchanges that were personalized (Durán, 2016; Louie & Davis-Welton, 2016; Smith & Riojas-Cortez, 2010). For example, Durán (2016) describes the use of translingual Family Message Journals in a first grade classroom of emergent bilinguals. Students wrote messages in journals twice a week, took journals home, invited a family member to write back to them in the journals, brought their journals back to school, and discussed journal entries with the researcher. Durán (2016) found that students demonstrated audience awareness and responded to the linguistic preferences of their readers, resulting in translingual texts, despite receiving no formal instruction in their heritage languages. Moreover, they used persuasive writing techniques in their messages, despite receiving no formal instruction in persuasive writing from their teacher. Durán (2016) asserts that writing journal messages for family members provided an authentic purpose and audience for composing translingual texts, an opportunity to develop *spontaneous biliteracy* (de la luz Reyes, 2012), and an avenue for exploring effective writing in a linguistically complex world. Family Message Journals provide students with a purpose and audience for translanguaging, which is especially important in English-dominant schools, where students speak several different heritage languages.

Smith and Riojas-Cortez (2010) also used personalized texts to showcase families' translingual practices at school. Researchers requested that parents send love notes (*cartitas de cariño*) to their children at school in Spanish, the families' heritage language. The *cartitas* served as a model of using Spanish and written language to accomplish an authentic task, interpersonal communication, and as a scaffold for children to create their own Spanish texts at school. Models that become part of classroom literacy activities, like the *cartitas*, are important because mere invitations to use children's heritage languages at school may not sufficiently support

children's translingual composing. For example, Brown (2014) invited children to use their heritage languages to compose eBooks with Nooks and provided a translator to capture any multilingual dialogue that emergent bilinguals might use while composing. Yet, none of the children composed texts in their heritage languages, and Brown (2014) attributed this to the school district's English-only policies.

Additionally, Rowe and Fain (2013) noted a similar finding in their study. They sent home dual language books and CD recordings with multilingual preschoolers attending English-dominant schools. As part of the study, families composed journal responses to the readings and completed end-of-year surveys about their participation. Parents emphasized that family book reading was an enjoyable learning opportunity. Furthermore, parents appreciated the dual language books because they provided families with access to comprehensible literacy materials and opportunities for their children to use and learn both languages at home. Although journal responses provided teachers with a way to learn about families' home literacy practices, it is not clear from the report whether or not teachers used family journals during instruction. In the surveys, families responded positively to researchers' attempts to value their multilingualism. However, the majority of families used English to compose journal messages, not their heritage languages. Families may have composed mostly in English because they were aware that English was the language of school, despite researchers' explicit invitations to families to use their heritage languages in journals, and inclusion of examples of translingual family journals from a previous research project.

Overall, these findings underscore the importance of providing more supports for translanguaging in English-dominant settings, beyond inviting students and families to use their heritage languages. Teachers and students need to use personalized, translingual texts in

classroom literacy activities to model translanguaging as a classroom norm, to provide an authentic audience and purpose for translanguaging, and to provide scaffolds for translingual writing and reading in the classroom (Al-Azami et al., 2010; Durán, 2016; Smith & Riojas-Cortez, 2010; Rowe & Miller, 2016; Zapata & Laman, 2016).

Compose multimodal, translingual literacy materials. As digital, mobile technologies become increasingly ubiquitous and inexpensive, more researchers are examining how to use digital tools to build on children's multimodal composing practices, learn about students' resources, and include families' heritage languages and cultural experiences in the curriculum (Bernhard et al., 2008; Cummins et al., 2006; Martínez-Álvarez & Ghiso, 2014; Pacheco et al., 2017; Rowe & Miller, 2016; Taylor et al., 2008; Zapata & Laman, 2016). In the following paragraphs, I first describe the literature on children's multimodal and translingual page-based composing practices. Then I discuss studies that show ways of building on these composing practices using digital tools. Finally, I describe research that examines the affordances of leveraging digital, multimodal, translingual composing for the purposes of learning about students' linguistic and cultural resources and including them in the classroom.

Children's page-based composing is multimodal (Dyson, 2008; Kress, 1997; Rowe, 1994), and research has shown how children purposefully combine modes to make meaning and communicate their messages, through *transmediation*. Transmediation is the process of taking understandings from one sign system and moving them to another system to generate and multiply meanings (Siegel, 1995, 2012). Moreover, researchers working with bilingual children have examined children's complex processes of using multimodal, translingual composition resources during school composing events (Ranker, 2009; Zapata 2014; Zapata & Laman, 2016). Ranker (2009) examined how first grade Spanish-English bilinguals used available semiotic

resources to represent their interests and participate in official curricular writing events. For example, students combined visual and textual resources as they drew pictures of cars and wrote descriptions in the wheels and on the tops of the cars. Their composing practices involved attending to page layout, using typography and print as both visual and linguistic resources, and combining text with images to fit their overall meaning. Ranker (2009) shows the importance of multimodal composition resources, specifically visual resources, for perpetuating students' composing in the classroom, and he recommends that teachers provide students with open-ended opportunities to develop and discuss drawing and images while composing. Moreover, he argues that teachers need to accept and promote students' use of unofficial subject matter (e.g., cars) and languages (e.g., languages other than English) as valuable meaning-making resources.

Other studies have extended work on bilingual children's use of composition resources to represent their languages and interests in the classroom, and researchers have shown how students appropriate multimodal and translingual approaches to composing from mentor texts. Working with a third grade ESL class, Zapata (2014) describes a literacy unit where students investigated craft and structure in Latino children's picturebooks, and then composed their own picturebooks using plain and colored paper, markers, paint, and web-based images. As they composed their multimodal picturebooks, they appropriated composition resources from the Latino children's picturebooks. For example, students discussed how authors of Latino children's picturebooks used color as a semiotic resource to convey meaning, elicit feelings, and connect to cultural artifacts and experiences. Then, students used color in their picturebooks to convey meaning about their characters, such as Daniel's use of dark and bold colors to represent that an evil *luchador* (fighter) in his book. Zapata (2014) argues that students relied on composition resources such as color to engage in intellectual and creative acts of producing new

meanings and representing cultural connections.

Furthermore, Zapata (2014) describes how students appropriated several translingual approaches from the Latino children's picturebooks, such as repeating Spanish words and phrases, positioning English and Spanish text in both secondary and primary positions on different pages, and using text dividers and color blocking to represent different languages. In addition to appropriating translingual composition resources from mentor texts, Zapata and Laman (2016) describe how a bilingual teacher provided students with demonstrations of translingual writing strategies, specifically placing Spanish text before English text. As she wrote in front of students, the teacher verbally unpacked how she negotiated her linguistic resources to compose text, how she used both Spanish and English to serve her purposes, and how she kept her audience and their languages in mind as she composed translingually. By making visible her thoughts, intentions, and choices, the teacher provided students with a model of applying translingual strategies to writing and demonstrating translingual competence for mixing languages and modes in a situated manner (Canagarajah, 2015). Moreover, students with varying language proficiencies can demonstrate translingual competence and use translingual approaches, and Zapata (2014) describes how both English-dominant students and more experienced bilinguals composed bilingual dedications to represent their bilingual identities and address bilingual audiences. These studies show how students and teachers use translingual composition resources and demonstrate translingual competence to represent their heritage languages, even within English-dominant classrooms. Overall, engaging students in multimodal, translingual, open-ended composing activities provides ways for students to represent their interests, languages, and experiences in the classroom so that others can learn about students' cultural and linguistic resources.

Furthermore, researchers have built on students' multimodal and translingual composing practices by using digital tools as a way to connect home and school. For example, researchers have explored how the mobility of digital tools and recording devices provides opportunities for students to bring in oral recordings to the classroom (Louie & Davis-Welton, 2016; Pacheco et al., 2017). Pacheco et al. (2017) describe a three-week workshop with a diverse, eighth grade, language arts class where bilingual students composed and shared digital projects about community heroes. The goal of the research project was to implement a *multimodal code-meshing pedagogy*, and to engage students in purposefully combining languages, text, images, voice recordings, and color to represent their community heroes, to explore their personal histories, and to connect school and community literacies. Students interviewed their heroes in multiple languages, sometimes using their personal phones to record interviews, and other times writing down heroes' responses. Then, they brought interview oral recordings and written responses to school, and used them as the basis for collaboratively composing digital projects in the classroom using laptops and PowerPoint. Researchers provided students with a demonstration digital project, and they conducted mini-lessons about how and why to use multimodal composition resources. Finally, students presented their projects to the class, and they discussed their modal design decisions and language choices with their peers and teachers. As a result, students had opportunities not only to use multimodal and translingual composition resources to represent their heroes and experiences, but also to analyze how their languages and digital designs were valuable for classroom composing. Digital voice recording mobile tools provided a way for students to represent their heroes' voices and languages, and to give their heroes a virtual presence in the classroom.

Moreover, several other studies described how family authoring programs using digital

photography and voice recordings have enabled families' participation in composing multimodal, translingual literacy materials for the classroom (Cummins et al., 2006; Rowe & Miller, 2016; Taylor et al., 2008). Even though families may not be physically present in the classroom, teachers and students have access to literacy materials that feature families' photographs and families' heritage languages, alongside English. For example, Rowe and Miller (2016) used home photos and eBook composing to create culturally and linguistically responsive literacy materials for a preschool classroom. Researchers worked with children one-on-one and in small groups to compose dual language eBooks on iPads during centers time. They assisted the classroom teacher in making a demonstration multilingual eBook that included many of the participating children's heritage languages. Parents and community sponsors orally recorded messages in children's heritage languages in the teacher eBook and in the children's eBooks. These personally-sponsored, multilingual eBooks were important models of children's heritage languages in an English-dominant context. Teachers and researchers read the multilingual eBooks with children, celebrating the languages represented on each page and connecting the languages with children, families, and their communities. Including identity texts in the classroom changes the balance of expertise among teachers, students, and families and supports collaborative creations of power (Taylor et al., 2008).

Like Rowe and Miller (2016), other researchers have leveraged photography and *Photovoice methods* as a way to learn from families and included photographs of children and their families in literacy materials (Bernhard et al., 2008; Iddings, 2009; Martínez-Álvarez & Ghiso, 2014; Taylor et al., 2008; Zapata & Laman, 2016). *Photovoice* is a photographic strategy that enables children and their families to represent their strengths and perspectives and then communicate those to other stakeholders (Luttrell, 2010; Wang & Redwood-Jones, 2001). For

example, Martínez-Álvarez and Ghiso (2014) implemented a technology-mediated writing curriculum with Photovoice techniques that anchored children's out of school experiences to academic learning. Children brought photos of their homes and communities into the classroom, talked about their photos with teachers, researchers, and peers, and used the photos to make interactive maps. They investigated how community structures influenced families' access to resources and participation in social practices, such as going to church, the grocery store, or the laundry mat. Children then created a critical map of their communities that could be shared and put on display at school and in community centers. Martínez-Álvarez and Ghiso (2014) found that children combined visuals and written, translingual text in complementary ways, using words to frame images within their social worlds. They argue that technology provides children with a platform to generate knowledge, and they call for more research on how teachers integrate technology with literacy instruction.

Overall, when using personalized digital photos and multimodal, translingual compositions as part of the curriculum, not only are children more motivated and engaged in literacy activities (Bernhard et al., 2008; Kucirkova, Messer, & Sheehy, 2014), they have a wider array of semiotic resources and tools at their disposal in order to represent their heritage languages, families, interests, and cultural experiences (Martínez-Álvarez & Ghiso, 2014; Rowe, Miller, & Pacheco, 2014).

Implications for the current study. Through reviewing current research on creating translingual home to school connections in English-dominant schools, I identified several strategies from the literature for learning about and including families' linguistic and cultural resources. First, research shows the value of including family and community members as volunteers in the classroom (Naqvi et al., 2013; Worthington et al., 2011; Zapata & Laman,

2016). As family and community members read books and composed in their heritage languages during whole class literacy instruction, they provided a model of translanguaging in an otherwise English-dominant space, and their cultural and linguistic knowledge became shared resources for learning. Moreover, when teachers include family members as contributors to a translanguaging literacy curriculum, they send the message that diversity is a resource in their classrooms, not a problem. However, one issue inherent in these studies is family members may not be available to participate in classroom activities for various reasons (Poza, Brooks, & Valdés, 2014). Moreover, including classroom volunteers as a routine part of instruction may not be a sustainable practice. Thus, what are ways that families can contribute even if they are unavailable to physically volunteer in the classroom? How can teachers learn about and include families' linguistic and cultural resources as shared curricular resources in a routine way, especially when they do not share a linguistic and/or cultural background with students?

Second, researchers have described how teachers, students, and families exchange translanguaging texts across home and school boundaries. These exchanges facilitated a way for teachers to learn about and include families' languages with classroom literacy instruction, even amidst script barriers (Al-Azami et al., 2010). Moreover, as families exchanged personalized, translanguaging messages in journals and letters with their children, students had an authentic purpose for, audience for, and model of translanguaging (Durán, 2016; Smith & Riojas-Cortez, 2010). Yet important issues were also raised in the few studies that described translanguaging text exchanges. For example, teachers and students had difficulties orally reading family translanguaging messages at school when they were not familiar with the script (Al-Azami et al., 2010). Further, although researchers invited families to compose translanguaging texts, families did not always take up those opportunities, possibly because of English-dominant ideologies (Rowe & Fain, 2013).

Moreover, there is little research on how teachers actually use translingual texts as part of instruction (Durán, 2016; Rowe & Fain, 2013). Therefore, several questions remain—how can teachers and students read messages in scripts they do not know? How do researchers and teachers disrupt linguistic hierarchies to encourage families to compose translingual texts? How do teachers integrate translingual texts with instruction in English-dominant classrooms?

Third, there is a growing body of research on using digital tools to build on children's multimodal composing practices, learn about students' resources, and include families' heritage languages and cultural experiences in the curriculum (Bernhard et al., 2008; Cummins et al., 2006; Martínez-Álvarez & Ghiso, 2014; Pacheco et al., 2017; Rowe & Miller, 2016; Taylor et al., 2008; Zapata & Laman, 2016). Research has shown how bilingual students use multimodal and translingual composition resources to represent their interests, bilingualism, and cultural connections in both page-based and digital compositions. Furthermore, a few studies have examined how digital tools make it possible for families' linguistic and cultural resources to flow across home and school boundaries, as families and students compose with digital photography, voice recordings, and text. However, more research is needed in this growing field to understand how families compose with digital tools and how teachers implement translingual, multimodal, digital instructional activities. In the current literature, there are only examples of researchers and teachers sending home cameras with students. However, what about sending home other tools such as tablets? How do families compose with these tools, and what do their compositions show about their experiences outside of school? Moreover, the majority of these studies are researcher-driven, and there is little information on teachers' perspectives on translingual instruction and strategies for doing this work (Martínez-Álvarez & Ghiso, 2014). Therefore, how do teachers in

English-dominant schools view translingual instruction? How do they create time, space, and norms for enacting translingual, multimodal, digital literacy activities in the classroom?

Providing Curricular Opportunities for Translanguaging and Sharing

The first step to creating translingual home to school connections involves learning about and including families' linguistic and cultural resources in the classroom. However, a necessary second step involves creating curricular opportunities to translanguage and share about cultural experiences in ways that have academic and social benefits for students. Rios-Aguilar et al. (2011) point out that mere recognition of families' funds of knowledge has not produced improved economic and educational outcomes for underserved students. Given that premise, it is important to examine what translanguaging does for students and how to make translanguaging and sharing valuable in the classroom (Smith & Murillo, 2015). Even though all families have linguistic resources and funds of knowledge, how those resources are activated as capital depends on how they are valued by power-granting institutions (Lareau & Weininger, 2003; Rios-Aguilar et al., 2011). Furthermore, the value of capital depends on the field in which it is activated, the individual's skill in activating available capital, and the institution's response to that activation (Lareau & Horvat, 1999). Moreover, the process of activating capital is co-constructed and jointly negotiated by all participants, meaning that families, students, and teachers can work together to transform English-dominant schools into fields where their resources are useful and valuable. To this end, research has examined how the following kinds of translingual curricular opportunities promote academic and social benefits for students: 1) use translation as a reading comprehension strategy; 2) use languages together to compose texts for the classroom; and 3) use cultural and linguistic knowledge to participate in intercultural and linguistic exchanges with peers and teachers.

Use translation as a reading comprehension strategy. During translingual instructional activities, participants (e.g., teachers, students, family members) use languages together to complete an academic task. Research has shown how translanguaging during text discussions is a reading comprehension strategy, as students use as many of their linguistic resources as possible to make meaning for themselves and others (Iddings, Risko, & Rampulla, 2009; Jiménez et al., 2015a; Jiménez et al., 2015b; Puzio, Keyes, Cole, & Jiménez, 2013). For example, Jiménez and colleagues designed Project TRANSLATE as a curricular activity where bilingual students use translation during text discussions as a reading comprehension strategy. Students read an academic text, translate important passages from English into their heritage languages, and then evaluate their translations collaboratively with same-language peers. During collaborative translation discussions, students develop deep understanding of textual concepts and are more engaged in the reading activity (Puzio et al., 2013). Furthermore, Jiménez et al. (2015a) found that translation activities provided students with opportunities to develop disciplinary conceptual understandings at the semantic, syntactic, and lexical levels. As students compared their two languages during translation, they reflected on how written language works and their bilingualism as a tool for reading comprehension. Jiménez et al. (2015b) point out that teachers facilitate these activities by connecting key ideas from the text to students' heritage language knowledge. The instructor prompted students to translate sentences and to confirm that their translations matched their interpretation of the text as a whole. Thus, the instructor showed students that reading is about making meaning, and students used their heritage languages as a reading comprehension strategy. When teachers plan for bilingual students to practice translanguaging during reading instruction, students deepen connections to text content and develop metalinguistic awareness through translation work.

Moreover, using translation as a reading comprehension strategy also promotes language comparisons and discussion about the nuances of word meanings. Naqvi et al. (2013) report that during dual language book reading sessions, teachers and volunteer readers supported children's linguistic comparisons through translanguaging while reading. Teachers invited children to translanguage and responded positively when children translanguaged spontaneously. Children learned that they could use their heritage languages as capital to participate in literacy activities at school. For example, one teacher validated a student's translanguaging by repeating the student's translated word. The student extended the talk by making a metalinguistic comment and pointing out that he had provided a translation. The teacher then discussed the various forms that word meaning could take by reviewing translations. By encouraging students' translanguaging during curricular reading activities, teachers and students constructed valuable uses for students' linguistic resources in the classroom as capital to comprehend texts, participate in class discussions, and examine language form and meaning.

Use languages together to compose texts. Research has shown how students translanguage to support writing and composing in the classroom (Canagarajah, 2011, 2013; Gort, 2012; Miller & Rowe, 2014; Velasco & García, 2014; Zapata & Laman, 2016). Furthermore, translingual composing activities can be enacted even in classrooms where English is the primary language of instruction (Naqvi et al., 2013; Rowe & Miller, 2016). As participants use their languages together to compose, they also compare language forms. When this kind of cross-language processing occurs at an explicit level, participants demonstrate metalinguistic awareness (Gort, 2012). These curricular activities also support cross-linguistic transfer as participants apply their metalanguage knowledge from one language to the other (Goldenberg, 2008; Kenner, Kress, Al-Khatib, Kam, & Tsai, 2004; Naqvi et al., 2014).

Moreover, research has shown a connection between providing students and families with opportunities to use languages together to compose and students' academic achievement. Bernhard et al. (2008) measured children's language and literacy skills as part of the Early Authors Program study. In the Early Authors Program, families came to childcare centers and made personalized books that were used as literacy materials in the classroom. Bernhard et al. (2008) found that children's absolute language skills increased, and the intervention prevented children from falling more behind in terms of comparison with national age norms. Furthermore, Cummins et al. (2006) and Taylor et al. (2008) describe how activating linguistic capital fits into their framework for learning and developing academic expertise. The framework outlines three foci for literacy activity interactions between teachers and students: meaning, language form, and use. The goal is to apprentice students in the ways language is used across personally meaningful social contexts. They found that as students focused on form and uses of languages, they absorbed the academic language they read and used language more effectively in their writing and speaking (Cummins et al., 2006).

Furthermore, the literature provides examples of how teachers, students, and families participate in translingual composing activities, regardless of their differing proficiencies in English and their heritage languages (Canagarajah, 2013; Rowe & Miller, 2016; Zapata & Laman, 2016). Canagarajah (2013) describes how college students taking a course on second language writing engaged in translingual composing, even though some were English speakers and others spoke multiple languages. He found that students from both groups wrote in more than one language, and writers adopted negotiation strategies of *envoicing*, *recontextualization*, *interactional*, and *entextualization* as they composed. Moreover, students developed translingual awareness of how and when to mesh their semiotic resources and simultaneously represent their

voices and identities, while considering reader's meaning construction and uptake. Even for students and teachers who primarily speak one language, translingual composing curricular opportunities may provide a way for participants to negotiate their linguistic resources, demonstrate translingual competence, and develop as translingual composers—valuable capital in a Composition 2.0 world (Fraiberg, 2010).

Use cultural and linguistic knowledge to participate in exchanges. By creating curricular opportunities for students to translanguage and share, teachers, students, and families construct a classroom field where students have more access to engaging in instruction, participating in the classroom community, and connecting with others' diverse linguistic and cultural practices. During translingual instructional activities, students make conscious decisions on how to use language that is socioculturally appropriate and inclusive (Souto-Manning & Felderman, 2013). Student and family engagement in literacy activities increases, and Worthington et al. (2011) reported that preschool children seemed more comfortable when their heritage languages were used in the classroom. Students and families engage more fully when they used their heritage languages (Alvarez, 2014; Anderson et al., 2015; Naqvi et al., 2013). Bernhard et al. (2008) showed that children were more engaged in reading their personalized books, and teachers connected to children's heritage languages and family names more often during instruction as a result of the Early Authors Program. Overall, increased access to and inclusion in educational opportunities is an important part of building and activating capital in the school field (Lareau, 2011).

Moreover, as students' cultural and linguistic knowledge becomes part of the curriculum, they learn about their peers' languages and experiences, teach others about their languages and cultural experiences, and participate in exchanges. Such exchanges show how students activate

their resources as capital to gain access to others' resources. For example, Rowe and Miller (2016) reported that preschool children taught adults and peers new words in their heritage languages during eBook composing. Children became teachers, and adults participated as language learners, approximating the pronunciation of new words and using them in eBooks (Cambourne, 2000).

Furthermore, Griffith et al. (2014) describe how students researched their parents' language use patterns for a class investigation of language. Students taught their peers and teachers about their families' translingual practices, and they learned how language was a tool they could use in different ways, depending on the context. Griffith et al. (2014) argue that when students learn to be language investigators, analyzers, teachers, and learners, then they develop a self-extending system for their own language learning and use. Moreover, they develop critical awareness of how language capital is activated and skills for activating that capital.

Lastly, as teachers, students, and families participate in intercultural and linguistic exchanges, they negotiate valuable access to social communities. Parents wanted their children to develop their heritage languages to foster relationships with family members, as well as gain access to social and professional communities (Taylor et al., 2008). For example, Zohreh is multilingual in Urdu, English, and Arabic. Her parents expressed a commitment to developing Zohreh's multilingualism, and they provided many opportunities for her to use her languages. They viewed her multilingualism as a resource that granted her access to several different communities. During an interview, Zohreh's mother said that she wanted Zohreh to keep speaking Urdu so that she would "belong to India" and "keep with our culture" (Taylor et al., 2008, p. 285). As Zohreh and her mother co-authored a dual language book at home, they looked through family photo albums for photos to include in the book. During conversations about

photos, they assembled memories across nations, cultures, and languages. The resulting dual language book included varied translingual practices that represented Zohreh's complex identity.

Implications for the current study. Research provides examples of how to create curricular opportunities to translanguage and share so that students' cultural and linguistic resources become valuable, even in English-dominant classrooms. First, studies have described translanguaging as a reading comprehension strategy, in which students used their linguistic resources to make meaning, engage in metalinguistic conversations, discuss the nuances of word meanings, compare languages, and participate in text discussions (Jiménez et al., 2015b; Naqvi et al., 2013). Emergent bilingual students in English-dominant classrooms may have few opportunities to engage in cross-language processing since students' heritage languages are often excluded from instruction (García & Kleifgen, 2010). Providing students with opportunities to translanguage as part of reading curricular activities connects students' linguistic resources to academic benefits associated with reading comprehension and metalinguistic awareness. Yet there is a need for more research on how teachers with varying proficiencies in students' heritage languages can support students' cross-linguistic processing during translingual instructional activities. What strategies and processes do teachers use? Moreover, studies have described the benefits of collaborative translation among same-language peers, but how can students without same-language peers in their class participate in such activities? What are the purposes, supports, and benefits for these students? Finally, research on translingual instruction in English-dominant schools often describes how students and teachers use heritage languages in the classroom, but leave out information about the processes of disrupting linguistic hierarchies and supporting students' translingual practices. What happens when students decline to use their heritage

languages during translingual curricular opportunities, as found by Rowe and Miller (2016)?

What are the processes of valuing students' translanguaging as capital in the classroom?

Second, there is a growing body of research on translingual composing, and studies have shown how composers engage in cross-linguistic processing and discuss metalinguistic insights as they use their languages together. In contrast to using translanguaging as a reading comprehension strategy, translingual composing activities provide students with opportunities to actively negotiate their semiotic resources to communicate with and influence their audience. Students develop translingual awareness of how and when to mobilize their linguistic resources to achieve their social purposes, and translingual composing becomes valuable capital in the classroom. However, more information is needed about translingual composing with young, elementary school students. Furthermore, how do teachers and students with varying language proficiencies (e.g., participants who primarily speak English, participants who speak more than one language, participants who primarily speak a heritage language) develop translingual awareness and engage in translingual practices? Moreover, although research has shown the benefits of including personal photos and family writing in classroom literacy materials (Bernhard et al., 2008; Miller & Rowe, 2014; Zapata & Laman, 2016), how do students and teachers use personalized photos and family writing as supports for composing in the classroom?

Third, when families' cultural and linguistic knowledge becomes included as a shared, social, curricular resource in the classroom, students and teachers have opportunities both to share about their resources and learn about others' experiences (Naqvi et al., 2013; Rowe & Miller, 2016). Reciprocal opportunities to share and learn facilitate intercultural and linguistic exchanges among participants, where students' resources are valuable capital that they can exchange to learn from others. Such exchanges also facilitate access to participation in social

communities in the school and beyond. However, there is little information in the literature about the processes of constructing intercultural and linguistic exchanges in English-dominant classrooms. Many questions remain—how do teachers and students construct exchange opportunities? What are their attitudes towards language learning? What are the features of an instructional context supportive of exchanges?

Creating a Translingual Instructional Context

In addition to learning about families' linguistic and cultural resources and providing curricular opportunities to use resources, research has shown that creating a translingual instructional context is the final step in the process of building translingual home to school connections. In a translingual instructional context, participants adopt a translingual pedagogical approach to literacy, focus on the processes of cross-language relations, and affirm translingual practices as valuable in our global community (Canagarajah, 2013; Zapata & Laman, 2016). Moreover, students, families, and teachers have regular, structured opportunities to translanguage and share in the classroom. In this way, translingual curricular opportunities are practical and sustainable across a school year. Researchers have described the following instructional conditions for creating translingual contexts: 1) enact a translingual orientation to literacy; 2) embed translingual curricular opportunities in a writer's workshop model; and 3) arrange materials, space, and bodies to support translingual practices in the classroom.

Enact a translingual orientation to literacy. Including students' heritage languages in the classroom is a widely-cited strategy for teaching English learners (Goldenberg, 2008). Yet, recently scholars working from a translanguaging perspective have argued that teachers can support students' literacy development in more than one language not just by mastering a set of teaching strategies, but by shifting to a translingual pedagogical approach (Canagarajah, 2013;

Palmer & Martínez, 2016; Zapata & Laman, 2016). Part of adopting such an approach involves actively affirming translinguaging to counteract negative orientations that frame bilinguals' translingual practices as language deficiency (García, 2014). Teachers and family members act as *linguistic gatekeepers*, or authority figures who allow or do not allow language practices, based on those person's implicit or explicit language orientations (Giampapa, 2010). As families and emergent bilingual students learn that English is the dominant language of most U.S. schools, they may only engage in opportunities to use English (Murillo, 2012; Reyes, 2011). Reyes (2011) conducted interviews and observations with parents and teachers of emergent bilingual preschoolers in Arizona to explore their language ideologies and found that both teachers and parents succumbed to perceived pressures to privilege children's English development, despite their pledged support for bilingualism and biliteracy. Furthermore, other studies have found that parents took a deficit view of their own linguistic resources, which shaped their attitudes towards translinguaging and bilingual development. In their interview study with parents, teachers, and principals, Peterson and Heywood (2007) found that parents did not believe they could help their children in school because their English was not native-like. Additionally, Alvarez (2014) found that Spanish-speaking parents felt intimidated by their children's English homework, so they did not initially view translinguaging during homework with a positive attitude.

Moreover, several studies indicate that teachers' attitudes towards students' translinguaging and perceptions about the goals of literacy instruction affect how they teach emergent bilinguals (Lee & Oxelson, 2006; Martínez et al., 2015; Martínez-Roldán, 2015). Some teachers may demonstrate a negative attitude towards students' translinguaging because they do not have practice or training in teaching emergent bilinguals. Research on teachers' attitudes has

shown that mainstream educators have negative attitudes towards including English Language Learners (ELLs) in their classrooms (Walker, Shafer, & Iiams, 2004). Walker et al. (2004) collected survey responses from 422 mainstream educators in 28 schools in a Great Plains state, and they found that the 70% of participants were not actively interested in having ELLs in their classrooms. Furthermore, 87% had never had any training on teaching ELLs, and 51% were not interested in receiving such training. Teachers were also susceptible to misinformation about educating emergent bilinguals, as 15% responded positively and 46% responded neutrally to the survey statement, 'ELLs should be prohibited from speaking in their native languages at school.' The authors conclude that teachers develop negative attitudes towards working with ELLs when they are unprepared to be effective, and to feel efficacious, as teachers of ELLs. A step towards enacting a translingual pedagogical orientation involves clarifying teachers' possible misconceptions about bilingual language learning, such as the notion that students need more exposure to English only (Lee & Oxelson, 2006).

Furthermore, teachers may tacitly privilege English instruction in bilingual programs because they feel pressure to prepare students for English exams. For example, Martínez-Roldán (2015) examined primary grade bilingual students' and teacher candidates' translanguaging practices in an after school program. The goal of the program was to foster students' bilingualism and biliteracy, and there were no restrictions on how language was used in the after school space. Martínez-Roldán (2015) analyzed teacher candidates' language use for evidence of *developmental contradictions*, or tensions within and between activity systems that manifest as conflicts or dissonances. She found that for some teacher candidates, the object of the activity was to teach children English because of the related need to prepare for English testing, even though the program goals focused on bilingualism. However, teacher candidates'

conceptualization of the object of the activity changed over time, and teacher candidates who participated in the program for one year moved to an emphasis of Spanish as a tool for learning over English. Yet for teacher candidates who only participated in the program for a semester, English remained the chief concern. The author concludes that flexible language policies in the after school program stabilized the existing hierarchy of English as the dominant language, and she argues that educators need to develop structures that affirm translingual practices and students' access to their heritage languages.

In contrast, when participants adopt a translingual orientation, they recognize translingual practices as legitimate and build on those practices during academic activities (García & Sylvan, 2011; Martínez et al., 2015; Miller & Rowe, 2014). Instead of advising their children to only use English for academic tasks, which also may preclude family members from working with their children (Murillo, 2012; Reyes, 2011), family members can translanguage to make meaning of school work. When tutors encouraged Spanish-speaking parents to practice translanguage as a form of homework help, families developed affirming attitudes towards translanguage practices (Alvarez, 2014). A Spanish-speaking mother taught her child about his family history in Spanish, and then they worked together to translate the oral Spanish story into English writing. The mother's Spanish language story became a linguistic resource for the student's homework.

When families complete homework translanguage activities that are used in the classroom, family members, students, and teachers affirm translanguage as valuable for school learning. In the Griffith, Silva, and Weinburgh (2014) study, teachers asked 4th and 5th grade emergent bilinguals to collect data about their families' language use, compare their data to their classmates' data, and analyze patterns in translanguage. Children interviewed their parents and transcribed specialized words that parents used in different contexts. Through the project,

children recognized that language was a tool their parents used in different ways according to social context. Finally, the project promoted critical language awareness that language is situated and its use in one context does not need to be (but often is) privileged over its use in another context. As a result of engaging parents in translanguaging for academic purposes, parents use their stronger language to support their children, which is better for both children's learning and parents' self-efficacy as assets for their children's education.

Overall, enacting a translingual pedagogical orientation in English-dominant contexts involves counteracting negative orientations towards families' heritage languages and constructing classroom norms to value translanguaging as a practice that supports students' meaning-making and mediates instruction (Palmer & Martínez, 2016). If teachers and family members have negative orientations towards translanguaging, then students' and families' heritage language contributions are more likely to be unused in the classroom. Thus, they have to counteract such negativity and develop affirming attitudes concerning translanguaging for academic purposes, in and out of the classroom. For teachers this means working against institutional pressures and policies that privilege English outcomes and/or language separation. For family members this means realizing that they can support their children's academic progress *while using their heritage languages*, instead of limiting their participation in their children's education to only English. While most mainstream U.S. schools are English-dominant, these studies provide examples of ways to enact a translingual orientation, encourage students' and families' translingual practices, and create a supportive instructional context for translanguaging and sharing.

Embed translingual curricular opportunities in a writer's workshop model. Several studies of translingual instruction in English-dominant classrooms have embedded translingual

curricular opportunities in a writer's workshop model (Durán, 2016; Martínez-Álvarez & Ghiso, 2014; Pacheco et al., 2017; Rowe et al., 2014; Zapata & Laman, 2016). During writer's workshop, students have opportunities to write, revise, edit, and share daily about topics that interest them (Calkins, 1994; Harste, 1988). Teachers implement mini-lessons at the beginning of each workshop, provide demonstrations of writing strategies and craft elements, and invite students to try out strategies in their writing as they see fit (Hale, 2008). However, students spend the majority of workshop time composing and engaging in the writing process with peers, while teachers confer with students individually and provide small group writing instruction. Thus, writer's workshop is structured to provide open-ended opportunities for individualized, responsive instruction, as well as time to publish and celebrate students' compositions.

Translingual curricular opportunities fit well in a writer's workshop framework because students and teachers have time and space to engage in translingual practices as they compose pieces of personal relevance during classroom composing sessions. Rowe et al. (2014) outline the curricular framework for eBook composing activities with preschool children (see Figure 1) and describe how children and researchers engaged in composing sessions during the open-ended literacy centers time in the classroom. Children sat alongside researchers and composed on iPads placed in front of children on the composing table. First, researchers invited children to draw or take a photo. Then, participants talked about the image, and researchers invited children to write a message about the image. Next, children orally recorded a message about the image for the eBook page, and researchers invited children to record in their heritage languages. Children often made multiple eBook pages for one eBook. Then, children and researchers read children's eBooks together at the composing table. Finally, children had opportunities to share their eBooks with the whole class.

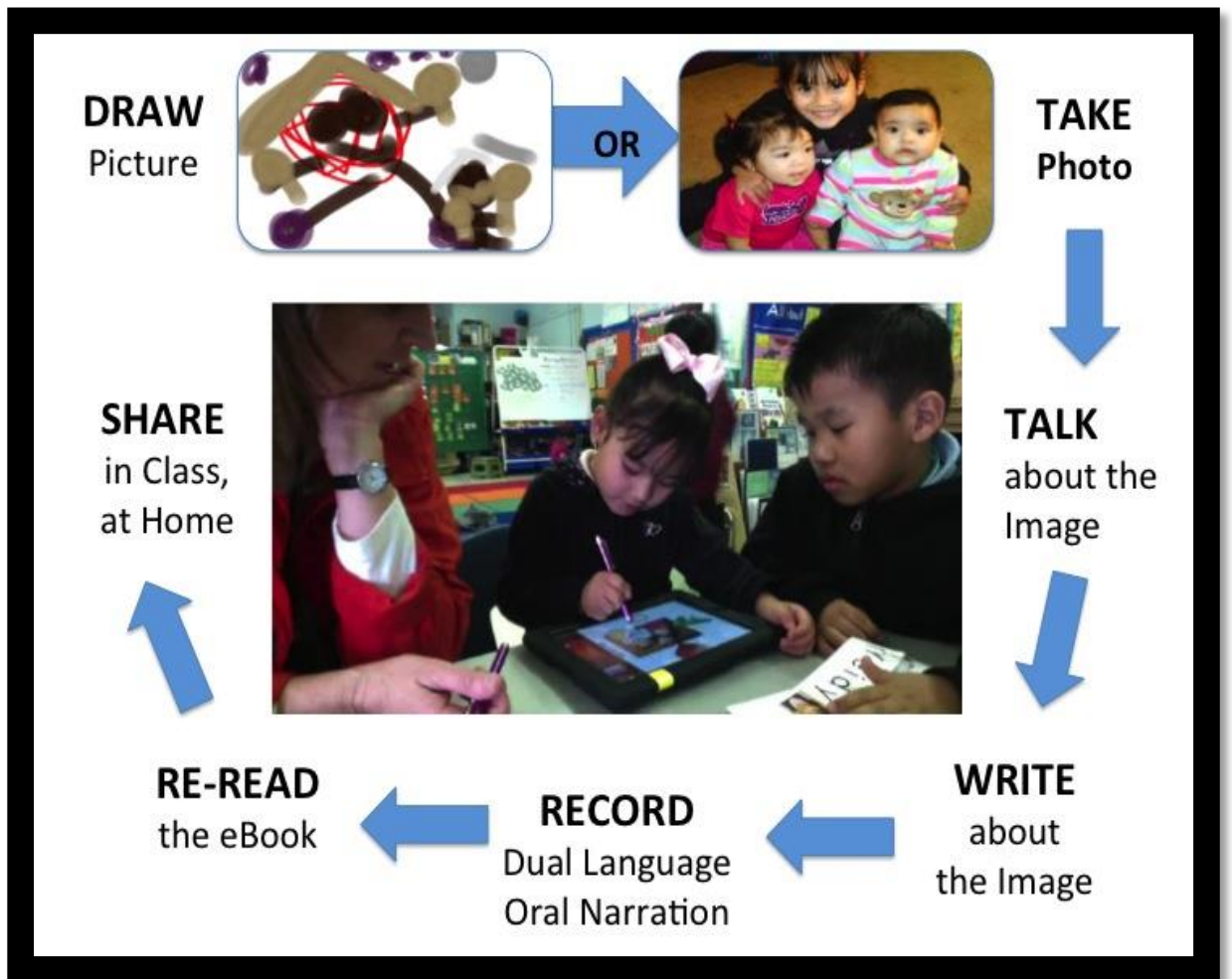


Figure 1. eBook composing curricular framework from Rowe et al. (2014).

The eBook composing curricular framework was designed to provide emergent bilinguals with open-ended opportunities to compose and use their heritage languages. Moreover, it aligned with best practices for supporting emergent writers. Children had opportunities to participate as writers, form and test hypotheses about print, see writing demonstrations, collaborate with adults and peers, receive feedback and tailored support, and have their approximations valued as part of the learning process (Cambourne 1995; Rowe & Flushman, 2013). By embedding opportunities to translanguage within classroom composing sessions with emergent writers, Rowe et al. (2014) created a translanguing instructional context where translanguing composing was routinely demonstrated, practiced, valued, and shared.

Research has also shown how to embed translanguing instruction in workshop activities with older students. Working with eighth grade students in a three week workshop, Pacheco et al. (2017) used the following curricular framework in the Everyday Heroes: Multimodal Code-meshing Project: 1) participate in a literature unit on heroes; 2) invite students to interview heroes from their communities in their heritage languages, recording hero responses with cell phone or through writing; 3) provide students with a hero digital project demonstration text and analyze how modal decisions affect composition (Dalton et al., 2015); 4) enact mini-lessons on how to use PowerPoint and different design features; 5) give students opportunities to collaboratively compose on laptops in class and to discuss ideas, give technical advice, and provide heritage language support to same-language peers; 6) provide time for students to present projects in the classroom; and 7) analyze how design and linguistic choices affect compositions. Although Pacheco et al. (2017) note that not all students chose to use their heritage languages in their compositions, they do not speculate on why. Instead, they point to the potential of pairing students with differing linguistic proficiencies, citing research that shows

how Spanish and English speaking high school students taught each other about their languages (Martin-Beltrán, 2014). Overall, students had opportunities to translanguage, share, collaborate, design, and analyze as part of their participation in classroom composing activities.

Through publishing activities in a writer's workshop, students have a forum for sharing their translingual writing with an audience so that others can learn about, value, and support their translingualism in the classroom (Pacheco et al., 2017; Rowe & Miller, 2016; Zapata & Laman, 2016). However, before students publish, teachers need to model how to share translingual texts and create sharing norms. Zapata and Laman (2016) describe how teachers modeled sharing translingual writing first through sharing personal translingual writing and translingual trade mentor texts. Then, students had opportunities to try out translingual composing strategies that fit their purposes before they shared their writing with peers and teachers. Rowe and Miller (2016) also provided a model of translingual composing with students before students shared their translingual eBooks with the class. The teacher composed a demonstration eBook that featured classroom photos, English writing, and voice recordings of all the students' heritage languages in the class, except for one. Voice recordings were composed by a bilingual teacher assistant, a family member, and a community member. Some students initially laughed when they heard voices speaking in unfamiliar languages, and the classroom teacher told students not to laugh at other's languages. Moreover, when the teacher played the recording of a community member speaking Karen, a Karen-speaking child asked if that was her mom in the recording. When the researcher told the class that it was a community member, the child responded that it must be her mom's friend. During the rest of the teacher eBook presentation, children listened to each voice recording and named the language and speaker. When the classroom teacher shared her translingual eBook with the class, she provided a model of translingual writing, valued

community and family members' contributions to classroom literacy materials, and constructed norms for sharing translingual writing. As a result, this English-dominant classroom became a supportive context for translanguaging and sharing.

Arrange materials, space, and bodies to support translingual practices. Research on the social processes of composing has shown how material, spatial, and embodied features shape the social production of literacy events (Kuby & Rucker, 2016; Rowe, 2008). For example, the arrangement of materials in a classroom structures students' opportunities to participate as composers, and sends a message about the kinds of roles students can take up, as well as the kinds of products they are expected to produce (Rowe & Flushman, 2013). When the composing materials are in students' hands, they are positioned as active composers. When students have open access to many different kinds of materials in the classroom (e.g., cameras, tablets, paper, cardstock, paints, markers, pens, pencils, laptops, cell phones, web-based applications, poster board), they have open-ended opportunities to design, create, and compose (Kuby & Rucker, 2016; Rowe, 2008). Furthermore, scholars have started to explore the potential of using online tools to develop students' vocabulary and facilitate translation activities (Dalton & Grisham, 2011).

Furthermore, spatial arrangement and embodied features shape possibilities for composing and collaborating during classroom writing events. When there is a dedicated, large, open space for writing in the classroom with nearby access to materials, students have opportunities to explore the potential of materials for composing and participate in learning-to-write interactions with teachers and peers (Rowe, 2008). Moreover, when students and adults sit alongside each other at the composing table, they have opportunities to observe demonstrations, have two-way conversations, and share the page (or screen) in collaborative composing (Rowe et

al., 2014; Rowe & Flushman, 2013). Participants' embodied practices also reflect and influence the positions and roles available to participants in classroom literacy events. For example, Kuby and Rucker (2016) describe the embodied practices of whole class shared writing activities in a second grade classroom. The classroom teacher (second author Rucker) wanted her students to lead these activities, so she positioned them as the teachers in two ways. First, she gave students control of her teacher materials, and students used her chart paper and markers at the front of the classroom. Second, Rucker stood at the back of the room or to the side while students presented, and she participated with her students. Students in the audience engaged with the student presenters at the front of the room as the teachers instead of deferring to Rucker. Kuby and Rucker (2016) show how embodied practices hold powerful potential for positioning students as teachers and adults as learners in the classroom.

Although research has shown that material, spatial, and embodied features play an active role in classroom literacy events, studies on translanguaging instruction in English-dominant classrooms have not focused specifically on how these features support translingual practices. However, Zapata and Laman (2016) report that a child's mother came to the classroom and wrote alongside her daughter at the writing table, creating an opportunity for students and teachers to observe demonstrations of translingual writing in the classroom as they participated at the table. Moreover, Rowe et al. (2014) describe the embodied features associated with composing on the iPad screen while sitting side-by-side. Children had opportunities to observe adult demonstrations and take the iPad in their hands to take pictures, draw, write, and record dual language oral recordings. Furthermore, Taylor et al. (2008) describe how students shared family-authored, dual language, multimodal books during whole class carpet time, excitedly listening to peers and reading their books to the class. Taylor et al. (2008) conclude that student

book sharing suggested students' increased comfort in accessing heritage languages for classroom learning and a shift in the balance of expertise among students, families, and teachers. These studies indicate that the arrangement of materials, space, and bodies may be important to creating a translingual instructional context; however, more research is needed to understand how these features specifically can support translingual practices in English-dominant classrooms.

Implications for the current study. Although there are few studies of translingual instruction in English-dominant schools, recent research in this field shows ways to create a translingual instructional context. First, teachers, families, and students enact a translingual orientation to literacy (Canagarajah, 2013), which involves counteracting negative orientations towards translanguaging, affirming translanguaging as a normal part of being bilingual (Palmer & Martínez, 2016), and constructing classroom norms to create a context supportive of translanguaging. Researchers have started to examine how teachers' attitudes towards translanguaging influence instruction (Martínez et al., 2015; Martínez-Roldán, 2015). However, there is little information in the literature on students' perspectives on translanguaging in the classroom (Daniel & Pacheco, 2016), particularly young children. How do students view translanguaging in school? How do students' language orientations shape the instructional context? How might those orientations change and shift as teachers provide curricular opportunities for translanguaging? Furthermore, scholars have repeatedly called on teachers to value students' heritage languages and translanguaging (García & Kleifgen, 2010; Goldenberg, 2008; Palmer & Martínez, 2016). Yet, how do teachers and students co-construct explicit norms in the classroom to create a supportive context for translanguaging and sharing? What are these norms? How are they negotiated and appropriated by participants?

Second, research has shown how translingual curricular opportunities can be embedded in a writer's workshop model so that young children and older students have open-ended opportunities to translanguage, share, and compose collaboratively with adults and peers (Martínez-Álvarez & Ghiso, 2014; Pacheco et al., 2017; Rowe et al., 2014; Zapata & Laman, 2016). Moreover, when teachers provide translingual writing sharing demonstrations, and students share their translingual compositions with the whole class, students' cultural and linguistic resources are visible and valued in the classroom space (Pacheco & Miller, 2016; Rowe & Miller, 2016). However, findings from Pacheco et al. (2017) and Rowe and Miller (2016) point to the need for more research into why students may decline invitations to translanguage. How can teachers and students be encouraged to 'have a go' at translanguageing? How do teachers and students value and respond to heritage language approximations? Furthermore, what are the potentials for collaborations among linguistically diverse peers? Although research with high school students indicates students teach each other about their languages in such collaborations (Martin-Beltrán, 2014), how do elementary school students respond to composing with linguistically diverse peers? This question is especially important to consider given that a student may be the only speaker of her/his heritage language in our increasingly multilingual classrooms. Also, although studies have described collaborative, translingual composing among students and researchers, there is little research on a primarily English-speaking classroom teacher taking up the role as a co-composer with students. As a powerful social actor in the classroom, how might the teacher, acting as a co-composer of translingual texts, create a translingual instructional context? Finally, studies have shown how sharing translingual texts is an important part of a translingual instructional context. Yet, teachers need to be prepared for the range of student reactions to hearing and seeing unfamiliar

languages, as in Rowe and Miller (2016) when students responded with laughter, or in Pacheco et al. (2017) when a student worried that her peers would laugh as she composed a Vietnamese voice recording. Not only do they show that translanguaging is a political act (García, 2014), and not a neutral act (Zapata & Laman, 2016), these studies also demonstrate how translanguaging in an English-dominant classroom is a *vulnerable act*, as students take the risk to share in languages unfamiliar to their peers and teachers in that space. Therefore, how do teachers and students create a safe space for translanguaging and sharing, recognizing translanguaging as a vulnerable act?

Third, although research has shown that material, spatial, and embodied features play an active role in classroom literacy events, studies on translanguaging instruction in English-dominant classrooms have not focused specifically on how these features support translingual practices. Research is needed to understand how these features may shape translingual instructional contexts. For example, how are materials arranged to support translingual practices? What are the potential affordances of using online tools for translingual composing? How do embodied practices support a context where expertise is distributed, and students are positioned as teachers while teachers are positioned as learners?

Research Questions

This chapter has reviewed existing research on implementing translingual instruction in English-dominant schools, and engaging families as contributors to translingual instructional activities and materials. In the following sections, I describe how each research question was designed to address gaps in the literature.

RQ1: Students' eBooks: Representing Heritage Languages, Families, Cultural Experiences, and Relationships

Research has provided important information on how to learn about students' and families' linguistic and cultural resources through including family and community volunteers in the classroom, exchanging translingual texts across home and school boundaries, and composing translingual, multimodal, digital texts featuring families for the curriculum. However, families may not be available to physically participate in classroom activities for various reasons (Poza et al., 2014). Researchers are starting to explore other ways to include families as a resource for translingual instruction, but we still have little information on providing opportunities for families to be virtually present in translingual literacy materials through sending home digital cameras and tablets, and composing with digital photos, voice recordings, and heritage language text (Rowe & Miller, 2016). In order to address this gap, in my study I provided opportunities for teachers, students, and families to exchange personalized, translingual texts through sending home page-based journals with digital cameras, and inviting families to write in their heritage languages about the photos they took with their children. Furthermore, I sent home tablets with students so that families could compose eBooks at home that included home photos and heritage language writing paired with voice recordings. In order to investigate how families may be virtually included in classroom literacy materials, I ask: *How do students represent their heritage languages, families, cultural experiences, and relationships in family eBooks for classroom use?* Findings related to the first research question emerge from an analysis of students' eBook products, and I describe how students used translingual and multimodal composition resources to represent their families, languages, cultural experiences, and relationships.

RQ2: Processes of Composing Translingual eBook Messages

Research has shown ways to create curricular opportunities where students' linguistic and cultural resources are valuable for comprehending texts, composing, and participating in exchanges. However, research on translingual instruction in English-dominant schools often describes how students and teachers use heritage languages in the classroom, but leave out information about the processes of co-constructing resources as valuable capital. Yet in English-dominant classrooms, translanguaging does not just happen, even when students are invited to translanguage (Brown, 2014; Rowe & Miller, 2016). Therefore, we need more information about the processes of disrupting linguistic hierarchies, supporting translingual practices, and facilitating exchanges in English-dominant classrooms. In response to this gap in the literature, I ask: *What processes do students and adults use as they compose translingual eBook messages?* Specifically, I analyzed classroom interactions to understand what supports and strategies students, the classroom teacher, and I used as we composed messages in students' heritage languages and about their families and cultural experiences. Findings indicate that students' activated their heritage language resources as capital as they coached adults and peers to speak and write in their heritage languages for translingual eBook messages.

Furthermore, while there are examples in the literature of how researchers have directed translingual instructional activities and invited families to translanguage (Rowe & Miller, 2016; Rowe & Fain, 2013), there is a need for more research that explores how teachers, specifically primarily English-speaking teachers, participate in translingual instructional activities and use family-composed translingual, multimodal, digital literacy materials in the classroom.

Specifically, this study examines classroom interactions where the primarily English-speaking

classroom teacher 1) composes with students, using family-composed materials; and 2) facilitates whole group sharing of family eBooks.

RQ3: Instructional Features that Promote Translanguaging and Sharing

Many scholars have called on educators to include students' heritage languages, cultural experiences, and families in instruction as part of efforts to implement translanguaging pedagogies, build on students' funds of knowledge, and support culturally and linguistically diverse student learning (Au, 1998; García & Kleifgen, 2010; Genishi & Dyson, 2009; González et al., 2005). However, there are only a few practical guides in the literature for how teachers can do this work, particularly monolingual teachers working in English-dominant schools with multilingual classes (Durán, 2016; Jiménez et al., 2015a; Louie & Davis-Welton, 2016; Naqvi et al., 2013; Pacheco et al., 2017; Pacheco & Miller, 2016; Rowe & Miller, 2016; Zapata & Laman, 2016). My third and final research question addresses this gap in the literature, and I ask: *What are the features of eBook events that promote an instructional context supportive of translanguaging and sharing about families and cultural experiences?* Findings related to the third research question are grounded in analysis of students' eBook composing and presenting events at the beginning, middle, and end of the study, and I examine how participants constructed interactional and embodied practices and used tools during eBook events in ways that supported translanguaging and sharing in the classroom. This study both contributes to and extends the growing body of work on creating translanguaging instructional contexts in English-dominant classrooms.

CHAPTER 3

RESEARCH METHODOLOGY

This qualitative study investigates ways that a classroom teacher, a researcher, and emergent bilingual students engaged in translanguaging practices in an English-dominant school. The study objective was to promote translanguaging and sharing about families and cultural experiences through home and classroom translanguaging eBook composing and presenting activities. This research documents participants' processes of composing in multiple languages and features of instructional conditions that support translanguaging and sharing in classroom literacy activities. I focus on the following research questions:

1. *How do students represent their heritage languages, families, cultural experiences, and relationships in family eBooks for classroom use?*
2. *What processes do students and adults use as they compose translanguaging eBook messages?*
3. *What are the features of eBook events that promote an instructional context supportive of translanguaging and sharing about families and cultural experiences?*

In this chapter, I first describe my research design, study site, participants, rationale for my selections, and my researcher role and positionality in the classroom. Next I provide details about the methods for data collection, data sources, and eBook activity framework. Then I outline the methods of data analysis for each research question. I conclude with a discussion of study strengths and limitations.

Study Design, Site, and Participants

This section first describes my study design and my rationale for using qualitative methods. Second, I describe the context of my research site and participants, and my criteria and rationale for selection. Finally, I discuss my positionality in the classroom and my roles as a researcher, participant observer, and co-teacher.

Study Design

The study is grounded in sociocultural theories of literacy learning (Barton & Hamilton, 2000; Gee, 2003), which suggest that language use shapes and is shaped by local literacy practices and the values and power structures inherent in them. The data collected explore how literacy practices are socially constructed by participants, and this study is designed as a constructivist, qualitative inquiry (Lincoln & Guba, 1985), using ethnographic techniques to document classroom literacy activities. This study is also designed according to qualitative interview studies in order to learn about participants' perspectives and practices concerning translanguaging pedagogies (Rubin & Rubin, 2012). Grounded theory generation was ongoing during the study, and emergent theories were continuously refined and integrated with the study design to originate ideas about practices that support successful home to school connections between multilingual families and schools (Erlandson, Harris, Skipper, & Allen, 1993).

The study is also guided by principles of action research (Wallerstein & Duran, 2008) and teacher research (Cochran-Smith & Lytle, 1993). Although my research process did not strictly adhere to the cycle of action research, I implemented similar structures to privilege the experiential knowledge of the teacher, and to bridge the gap between theory and practice. I recognize that since I was primarily responsible for designing the study, my participants were not fully involved in every step of the research process. However, the classroom teacher, Ms.

Trenton, and I planned activities together, and we both composed and read eBooks with students and participated in study implementation. Through collaborating and sharing responsibilities for research activities and classroom teaching, we became co-learners in the inquiry process.

Bartunek and Louis (1996) suggest that such an approach is valuable because those who are insiders to a setting have different perspectives, concerns, and stakes in the setting being studied. For example, in my study I observed differences between Ms. Trenton's concerns and my concerns based on where we sat while we composed eBooks with students. I always sat facing students across the composing table, with my back to the rest of the class. Conversely, Ms. Trenton sat beside students, facing the whole class, with her gaze often redirecting other students who were participating in literacy centers. Thus, teachers produce knowledge that is based on their local theories and needs in the classroom. Furthermore, the researcher has a role to help teachers develop inquiry skills and become reflective practitioners. Ms. Trenton and I daily reflected together about classroom activities and students' participation, and we negotiated practices throughout the study that were responsive to our collective reflections.

Furthermore, I draw on visual sociology research (Suchar, 1997) and Photovoice methods (Wang & Burris, 1997) to provide students and families with opportunities and tools to represent their experiences and perspectives (Kaplan, 2013). As researchers and participants produce photographic data for a study, researchers have to provide the context for their photos when they present them as findings about the nature of social life. This requires that visual sociologists spend time in the field learning about that context and talk to their participants about photos (Becker, 1995). Through participant observation and interviews with students, the study is designed to provide context around family home photos. These Photovoice methods stem from Freire's (1970) education for critical consciousness, and participants usually come from

marginalized groups. Photovoice is one way for people to represent themselves and have a voice. After participants take photos, they bring them to the group for discussion. Participants select photos to write about and present to the group. Wang, Morrel-Samuels, Hutchison, Bell, and Pestronk (2004) conclude that their Photovoice project with youth and adult community activists in Flint, Michigan established common ground among participants of very different ages, incomes, and social power status.

Additionally, my prior experiences with composing home photo eBooks with young writers for two years in a preschool classroom were part of the foundation of my research design in this study. In our previous work with preschool students, Dr. Rowe and I explored how to compose multilingual eBooks on iPads with students during centers time (Miller & Rowe, 2014; Rowe & Miller, 2016; Rowe et al., 2014). As a way to connect with families, we sent home digital cameras. Students used their home photos to compose eBooks. We also included parents and community members as translators for the teacher's demonstration eBook (Rowe & Miller, 2016). My dissertation research built on and extended this previous work in several ways.

First, my study was with second grade students who were further along in their writing development than our preschool participants. By working with older learners, I had more opportunities to examine student writing in more than one language and student revisions of their compositions. Our preschool participants composed one eBook per session, and eBooks usually included a few pages with an image, a written label, and sound recordings on each page. My second grade participants composed and revised the same eBook across several sessions, and they included images, sentences in both languages, and sound recordings on each page. I also had more opportunities to compare the print and sounds across languages, since students wrote in both languages. This supported metalinguistic conversations among students and adults.

Second, in the preschool study, we only sent home digital cameras. In my dissertation study, I sent home digital cameras, tablets, journals to write photo descriptions in students' heritage languages, and dual language books. By sending home tablets, students and their families composed eBooks at home. Family members could include their heritage languages in print and record themselves reading the print. This feature was especially useful for families who are the only speakers of a heritage language represented in the class. Furthermore, family members wrote descriptions of the photos in their heritage languages in journals, and then students and classroom adults used these journal entries to compose their translingual messages in the classroom. My dissertation study was designed to give family members more opportunities to provide their heritage languages as resources for classroom literacy learning.

Third, I collaborated with the classroom teacher, and we negotiated how to implement eBook activities in her classroom. In our previous study, only researchers led eBook activities, and teachers were peripherally involved. However, I was interested in the teacher's input and perspective on how to implement translanguaging pedagogies. Therefore, the teacher and I both led eBook events. We also jointly reflected on eBook events, our participation, and our views on changes in the classroom community and curriculum across the school year. Since the teacher in my dissertation study was more involved in planning and implementation, I learned about a teacher's perspective on and practices for supporting translanguaging during eBook activities.

Fourth, in our previous work with preschool students, our focus was on composing with children, and children had few opportunities to present their eBooks to the whole class. In my dissertation study, participants had the opportunity to share every eBook they composed with the whole class. Whole class sharing was an important part of my study because it was a time when students' heritage languages and families were publicly valued in the classroom. Furthermore, I

emailed parents electronic copies of their children’s eBooks. In our previous work, we printed eBooks and sent them home with students. However, paper copies did not display the voice recordings. In my dissertation research, families could have access to the full electronic versions, and they could share them electronically with whomever they liked. This opened the possibility for family eBooks to be shared with family and friends who do not live in close proximity.

Rationale for Study Design

This descriptive design is appropriate given the lack of research on engaging multilingual families as contributors to translingual literacy curricula in English-dominant schools. There are few studies of translanguaging that have been conducted in the naturalistic setting of an English-dominant, yet multilingual, classroom and have examined a primarily English-speaking teacher as a co-facilitator of translingual home to school connections. The application of a constructivist paradigm is appropriate since the goal of the research is to investigate multiple realities across participants (Lincoln, Lynham, & Guba, 2011). Furthermore, pairing photographic data with ethnographic methods enabled such co-construction of knowledge, even among participants who spoke different languages. Lastly, building on my previous work allowed me to generate and further investigate my research questions related to supporting students’ translanguaging and sharing in the classroom.

Site Description

The site where this research was conducted was one second grade classroom at Webster Elementary School¹. Webster is located in an urban school district in a southeastern U.S. city. Webster is a diverse PreK-4 school, with over 500 students enrolled. According to available school data at the time of the study, 65% of students were Latino, 18% were Black, 13% were White, 3.4% were Asian, and 0.6% were Native American. Additionally, 96% of students were

¹ Pseudonyms have been used for the names of the school, classroom teacher, and student participants.

eligible for free and reduced lunch, and 56% were English Language Learners. During the 2015-2016 academic year, Webster had been designated as a priority school, or a school whose test scores fall in the bottom 25%, as compared to the rest of the district. As part of being a priority school, the principal selected a Turnaround Corps of teacher leaders who were specially trained to improve test scores in priority schools. As a result, Webster was a school undergoing many changes in staff, students, and curriculum. The principal was held accountable to a Turnaround plan and goals, and the atmosphere at the school was one of heightened awareness of student and teacher performance goals. As part of the Turnaround plan, grade-level teams were provided one Monday morning a month to plan together. The focal teacher in this study was part of the Turnaround Corps and was also the second grade team lead.

Furthermore, state standards and standardized tests were also changing at the time of this study. Although standards remained highly similar to the Common Core, state officials also implemented programs to modify standards. Therefore, literacy instruction in the second grade classroom was tied to standards closely related to the Common Core. The teacher used the *Journeys* curriculum (Baumann et al., 2014) in her literacy instruction as a pacing guide and for certain texts. However, she supplemented the *Journeys* basal reader with her own texts, materials, and curricular activities. There was a two hour literacy block every morning, and students switched from their homeroom classes to their literacy block classes. Students were assigned to a literacy block based on their reading levels and their status as English Learners. The teacher in my study was in the process of becoming ESL certified, and all of the English Learners in the second grade were assigned to her literacy block class.

During the literacy block, students participated in whole group, small group, and individualized instruction. They typically started class with a whole group interactive read-aloud

of a text from *Journeys*, or a book selected by the teacher. The teacher targeted reading strategies and text features of different genres during read-alouds. Students had opportunities to practice using reading strategies and identifying text features during small group and independent work, following the read-aloud. During the latter 45 minutes of the literacy block, the teacher led guided reading with small groups of students. Students who were not in guided reading groups completed individualized “menus,” as the teacher referred to them. Menu items included doing word work, reading leveled texts, and answering questions about texts. When students completed their menu items, they could participate in literacy centers with their peers. Literacy centers included reading in the classroom library, playing learning games on laptops and iPads, and playing an oral storytelling game (Story Cubes).

In this district, the emphasis was on reading instruction, particularly on daily guided reading opportunities. Writing instruction was infrequent, and it usually focused on completing writing assessments for district-level data, rather than taking a process approach to writing. When I started conducting research in the literacy block, I negotiated with the teacher to have a writing center where we could compose eBooks. Before my arrival, the class did not have a writing center. Furthermore, I designed eBook activities so that students were working on Common Core Writing, Language, and Speaking and Listening Standards for second grade as part of my study (see Table 1). During my eight months in the classroom, I observed the teacher providing students with more opportunities for writing during the literacy block. Moreover, she commented in her end-of-year interview that she wanted to do more with writing and digital literacies in the future because of her participation in this study.

Table 1

eBook Activity Alignment with Common Core Standards

Common Core Standards	eBook Activities
<p>Writing Standard 2.6 for second grade stipulates that students work with adults and peers to use digital tools to produce and publish writing.</p>	<p>Students worked with adults and peers to compose eBooks on tablets at the classroom writing center. Students used features such as writing, drawing, typing, voice recording, taking photos, deleting content, changing icon size, and changing content color as they composed.</p>
<p>Writing Standard 2.2 stipulates that students develop points in an informative text, and Writing Standard 2.3 addresses narrative texts with details and events.</p>	<p>While writing about the events featured in their photos, students could choose to explain information from the photos, or use the photos as stimuli for a narrative.</p>
<p>Language Standard 2.1C stipulates that students use reflexive pronouns, and Language Standard 2.1D requires that students use the past tense of irregular verbs.</p>	<p>As students described their personal photos, they used reflexive pronouns. They also used the past tense of verbs to describe past events featured in photos. Ms. Trenton or I, as well as students' peers, provided students with feedback about their language use in order to support them to develop a command of the conventions of English.</p>
<p>Speaking and Listening Standards 2.4 and 2.5 stipulate that students tell about an experience with facts and details, create audio recordings of stories, and add visual displays to stories and accounts of experiences.</p>	<p>During conversations about home photos, students told stories about their photos with details. They also created audio recordings of their stories while composing their eBooks, using the voice recording feature. Students added photos, writing, color, and drawings to compose visual displays that represented their stories and experiences.</p>
<p>Speaking and Listening Standards 2.1 and 2.3 stipulate that students participate in collaborative conversations and require that students ask and answer questions about what a speaker says.</p>	<p>Students participated in collaborative discussions with their peers about the content of their eBooks during eBook presentations to the whole class. After presenters read and described their eBooks, audience members had the opportunity to ask questions about eBook content.</p>

Rationale for Site Selection

While designing the study and selecting my research site, I developed the following criteria: the site 1) must have teachers and administrators who support student and family translanguaging at school; 2) must be open to using digital technologies as part of literacy instruction; and 3) should include students and families from several different language and cultural backgrounds. Since school personnel attitudes towards families' heritage languages and cultures influence how families engage in school activities (Nam & Park, 2014; Poza et al., 2014), the site needed to meet these criteria so that I could examine how students, families, and teachers engaged in academic activities, while using students' heritage languages. Given that English is the mandated language of instruction in this district, it was important that I carefully selected a school where the staff supported students' and families' use of their heritage languages at school.

I selected the second grade classroom at Webster as my research site because it met the above criteria. First, teachers and administrators were supportive of family engagement and use of their heritage languages in school. In the spring and fall of 2015, I participated in parent program meetings at Webster that were organized by a local community organization providing services for immigrant and refugee populations. The goal of the parent program meetings was to orient Latino immigrant families to the U.S. school system. Based on my experiences in the meetings at Webster, I observed that families were engaged in Webster in various ways, parents talked positively about the principal and teachers, and school administration viewed families' heritage languages as a strength. For example, during conversations with students, I observed the principal trying to speak Spanish. In a parent meeting, the principal also used some Spanish words and phrases to speak with Latino parents, even though there was a translator present.

Second, I chose to conduct my study in a second grade classroom to explore digital literacies and translanguaging pedagogies in early childhood. Third, I chose a diverse second grade classroom as my research site to provide children with opportunities to develop literacy in more than one language. Children need supports and opportunities to use their heritage languages in English-dominant classrooms, particularly during the early childhood education years. My goal was that participants would develop positive attitudes towards using their heritage languages at school, and would access all of their linguistic resources to support their literacy learning, *before* years of subtractive schooling experiences may lead them to prefer English over their heritage languages (Reyes, 2011).

Participants

Using a method of purposive sampling (Lincoln & Guba, 1985), I selected to work with Ms. Trenton and her second grade literacy block class. I met Ms. Trenton in a graduate course entitled *Parent, Schools, and Communities*. We were both drawn to the course to learn more about how to engage families in classroom activities. During the course, I presented research on composing eBooks with preschool students (Miller & Rowe, 2014; Rowe & Miller, 2016; Rowe et al., 2014). Ms. Trenton expressed an interest in having me conduct a similar study in her classroom in the following academic year. She was hired as a Turnaround teacher at Webster Elementary in the spring of 2015, and she started her first year of teaching at Webster in the fall. Before teaching at Webster and graduating with her master's, Ms. Trenton taught at a different elementary school in the same urban area.

At the time of the study, Ms. Trenton was part of a program that provided coursework leading to ESL endorsements for in-service elementary teachers. The program was a partnership between a local university and the public school district. Ms. Trenton took 15 credits of graduate

coursework on English Learner methods, assessment, educational linguistics, and principles of instruction. She also attended a biweekly seminar aimed at addressing relevant issues of teachers' practices in their classrooms. She was observed and mentored in her classroom on a weekly basis by two university professors and a graduate student. A component of these observations also included conducting a monthly observation using the Sheltered Instruction Observation Protocol (SIOP) (Echevarria, Vogt, & Short, 2004). Ms. Trenton regularly implemented strategies and instructional practices that she learned about in these courses.

My student participants were emergent bilinguals in Ms. Trenton's literacy block class. All of the students in the literacy block were invited to participate, and Ms. Trenton sent home a study description and consent form with each child. Consent forms were in English and families' heritage languages. Once students returned their signed consent forms, they also signed assent forms, after I explained what their participation in the project would entail. Of the 24 students in Ms. Trenton's class, 18 were consented to participate in the study, including a Somali/Arabic speaker and 17 Spanish speakers. After students were consented and assented, they started to participate in classroom eBook composing activities and taking home digital cameras and tablets. However, students who were not officially part of the study visited the composing table and contributed to their peers' eBooks. Although I did not collect data on students who were not consented, their participation as members of the classroom community shaped eBook activities.

Rationale for Participant Selection

In the planning stages of my study, I developed criteria for selecting the purposive sample. I designed the criteria to maximize my ability to build grounded theory about multilingual family engagement, translingual, multimodal, digital composing, and translanguaging pedagogies (Lincoln & Guba, 1985). The teacher in my sample needed to meet

the following criteria: 1) be interested in and have knowledge about engaging families; 2) teach emergent bilinguals; and 3) be open to integrating technology with literacy instruction. Ms. Trenton already used iPads and laptop computers during her literacy instruction before the study, and she expressed interest in using technology in more ways in her classroom. Given her additional interest and training in engaging families and teaching emergent bilinguals, Ms. Trenton met all of my selection criteria.

Furthermore, I wanted to select a sample of student participants who came from several different heritage language backgrounds. My goal was to explore how students with and without classroom peers and adults who spoke their heritage languages translanguage. Ms. Trenton's second grade literacy block class met this criterion because it was comprised of all emergent bilinguals who spoke mostly Spanish, but a couple students spoke languages other than English and Spanish at home. Students and adults also spoke different languages. Ms. Trenton is a primarily English speaker, and she invited students to use their heritage languages, but she could not model students' heritage languages. As a Spanish speaker, I supported and modeled Spanish language use in the classroom. However, I did not speak the languages of the other students in the class, supporting whom, I have found, involves a different set of instructional supports (Rowe & Miller, 2016). Since Ms. Trenton and I both composed eBooks with students and students composed eBooks with peers of the same and different heritage language backgrounds, the data include multiple examples of how participants interact when they share a heritage language and when they do not.

Researcher Roles and Positionality

In this study, I acted as a participant observer. Dewalt, Dewalt, and Wayland (1998) describe participant observation as the systematic recording of information through observing,

and then analyzing it for social science purposes. As a participant observer, I engaged and observed, enhancing my explicit awareness of the ways that the teacher and students used language in the classroom and participated in literacy events. Spradley (1980) describes how building explicit awareness is necessary to overcome years of selective attention. Moreover, Dewalt et al. (1998) suggest that researchers need at least a year in the field to make sufficiently informed insights. I spent October 2015 through May 2016 in the classroom in order to develop as an insider/outsider (Spradley, 1980), refine my human instrument, and meet the criteria of prolonged engagement in the setting (Lincoln & Guba, 1985).

My role shifted over the course of the study as I became more participatory in eBook composing activities. During the first two months, I mostly functioned as an observer in the classroom, watching how the teacher worked with students in whole group and small groups during the two hour literacy block. I also observed students as they worked, and participated with them individually and in small groups during literacy centers. The goal of these initial observations was to generate baseline understandings of classroom interactions and to build rapport with participants.

During the following six months, I took on a more active role as Ms. Trenton and I co-led eBook composing activities during literacy centers and co-facilitated whole group eBook presentations. Together, we planned the timing, space, structures, and norms for eBook events, and we implemented research activities. Additionally, we reflected during informal conversations and written correspondence about what we learned from students' home photos, family eBooks, and composing processes. In the final month of the study, I interviewed students and Ms. Trenton about their experiences with the project as a way to further investigate participants' responses to eBook activities and confirm and/or disconfirm emergent hypotheses

generated by in-process analyses of eBook events.

I engaged as a co-learner and co-teacher with Ms. Trenton. Although I did not follow a strict teacher research design, I was especially interested in Ms. Trenton's reflections on connections and discords between theory and practice (Cochran-Smith & Lytle, 1993). The study was designed so that she and I collaborated to implement the activities and to adapt activities in response to student, family, and class needs. As former classmates, we had already established a relationship as co-learners and colleagues that carried over to the second grade classroom context. Although I brought my experience on composing with tablets and digital cameras, I relied on Ms. Trenton's teaching expertise and knowledge of the context to guide the study.

For example, the students were initially reluctant to share their eBooks with the whole group. In response to their reluctance, Ms. Trenton and I discussed what norms we should establish to guide whole group sharing and support students as presenters. Then, Ms. Trenton facilitated jointly constructing the norms with students and listing them in the students' words in a shared writing exercise before she shared her demonstration eBook. However, on the days following Ms. Trenton's presentation, students talked about how they were still "scared" to go up in front of the class. In the subsequent days, Ms. Trenton and I reiterated the sharing norms, and students started to repeat the norms to themselves and others during eBook composing sessions. On the first day students presented eBooks, I chose a student with several experiences with the tablets to present first. She told me she was nervous, so I suggested that she have a friend stand up with her while she presented. She agreed to that, and we started an embodied practice of having someone stand with you when you present for the first time.

Our collaborative relationship supported my research in several more ways. First, we arranged a writing center to accommodate eBook composing in the classroom, and she entrusted

me with time and space in her literacy curriculum. Second, we shared responsibilities for eBook events and classroom literacy instruction. Since district policy mandated teachers lead daily guided reading groups, Ms. Trenton allowed me to lead those groups on some days so that she could work with students to compose eBooks in the writing center.

Ms. Trenton gave me teacher responsibilities in the classroom in other ways. As a leader in the school, Ms. Trenton was often momentarily pulled out of the classroom to support another teacher or student. During these moments, she would ask me to continue the read-aloud text, facilitate group discussion, or monitor small group work. When I stepped in to an instructional role, students grew to recognize me as a co-teacher in the classroom. In the co-teacher role, I built a reciprocal relationship with Ms. Trenton, and we worked together to meet mutual curricular and study goals. Furthermore, I had opportunities to shape instruction and discourse at the classroom level. For example, in the fourth month of the study, Ms. Trenton chose to read a text with some Spanish words and phrases. On the first day of reading the text, she asked me to read the words in Spanish as she came across them. Yet, Spanish-speaking students who were sitting close to the book were reading the Spanish quietly. In our reflection conversation that day, I told Ms. Trenton that I noticed there were several students in the class who could read in Spanish (field notes, January 26, 2016). The following day, Ms. Trenton asked students to read the Spanish in the text, and she did not defer to me during instruction (field notes, January 27, 2016). This event marked the beginning of the class practice of recognizing and using students' heritage languages during literacy instruction.

Moreover, students associated using their heritage languages during whole group instruction with me in the role as classroom teacher. A month later, Ms. Trenton asked me to read an English text about space travel to the whole class while she worked with a student in a

different classroom. As I sat down in the teacher's chair, several Spanish-speaking students asked me to read the book to them in Spanish. Yet the Arabic and Somali speakers verbally objected to this request—a reminder to me that there were no adult speakers of their languages present in the classroom. I decided to build on the practice of calling on students to share in their heritage languages during the read-aloud and to invite students to share translations in Arabic, Somali, or Spanish as I read the English text (field notes, February 25, 2016). Although students only shared Spanish translations during this read-aloud, the Arabic and Somali speakers started sharing in their languages during eBook composing and read-alouds on subsequent days. Together as co-teachers, Ms. Trenton and I sponsored students' heritage language use during official classroom literacy activities, which fostered a translingual instructional context.

Furthermore, my positionality as a white, middle-class woman in a diverse urban school shaped my experiences in the field and participants' responses to me. Students seemed used to their teachers being similar to me, and many of the teachers at Webster fit my profile. In this way, I blended in to the background of the classroom. However, I am also different from many of their other teachers because I spoke Spanish with them in the classroom. Several students marked me as a Spanish speaker during my first *prior ethnography* visit to the class (Lincoln & Guba, 1985). As they worked in table groups, I observed which students were speaking Spanish together, and I subsequently initiated conversations with these students in Spanish. The students were surprised that I spoke Spanish. One student questioned my ability to speak Spanish because I looked American. I confirmed that I was American, and I also spoke Spanish because I had learned it in school and lived in Spanish-speaking countries (field notes, October 26, 2015). The same student told other students who were not present during my first visit that I was a Spanish speaker. A student who was absent on my first visit told me when we met during my second visit

that he knew I spoke Spanish. As I left the classroom, a Spanish-speaking student hugged me and told me that she wanted me to come more often because I spoke Spanish.

As a Spanish speaker, I was positioned differently in this classroom from Ms. Trenton, or the other second grade teachers at Webster. I changed students' perceptions of speaking Spanish at school with adults because of my presence. It was also part of my explicit research agenda to support children to use their heritage languages for literacy learning, despite the English-dominant school context. However, my actions influenced students' perceptions and participation. I did not set out to be a neutral observer, but I still needed to be aware of how I altered the change process for the students and the teacher (Delgado-Gaitan, 1993). Thus, I practiced daily introspection and reflection in my field notes throughout the study to see myself as a research participant (Spradley, 1980). As part of my reflexive practice, I recorded personal notes, theoretical notes, and methodological notes in my field notes, as well as wrote theoretical and analytic memos during data collection and analysis.

Lastly, I am aware of my positionality as an adult and authority figure for students in the study. However, I wanted to mitigate this position so that students felt comfortable talking with me in their heritage languages and taking up roles as teachers, composers, and presenters. Hopkins (2007) suggests that researchers work at children's levels, explore similarities and differences with children, and take other steps to make sure children feel comfortable sharing during the research process. I took similar steps by sitting with children on the carpet during centers time, sitting beside them at their desks, asking them questions about their families and interests, speaking Spanish with Spanish speakers, and telling children that my goal was to learn with them. Although I will never be able to erase the power differentials that exist between

children and adults in a school setting, by using the *being there-being seen* strategy, I built trusting relationships with students (Sixsmith, Boneham, & Goldring, 2003).

Data Collection and Data Sources

Data collection took place over an eight-month period from October 2015 to May 2016, for a total of 41 researcher visits to the classroom. Data include field notes, digital photos, eBooks, audio recordings, video recordings, teacher written reflections, and interviews with students and the teacher. Data collection and data analysis were simultaneous and ongoing during the study, in concordance with grounded theory methods (Charmaz, 2000) and to allow for emergent design (Erlandson et al., 1993).

During the first two months of the study, I engaged in prior ethnography as a participant observer in the classroom during the two-hour literacy block, for one day a week. My purpose was to diminish my obtrusiveness in the classroom, to establish a baseline of classroom activity, and to sensitize the human instrument (Lincoln & Guba, 1985). During this time, I collected field notes about my observations of classroom literacy instruction and my participation with students during literacy centers. I also audio recorded the teacher's whole group instruction and my small group interactions with students. My field notes described how translingual instructional activities happened in the classroom and who participated. My goal was to learn how the classroom teacher and students translanguaged in the classroom during whole group instruction with the teacher and during small group conversations with teacher, peers, and me, before we introduced the home photo eBook activities. This data provided context for how participants used language and shared cultural knowledge during later eBook events.

After conducting prior ethnography for two months, I introduced how to use tablets, digital cameras, and bookmaking apps to consented students in small groups during the hour-

long centers time of the literacy block. I visited the classroom three times a week, when possible, during the latter six months of the study. Students had multiple opportunities each week to compose eBooks or observe their peers' composing. I worked with students at a table designated as the writing or composing center in a corner of the room, close to the classroom library. During their initial eBook composing sessions, students explored the digital tools, tablets and cameras, at the composing center in the classroom.

I video recorded all student eBook composing in the classroom. At first, I placed my video camera on a tripod beside the composing table, and I used an eye-level shot to capture students' interactions with the tablets, cameras, peers, and adults. I also used a boundary microphone that sat in the middle of the composing table to better record the voices of student composers. In other research I have conducted, the obtrusiveness of the video and audio recording equipment diminished after a few researcher visits. However, in this study, students were aware of the equipment during the entire eight months. Students who were working at the composing table often picked up the boundary microphone and asked about it, or talked into it directly. Student composers and peers passing by the composing table would move the camera and/or tripod, look through the camera as if they were a camera operator, and touch camera buttons. To mitigate student interference with the video equipment, I moved the camera against the wall, and I raised the tripod setting so that the camera was out of students' reach. Subsequent video recordings were shot at a high angle, which sometimes obscured participants' faces, but better captured participants' motions on the screen.

After students had the opportunity to engage with the technology in the classroom, five cameras and two tablets were sent home with consented students on a rotating weekly basis. Once students returned their technology to the classroom, Ms. Trenton and I rotated

responsibilities for reading and composing home photo eBooks with students. For students who took home tablets, Ms. Trenton or I read their *home-composed eBooks* with them in the classroom. For students who took home cameras, I uploaded their photos to tablets in the classroom, and Ms. Trenton or I helped students compose *home photo eBooks* with the photos during literacy centers. Students had opportunities twice a week to present their eBooks to the class during whole group instruction that was facilitated by both Ms. Trenton and me. I recorded who took home which type of technology, composed eBooks and with whom, and presented eBooks in a participation log spreadsheet. The purpose of the log was to ensure equitable distribution of bookmaking opportunities across consented participants, to track students' participation, and to facilitate emergent design and data analysis.

Furthermore, Ms. Trenton and I talked weekly about what we were learning about students' heritage languages and cultural experiences outside of the classroom. We discussed any concerns about project implementation and her suggestions for changes to eBook activities. I routinely asked her to reflect on her positionality, my positionality, and the students' positionalities in the classroom. All discussions were audio recorded and described in field notes. I collected teacher written reflections through email correspondence when time did not permit in-person conversations with Ms. Trenton.

During the final month of the study, I individually interviewed the teacher and the students about their involvement in the project. I audio recorded these interviews. I conducted student interviews in two parts (see Appendix A for semi-structured interview questions for both parts). During one part, the student and I read one of the student's family eBooks, and I asked questions about eBook content and processes. During the second part, I asked students more general questions about what they liked and/or did not like about composing family eBooks. I

asked students to reflect on how they used their heritage language at home, in the classroom, and in eBooks. As a way to explore students' sense of belongingness in the classroom community, I asked open-ended questions that stemmed from the Psychological Sense of School Membership scale of statements (Goodenow, 1993). For example, I asked students if they felt like their teacher and peers knew them, what those people knew about them, and what those people learned about them through their family eBooks. The purpose of student interviews was to provide member checks for my emergent hypotheses about the ways that students were valuing heritage languages, families, and cultural experiences in the classroom. The interviews were also an opportunity to learn more about students' perspectives and be able to describe their participation in their words.

Lastly, I interviewed the teacher in May after the school year ended (see Appendix B for teacher interview semi-structured protocol). I asked her to reflect on her use of students' heritage languages in the classroom, as well as each student's heritage language use. I also asked her to reflect on what she learned about each student's cultural knowledge, using family eBooks as a prompt for discussion. We discussed connections that she made across students, between herself and students, and to her literacy instruction. Finally, I asked her to comment on differences that she noticed in the way that students participated in the classroom community after we established eBook composing and presenting activities in the classroom.

Overall, the purpose of collecting home photos, family eBooks, and video recordings of literacy instruction, eBook presentations, eBook composing sessions, home photo conversations, student interviews, and audio recordings of teacher interviews was to explore how student and family heritage languages and cultural experiences were integrated with classroom literacy activities.

Digital Tools and eBook Activity Framework

The eBook activity framework was designed according to previous work on composing multilingual eBooks with young children (Rowe et al., 2014), implementing translanguaging pedagogies in English-dominant schools (Jiménez et al., 2015a; Naqvi et al., 2013), and engaging families in classroom literacy instruction (Cummins et al., 2006). However, little research has examined classroom eBook composing or translingual instructional activities with students in the primary grades. Therefore, my framework for eBook events developed and changed over the course of the study to respond to my participants' practices. Furthermore, digital tools were selected to align with study goals to support participants' translanguaging in the classroom. In the following sections, I describe the digital tools and curricular framework for eBook composing.

Digital tools. In the classroom, students composed eBooks on two 10.1 inch screen Samsung Galaxy tablets. I selected Samsung Galaxy tablets because I wanted to quickly upload photos from digital cameras onto the tablets so that students could compose with home photos in class. In my previous work with home photos and iPads, we could not directly upload photos from the camera to the iPad because their ports were incompatible. This meant that we had to upload photos to an apple computer and add them to the cloud before they were available for composing. Using the Samsung Galaxy tablets removed this step. Since both the Samsung Galaxy tablets and the digital cameras had slots for a micro SD card, I could transfer photos by putting the card from the camera into the tablet. This enabled me to upload photos to tablets on the same day that students returned the cameras, and students could instantly browse and compose with home photos in the classroom.

I sent home five Vtech cameras and two 7 inch Dragon Touch tablets with students so that they could take photos and compose eBooks at home. The cameras and tablets were selected because they appear *kid-friendly*. The cameras are larger than a typical digital camera, and they are designed to be gripped on both sides. They also feature large buttons, two large viewfinders, and onscreen tools to add stamps to photos. Figure 2 provides an example where a student has added an alien stamp to a photo of himself. The tablets are small and neon green. Such kid-friendly tools are more likely to be placed in the hands of children without reservation on the part of adults. Furthermore, all technology was in kid-proof cases, and each tool cost less than \$50. Thus, if tablets or cameras were broken or lost, the monetary loss would not be substantial. However, the trade-off was that the quality of the cameras in both the Vtech cameras and the Dragon Touch tablets is poor. The Vtech camera quality is 1.3 megapixels and the Dragon Touch camera quality is 2 megapixels. Since the emphasis of the activity was on talk and composing around photos, rather than on photo composition, such a trade-off was acceptable in this study.

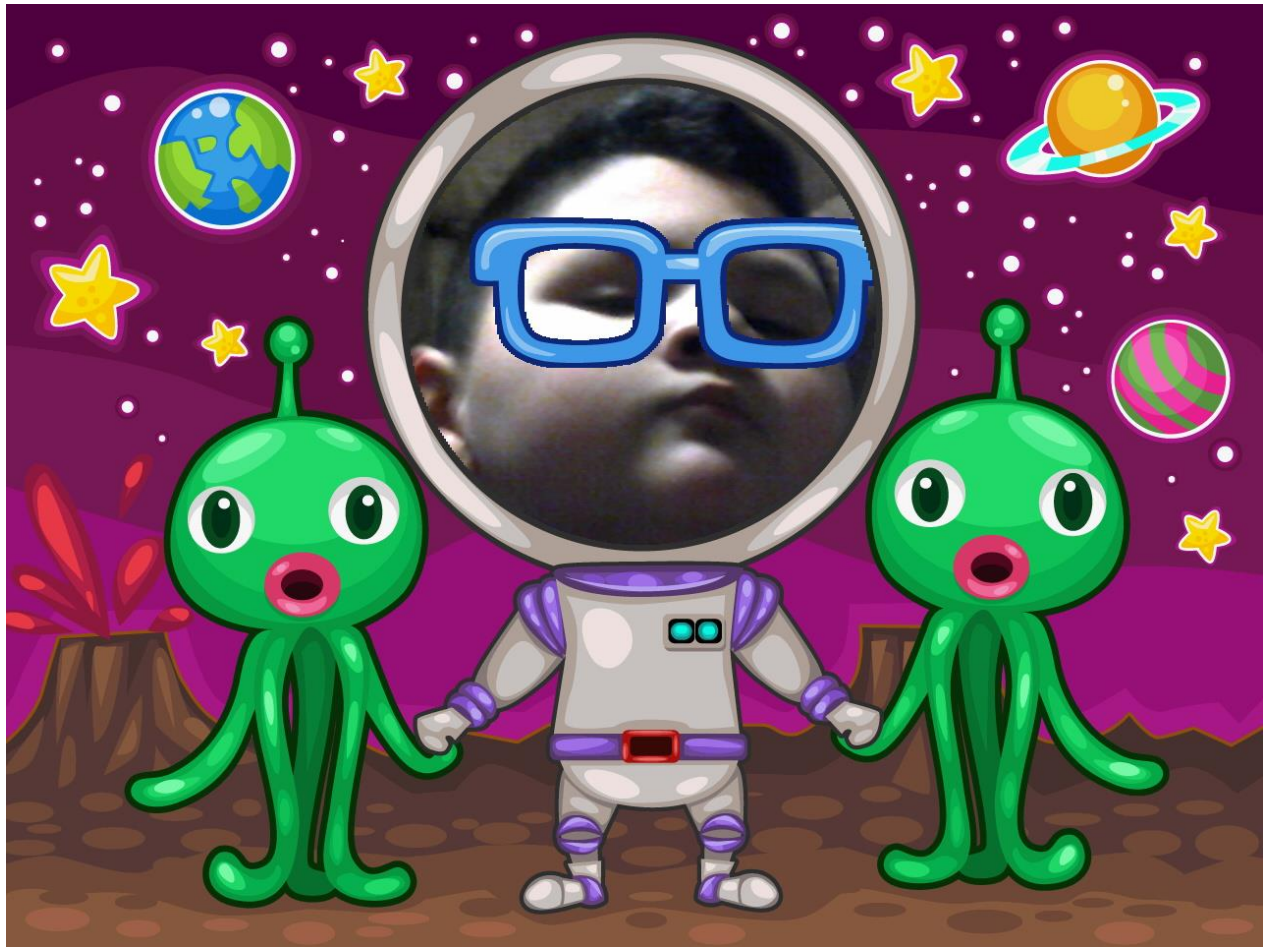


Figure 2. Photo with alien stamp added.

Students only worked with the *Book Creator* app on the tablets. I selected the open-ended *Book Creator* app (Red Jumper, 2015) based on previous work with composing eBooks with children (Rowe et al., 2014). Teachers should select apps with embedded scaffolds (Falloon, 2013) and incrementally difficult levels with open-ended goals so that children can make progress without compromising creativity (Kucirkova, Messer, Sheehy, & Panedero, 2014). Kucirkova et al. (2014) found that preschool children were more engaged with the open-ended *Our Story* eBook composing app, rather than apps that had specified pre-defined goals for users, such as puzzle or game apps. They concluded that the more an app supports easily accessible, open-ended content accomplishments, the more likely it is that the activity will have a positive educational impact. Although these studies describe work with younger children, I explored how older children responded similarly and differently to the digital tools.

Composing apps and digital tools differ in what and how they allow users to integrate and encode semiotic resources such as digital photography, voice recording, drawing, and stamps. In her study of second grade students using the *DrawWriteRead* app with Nooks, Brown (2014) found that the app supported students to compose with drawing, writing, and voice recording and to share their eBooks with family via the Internet. However, one constraint for writing is that students could not easily look back at their spellings of words on previous pages to help them with writing on their current page, due to *DrawWriteRead* app design and screen space issues. Since my instructional goal was for students to compose multilingual recordings and text on each page together, I selected a composing app that allowed for multiple voice recordings and written translations to be included on each eBook page.

Types of eBooks. Students composed three types of books, based on where the eBooks were composed and with what kind of photos. *Class eBooks* were entirely composed by students

in the classroom writing center, and students took photos of their peers in the classroom to generate photo content. *Home Photo eBooks* include the photos that students took at home and in their communities, using the digital cameras. When students returned the cameras to school, I uploaded their photos to Samsung Galaxy tablets, and they composed their Home Photo eBooks in the classroom. *Home-composed eBooks* were composed by students at home, using Dragon Touch tablets that were sent home with consented students. Students read their Home-composed eBooks to their teachers and peers when they returned their tablets to school.

Introduction to eBook activity. First, I introduced the eBook activity with two Samsung Galaxy tablets. Students worked individually and in small groups to compose eBooks at the classroom writing center. I facilitated as students explored the tablet's functions, and I showed them key features such as typing, drawing, writing, voice recording, taking photos, deleting content, changing icon size, and changing content color. As we found in our previous research with preschool children, students needed opportunities to explore the tablet with adult demonstrations (Rowe et al., 2014). In the classroom, students took photos of their peers and teachers using the Samsung Galaxy tablet cameras, and these photos were an important part of their class eBooks.

During the introduction, I established the expectation that students compose eBooks in more than one language. Since students were not accustomed to speaking and writing in their heritage languages for academic purposes at school, I had to explicitly invite and support students to translanguaging. I asked students about their heritage language use at home and at school, and I explicitly and repeatedly invited them to write and/or orally record messages in their heritage languages. As a Spanish-speaker, I supported Spanish-speaking students as they composed, spelled, and rehearsed their Spanish messages. However, with speakers of languages

other than Spanish and English, my support was limited to intense encouragement and celebration of heritage language composing. For example, my repeated invitations to Abdi to compose messages in Somali prompted him to ask me, “Why do you want my Somali language so much?,” during his first eBook composing session (field notes, January, 26, 2016). I responded that he was the only student in the class who could teach us Somali, and we wanted to learn from him. During subsequent composing, Abdi helped to translate messages into Somali for the teacher eBook, his eBooks, and his peers’ eBooks.

Teacher demonstration eBook. In order to reinforce the multilingual eBook expectation, Ms. Trenton composed a teacher demonstration eBook that featured personal photos and multilingual voice recordings, and she was the first person to present her eBook during whole group instruction. The purpose of the teacher eBook was to provide a demonstration of multilingual eBooks in the classroom space (Rowe & Miller, 2016). Students translated the teacher eBook into Spanish, Somali, and Arabic, and orally recorded their translations on each page. I included ‘translated by’ pages at the end of the eBook to showcase the student translators as important contributors to the eBook. The purpose of asking the students to translate the teacher eBook was to recognize and activate students’ heritage languages as resources for classroom literacy instruction.

Connection between home and school. Beginning in January, five Vtech cameras and two Dragon Touch tablets were sent home with consented students on a rotating weekly basis. With the bags of tablets and cameras, I sent home a letter thanking families for their participation, inviting families to contribute heritage language content for eBooks, and explaining how to use the tools (see Appendix C). The letter was translated into families’

heritage languages and explicitly invited families to provide writing and oral recordings in their heritage languages for a digital classroom collection of family eBooks.

Along with cameras, I included a journal notebook, and I explicitly invited families to write in their heritage languages about the photos they took with their children at home. My goal was to provide ways for families' heritage language writing to become part of classroom literacy activities. When students brought back journals with heritage language written entries, they used the text from the entries to support their writing in their home photo eBooks. Journals were a way to leverage family member's heritage language resources for literacy learning, which was particularly helpful when classroom adults did not speak students' heritage languages.

Furthermore, I included a dual language, paperback book in English and the family's heritage language. The book depicts experiences which represent families' cultural practices and provides examples of the kinds of content families might want to include in eBooks and/or home photos. The book sent home with Spanish-speaking families was *Family Pictures* (Garza, 2005), and the book sent home with the Somali-speaking family was *Samira's Eid* (Aktar, 2009). Lastly, I included an information sheet where families recorded their email addresses if they wanted me to send them an electronic copy of their family eBook.

When students returned the tablets and cameras to the school, I previewed the content before working with students. The purpose of the preview was to make sure that content was appropriate for class presentation.

Composing with home photos. Once students returned their technology to school, they had the opportunity to compose with and discuss their photos with their peers, their classroom teacher, and me.

First, I transferred students' home photos from the cameras to Samsung Galaxy tablets. Then, Ms. Trenton or I talked with students individually about their photos at the writing center with one of the Samsung Galaxy tablets. However, a second student composer was often present at the writing center table, while s/he continued to add pages to an eBook started on a preceding day with the other Samsung Galaxy tablet. Although the adult's main focus was on the child who was looking at her/his home photos, the adult and both students engaged in photo viewing and composing simultaneously. Furthermore, although only one adult and two student composers were the focal participants of each eBook event, other students regularly stopped by the writing center table to view focal participants' photos and eBooks and to support peers' composing.

We scrolled through students' home photo albums on the tablet, and we used these questions from Wang et al.'s (2004) Photovoice photo-elicitation interview protocol as a starting point for home photo conversations:

- What do you **S**ee here?
- What is really **H**appening?
- How does this relate to **O**ur lives?
- **W**hy does this problem or strength exist?
- What can we **D**o about it?

Before conducting home photo eBook composing events with students, Ms. Trenton and I talked about the photo-elicitation questions, and together we adapted them for our purposes in the classroom. Our overall goal was to learn more about the important people, places, and experiences from students' lives outside of school. In our conversations with students, we asked questions such as:

- What is going on here? Who is that? Where are you? What are you doing in this picture?

- Why did you take that picture? What did you want to show us?
- Why do you like that person/place/activity/toy/game? Why is that special to you?
- How do you say that (what student just labeled in photo) in your heritage language or English (depending on which language the student used to label the photo)?
- Did you know other people in the class like that too?

A variation of the last question was common as adults and students made connections to others' experiences and social worlds.

Students' photos provided a way to see their social worlds. First, photos provided visual data about people's material worlds. Second, photos provided the stimulus for photo-elicitation interviews and introduced reflexivity on people's place in their families and communities. Twine (2006) asserts that reading photos is a collaborative project between her and her participants. Twine (2006) cannot read the meanings attached to photographs without the participants' direction. During conversations about home photos in the classroom, the teacher, students, and I participated in the social event of jointly reading family photos.

Second, after viewing students' home photos, Ms. Trenton or I transitioned students to composing an eBook in *Book Creator*. On the first page of the eBook, we prompted students to write a title for their family eBooks, in English and in their heritage languages. On subsequent eBook pages, we invited students to select an image from their home photos and/or draw. In previous research, we found that images were the anchors for eBook composing, and students almost always put an image on an eBook page before adding other content (Rowe et al., 2014). In this study, we built on the image-centered nature of eBook composing on each page.

Third, we invited students to write a message about the image they selected. For students who brought back journals with heritage language messages about the photos, they often used

those messages in their eBooks. Students had the option of typing the message with the tablet's onscreen keyboard, or writing the message with their fingers. Students decided which language to use to write their messages. We invited students to write the message in more than one language, English and their heritage languages. Adults and peers supported students with writing in both languages, as they were able.

Fourth, we invited students to record their voices reading their messages. Students also orally recorded additional information about their images and eBook. If students did not want to write a message in their heritage languages, we invited students to orally record a message in their heritage languages. Speaking in their heritage languages was easier than writing in their heritage languages for students who had little heritage language literacy instruction. Adults and peers supported students with orally recording in both languages.

Fifth, after students completed the pages for their eBooks, they read their eBooks to adults and peers who were present at the writing center. As they read, they also revised their eBook pages based on adults' and peers' suggestions and questions. Students chose to add more content, change the title of the eBook, and edit their messages according to writing conventions. Students often worked on the same eBook for multiple days, as they composed, revised, and published their eBooks, going through the writing process.

Interaction around home-composed eBooks. Each week, two students took home Dragon Touch tablets and composed eBooks at home. When students returned the tablets to school, Ms. Trenton or I invited each student to individually read the home-composed eBook with us at the writing center table. As students shared their eBooks, we asked students questions about the people, places, and languages featured in the eBook. We also asked them about their composing decisions, and who helped them to compose at home.

Presentation of family eBooks. After students completed their family eBooks, either in the classroom or at home, they could choose to present their eBooks to the whole class. I projected eBooks onto the board at the front of the room using my laptop computer and the teacher's LCD projector and speakers. Before students presented, Ms. Trenton presented her eBook to the class as a model. During the initial presentation session, we created discussion norms with the class on the role of presenters and the role of audience members. Presenters read their eBooks to the class. When they finished reading, audience members, including peers, Ms. Trenton, and me, had the opportunity to ask the presenter questions about her/his eBook.

The translingual, multimodal, digital, family eBooks incited discussions of how languages are used in the books and comparison among languages. It was an opportunity for students to learn words and phrases in a new language. Even though the majority of the class spoke Spanish at varying levels, these students were curious about learning Somali and Arabic, the languages spoken by two of their classmates. Students also made personal and curricular connections to people, places, and objects featured in the photos. The goal of family eBook presentations was to provide students with a platform for representing their heritage languages, families, and cultural knowledge to a wider classroom audience.

Data Analysis

Data analysis was organized into three phases, which corresponded with the three research questions and study foci: 1) examining how students represent their heritage languages, families, cultural experiences, and relationships in family eBooks; 2) exploring the processes of composing translingual eBook messages; and 3) describing features of eBook events that promote a supportive instructional context for translanguaging and sharing about families and

cultural experiences. In the following sections, I describe the analytic methods and data sources used during each phase to address each of the three research questions.

Phase One: Students' eBooks: Representing Heritage Languages, Families, Cultural Experiences, and Relationships

Research question focus and data sources. Phase one of data analysis targeted the first research question: *How do students represent their heritage languages, families, cultural experiences, and relationships in family eBooks for classroom use?* By analyzing students' multimodal, translingual eBooks, I developed categories addressing what content students included in their eBooks, how content changed over time, and students' multimodal and translingual approaches to representing their languages, families, cultural experiences, and relationships in eBooks. The primary data sources that I drew on during this phase were student eBooks, digital photos, and field notes of classroom observations. The secondary sources of data that I used to triangulate my findings were video and audio recordings of eBook events, teacher reflections, and student interviews. My goals for this phase of analysis were to analyze student eBooks and describe how students represented their languages, families, and experiences through digital composing with photography, sound recordings, and text.

Analysis procedures. Specific data analysis procedures of student eBooks were emergent and designed to fit the data (Lincoln & Guba, 1985) through ongoing data analysis during and after the study. All student eBooks (n=48) were analyzed and coded using NVivo 11 data analysis software. The constant comparative method (Corbin & Strauss, 2008) was used to generate codes and categories to describe family eBook products. I used themes from the existing literature on describing children's translingual, multimodal products as the starting point for my analysis (Brown, 2014; Luttrell, 2010; Martínez-Álvarez & Ghiso, 2014; Ranker, 2009;

Rowe & Miller, 2016; Rowe et al., 2014; Taylor et al., 2008; Zapata, 2014). I developed the following set of themes from these studies: 1) mixing languages and modes, with a focus on meaning, form, use, and coherence; 2) documenting places, people, and artifacts through photography; 3) representing relationships and connections to people, communities, and popular culture; 4) composing complex identities; and 5) showing what counts as valuable knowledge. These themes informed the grounded categories that I expanded and refined to fit patterns in the data.

After I identified themes from the literature, I examined all of the eBooks (n=48), and generated and refined categories through a system of open coding (Corbin & Strauss, 2008). From my initial pass through the eBooks, I developed a set of codes to describe eBook content, including: 1) students' written messages (length, language); 2) oral recordings (language, speaker, content); 3) photos (content, process); 4) type of book (class, home photo, home-composed); and 5) coherence (whole book, page-level). I defined an *eBook written message* as one text box, and each text box ranged from including one word to several sentences. Each eBook page could contain multiple text boxes. Figure 3 shows an eBook page with two written messages: 1) Friends family and pets; and 2) amigos familia y mascotas. Additionally, I defined an *eBook oral message* as the recorded speech that is heard when the oral recording icon is touched. Each eBook page could contain multiple oral messages. The eBook page in Figure 3 features two oral messages. When an eBook reader presses the oral recording icon, s/he hears Daniela reading her written messages.

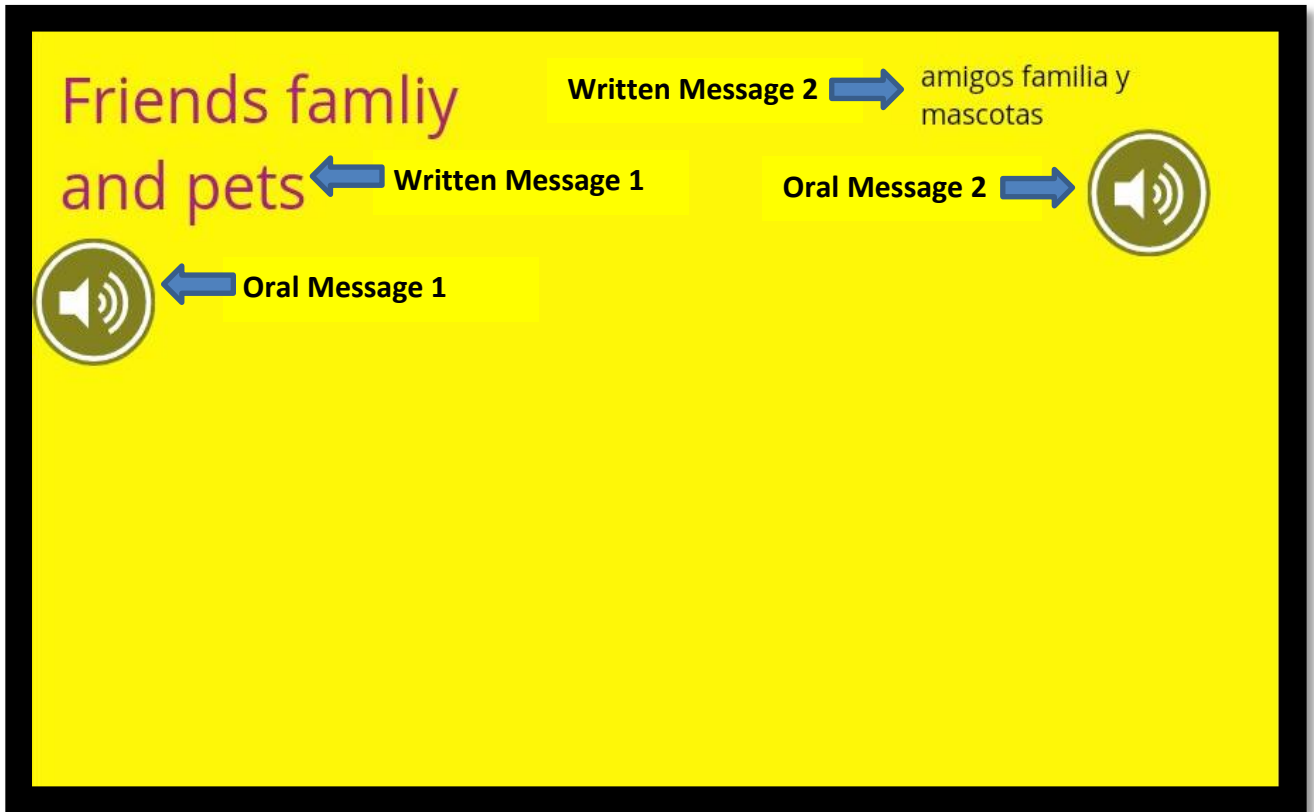


Figure 3. eBook page with two written messages and two oral messages; in oral message 1 Daniela records: “Friends, family, and pets”; in oral message 2 Daniela records: “Amigos, familia, y mascotas.”

Furthermore, I compared eBooks based on when they were composed in order to examine how eBooks changed as students had more experiences with composing. I created a Time Point code, and I divided the 28 researcher days in the classroom where eBooks were collected as data into three time points. Although I visited the classroom a total of 41 times, we did not compose eBooks during my first 6 visits or my final 7 visits. My first six visits were part of my prior ethnography work, and I focused on interviewing students during my final seven visits. However, students composed a class eBook during my final visits, using photos they took during their zoo field trip. Ms. Trenton and I organized the class collaboration zoo eBook as an opportunity for all of the students in the class, not just consented students, to compose with the tablets. I did not include the zoo eBook in this analysis because it includes the contributions of mostly non-consented students. Thus, Time Point 1 includes eBooks composed during the first 10 researcher days where eBooks were collected as data, Time Point 2 includes the following 9 days of eBooks, and Time Point 3 includes the latter 9 days.

During my second pass through the eBooks, I refined these codes and triangulated my findings with field notes, student interviews, teacher reflections, and video recordings of eBook composing and presenting events. I also conducted negative case analysis, and I identified students whose patterns differed from the whole group in terms of their language use in their eBooks. I applied the final set of codes to the entire sample of eBooks using NVivo 11 during my third pass through the data.

Through my recursive process of generating and refining categories and codes from the literature and from the data, themes and patterns emerged addressing how students represented their languages, families, experiences, and relationships in eBooks to compose coherent eBooks. Through their multimodal and translingual approaches to composing with photos, text, color, and

sound, students purposefully combined multiple languages and modes to convey their cultural knowledge, family experiences, and heritage languages for an audience of their peers and classroom adults. I describe patterns in eBook content, negative cases, and students' multimodal and translingual approaches to composing in Chapter 4.

Phase Two: Processes of Composing Translingual Messages

Research question focus and data sources. Phase two of data analysis was focused on addressing the second research question: *What processes do students and adults use as they compose translingual eBook messages?* I examined how processes differed across message modes and languages, across students who are more or less proficient in English and their heritage languages, and across adults who could and could not speak students' heritage languages. My analysis foci in phase two emerged from patterns that I found as I analyzed students' eBook products. First, I found that the majority of students included their heritage languages in their eBooks. However, I wanted to understand how frequently they composed heritage language messages compared to English messages. I also found that students did not mix their languages within one oral or written message, with one exception. Therefore, I could categorize messages by language and examine if students composed more writing or oral recordings, depending on the language of the message. My goal was to understand how the processes of composing translingual messages differed across message modes (oral and written).

Second, as I analyzed all of the participants' eBooks, patterns emerged regarding how students with different proficiencies in their heritage languages composed translingual written and oral messages. In general, students who were more proficient in Spanish than English wrote more messages in English. Moreover, students who were more proficient in English than in their heritage languages composed more English messages, but they also used their heritage

languages, with the support of their peers. I explore how participants with varying language proficiencies composed translingual messages as part of analysis to address my second research question.

Third, I found that 10% of the eBooks included oral recordings where students used their peers' heritage languages. Furthermore, 10% of the eBooks included adults orally recording messages in students' heritage languages. I decided to track down this pattern as a way to understand the process of composing translingual eBook messages. I analyzed field notes related to the eBook sessions where these eBooks were composed. I also reviewed the videos of the composing sessions and noted who was present and how the recordings were initiated and composed. In these eBook sessions, students coached their peers and adults on how to speak and sometimes write in their heritage languages. Furthermore, I noticed how students' language coaching occurred in exchanges, meaning that students would trade off teaching each other new words and phrases for their eBooks. I decided to focus on these sessions in my analysis to address my second research question, and I engaged in theoretical sampling to refine my emergent hypotheses and to make my categories more definitive, useful, and relevant (Charmaz, 2000).

Based on methods of theoretical and purposive sampling, I selected six focal students, or a third of study participants, whose participation provided the widest range of information about students' translingual composing processes in the classroom (Charmaz, 2000). I used comparative case study reporting (Lincoln & Guba, 1985) to provide fine-grained analysis of participants' multiple realities. I developed the following criteria for selecting the sample of focal students for in-depth analysis in phase two: 1) composition of a family eBook with multiple languages; 2) composing sessions with language coaching; 3) composing sessions with Ms.

Trenton; 4) representation of multiple heritage language backgrounds; and 5) representation of differing proficiency levels in English and in students' heritage languages (see Table 2). I designed the criteria to select a sample with maximum variation in terms of participants' composing processes in their heritage languages, in their peers' heritage languages, and in English. Specifically, I wanted to investigate what supports, strategies, and tools participants both used and provided for others as they composed.

Table 2

Description of Sample of Students Selected for Phase Two Analysis

Child	Heritage Language Background	Language Proficiency Group	Adult Participation	Number of Composing Sessions	Number of Messages in Focal eBook
Abdi	Somali/Arabic	Stronger English	Researcher	1	Oral: 8 Written: 11
Berto	Spanish	Stronger English	Researcher and Teacher	2	Oral: 10 Written: 13
Amelia	Spanish	Similar English and Spanish	Researcher	2	Oral: 17 Written: 11
Daniela	Spanish	Similar English and Spanish	Researcher and Teacher	2	Oral: 25 Written: 21
Juanita	Spanish	Stronger Spanish	Researcher and Teacher	3	Oral: 8 Written: 7
José	Spanish	Stronger Spanish	Researcher	2	Oral: 5 Written: 11

First, I selected six focal students, and then I selected focal eBook composing sessions, based on my sampling criteria. I sampled eBook composing sessions for one family eBook per focal child for in-depth analysis. Students composed the six focal eBooks across one to three sessions, for a total of 12 sessions. I selected a sample of sessions to maximize Ms. Trenton's participation in composing sessions. Throughout the study, students had weekly opportunities to compose family eBooks with Ms. Trenton. As a result, some students worked with both Ms. Trenton and me to compose one family eBook. In order to examine how adults with different proficiencies in students' heritage languages and positionalities in the classroom facilitated translingual composing, I sampled family eBooks co-composed by students and both adults when possible. Half of the focal eBooks were composed by students, Ms. Trenton, and me. I transcribed and analyzed all the sessions (n=12) associated with composing the focal family eBook.

Finally, I divided my sample of six focal students into three groups: 1) two students who were more proficient in English than in their heritage languages; 2) two students with similar proficiency in both their languages, and 3) two students who were more proficient in their heritage languages than in English. Students' language proficiency level determinations were based on researcher and teacher observation, and teacher reporting of student language assessments administered by the district.

I analyzed a sample of 12 eBook composing sessions with 6 focal students, and the main data sources that I drew on during this phase were: 1) video recordings of 12 sampled eBook composing sessions; 2) transcripts of 12 composing sessions; and 3) 6 focal family eBooks. The secondary sources of data were: 1) field notes; 2) student interviews; and 3) teacher reflections. My goal for this phase of analysis was to analyze the composing processes of the sample of six

focal students and both adults in order to understand what supports and strategies participants were using to compose translingual writing and oral recordings for their eBooks.

Analysis procedures. The 12 focal eBook composing sessions were transcribed, and participants' talk, gestures, gaze, and interactions with the tablets were recorded, using discourse analysis (Gee, 2011) and multimodal analysis (Flewitt, Hampel, Hauck, & Lancaster, 2009). Each composing session lasted between 15 minutes and an hour. Transcription of participants' talk included notation of latched talk, pauses, and stress, using notations outlined by Dressler and Kreuz (2000). Participants' gestures, gaze, and interactions with the tablets were noted in parentheses next to participants' names in the transcripts. English translations were noted in brackets. I created multimodal transcripts for analysis because I wanted to examine how participants were constructing meaning, values, and the affordances of the available semiotic resources and tools. The processes of composing eBook messages were multimodal and jointly constructed by participants, and the transcripts were designed to capture these dimensions.

Furthermore, I wanted to focus on the process of how each eBook message was composed. Messages were composed in different languages and modes, and participants used different kinds of supports, strategies, and tools to compose each message. By tracing the composing process of each message, I examined how composing was collaborative, translingual, and connected to students' families.

First, I examined how many oral and written messages were included in the six focal eBooks, and I divided each eBook by visual units of oral and written messages. Figure 3 shows what written and oral eBook messages are visually on one focal eBook page that includes two written messages and two oral messages. I used the digital tool as a way to divide the data into units of analysis because students composed messages separately as a function of *Book*

Creator. When students wanted to write a message, they pressed the pen or text icon on the screen, and a text box would appear for them to write or type in (see Figure 4). When they finished writing or typing their message, students pressed done, and whatever they wrote became fixed together in one text box. They could move the text box and change the type, color, size, and font. The text box became a visual unit on the eBook page, but it also guided how students composed. Students often composed oral recordings where they read or translated one text box at a time. Thus students' oral recordings were also units that were afforded by the functions of *Book Creator*. To record, students pressed the sound recording microphone icon (see Figure 4) and then started their oral narration. One oral message is the sound captured in each recording. However, oral messages are also visually represented as sound icons on eBook pages. I also labeled messages by mode (written or oral) and language (English or heritage language) so that I could compare composing processes by mode and language.

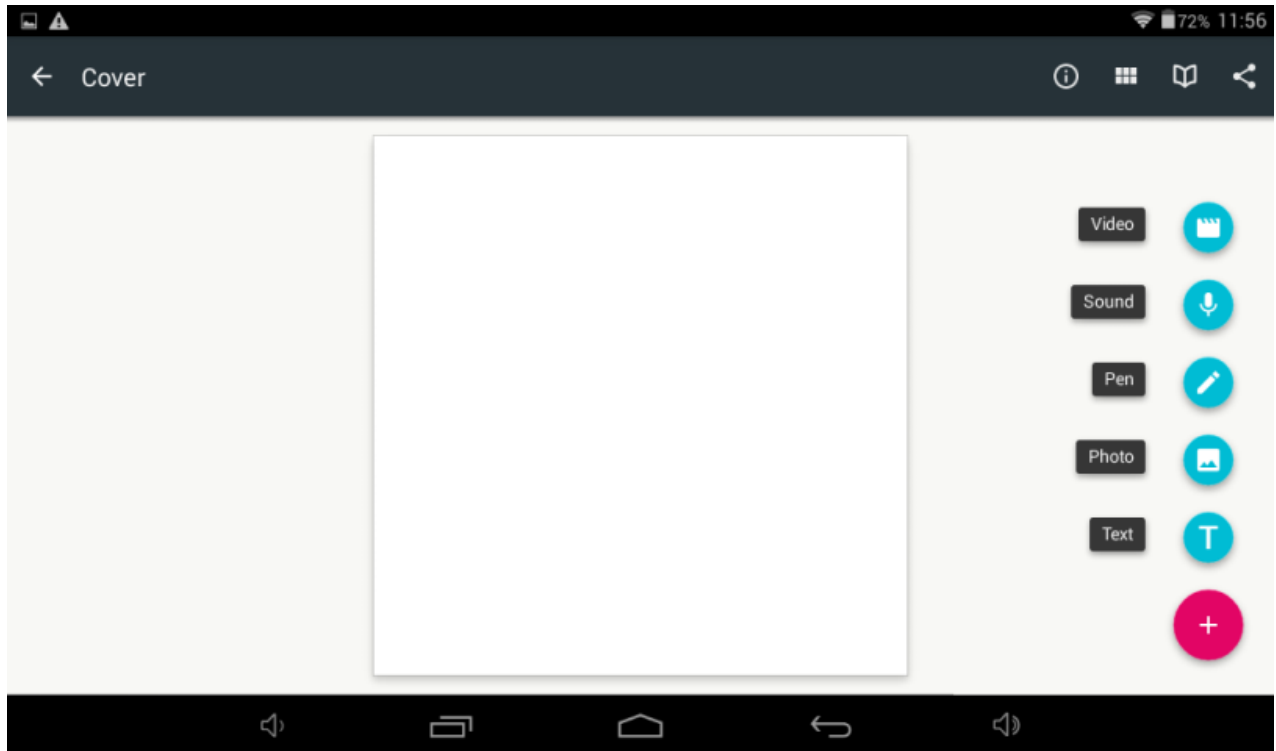


Figure 4. Composing menu in *Book Creator*.

Second, I divided the composing session transcripts into sections related to composing each written and oral message. I analyzed a total of 147 messages and transcript sections. My reason for dividing the transcripts by each message was to closely examine students' composing processes for each message. For example, Figure 5 features an eBook page with two written messages and three oral messages, and Figure 6 shows the section of transcript related to one of the written messages, "This is my pet." José has started a new eBook page by putting a picture of his bird on it. The transcript section starts at the point where I ask José about what he wants to tell about the image, he tells me the sentence for his written message, and he presses the text icon to start typing in a new text box. The transcript section concludes when José finishes typing his

sentence, and he exits from typing on the keyboard. Figure 7 shows the transcript section related to composing one of the oral messages on José’s pet bird eBook page. The section begins where I initiate adding an oral recording to the page, and it ends when Abdi presses the icon to end the oral recording.

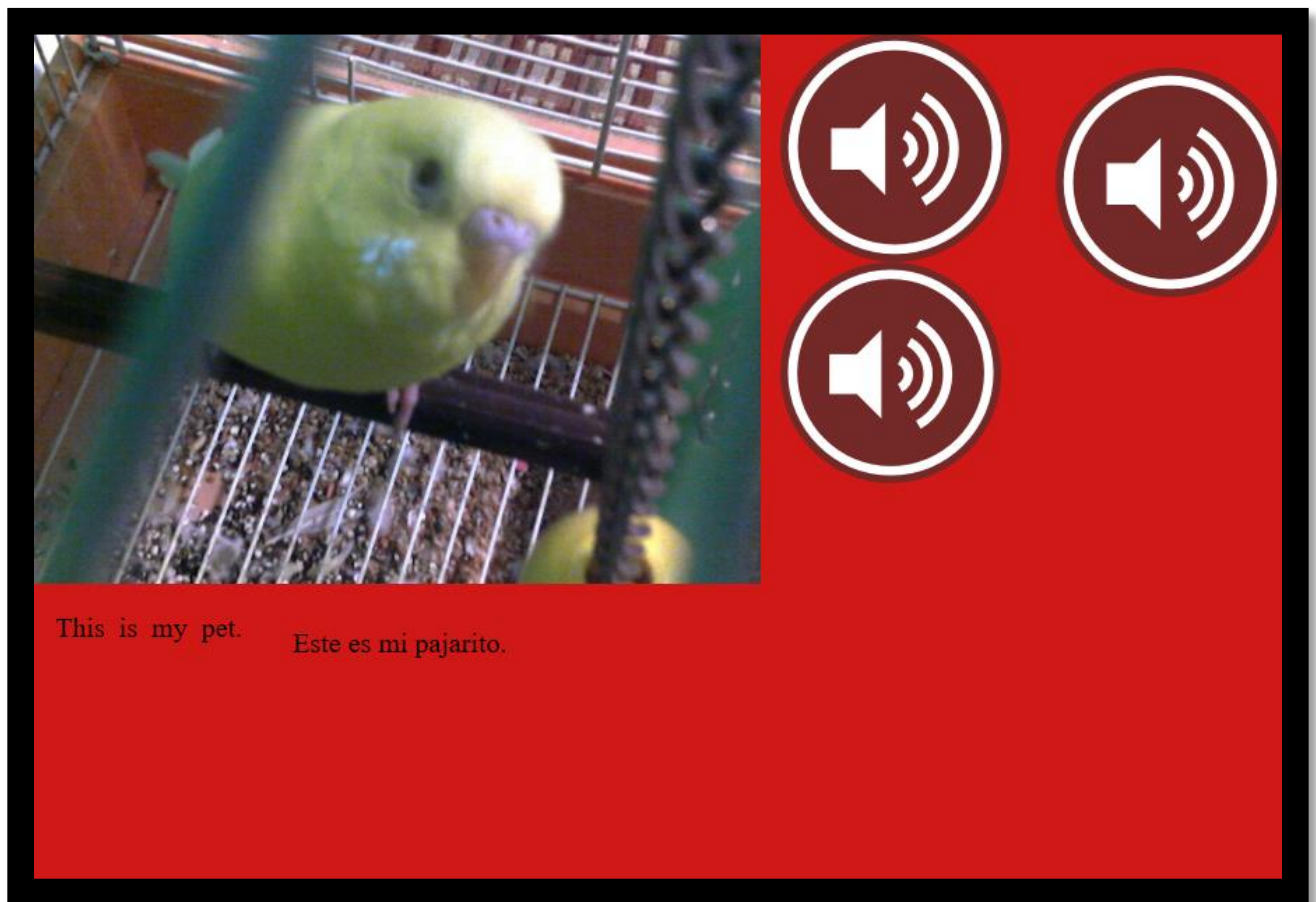


Figure 5. José’s pet bird eBook page with two written messages and three oral messages; Abdi records: “Este es mi pajarito.”; Abdi records: “This is José’s bird.”; Abdi records: “Shimbir.”

Written Message: English: This is my pet.

Miller: What are you going to tell us about that picture? (Picture of a bird on the tablet screen. Miller gaze at José.)

José: This is my pet. (Gaze at Miller).

Miller: This is my pet. That's a caption you're writing for that photo.

José: This is..this is..my pet (Types 'This is my' on the screen).

Miller: Pet. (Gaze at screen.)

José: Pet. Because there is only one in the picture.

Miller: That's right. And you want it to be a caption describing that picture.

José: p-p-p..e-e-..t. (Sounds out pet. Types P-E-T. on the screen. Finishes typing sentence and exits keyboard).

Figure 6. Written message transcript section related to composing: 'This is my pet.'

Oral Message: English: This is José's bird.

Miller: Ok do you want to put sound? (gaze at José)

José: uh-huh (nods head yes)

Abdi: I can put it for him. (gaze at Miller)

Miller: oh, ok! (gaze at Abdi)

Abdi: What do you want to say? (gaze at José)

José: Uh.. this is my bird?

Abdi: (Puts the tablet in front of himself. Touches the oral recording icon. Records.) This is José's bird. (Presses icon to end recording).

Miller: Very good! (gaze at Abdi)

Figure 7. Oral message transcript section related to composing: "This is José's bird."

After reviewing, transcribing, and dividing all of the focal composing sessions (n=12), I used a system of open coding (Corbin & Strauss, 2008) to generate codes to describe how students and adults were composing translingual oral and written messages. During my first pass through the transcripts, I conducted initial coding, incident-to-incident, where each transcript section was an incident, and I developed a set of initial codes to describe what strategies and tools students and adults were using as they composed each message (Charmaz, 2000). Table 3 provides a list of initial codes that describe student and adult actions during composing. As I coded, I compared data across messages and across students, and I continuously refined codes to fit the data.

Table 3

Set of Initial Codes for eBook Composing Processes

Student Actions Codes	Adult Actions Codes
	Researcher Codes
Child uses home journal to help with message	Miller compares English and Spanish Phonics to support spelling
Child talks about audience demands	Miller explicitly references gendered pronouns
Child uses digital resource to support writing-content and/or conventions	Miller points out cognates to support spelling
Child uses English syntax to write Spanish/HL sentence	Miller talks about audience demands
Child uses Spanish/HL syntax to write English sentence	Miller writes out words of message in her journal
Child uses cognates	Miller gives children choice about sharing in their languages
Child applies English Phonics to Spanish/HL spelling	Miller talks about process of translation and language learning (have to think about it, takes time)
	Researcher and Teacher Codes
Child applies Spanish Phonics to English spelling	Adult affirms students' identity as writer/composer
Child asks for heritage language support from a peer	Adult asks for a child to teach about his/her language/culture
Child asks for English language support from a peer	Adult repeats words in new language
Child asks a peer to teach her/him a new language	Adult makes a personal connection to child's experiences
Child asks peer about his/her cultural experiences	Adult shows appreciation for translation work (thank you)
Child teaches others about his/her language	Adult attends to the sounds of a new language being learned
Child shares about cultural experiences	Adult attends to the sounds of a new language being learned
Child applies previously referenced linguistic knowledge to subsequent message	
Child composes a message that was rehearsed while talking about photos	
Child changes the language on the keyboard	
Child talks about word meanings while translating	
Child repeats message to self while writing	
Child repeats message for self and others during translation	
Child repeats words in a new language	
Child independently composes message	
Child connects his/her experiences to another students' experiences	

Next, I conducted axial coding to organize my set of initial codes into related categories (Strauss & Corbin, 1990). During a second pass through the transcripts, I developed and refined the following categories: 1) home to school connections; 2) cross-linguistic processes; 3) language coaching and learning processes; and 4) tools for composing. During my initial coding, I divided the adult set of codes into my actions (researcher codes) and actions taken by both adults (researcher and teacher codes) (see Table 3). However, during my second pass through the data, I found that Ms. Trenton and I were using the same strategies, so I collapsed the category into adults. Next, I developed a final set of codes by combining initial codes that described similar phenomenon and placing codes within each grounded category. Table 4 shows my final set of categories and codes.

Table 4

Set of Final Categories and Codes for eBook Composing Processes

Child Codes	Adult Codes
Child independently composes message	
<i>Home to School Connections</i>	<i>Home to School Connections</i>
Child composes a message that was rehearsed while talking about photos	Adult supports message content composition through referencing home photo sharing
Child uses home journal to support message composing	Adult references child's home journal to support heritage language message composing
<i>Cross-Linguistic Processes</i>	<i>Cross-Linguistic Processes</i>
Child engages in cross-linguistic phonics processing	Adult makes explicit comparisons across languages
Child engages in cross-linguistic syntactic/Grammar processing	Adult invites child to compare messages in different languages
Child translates with cognates and talks about word meaning	Adult questions child about linguistic features of messages
Child applies previously referenced linguistic knowledge to subsequent message	
<i>Language Coaching and Learning Processes</i>	<i>Language Coaching and Learning Processes</i>
Child repeats words in new language, attending to pronunciation	Adult repeats words in new language, attending to pronunciation
Child teaches others about his/her language	Adult asks for a child to teach about his/her language
Child talks about audience demands and understanding the message	Adult talks about audience demands
Child coaches peers/adults on how to pronounce words	Adult talks about and/or positively values the process of translation and language learning (have to think about it, takes time, you are good with languages)
Child asks for heritage language support from a peer	
Child asks for English language support from a peer	
Child asks a peer to teach her/him a new language	
Child provides a peer with language support	
<i>Tools for Composing</i>	<i>Tools to Support Composing</i>
Child uses digital resource to support writing-content and/or conventions	Adult uses digital resource (online translator, search engine) to support writing and translation
	Adult writes out words of child's message as child dictates
	Adult prompts child to phonetically segment words

Finally, I applied the final set of categories and codes to each transcript section. Each section was coded for the presence of student and adult actions, and codes were not mutually exclusive. Sections could be given multiple codes, depending on the message composing processes. For example, Figure 8 shows how I coded the transcript section that corresponds with composing the Spanish oral message for José's pet bird eBook page (see Figure 7). In this example, I applied two child action codes to José and Abdi's language coaching and learning processes, as José models Spanish pronunciation for Abdi, Abdi repeats the Spanish sentence correctly, and Abdi records on Spanish (José's heritage language) for José's eBook. I also applied two adult action codes to this transcript section because I asked Abdi about a Somali word, and then I praised Abdi's Spanish speaking by saying that he was good with languages. In my description of the findings in Chapter 5, I contextualize the results with examples from the transcripts and students' eBooks, and I triangulate my findings with student interviews and teacher reflections.

Oral Message: Spanish: “Este es mi pajarito.”

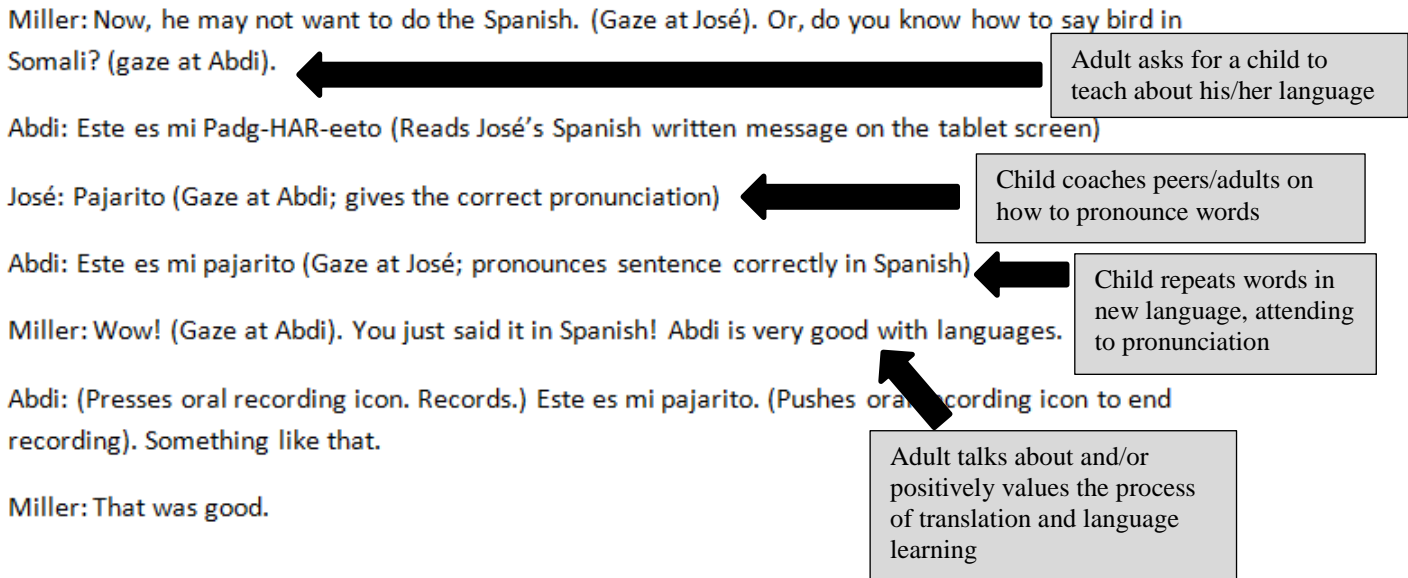


Figure 8. Coded transcript section for Spanish oral message composing processes

Phase Three: Instructional Features that Promote Translanguaging and Sharing

Research question focus and data sources. Phase three of data analysis was conducted to address the third research question: *What are the features of eBook events that promote an instructional context supportive of translanguaging and sharing about families and cultural experiences?* To understand the construction of these features and the conditions that supported them, I used comparative case study analysis (Merriam, 1998). I traced the participation of two students, Abdi and Celia, across the study. Celia is a Spanish speaker and Abdi speaks Somali and Arabic at home. I selected Abdi and Celia because they were consented to participate at the beginning of the study, and they were part of eBook events throughout the entire study period. Moreover, they were both part of the following key introductory events that established norms for composing and presenting—they assisted with composing and translating the teacher demonstration eBook, and they were the first students to present eBooks to the class. However,

Abdi and Celia represent contrasting cases because they speak different heritage languages, and they had different kinds of supports, at home and at school, for translanguaging.

Furthermore, I analyzed eBook events from the beginning, middle, and end of the study. I identified the following introductory eBook events for analysis: composing the teacher demonstration eBook with Celia and Abdi, presenting the teacher demonstration eBook that featured Celia and Abdi's translations, setting norms for eBook presenting before the first presentations by Celia and Abdi, Abdi's first eBook composing and presenting sessions, and Celia's first eBook composing and presenting sessions. Next, I identified composing and presenting sessions for Abdi and Celia that took place in the middle of the study (in February) and at the end of the study (in April).

The primary sources of data were field notes and video recordings of Abdi and Celia's eBook composing and presenting sessions (n=14). The secondary sources of data were teacher reflections and interview, student interviews, teacher demonstration eBook, and student eBooks. My goal was to examine how participants constructed practices and used tools during eBook events in ways that supported translanguaging and sharing in the classroom.

Analysis procedures. In phase three, I examined how participation in eBook events changed over the course of the study, as participants responded to the eBook activity framework, engaged with the tools, and jointly constructed translanguaging and sharing practices. First, I read through field notes, and I noted general patterns in the introductions to the tools and activities, students' and adults' responses to invitations to participate, explicit norms established to guide activities, and practices that developed over time. Based on my review of field notes and my analyses during phases one and two, I developed a set of categories to describe instructional features that promoted a context of translanguaging and sharing.

I watched all the videos of the selected sessions, and I compared Abdi and Celia's participation in eBook events to refine my instructional features categories and conceptualize themes that fit the data. I will describe the following set of instructional features: 1) collaborative composing among participants who come from the same and different linguistic and cultural backgrounds; 2) norms that explicitly value all students' heritage languages and cultural experiences; 3) opportunities to present family eBooks to an audience and make connections to others' eBooks; 4) using digital resources to learn more about students' languages and cultural experiences; and 5) embodied practices where students and adults are positioned as both teachers and learners. I triangulated my findings with Abdi and Celia's student interviews and Ms. Trenton's reflections, specifically her reflection on her demonstration eBook and her interview at the end of the study.

The final category emerged as I closely analyzed the embodied features of eBook composing and presenting. In order to further examine this category, I conducted multimodal interaction analysis (Norris, 2004). I watched the selected videos again, but I turned the sound off so that I could focus on how participants' bodies were positioned in relation to others, materials, and space. I recorded how participants' bodies shifted at various time points in the events, and patterns emerged regarding the embodied practices that supported an instructional context where all participants were positioned as teachers and learners. I describe the instructional features that promoted translanguaging and sharing in the classroom in Chapter 6.

Strengths and Limitations

This qualitative, naturalistic inquiry provides a fine-grained analysis of classroom interactions and participants' multiple realities. The research was designed to examine ways to support translanguaging and sharing about families and cultural experiences among multilingual

students, in English-dominant schools, with a primarily English-speaking classroom teacher, during eBook activities. As I designed the study, collected the data, and analyzed the data, I applied standard techniques of naturalistic inquiry to address trustworthiness (Erlandson et al., 1993; Lincoln & Guba, 1985).

Trustworthiness: Addressing Criteria for Naturalistic Inquiry

First, I used several methods to address the credibility of my research report. My study lasted eight months in the classroom and ended when the school year ended. I achieved prolonged engagement by being in the class one to three times a week for almost the entire school year. I built rapport with participants and watched them develop over the course of their second grade year. During these eight months, I had sufficient time to track down my emergent hypotheses regarding how participants used and valued their and their peers' heritage languages and how they shared their cultural knowledge in the classroom. Furthermore, I triangulated across multiple data sources (observations, field notes, video/audio recordings, eBook products, digital photos, student interviews, teacher reflections). Although I was the only researcher in the classroom, Ms. Trenton's participation, reflection, insights, and support informed my emergent design and subsequent data analyses. During our daily conversations, weekly reflections, interviews, and emails, Ms. Trenton functioned as a co-researcher, so that I could also triangulate across investigators. I conducted member checks with Ms. Trenton during these conversations and interviews, and with students, through ongoing conversations and semi-structured interviews at the end of the study. My focus in this report is on the teacher's and students' perspectives on the inclusion of students' heritage languages, families, and cultural experiences in the classroom.

Furthermore, I met with a peer debriefer during data collection and analysis to discuss my emerging hypotheses, posit multiple explanations, and plan next steps. My peer debriefer was

familiar with the study context because he worked with Ms. Trenton and her second grade class as part of the project to support Ms. Trenton as a teacher of English Learners. After he observed Ms. Trenton's classroom, we met to talk about instructional practices, students' language use, and our collective observations. I recorded the themes of our discussions in my field notes. My peer debriefer had also previously participated in eBook composing and translanguaging research with young children, and he could question and help me refine my methods and categories. Furthermore, we met to develop the questions for the student and teacher interviews so they could serve as member checks and tests for my emergent hypotheses. We also discussed participants' interview responses and compared those responses to patterns from observation across the study. Finally, during data analysis, he helped me to refine my interpretations of the data by listening to my themes and categories, and offering other explanations and directions for further analysis.

Second, I addressed transferability in my research through providing thick description and conducting purposive sampling. As I report my findings, I describe the context, participants, and eBook products and processes with enough detail to allow readers to determine how to transfer them to the receiving context. My categories may travel and be applied to students' and teachers' experiences in other classrooms. Furthermore, I selected my site and participants to meet my criteria for providing rich information about my research questions. During data analysis, I looked for patterns across all participants during phase one, and I sampled for maximum variability in phases two and three, in order to show a range of patterns in the data. However, my context and data are confined to one classroom with students who are all emergent bilinguals. Therefore, the categories may not be transferable to contexts with children with different backgrounds, or teachers with different interests and experiences.

Third, I addressed dependability by following principles of emergent design during my data collection. I documented my observations of what worked and did not work in my field notes, and I changed my research methods to reflect my emergent and grounded understandings. For example, Ms. Trenton and I negotiated how to share responsibilities for literacy instruction and eBook events so that Ms. Trenton could participate in eBook composing events. Throughout the study I allowed my research design to emerge in response to my participants' needs and ideas.

Fourth, my research safeguards the confirmability of my findings through triangulation of data sources, peer debriefing, reflexive practices, and case reporting. My understandings were informed by my participation in events, my field notes, video transcripts of events, eBooks, home photos, interviews, and reflections. I reflected on how I was constructing the data through writing theoretical and analytical memos, both during and after data collection and analysis. By passing through data multiple times, I questioned my interpretations of the data and looked for confirming and disconfirming evidence of my emergent hypotheses. I conducted negative case analysis to examine the perspectives of two students who chose not to compose in their heritage languages. Peer debriefing also helped to challenge my interpretations of the data and ensure that I was staying grounded in the participants' perspectives, rather than my own. Finally, I provided thick descriptions and in some cases raw data to allow readers to see how the data illustrated the findings. All of these methods contributed to the confirmability of my research.

Limitations: Addressing Issues with Technology, Family Participation, and Site Selection

Although my study met the criteria for trustworthiness and had a strong design, there were several limitations concerning the technological tools, family participation, and site selection. First, the Dragon Touch Tablets that I sent home with students were not as big,

reliable, or user-friendly as the Samsung Galaxy Tablets that we used in the classroom. Even though I showed students how to use the Dragon Touch Tablets in the classroom, and I sent home detailed directions in English and Spanish (see Appendix D), often students returned the Dragon Touch Tablet without composing an eBook with it at home. When I questioned students about their issues with the Dragon Touch Tablets, they told me the screen would not turn on, or the icon for *Book Creator* changed to something unrecognizable to them, or they did not know how to use it. In April, the screen on one of the Dragon Touch Tablets stopped responding to touch, and I stopped sending that tablet home. Given these limitations, students only composed six eBooks at home, even though two tablets were sent home weekly from January to April. Furthermore, despite my invitations to families to co-compose with their children in Spanish and English (see Appendix C), and my explanation to students in the classroom that they should have their family members help them with the writing and oral recordings, family members were rarely featured in oral recordings.

To address these issues in the future, I would consider sending home tablets of higher quality that were exactly like what we were using to compose eBooks in the classroom. Although sending home more costly tools would pose other issues related to cost and potentially children's safety as they transported the tools, I think the change is necessary to supporting students to compose at home with their families.

Another limitation of my study is that I did not interview families and triangulate their perspectives. I had email contact with four families who wanted electronic copies of their family eBooks and data from heritage language journal entries, but I did not check my categories and emergent hypotheses with families. Without family members' perspectives, I cannot describe their participation in and responses to composing eBooks. If I had been able to meet with

families to describe the project and model how to compose translingual messages with *Book Creator*, then I think more family members would have contributed heritage language content to Home-composed eBooks. In my study, the main way that families' contributed heritage language content was through the journals sent home with digital cameras. However, journal entries written in languages that were not spoken by adults in the classroom were harder to incorporate into eBooks because we did not know how to read them.

In the future, I would increase family participation in eBook composing through meeting with families at home, school, and community centers to model and support translingual composing. Additionally, Ms. Trenton and I reflected that we would have liked to host an eBook presenting event for families and community members in the classroom. These strategies would increase family participation and strengthen my research design.

Lastly, although my site selection met my criteria to include students and families from culturally and linguistically diverse backgrounds, there were only two students in the class who spoke languages other than Spanish and English. Only one of those students, Abdi, was consented to participate in the study. Since I selected a school site and teacher before the school year started, I did not know what the exact demographics of the class would be. I would have liked to work with speakers from several different language backgrounds as a way to understand how to support student translanguaging in multilingual classrooms. However, Abdi's participation in the study was a rich source of information to answer my research questions, and I developed categories through analysis that could be applied to more linguistically diverse classrooms. As a result, the study provides descriptive information about how to build translingual home to school connections as part of the literacy curriculum. In future work with more multilingual classrooms, I would continue to make available literacy materials with all of

the languages spoken by students in the classroom, and to model, along with the classroom teacher, how to learn others' languages, and then use those languages during instruction.

CHAPTER 4

STUDENTS' EBOOKS: REPRESENTING HERITAGE LANGUAGES, FAMILIES, CULTURAL EXPERIENCES, AND RELATIONSHIPS

This chapter addresses the first research question: *How do students represent their heritage languages, families, cultural experiences, and relationships in family eBooks for classroom use?* By analyzing students' multimodal, translingual eBooks, I developed categories addressing what content students included in their eBooks, how content changed over time, and students' multimodal and translingual approaches to representing their languages, families, cultural experiences, and relationships in eBooks. The primary data sources that I drew on during this phase were student eBooks, digital photos, and field notes of classroom observations. The secondary sources of data that I used to triangulate my findings were video and audio recordings of eBook events, teacher reflections, and student interviews. I analyzed students' eBook products (n=48), and I triangulated my findings with video recordings of eBook composing and presenting sessions, field notes, student interviews, and teacher reflections. I developed and refined codes through several passes through the data, and codes emerged to describe patterns in eBook content, across three Time Points.

First, I present eBook content patterns regarding eBook types, languages, written messages, oral recordings, and photos. Then, I focus on students' *multimodal* and *translingual approaches*, or the ways that students combined semiotic resources to represent their heritage languages, families, cultural experiences, and relationships in eBooks. I arrange my findings around the following four themes: 1) meaningful color design; 2) typed text features; 3) anchored

images; and 4) paired written and oral messages. Finally, I discuss the implications of these findings in the context of working in multilingual classrooms situated in English-dominant schools.

Content of eBooks

During my eBook product analysis, I examined how participants used heritage languages in eBooks and combined semiotic resources to represent their languages, families, and experiences. By analyzing participants' translingual and multimodal approaches to eBook composing, I found that students and adults co-constructed translanguaging pedagogies and navigated the following tensions related to language use in Ms. Trenton's literacy classroom. First, Webster Elementary is located in a district where English is the mandated language of instruction. Although this policy was not enforced in any cohesive way across the district, teachers were aware of the restriction and it shaped their language use in the classroom. Second, Ms. Trenton's class included speakers of several different languages, although Spanish was the majority minority language. Therefore, students who spoke Spanish could use their heritage languages with their peers in the classroom, but students who spoke other languages did not have the same opportunities. Third, Ms. Trenton did not speak any of students' heritage languages, and she could not instruct students in their heritage languages.

We worked within these tensions in productive ways so that all students had opportunities to use their heritage languages and share about their families in eBooks. When we provided students and their families with digital tools and open-ended opportunities to compose multimodally, they had access to multiple ways to make meaning and communicate. Not only did students develop multimodal, digital composing practices that are an important part of being literate in the 21st century (Dalton et al., 2015), they purposefully coordinated complex semiotic

resources to demonstrate sociolinguistic flexibility and meet their social purposes (Genishi & Dyson, 2009). Translingual, multimodal, digital composing was a way to privilege multiple ways of knowing and multiple languages (Leland & Harste, 1994), even in an English-dominant classroom.

Students' eBook content shows how students leveraged different modes to represent complex meanings in ways that matched their developing practices as translingual composers, writers, speakers, and presenters. In the following sections, I describe patterns in eBook types, languages, written messages, oral messages, and photos, and I discuss how patterns changed over time.

Types of eBooks

As students composed different types of eBooks, they: 1) explored composing with digital photography, text, and sound; 2) learned from their peers' composing practices; and 3) saw and heard their peers' languages and experiences. I generated three categories to describe different types of eBooks, based on where the eBooks were composed and with what kind of photos. *Class eBooks* were entirely composed by students in the classroom writing center, and students took photos of their peers in the classroom to generate photo content. *Home Photo eBooks* include the photos that students took at home and in their communities, using the digital cameras. When students returned the cameras to school, I uploaded their photos to Samsung Galaxy tablets, and they composed their Home Photo eBooks in the classroom. *Home-composed eBooks* were composed by students at home, using Dragon Touch Tablets that were sent home with consented students. Students read their Home-composed eBooks to their teachers and peers when they returned their tablets to school.

Of the 48 eBooks, 35% were Class eBooks, 52% were Home Photo eBooks, and 13% were Home-composed eBooks. Most students had opportunities to compose Class eBooks and Home Photo eBooks. Not as many students made Home-composed eBooks because I only sent home two tablets each week. Moreover, students had issues using tablets at home, which was a limitation in the study. Table 5 shows the number of eBooks each participant composed and which types.

Table 5

Number of eBooks by Participant and Type

Student Participant	Number of Class eBooks	Number of Home-composed eBooks	Number of Home Photo eBooks	Total eBooks
Abdi	4	1	2	7
Angelo	1	0	1	2
Alan	0	0	2	2
Amelia	1	1	2	4
Angel	2	0	1	3
Bernardo	1	1	1	3
Berto	0	0	1	1
Bella	0	0	1	1
Celia	1	1	2	4
Delia	1	1	1	3
Daniela	1	0	1	2
Damien	2	0	0	2
Daniel	0	0	1	1
Emilio	1	0	2	3
Janet	1	1	2	4
Juanita	1	0	2	3
José	1	0	2	3
Samuel	0	0	1	1
Average	1	.3	1.4	2.7

Furthermore, the majority of Class eBooks (71%) were composed during Time Point 1, during students' initial explorations of the tablets and *Book Creator* in the classroom. The composition of Home Photo eBooks and Home-composed eBooks remained about the same across Time Points in the study.

Although my research focus is on how students represent their heritage languages, families, cultural experiences, and relationships in eBooks, particularly through home photos and home-composed content, I decided to include Class eBooks in my analysis to address my first research question. While composing class eBooks, students were exploring the digital tools, making design choices, composing collaboratively, and using their heritage languages. Students started exploring eBook content potential and composing practices in the classroom through their interactions with me, their peers, their teacher, and the tools. Students' ways of representing their heritage languages and experiences in eBooks are present across all the types of books, as they learned from each other and tried out new composing practices with their peers in the classroom.

Languages of eBooks

In this English-dominant school, we developed the practice of composing translingual eBooks in the classroom. Students composed eBooks using all of the heritage languages represented by students in Ms. Trenton's literacy block: Somali, Arabic, Spanish, and English. I coded eBooks for the inclusion of these languages in either written or oral messages. The majority of books (77%) featured students' heritage languages, and 23% only had English. Although none of the eBooks featured all four languages, 8% featured English, Spanish, Somali; 6% featured Somali and English; 52% featured Spanish and English; 6% featured Spanish only; 2% (1 eBook) featured English, Spanish, and Arabic; and 2% (1 eBook) featured only Somali. Furthermore, when I compared eBooks across Time Points, the composition of English-only

eBooks decreased over time, and eBooks with three languages increased. Overall, students developed an interest in learning their peers' heritage languages and in composing translingual eBooks, resulting in an increase in translingual eBooks over time.

Written Messages in eBooks

The written messages in eBooks showed students' translingual approaches to writing and matched students' development as digital, translingual writers. As a group, students: 1) wrote in more than one language in eBooks; 2) wrote bilingual messages consistently across time points; 3) described people and places featured in photos using phrases or complex sentences; and 4) needed different supports when their heritage language used a script different from English.

Moreover, in eBooks with writing (n=45), 40% had only English writing, 52% had English and Spanish writing, and 8% had only Spanish writing. When compared across the three Time Points, writing in English and Spanish remained about the same. I found that the majority of eBooks (60%) included Spanish writing, and writing in more than language was a practice that the teacher and I modeled and supported throughout the study. I analyze the processes of composing written messages in more than one language in the next chapter.

Students' written messages also reflected their development as emergent digital writers, using the onscreen keyboard or their fingers to write on the screen. Furthermore, many of Ms. Trenton's students were emergent writers in English and their heritage languages, and their participation in eBook composing activities supported their segmenting, blending, letter recognition, vocabulary, and meaningful message construction. In 51% of eBooks, students wrote labels such as, "This is my sister," or "My Family," to name the people and places featured in their photos and drawings. Some students also wrote more detailed sentences, and 49% of eBooks featured written messages that described more information about the people, places, and

activities featured in photos. For example, Celia wrote several details about her motorcycle in her Home Photo eBook (see Figure 9).



Figure 9. Celia’s motorcycle eBook page; in the oral message Celia recorded: “Este es mi moto. Mi moto tiene llaves para prenderlo y apagarlo. Tiene muchas cosas. Mi papa me lo compró por mi. Es amarillo.”

Moreover, I found that none of the eBooks featured writing in Somali or Arabic, and students needed more supports for writing in heritage languages with scripts that are different from English. However, Abdi brought Somali translations of the teacher eBook written by his dad. Abdi read these translations for the Somali oral messages in the teacher eBook. Although Abdi's Home-composed and Home Photo eBooks did not include Somali or Arabic writing, during my end-of-the-year interview with Abdi, we used the tablet to look up Somali and Arabic alphabets online. Abdi tried to write a word in Somali, and he might have included Somali writing if we had composed an eBook after the interview. In order to support students like Abdi as translingual writers, we built on the supports of family member written translations and online alphabets and dictionaries.

Oral Messages in eBooks

The oral recording feature allowed participants to represent their heritage languages in eBooks, regardless of their ability to write in their heritage languages. This capability was especially important when participants spoke different heritage languages, were emerging biliterates, and/or the script of their heritage language was different from English.

I found that: 1) students from all four linguistic backgrounds represented their heritage languages in oral messages; 2) students orally developed messages that were more complex than their writing; 3) students taught peers and adults how to pronounce words and phrases in their heritage languages for oral messages; and 4) students who chose not to compose in their heritage languages still represented their families and experiences by describing image content in English oral messages.

There were 38 eBooks that included oral messages, for a total of 264 oral messages. Each eBook ranged from having 1 to 25 oral messages. In the sections that follow, I describe the language, content, and speaker featured in each oral message.

Languages of oral messages. Overall, there were slightly more heritage language messages (n=133) than English messages (n=131). Oral messages were almost equally divided between English and heritage languages because students orally recorded messages in both English and heritage languages on most eBook pages. There were more Spanish messages (n=117) than Somali (n=11) or Arabic (n=5) messages because there were only two speakers of languages other than Spanish and English in the class.

In my previous research with preschool students, we found that students who spoke languages other than Spanish and English composed fewer heritage language oral messages than their Spanish-speaking peers, and Spanish was the majority minority language in the class (Rowe & Miller, 2016). Furthermore, we found that students composed fewer heritage language oral messages at the beginning of the study than at the end, as we constructed the practice of orally recording dual language messages (Rowe et al., 2014). Conversely, in this study, I found that second grade students who spoke Spanish, Somali, and Arabic all composed heritage language oral messages, even though the majority of students spoke Spanish. Moreover, students consistently composed Spanish and Somali oral messages across the three Time Points. Since the non-consented Arabic-speaking student was not a study participant, this student did not have opportunities to compose an eBook for analysis. However, during Time Point 3, Amelia, a Spanish/English participant, recorded in Arabic in her book after she invited the non-consented Arabic-speaking student to teach her Arabic. Thus, Arabic oral messages were included in the eBook analysis.

Content of oral messages. Oral messages provided a way for students to orally develop their messages for eBooks, which is an important support for students who are emerging biliterates. In 55% of the oral messages, students read the writing on the eBook page, a practice modeled by Ms. Trenton in the teacher demonstration eBook and by me during introductory eBook sessions. Students translated the writing on the page into another language in 22% of the oral messages, which was also modeled in the teacher eBook and introductory eBook sessions. Students described the image on the page, not the writing, in 21% of the oral messages. Students often described images when they did not have time to include more writing in their eBooks, but they wanted their audience to know about the people, places, activities, and objects featured in photos.

Six of the oral messages were coded as other, and students used the oral recording feature to capture moments not related to images or writing on the eBook page. For example, in his Home-composed eBook, Abdi recorded his dad talking to someone on the phone in Somali. Daniela recorded herself asking her peers what she should talk about in her eBook. Lastly, Abdi recorded himself singing a song in Somali that his dad taught him. Oral messages provided students with a way to represent the sounds and cadences of their heritage languages and record descriptions of their experiences outside of school in eBooks.

Speakers of oral messages. Oral messages became an opportunity for students to teach peers and adults how to say words and phrases in their languages so that students could compose translingual eBooks. Students were the primary speakers in the oral messages, and students orally recorded in English in 48% of the messages and in their heritage languages in 47% of the messages. However, student composers collaboratively composed with their peers, Ms. Trenton, and me at the writing center, and they invited others to orally record in their eBooks in English,

Spanish, Somali, and Arabic. Ms. Trenton used students' heritage languages in four oral messages and English in two oral messages. I spoke in Somali in one oral message. Abdi's dad was featured speaking in Somali in one oral message. Lastly, students used a language other than English and their own heritage languages, with their peers' support, in four oral messages. I found that translingual oral messages composed by adults and peers were evidence that participants were using and valuing heritage languages in the classroom.

Negative case analysis. Students actively orally recorded in their heritage languages with two exceptions—Janet and Damien. They were identified by the school as coming from Spanish-speaking families. Both students worked with their Spanish-speaking peers, and they demonstrated understanding when we spoke with them in Spanish. However, when they were invited to compose in Spanish, they refused. Based on their interview responses, English was the primary language spoken at home. Furthermore, based on my observations and Ms. Trenton's reflections, Janet and Damien were shy students who were generally reluctant to take risks in the classroom. Even though we worked to create a low-risk environment, Janet and Damien did not seem interested in composing in Spanish. Additionally, Damien was not consented to participate in taking home cameras or tablets, so he only composed class eBooks. Yet he asked weekly to take home a camera, and it would have been interesting to investigate whether he would have used Spanish in home photo or home-composed eBooks.

Overall, the cases of Janet and Damien contrast with other participants' experiences, and provide perspective on the complexities of translingual composing in English-dominant, multilingual classrooms. Although my goal was to support all students to compose in their heritage languages, working with Janet and Damien made me refine that goal. I realized that I had inadvertently placed more value on students using their heritage languages in the classroom

than on students sharing about their families and cultural experiences, which may or may not be tied to their heritage languages. During data collection, I questioned what I valued and what I supported during composing sessions, and I changed my focus, particularly while working with Damien and Janet. Instead of focusing primarily on heritage language composing supports, I considered how I could best support Janet and Damien to represent their experiences and interests in the classroom. For Janet, this meant taking photos of her mom and brother and writing in English about the places they went together. For Damien, this meant experimenting with drawing, contrasting colors, and labels. I found that part of building an inclusive classroom meant being responsive to students' choices to use or not use their heritage languages in the classroom, and valuing all students' experiences, regardless of heritage language use.

Photos in eBooks

Students explored composing with digital photography as a way to 1) make meaning; 2) fulfill their social purposes; 3) represent their interests, cultural experiences, families, and important artifacts; and 4) connect to others' experiences. Photos were included in almost all of the eBooks (94%) across types—Class, Home Photo, and Home-composed. Students had opportunities to use the Samsung Galaxy tablet cameras when they composed in the classroom, and the Vtech cameras or Dragon Touch Tablet cameras when they composed at home. Students explored the different capabilities of each device. For example, two of the Class eBooks feature photos with filters, taken with the Samsung Galaxy tablet camera. The Vtech cameras included a tool that allowed students to add a stamp to their photos, such as in Figure 10 where Angelo put a treasure stamp on a photo of his glow stars. Students included photos with added stamps in 29% of their eBooks, and they talked about how the stamps contributed to the meaning of their compositions. For example, Angelo said that he used the treasure stamp in this photo because,

“glow stars are like the gold.” Furthermore, students used stamps of moustaches and hats and bathtubs to, “be more funny,” according to José. Several students mentioned that one of their goals was to compose humorous eBooks during their end-of-the-year interviews, and adding stamps supported them to meet that goal.



Figure 10. Angelo’s photo with a stamp added.

Students also explored using more than one digital device to compose photos that represented their interests and experiences. For example, they took photos of images on television, phone, tablet, and video game screens. Six of the eBooks featured photos of screens, such as Berto’s Home Photo eBook composed during Time Point 1. Berto wanted to compose an eBook about his favorite Pokémon characters, and he took pictures of his television screen while

he watched a Pokémon program. When he composed with the Pokémon photos at school, several of his peers stopped by the composing table to ask him about how he took the photos and discuss their favorite Pokémon characters. He browsed the photos with Ms. Trenton, who told him that she was also a Pokémon fan. Ms. Trenton reflected that this was a moment of bonding for Berto and her, and it provided an opportunity for students' popular culture interests to have a place in the classroom. As a result, during Time Points 2 and 3, students started to bring in more photos of screens depicting their favorite television programs, movies, and video games.

Additionally, students took photos of screens that depicted photos on their families' cell phones. For example, Abdi wanted to include a photo of his newborn brother in his eBook, so he used the Samsung Galaxy tablet to take a photo of the cell phone he brought to school that had digital photos of his brother. Delia used a Vtech camera to take a photo of her mom's cell phone screen depicting a photo of Delia and Ms. Trenton at the school holiday program. Students used multiple devices and particular aspects of the tools to represent their experiences, both in and out of school.

Students also represented important people and artifacts in their photos, and peers and adults connected to the important parts of students' lives when they viewed photos. 89% of the eBooks included people-oriented photos, or photos where the main focus of the image is on people. The majority of eBooks (68%) also included object-oriented photos, or photos where only objects such as toys, pets, and plants are featured. People-oriented were associated with all three types of eBooks. Object-oriented photos were associated with Home Photo and Home-composed eBooks. People-oriented photos often showed places students went with their families, like parks and restaurants. As students and adults viewed others' people-oriented photos, they commented on whether or not they knew the family member or neighbor in the photo, or had

been to the place. Furthermore, students and adults made connections to others' object-oriented photos, and they discussed their similar experiences with their pets, video games, trampolines, and motorcycles. Photos provided participants with a way to learn about each other and make connections to each other's experiences. Including them as the focus of their eBook page designs was one of students' multimodal approaches to representing their families, heritage languages, cultural experiences, and relationships in the classroom.

Summary

In their eBooks, students used their languages together to make meaning and develop literacy in both languages, which are the goals of translanguaging pedagogies (García & Kleifgen, 2010). Students composed eBooks in every heritage language spoken by students in the class, and translingual eBook composition increased over time. They wrote bilingual messages consistently across the study, and they developed as digital writers, typing phrases and complex sentences in eBooks. Furthermore, Abdi and I started to explore using online tools to learn how to write in Arabic and Somali. However, the oral recording feature allowed participants to represent their heritage languages in eBooks, regardless of their ability to write in their heritage languages. Oral messages were more complex than students' written messages, and students started the practice of teaching peers and adults how to pronounce words in their heritage languages so that they could record heritage language oral messages in eBooks. Moreover, students composed with digital photography to make meaning, represent their experiences, and connect to others' experiences. They explored using photo filters and multiple digital devices, and they took pictures of the important people, places, and objects in their lives. In general, students took up opportunities to translanguage, make meaning in multiple languages

and modes, communicate to different audiences, and practice emerging translingual approaches to composing.

However, two students, Janet and Damien, did not compose in their heritage languages, and they refused invitations to use Spanish in their eBooks. Janet and Damien's participation underscored another tension related to language use—students have varying experiences with and motivation for using their heritage languages. Janet and Damien reported that they did not use Spanish often at home, and they did not want to try it out in their eBooks, even with peer language support. Although I repeated my invitations to use Spanish during every session with Janet and Damien, I focused more on supporting them to represent what was important to them, beyond heritage language use. Their cases provide insights about how to support students who are not emergent bilinguals as composers of culturally relevant texts. Since many classrooms comprise English speakers and speakers of other languages, it is important to examine how students represent their families and cultural experiences through eBooks and photos, not just their heritage languages (Allen et al., 2002).

Students' Multimodal and Translingual Approaches to Representing their Families, Heritage Languages, Cultural Experiences, and Relationships

As I analyzed the form and content of separate eBook elements, patterns also emerged regarding how students purposefully *combined* multiple semiotic resources to represent their experiences, heritage languages, and families. Through their *multimodal* and *translingual approaches* to designing eBooks, students composed for *coherence*, or focused their design and content around a central theme or idea, while simultaneously using semiotic resources to fit with overall meaning. Although young children's composing is multimodal (Dyson, 2008; Kress, 1997; Rowe, 1994), digital composing eBooks with photos, text, sound recordings, drawings,

and color afforded students with different kinds of opportunities to represent their languages and experiences because: 1) multiple modes and ways of knowing were privileged (Leland & Harste, 1994); and 2) photos and artifacts traveled across home and school boundaries, making it possible for families and experiences to be visible and audible at school (Allen et al., 2002; Pahl & Rowsell, 2008; Rowe & Miller, 2016). Furthermore, students practiced digital composing skills that are an important part of being literate in the 21st century (Dalton et al., 2015), and they developed multimodal approaches to design for meaning in their eBooks (Rowe et al., 2014).

Students' translingual, multimodal, digital eBooks often emphasized themes related to the relationships among their families, cultural experiences, heritage languages, and classroom community. To investigate how students represented these relationships, I coded students' eBook products for the ways students used multiple modes to connect their meanings. Students had many semiotic resources available to them to combine modes and communicate their messages in the eBook medium. The following were the different types of semiotic resources available to students for designing each page:

- Photos-placement, filters, stamps, content
- Drawing-placement, color, content
- Writing/Typing-content, language
- Writing text with finger
- Changing text-font, bold, italics, underline, color, size, placement
- Page color
- Oral recordings-content, language, placement, size

For example, Daniela decided to title her eBook *Friends family and pets* to represent the home photos that she wanted to include in the rest of her eBook (see Figure 11). As she

composed subsequent pages, she referred back to her title and made sure to include photos and descriptions of her friends, her family, and her pets, in that order. Daniela also included her title in English and Spanish, and she orally recorded herself reading the dual language text. She aligned the sound recording icons with the same language text. Lastly, she coordinated the page and text colors to represent her favorite colors, as well as colors preferred by family and friends featured in the book. While composing and during student interviews, students often commented on how their design choices contributed to their overall meanings and eBook themes, as they developed as digital composers who purposefully use color, page layout, text, and images to meet their communicative purposes.



Figure 11. Daniela’s title page; in the oral messages Daniela recorded: “friends, family, and pets” and “amigos, familia, y mascotas.”

After I analyzed the eBooks, I triangulated my findings with student interviews, field notes, and video recordings of eBook composing and presenting sessions to examine students' purposes for their multimodal and translingual approaches, and perspectives on what and how they were representing their experiences and relationships in eBooks. Four categories emerged that described students' multimodal and translingual approaches to representing their families, heritage languages, and cultural experiences: 1) meaningful color design; 2) typed text features; 3) anchored images; and 4) paired written and oral messages. In the sections that follow, I describe these four categories.

Meaningful Color Design

Students used the feature of coloring the page to represent their preferences, families, experiences, and overall messages. Sometimes students would explicitly give their reasons for making a page a certain color while they were composing. Others talked about their color choices during end of the year interviews. Students commented that they used their favorite colors, and they represented their preferences and identities. For example, Amelia always used the teal background because she said, "the color made the book prettier." They also, like Daniela, chose to use page colors to represent their featured friend or family member's color preference. Students used this approach to represent information about their families and friends and signal their relationships with important people in their lives.

Students would often choose page colors to match features of images, such as José's red page that matched his image of a poster depicting a red Mustang car that hung above his bed (see Figure 12).



Figure 12. José's red car eBook page.

Sometimes students not only matched the colors in images, but they also used page color as a way to extend the meaning of their written and oral messages. Berto composed a Pokémon eBook where each page included an image of a different Pokémon character. Berto wrote descriptions about what types of character each was in English and Spanish, and he orally recorded these descriptions. Finally, Berto changed the page color to match the Pokémon character, for example, making the water Pokémon page blue (see Figure 13). When Berto read his eBook to Ms. Trenton and his peers, he always pointed out the reasons for his color choices. Ms. Trenton commented on how she loved that Berto was making meaning with color in his eBook. Furthermore, Berto's peers responded by trying out his practice of matching page color with meaning in their books.

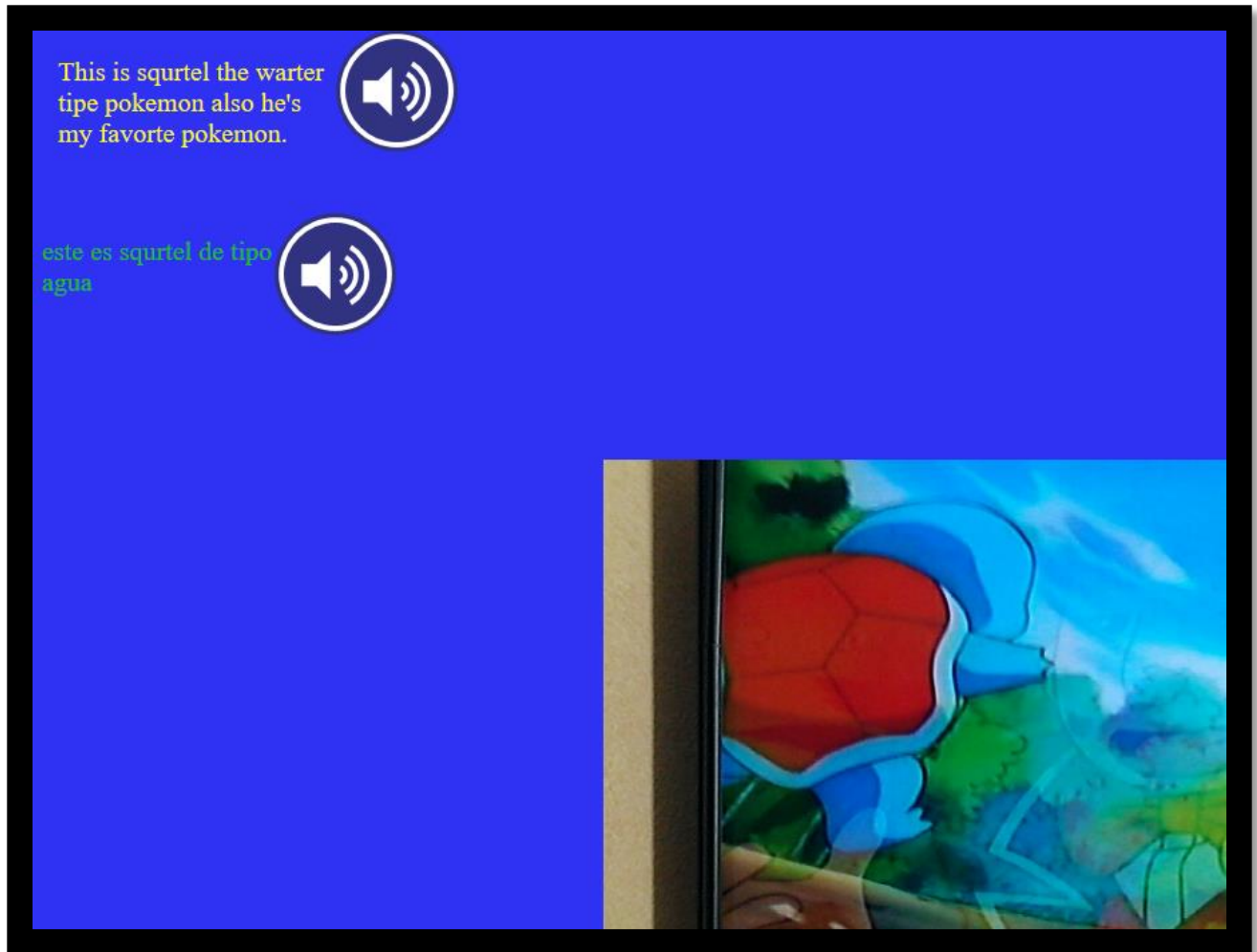


Figure 13. Berto’s blue water Pokémon eBook page; in the oral messages Berto recorded: “This is Squirtel the water type Pokémon. Also he’s my favorite Pokémon” and “este es Squirtel de tipo agua.”

By using page color to make meaning in their eBooks, students could teach others about themselves and their interests. Berto’s Pokémon book is one of many examples of books about television characters, video games, and movies—elements of kid culture that are often excluded from the classroom. However, students used their eBooks to represent these important

experiences in ways that connected with their peers and qualified as a classroom teacher-approved literacy task of meaning making.

Typed Text Features

Students used typed text features to represent how important their families were to them, and to practice literacy skills valued by the official curriculum. They explored changing fonts, bolding, italicizing, underlining, changing color, changing the size, filling in a text box with color, and moving the text on the page. They purposefully designed with typed text features to reinforce their messages, cohere with visual design, and practice informational text feature conventions they learned during Ms. Trenton's informational text unit. One student in particular, Amelia, became the typed text feature expert. Through independent exploration of the text capabilities in *Book Creator*, she taught herself and others how to use these features. In her end-of-the-year interview, she said that changing the text was her favorite part of composing eBooks, and she talked about her reasons for her textual design choices. By bolding and italicizing her writing about her family, she emphasized the importance of her family relationships.

Moreover, students used typed text features in their eBooks as a way to connect to Ms. Trenton's literacy unit on informational text features. Students learned that informational texts included photos of real people, photo captions, labels, and bolded important words. Janet composed an eBook page about her brother using bolded and underlined words (see Figure 14).

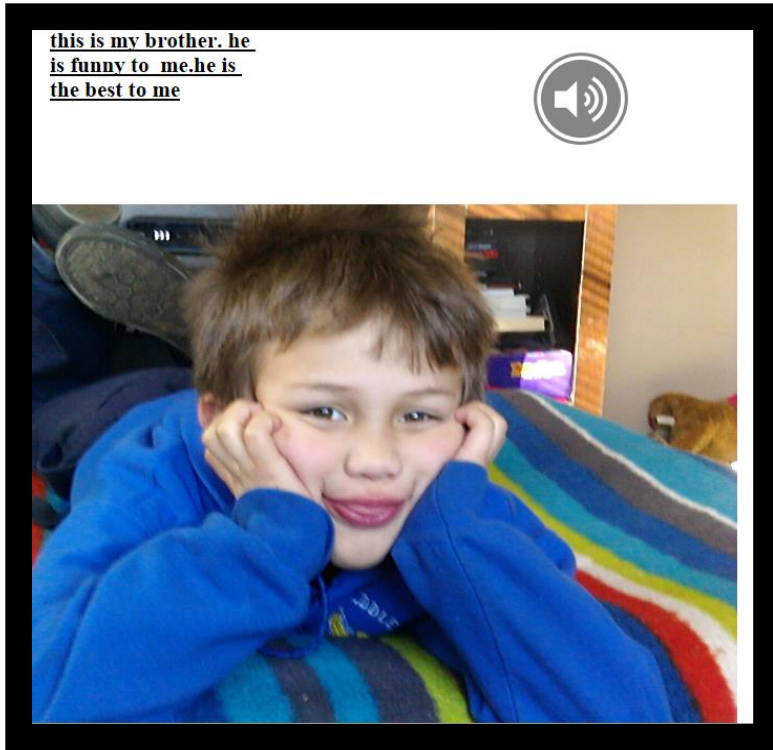


Figure 14. Janet’s eBook page about her brother; in her oral message Janet recorded, “This is my brother. He is funny to me. He is the best to me.”

When she presented her eBook to the class, Ms. Trenton called attention to this example of an emergent use of boldface, underlined text. As described previously, Janet was a shy student who routinely declined to present her eBooks or use Spanish in the classroom. However, when Ms. Trenton made this connection to the curriculum in front of the whole class, Janet smiled with pride. Composing eBooks with typed text features provided a way for students to connect their families and experiences outside of school with literacy learning inside of school.

Anchored Images

Through home photos, peers and teachers learned about and connected with the relationships among people and experiences in students' lives. Images were the foundation of subject and content for each page and books as a whole. Often students titled their books according to which pictures they had already decided they wanted to use in the book, after browsing those photos with an adult and their peers. Students labeled and described images in their writing and in their oral recordings. Sometimes they provided background information relevant to a person or object featured in the photo. Sometimes they started to tell a story inspired by the image. They explored changing image size and position so that they could align the image with corresponding page features and fit more related images on one page. Overall, students used photos to represent: 1) their personal cultural experiences; and 2) their connections to others' experiences.

First, students used their photos to represent their cultural experiences and parts of their family history. For example, Delia took a photo of her parents' wedding photo, and she wrote and orally recorded a description of the photo in Spanish and English (see Figure 15). During a conversation with her peers, Ms. Trenton, and me, she told us that her parents are holding her older brother in the picture, when he was one-year-old. The wedding photo prompted a further conversation about wedding activities.

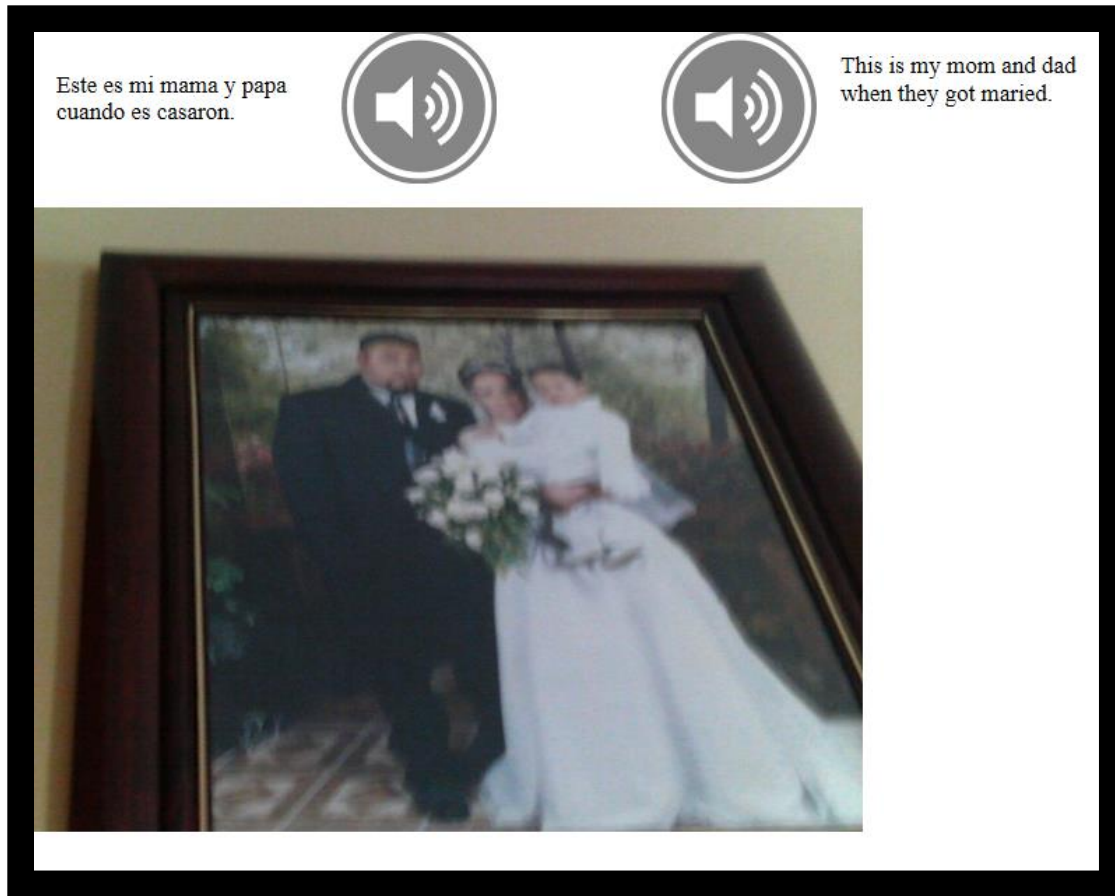


Figure 15. Delia’s eBook page about her parents’ wedding; in her oral messages Delia recorded: “Este es mi mama y papa cuando se casaron” and “This is my mom and dad when they got married.”

Moreover, students chose photos for their eBooks to represent relationships between their cultural experiences and their peers’ and teachers’ experiences. Delia’s eBook connected to Ms. Trenton’s teacher demonstration eBook, which was about Ms. Trenton’s trip to Atlanta to help a friend buy a wedding dress. A month after Delia composed her eBook, Celia brought in photos of a wedding that she attended, and she talked about dancing and eating cake at the event. We

compared her experiences to what others' had done at weddings, and we learned more about the relationships among our cultural experiences.

Students also featured similar places in their home photos. As students talked about their favorite places with peers and adults, they made more connections between their experiences. The wedding featured in Celia's eBook took place in a church, and during our conversation about Celia's home photos, Amelia talked about her experiences at her church. Amelia's comment prompted a conversation about places of worship with several students who were working closely to the composing table. Bernardo, Alan, and Bella said they went to church with their families and prayed there. We compared their experiences to the experiences of the two Muslim students in the class, who told us that they went to the *masjid*, not church. Two weeks after our conversation about students' places of worship, Abdi brought in a photo he had taken of his television that featured pilgrims at the Ka'ba in Mecca. He explained the importance of the religious site and the pilgrimage in his eBook, and his peers eagerly asked him for more details during his eBook presentation. Students wanted both to share about their families' experiences and learn about what their peers did differently. Such cultural exchanges were facilitated by the images included in eBooks.

As in the previous example with Abdi, when students presented their eBooks to the class, their peers and teachers had more opportunities to learn about their families, experiences, and heritage languages. Angel shared an eBook with the whole class that featured several photos of his backyard (see Figure 16).

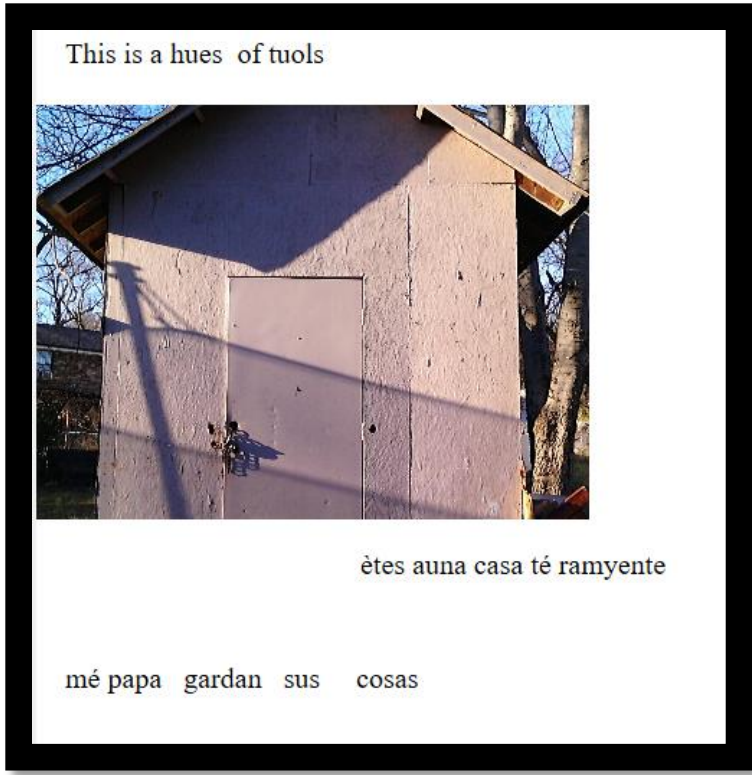


Figure 16. Angel’s eBook pages about his backyard.

Students in the audience made connections to Angel's photos of the trampoline and tool shed in his backyard. Berto announced that he and Angel were neighbors, and they liked to jump on the trampoline together. Ms. Trenton learned that Angel had broken his arm at the beginning of the school year by falling off his trampoline. One student asked who used the tools in the shed, and Angel responded that his dad used them because he built houses. Angel's response prompted several students to call out, "my dad too." I made a personal connection with Angel's experiences, and I told Angel that my dad also worked in housing construction. During the rest of the year, Angel and I made several references to our dads as we talked about home photos, eBooks, and classroom read-aloud and guided reading texts.

Subsequent presentations followed a similar pattern of reading the eBook and interacting with the audience about the contents. Including home photos in family eBooks provided an opportunity for students to represent their experiences and families in the classroom. When home photo, family eBooks were shared with the class, peers and teachers learned about the relationships among people and experiences in students' lives, and they made visible their relationships to the eBook composer and his/her experiences. Through the multimodal approach of using images to anchor eBook content and design, students and adults learned about, connected with, and placed value on the family and cultural experiences represented in eBooks.

Paired Written and Oral Messages

Students took a multimodal and translingual approach to representing their languages in eBooks by including written and oral messages in more than language, and placing text and oral recording icons next to each other on the page. The combination of oral recordings and writing made it possible for students to represent their heritage languages, communicate with their

audience of peers and classroom adults who did and did not speak their heritage languages, and teach their audience about their languages.

Students used the oral messages as a way to include their heritage languages in theirs and their peers' books. Although students did not always know how to write in their heritage languages, they orally translated English writing into their heritage languages for their books. They placed the oral recording icon next to the written text that it corresponded with. When oral and written messages were paired by language and meaning, people reading eBooks could listen to written messages in languages that they did not speak, understand the message when it was also recorded in English, and learn words and phrases in a new language. For example, Daniel included Spanish and English writing paired with oral messages where he read his writing on every page of his eBook (see Figure 17).

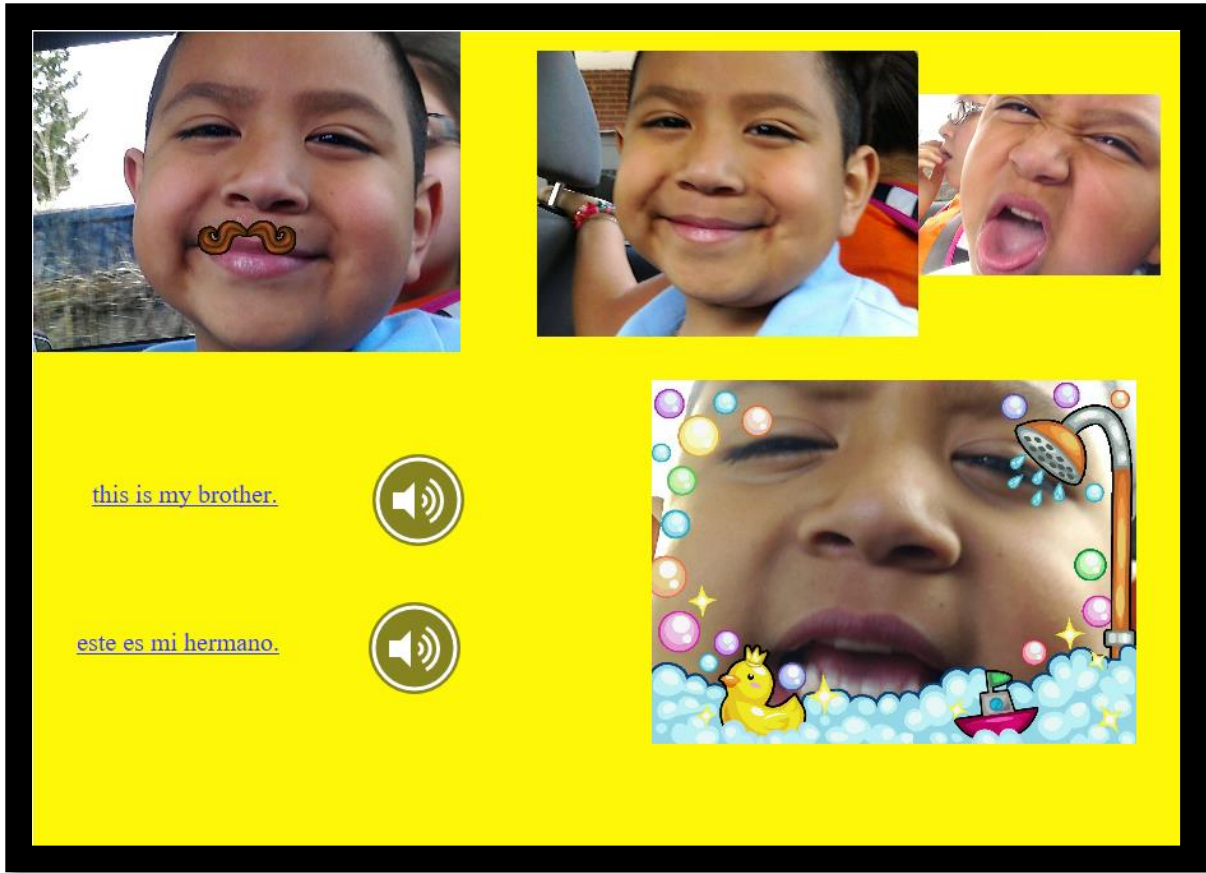


Figure 17. Daniel's eBook page with paired dual language oral and written messages; in his oral messages Daniel recorded: "This is my brother" and "Este es mi hermano."

Like many other Spanish-speaking students in the class, Daniel labeled his photos with the sentence stem, *This is my/Este es mi*. Abdi, a student who spoke English, Somali, and Arabic, learned this phrase through reading his peers' eBooks, and he started to include Spanish writing in his eBooks (see Figure 18).

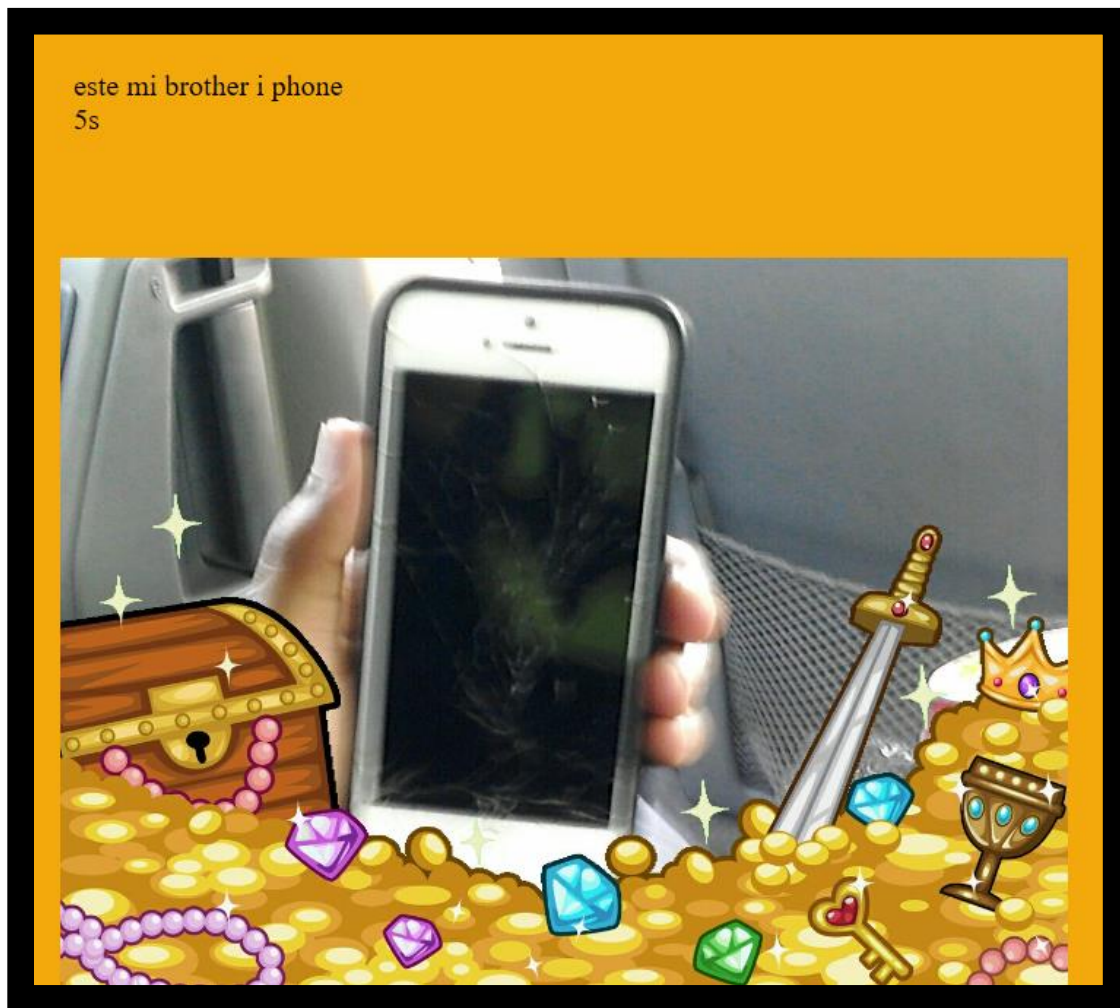


Figure 18. Abdi's eBook page with Spanish writing.

Although Abdi did not know how to write in Somali or Arabic, he included his languages in his eBooks and his peers' books through oral messages paired with English writing. Initially, Abdi was reluctant to orally record in his languages at school because he thought that his classmates would laugh. Since he was the only Somali speaker in the class, he knew that no one in the audience would understand, and the unfamiliar sounds of Somali might seem strange to them. However, when Abdi presented his first eBook with Somali oral recordings, his peers were impressed. Angel commented that he had not known that Abdi spoke Somali, and he thought that "was cool." Ms. Trenton and I responded that we hoped Abdi would teach us Somali. After this presentation, Abdi started including Somali in his eBooks and teaching his peers Somali with increasing enthusiasm. The combination of written and oral messages made it possible for students to try out translingual approaches to composing in their eBooks and communicate with linguistically diverse audiences.

Summary

Through their multimodal and translingual approaches to eBook composing, students made connections between their languages, their families, their friends, their communities, their pets, their interests, and the curriculum. They developed as digital designers, purposefully using multimodal composition resources to make meaning, communicate, and represent their experiences to a diverse audience. They used color to represent their preferences, their families, and their interests, building on Zapata's (2014) findings on how bilingual children used color as a composition resource to represent character traits and connect to cultural experiences. They tried out typed text features to emphasize what was important to them and to connect to the official literacy curriculum, building on Ranker's (2009) findings on how students used typography and print simultaneously as linguistic and visual resources to convey meaning.

Moreover, they composed with digital photography to showcase their personal experiences and their connections to others' experiences.

Furthermore, students engaged in translingual approaches to composing by leveraging the affordances of the digital tools (e.g., combining visual text and oral recordings). They coordinated the layout of the page and placement of text and oral recording icons to represent and teach others their heritage languages. Students' strategy was afforded by using digital composing tools, and it enabled them to communicate with a linguistically diverse audience. Overall, students demonstrated sociolinguistic flexibility and made complex, intentional design choices to communicate and have their say (Dalton et al., 2015; Genishi & Dyson, 2009). Since such skills are the target of 21st century literacy curricula and translanguaging pedagogies, students were poised to participate in our globalizing community (Fraiberg, 2010).

Discussion

My overall study goal was to create culturally and linguistically relevant literacy curricular activities and materials in which students and their families were equitably included, represented, and valued. My findings build on previous research of bilingual children's multimodal and translingual composing (Ranker, 2009; Rowe et al., 2014; Zapata, 2014), and I show how students strategically used multimodal composition resources such as color and typed text features to represent what was most important to them—their families, their friends, their pets, their interests, and their hobbies. Moreover, other studies of bilingual children's composing have shown how children use color and placement to differentiate their languages (Zapata, 2014), position their heritage languages before English to show language importance (Zapata & Laman, 2016), and combine text and voice recordings to include heritage languages (Rowe et. al, 2014). My study adds a translingual composing approach to previous research, and I found that

students paired written and oral messages in multiple languages. Using this translingual approach to composing, students represented their heritage languages in ways that allowed their peers and teachers to learn words and phrases in new languages through reading eBooks. Furthermore, when those representations were recorded in eBooks, they were made public so that others learned about, connected with, and placed value on students' heritage languages, families, cultural experiences, and relationships. Not only were students' funds of knowledge recognized in the classroom, but they were included in classroom translingual instructional activities and materials (Rios-Aguilar et al., 2011). As a result, participants constructed a relevant curriculum that related their lives outside of school with their classroom literacy activities.

Research has shown how photography can be used in educational settings to make visible students' experiences and incite classroom discussions about students' homes and communities (Allen et al., 2002; Luttrell, 2010; Miller & Rowe, 2014). Similarly, in my study home photos provided ways to learn about students' lives outside of school. Composing with home photos started conversations about everything from Pokémon to religion. We learned about where families worked, ate, played, and worshiped. Students' home photo and home-composed eBooks became windows and mirrors for their peers, for Ms. Trenton, and for me (Bishop, 1990). As windows, eBooks showed us others' experiences and worlds. As mirrors, eBooks showed us how we were related and how we shared similar experiences and interests.

Overall, students' eBook composing and sharing inspired intercultural exchanges and a range of connections. Sometimes connections were personal, and students and teachers learned what they had in common. Sometimes connections were curricular, and students and teachers engaged in school-approved literacy practices for authentic purposes. And sometimes connections were empowering, and students and teachers shared the classroom space as co-

teachers and co-learners of students' heritage languages. Together, students and adults co-constructed a curriculum that represented students' heritage languages, families, cultural experiences, and relationships. In Chapter 5, I will explore the processes of composing translingual eBook messages. In Chapter 6, I will describe the instructional features of eBook events that supported translanguaging and sharing in the classroom.

CHAPTER 5

PROCESSES OF COMPOSING TRANSLINGUAL MESSAGES

This chapter focuses on addressing the second research question: *What processes do students and adults use as they compose translingual eBook messages?* I examined how processes differed across message modes and languages and across six focal students who were more or less proficient in English and their heritage languages. I selected a sample to represent students' varying levels of proficiency in their heritage languages and English. I divided the six focal students into three groups: 1) Stronger English Group: two students (*Abdi*: English, Somali, Arabic; *Berto*: English, Spanish) who were more proficient in English than in their heritage languages; 2) Similar English and Spanish Proficiency Group: two students (*Amelia*: English, Spanish; *Daniela*: English, Spanish) with similar proficiency in both their languages, and 3) Stronger Spanish Group: two students (*José*: English, Spanish; *Juanita*: English, Spanish) who were more proficient in their heritage languages than in English. Students' language proficiency level determinations were based on researcher and teacher observation, and teacher reporting of student language assessments administered by the district.

Furthermore, I analyzed focal students' composing sessions with me (Spanish, English speaker) and Ms. Trenton (primarily English speaker) to explore how adults supported students' translingual composing when they spoke students' heritage languages, and when they did not. My goal was to examine Canagarajah's (2015) premise that, "all of us have the basic *competence* for translingual communication though we might not have equal *proficiency* in all languages" (p. 431). By comparing how students and adults with different proficiencies in English and students'

heritage languages used their linguistic resources and leveraged others' linguistic resources, I explored how participants engaged in translingual practices and demonstrated translingual competence.

I analyzed a sample of 12 focal eBook composing sessions, and the main data sources that I drew on during this phase were: 1) video recordings of 12 sampled eBook composing sessions; 2) transcripts of 12 composing sessions; and 3) 6 focal family eBooks. The secondary sources of data were: 1) field notes; 2) student interviews; and 3) teacher reflections. My goal was to analyze the composing processes of the sample of six focal students in order to understand what supports and strategies participants were using to compose translingual messages for their eBooks.

I divided the composing session transcripts into sections related to composing each written and oral message. I analyzed a total of 147 messages and transcript sections. My reason for dividing the transcripts by each message was to closely examine students' composing processes for each message. After reviewing, transcribing, and dividing all of the focal composing sessions (n=12), I used a system of open coding (Corbin & Strauss, 2008) to generate codes to describe how students and adults were composing multilingual oral and written messages. During my first pass through the transcripts, I conducted initial coding, incident-to-incident, where each transcript section was an incident, and I developed a set of initial codes to describe what processes students and adults were using as they composed each message (Charmaz, 2000). I refined codes during a second pass through the transcripts. I applied the final set of categories and codes to each transcript section.

First, I present patterns in the languages of messages across modes. Next, I describe how these patterns differed depending on students' proficiency in English and their heritage

languages. Then, I focus on participants' composing processes, and I arrange my findings around the following categories: 1) home to school connections; 2) cross-linguistic processes; and 3) language coaching and learning processes. Finally, I discuss the contributions of these findings to the literature on activating capital, translanguaging, and building home to school connections.

Languages of Messages across Modes

In this sample of six focal eBooks that included 147 messages, students composed oral and written messages in English and in their heritage languages. Table 6 outlines the frequencies and percentages of messages by language and mode. However, the frequency of messages composed in heritage languages differed by message mode. Although students composed almost the same number of English and heritage language oral messages, they wrote more messages in English than in heritage languages. The same pattern emerged when I analyzed the entire corpus of eBooks and messages from all 18 participants in Chapter 4. Overall, I found that students in this class more frequently leveraged the oral recording function to include their heritage languages in their eBooks.

As documented in prior research, oral recordings afford emergent bilinguals with opportunities to use their heritage languages as part of classroom literacy activities (Louie & Davis-Welton, 2016; Martínez-Álvarez & Ghiso, 2014; Miller & Rowe, 2014; Rowe & Miller, 2016). My findings suggest that such opportunities are particularly important when students are emergent writers in their heritage languages, and they are beginning to learn about the correspondences between symbols, sounds, and meaning, and test their hypotheses about heritage language print (Rowe & Flushman, 2013). Furthermore, heritage language oral messages are a way to include the sounds and cadences of students' heritage language communities in the classroom (Cummins et al., 2006).

Table 6

Frequencies and Percentages of Oral and Written Messages in English and in Heritage

Languages in the Six Focal eBooks

	Oral Messages	Written Messages	Total
English	36 (49%)	44 (59%)	80 (54%)
Heritage Languages	37 (51%)	30 (41%)	67 (46%)
Total	73	74	147

Languages of Messages across Language Proficiency Groups

Although students demonstrated different language proficiencies across groups, they all composed English and heritage language messages in this sample of six eBooks and 147 messages. However, the frequency of their heritage language messages differed by groups (see Table 7). The major pattern that emerged is that students in the Similar English and Spanish Proficiency Group composed more heritage language oral and written messages than students in the other two groups. Across groups, students had different proficiencies for using their heritage languages and English in eBooks. Furthermore, they had different perspectives on the value of translanguaging in their English-dominant classroom. Students’ language use in eBook messages was shaped by both their language proficiency and their perception of the linguistic hierarchy in their social worlds. In the following paragraphs, I describe the languages of messages by group, and I contextualize my findings with student responses during composing sessions and interviews.

Table 7

Frequencies and Percentages of Oral and Written Messages in English and in Heritage

Languages across Students and Groups

Group	Students	Oral Messages: English	Oral Messages: Heritage Languages	Written Messages: English	Written Messages: Heritage Languages
Stronger English Group	Abdi	6 (75%)	2 (25%)	9 (81%)	2 (19%)
	Berto	5 (50%)	5 (50%)	7 (54%)	6 (46%)
	<i>Group Totals</i>	<i>11 (61%)</i>	<i>7(39%)</i>	<i>16 (67%)</i>	<i>8 (33%)</i>
Similar English and Spanish Proficiency Group					
Similar English and Spanish Proficiency Group	Amelia	6 (35%)	11 (65%)	6 (55%)	5 (45%)
	Daniela	13 (52%)	12 (48%)	11 (52%)	10 (48%)
	<i>Group Totals</i>	<i>19 (45%)</i>	<i>23 (55%)</i>	<i>17 (53%)</i>	<i>15 (47%)</i>
Stronger Spanish Group					
Stronger Spanish Group	Juanita	3 (38%)	5 (62%)	4 (36%)	3 (43%)
	José	3 (60%)	2 (40%)	7 (64%)	4 (57%)
	<i>Group Totals</i>	<i>6 (46%)</i>	<i>7 (54%)</i>	<i>11 (61%)</i>	<i>7 (39%)</i>

Students from the Similar English and Spanish Proficiency Group composed more heritage language oral messages than students from the other two groups. Amelia, from the Similar English and Spanish Proficiency Group, was the only student who included Arabic oral messages, along with Spanish and English. Daniela, also from Similar English and Spanish Proficiency Group, included Somali oral messages, along with Spanish and English. Conversely, the students in the Stronger English Group composed a higher proportion of English oral messages than the other groups. Students from the Stronger Spanish group composed almost the same amount of English and heritage language oral messages, but they composed fewer oral messages overall. My findings suggest that students from the Similar English and Spanish

Proficiency Group were able to compose in both their languages more frequently and independently. Moreover, they composed more oral messages in their peers' heritage languages, as they created opportunities to learn others' languages.

Students' written messages exhibited a similar pattern in languages across groups. The Stronger English group composed more English written messages. Abdi, the Somali/Arabic/English student, did not compose written messages in Somali or Arabic in any of his eBooks. However, he wrote two messages in Spanish, with the support of his Spanish-speaking peers. Furthermore, Abdi was the only Somali speaker in the class, and the other Arabic speaker in the class was not a study participant, so Abdi did not have peer support for writing in Somali or Arabic. Given these constraints, we introduced Abdi's written language through Somali/ English and Arabic/English dual language books, Abdi's father's written messages in Somali, and online translators and alphabets. Although Abdi never composed an Arabic or Somali written message in an eBook, by the end of the study, Abdi and I were working together on learning Somali and Arabic scripts, using the resources listed above.

Compared to the Stronger English group, the Similar English and Spanish Proficiency Group composed slightly more heritage language written messages. Conversely, the Stronger Spanish Group wrote more of their messages in English than in Spanish in their two sampled eBooks. I further investigated this pattern by looking at all the eBooks composed by Juanita and José across the study (n=6). José consistently wrote more messages in English in all three of his eBooks. On the other hand, Juanita's first eBook had more Spanish than English writing, her second eBook had the same number of Spanish and English written messages, and her third eBook had more English writing. Overall, both students showed a trend towards more English writing.

Although Juanita and José conversed with Spanish-speaking peers and me more frequently and proficiently in Spanish, they both wanted to write more in English. José and Juanita often declined my invitations to write in Spanish. When I pressed them to give a reason during our composing conversations, José told me he did not want to write in Spanish all the time, and Juanita stated she was in school to learn English. A possible interpretation of their responses and written message language patterns is that they were aware of a linguistic hierarchy privileging English in this school district. Students who were not as proficient in English as their peers perceived English as more important for their learning at school. Yet they also valued their Spanish language, but more often as resources to support their peers to compose Spanish messages, not always to write their own Spanish messages.

Summary. Overall, composing translingual eBook messages provided students with an opportunity to translanguage in the classroom and participate in translanguaging pedagogies (García & Kleifgen, 2010) in an English-dominant school (Jiménez et al., 2015a; Rowe & Miller, 2016). However, students took up this opportunity differently, possibly depending on their language proficiency and their perception of the linguistic hierarchy in their school (García, 2014). As similarly proficient users of English and Spanish, Amelia and Daniela had the capacity to use their heritage language resources to write and orally record in their eBooks, or activate linguistic capital to meet their composing goals. Moreover, they could offer both their English and Spanish linguistic resources in exchange for learning their peers' heritage languages and meet their goals to have “more languages” in their eBooks. Both students seemed to perceive translingual messages as valuable in the classroom, and they demonstrated capacity and skill in activating and exchanging their linguistic capital as they composed. We surpassed mere

recognition of students' resources (Rios-Aguilar et al., 2011), and together we negotiated the activation process.

In contrast, my findings suggest that José and Juanita may have viewed the value of their heritage languages as resources for classroom literacy activities differently from their peers. Since Amelia, Daniela, Abdi, and Berto were all more proficient in English than José and Juanita, they did not express the same concerns related to using and learning English at school. Consequently, their English language skills may have provided them with more access to the social relations of power in the English-dominant school. Lareau and Horvat (1999) argue that inclusion in power relationships is necessary to activating capital in a field, which may partially explain why more proficient English speakers more frequently composed heritage language messages. They leveraged their positions as proficient English speakers to activate their linguistic capital in ways that José and Juanita did not see as a priority, given their positions as English learners.

Furthermore, I found that all the participants in the class were jointly constructing what was considered valuable capital in a dynamic and fluid way. Although José and Juanita valued learning and using English as they composed their eBook messages, they helped their peers write and orally record in Spanish. Students considered their peers' heritage language resources valuable capital for eBook messages, which in turn may have influenced how students' valued their own linguistic resources. In Juanita's end-of-the-year interview, I asked her about the languages she included in her eBooks. She told me that she included English and Spanish and that her friend Amelia helped her with the English. Then she added emphatically that she had pronounced the Spanish letters by herself, and using Spanish seemed to have become a point of pride for her. Together, participants constructed a field where heritage language resources were

valuable and useful as capital. As a result, students could take up more powerful positions in the classroom, and we disrupted, but not completely eradicated, the linguistic hierarchy that privileged English.

Processes of Composing Translingual Messages

As students composed in more than one language, there were opportunities for students to compare across languages, learn vocabulary in new languages, teach peers and adults about their languages, and apply their English and heritage language knowledge to message composition. Although students typically only used one language in each oral and written message, they translanguage and engaged in a variety of cross-linguistic strategies during the process of composing their messages. Furthermore, they used home to school connections to support translingual composing.

In the following sections, I describe participants' processes, strategies, and supports for translingual composing in the 12 focal composing sessions with the 6 focal students. I arrange my findings around these themes: 1) home to school connections; 2) cross-linguistic processes; and 3) language coaching and learning processes.

Home to School Connections

The study was designed to promote connections between home and school by providing families with opportunities and tools to contribute heritage language and cultural content to family eBooks. As a result, students' families had a virtual presence in the classroom and were able to make visible contributions to classroom translingual instructional activities and materials. Contributions were in two main forms—home photos and heritage language journal entries.

Students' home photos formed the foundation of their message composing at school. Before students started to make an eBook, they browsed through their photos on the tablet, and

they talked with adults and peers about photo content. These initial home photo conversations often functioned as rehearsals for students' subsequent message composing, where students used oral language they developed during home photo conversations as the basis of their oral and written messages for eBooks. I coded these instances as *Home photo conversation rehearsals*, which occurred in the composing processes of all six focal composers. Since students and adults also translanguaged during home photo conversations, students had opportunities to rehearse translingual messages.

The following is an example of a home photo conversation rehearsal I had with Amelia about her photo of flowers and her journal entry about the photo.

Miller: ¿Claveles son...este tipo de flor? [Carnations are...this type of flower] (points to photo on tablet)

Amelia: sí [yes]

Miller: ¿Cómo se dice in inglés? ¿Sabes? [How do you say that in English? Do you know?]

Amelia: No sé. ¿Rosas? [I don't know. Roses?]

Miller: No creo que son rosas. Carnations? Creo que son carnations... ¿Y también los dibujaste? [I don't believe that they are roses. Carnations? I believe that they are carnations...And you also drew them?] (points to drawing of flowers in the journal) ¿Por qué? [Why?]

Amelia: Porque..para que puedo verlas, [because..so that I can see them] so I let you know that I'm talking about flowers.

Miller: So you can remember?

Amelia: sí [yes]

Miller: ¿Te gustan las flores? ¿Qué prefieres, las flores en la tierra o las flores en el vaso? [Do you like flowers? What do you prefer, flowers in the earth or flowers in a vase?]

Amelia: Las flores en la tierra Y en el vaso. [The flowers in the earth and in the vase.]

Miller: Entonces, ¿no tienes preferencia? [Then you don't have a preference?]

Amelia: No, a mí me gusta más los en el vaso porque son más bonitos. [No, I like more those in the vase because they are more beautiful.]

While she composed an eBook page with this photo of carnations, Amelia wrote about the flowers in the vase and how they were beautiful (see Figure 19).

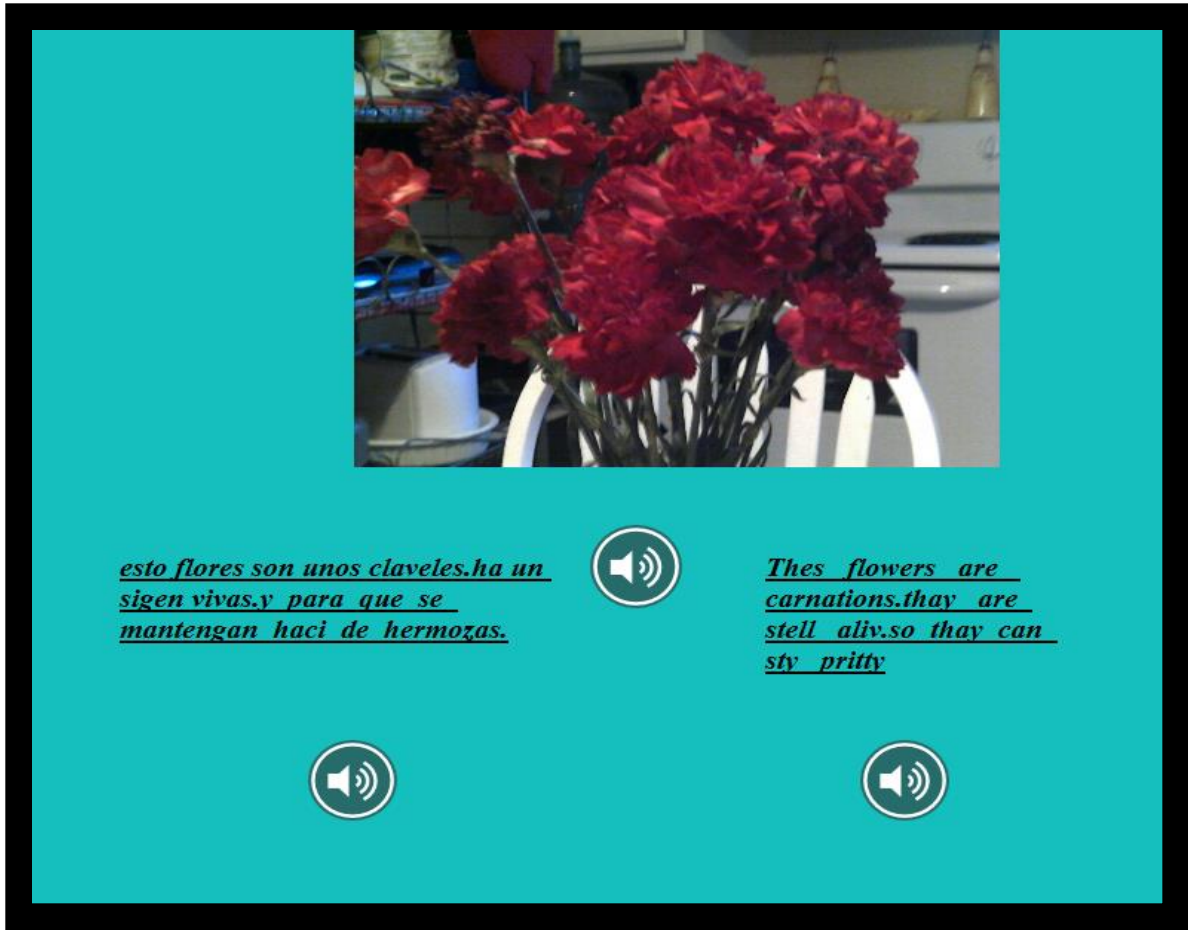


Figure 19. Amelia’s carnation eBook page; in the oral messages Amelia recorded: “estos flores son unos claveles aún siguen vivas para que se mantengan así de hermosas” and “these flowers are pretty. They are carnations. They are still alive so that can stay pretty.” The non-consented Arabic-speaking student recorded in Arabic: “These flowers are pretty, and they are red.”

Students also used their *heritage language journal entries* to support their message composing in the classroom. Students' family members wrote about the photos taken at home in journals, students brought the journals back to school, and students and adults read the journals as they browsed photos and composed messages at school. Heritage language journal entries provided a way for families to contribute heritage language content to literacy materials for the classroom. Of the six focal students for this analysis, three students used heritage language journal entries as part of their message composing processes.

When available, journal entries were teaching tools for both students and adults who were learning to speak and write in students' heritage languages. As a primary English speaker, Ms. Trenton was able to read Spanish entries with students' support, learn Spanish vocabulary and syntax, and support students to use entries to compose in Spanish.

In the following conversation, Ms. Trenton is looking at Daniela's home photos while reading through entries in her journal (see Figure 20). Bella, a Spanish-English bilingual student, is composing her family eBook at the table with them, and she is working on a page with a photo of her dog (see Figure 21).

Bella: Daniela, how do you spell *perra* [dog]?

Ms. Trenton: *Perra*? No wait, you did it. (points to the word *perrita* [little dog] in Daniela's journal entry)

Daniela: Oh! (helps Bella spell *perrita* in her eBook)

Since messages were written and corresponded with photos, adults and students could build common ground about word meanings, and then practice using those words in eBook messages.

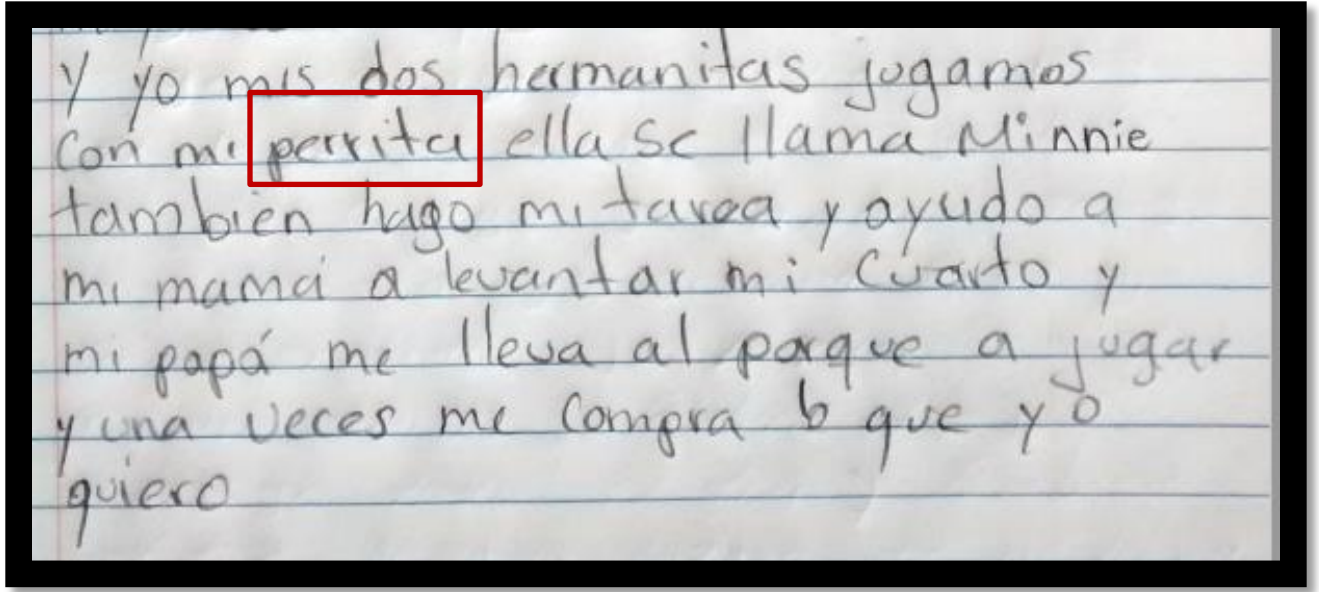


Figure 20. Daniela's heritage language journal entry with the Spanish word for dog.

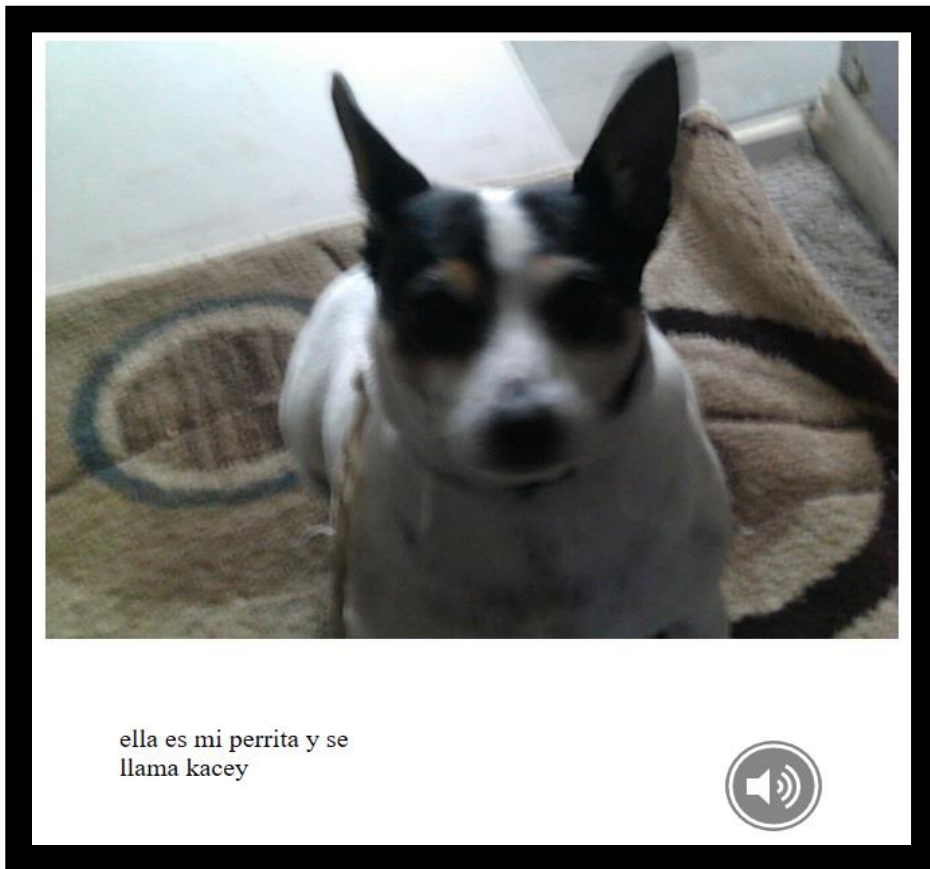


Figure 21. Bella's dog eBook page.

Summary. Even though family members were not physically present in the classroom, they contributed to translingual instructional materials through their home photos and heritage language journals. Family authoring programs that involve transmediation of digital photos, writing, drawing, and voice recordings provide opportunities for families to be virtually present in the literacy curriculum (Bernhard et al., 2008; Rowe & Miller, 2016). I found that students used conversations about their home photos as a way to generate content for their writing. Other researchers have found that when using personalized photos and books as part of the curriculum, children are more motivated and engaged in literacy activities (Bernhard et al., 2008; Kucirkova et al., 2014). In my study, students may have been more motivated to compose messages for their eBooks so that they could show and describe their photos for their teachers and peers. Ms. Trenton commented in a reflection that composing with home photos helped “break down a barrier” with a particularly shy student who hardly talked or wrote in class, outside of eBook composing (teacher reflection, February 28, 2016). Including these identity texts in the classroom changed the balance of expertise among teachers, students, and families (Taylor et al., 2008), and created a more inclusive writing classroom.

Moreover, family members shared their cultural and linguistic knowledge with students and teachers in heritage language journal entries. Journal entries became a shared community resource for composing translingual messages in the classroom, and they opened possibilities for Ms. Trenton to enact with translingual instructional activities with family contributions. Moreover, family members were positioned as valuable contributors to the curriculum. When adults and students read and compose in more than one language, side-by-side, they model an equal status among languages and literacy practices (Iddings, 2009; Naqvi et al., 2013). Additionally, journal entries provided a model of heritage language literacy in an otherwise

English-dominant space. Composing with home photos and journals may have supported teachers, students, and families to challenge and transform unequal power structures that privileged English dominance.

Cross-linguistic Processes

Students engaged in *cross-linguistic phonics, grammar, and word-level processing* as strategies to support translingual composing during metalinguistic composing conversations. As students composed messages in more than language, and helped their peers write and record messages in their heritage languages, they compared the letters, sounds, words, grammar, syntax, and meanings across languages. Often, they would apply linguistic knowledge in one language to support composing a message in another language. Furthermore, both adults used strategies to support students' cross-linguistic processing when they knew students' heritage languages, and when they did not. In the following paragraphs, I describe students' strategies and adults' supports for cross-linguistic phonics, grammar, and word-level processing.

First, all six focal students engaged in *cross-linguistic phonics processing* as they compared the alphabets and scripts across languages, discussed how the same letters made different sounds, and segmented similar words in more than language. Students composed messages, and then they translated their messages into English, their heritage languages, and their peers' heritage languages. I found that students were more likely to engage in cross-linguistic phonics processing while composing heritage language messages, as they talked with adults and peers about the different sounds and letters they needed to write.

In the following example, Berto uses sound-spelling patterns from his English message to support writing his Spanish message. As a Spanish speaker, I am using my Spanish knowledge to help Berto translate his title, *My Family*, into Spanish for his eBook title page (see Figure 22).

Miller: Ok. And now we need to write it in Spanish. How would we say that?

Berto: Mi famil-famil (nods his head with each syllable and looks at Miller)

Miller: Mi-

Berto: -familia [family]

Miller: Familia. Muy bien. [Family. Very good]. So we have to write mi? How do we write mi en Spanish?

Berto: (Writes 'me' on tablet with his finger. Looks at Miller.) Like this?

Miller: Ok, so this is tricky. In español the e sound is made with the letter i.

Berto: Ooh. (Erases the 'e' and writes 'i.') Mi.

Miller: Uh-hm. So how do you write familia? A lot of it is going to be the same as in English.

Berto: Like this? (Writes 'family').

Miller: Fami-i-il..so instead of the y it's-

Berto: -i?

Miller: Famil-i-a, so it's i, a.

Berto is using what he knows about English phonics to spell Spanish cognates, and he has multiple opportunities to practice spelling in Spanish as he writes in his eBook. Furthermore, Berto remembers what letter in Spanish corresponds with the long 'e' sound in English, and he applies that knowledge correctly when he responds that 'i' should follow 'l' in *familia*. Like Berto in this example, Abdi, José, and Juanita also applied linguistics knowledge discussed while composing to help them with future eBook messages. As students and adults talked about language in these metalinguistic composing conversations, they were able to manipulate language as an object and use these insights to support composing.

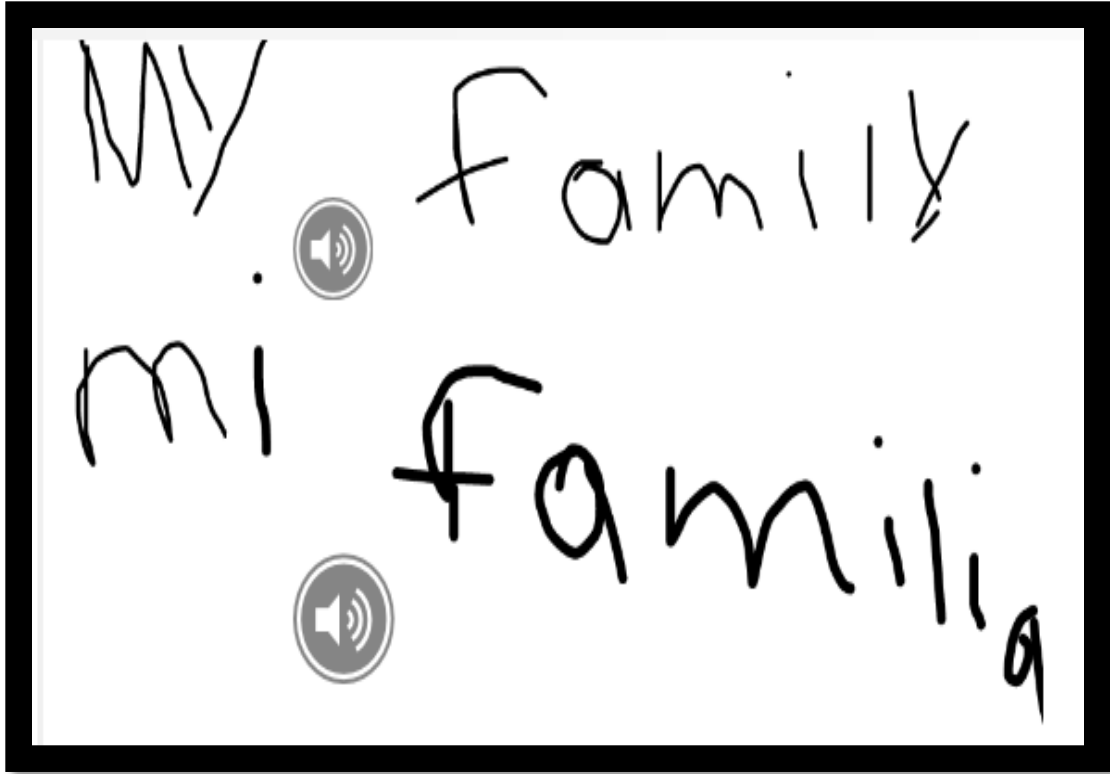


Figure 22. Berto's eBook title page; in his oral messages Berto recorded: "my family" and "mi familia."

Moreover, I supported Berto's cross-linguistic phonics processing by pointing out the differences between the sound-letter correspondences in Spanish and English. In this case, I used my knowledge of English and Spanish to *make explicit comparisons* that helped Berto with Spanish spelling. Even though she did not speak any of students' heritage languages, Ms. Trenton also used this strategy by relying on students' heritage language knowledge, as in the following example. Daniela and Bella, both Spanish speakers, teach Ms. Trenton how to say a sentence in Spanish for an oral message in Daniela's eBook.

Ms. Trenton: Do you want me to say it in Spanish? Teach me how to say it in Spanish. Type it first so that I can read it.

Bella: And I'm going to help you.

Ms. Trenton: Say it slow.

Bella: So you don't get mixed up.

Daniela: (Reads her Spanish written message). Estos son mis pájaros. [These are my birds.]

Ms. Trenton: Estos son mis pájaros (pronounced Padge-aros).

Daniela: PA-HA-ros

Ms. Trenton: PA-HA-ros

Bella: Pájaros or pajaritos [birds or little birds]

Ms. Trenton: The j is an h sound? Pájaros. Pájaros. Pájaros.

Daniela: Yeah. PAH-aros

Ms. Trenton: Orally records: 'Estos son mis pájaros.' Close?

Bella: Yeah

In this example, Daniela writes her Spanish message, and Ms. Trenton reads it, using what she knows about the similarities between English and Spanish phonics. However, Daniela corrects Ms. Trenton's pronunciation of the 'j' in pájaro, and then Ms. Trenton makes an explicit comparison between Spanish and English phonics in order to help herself pronounce the word accurately for the oral message. Ms. Trenton and I both used the explicit comparisons strategy, showing how adults with varying proficiencies in students' heritage languages can support cross-linguistics phonics processing and translingual composing.

Second, students engaged in *cross-linguistic grammar processing* as they discussed gendered pronouns and nouns, conjugation, pluralization, syntax, and possessives in more than

one language and with peers, Ms. Trenton, and me. José, Juanita, Amelia, Daniela, and Berto compared grammar across languages as they composed written messages. Abdi was the only focal student who did not engage in cross-linguistic grammar processing, possibly because he did not compose written messages in Somali or Arabic and did not have opportunities to visually compare grammar across his languages.

For example, José first wrote the English message, ‘My mom is a superhero’ to describe a photo of his mom with a superhero stamp on it (See Figure 5). Next, I prompted him to translate his sentence to Spanish, and he noticed that his English sentence was syntactically similar to his Spanish sentence. José typed, ‘Mi mama es,’ and then he stopped to ask me how to say ‘a’ in Spanish because he “forgot.” I told him it was un or una, depending on if we were describing a boy or girl, because in Spanish articles are gendered. Since his mom is a girl, he wrote ‘una.’ He finished his Spanish written message using the cognate ‘heroe’ as the translation for ‘superhero.’ As José wrote his messages in English and Spanish, we compared the syntax, articles, and cognates across languages. In this example, José used what he knew in English to support his writing in Spanish, and he learned about a linguistic feature of Spanish, which he could apply to future Spanish writing.

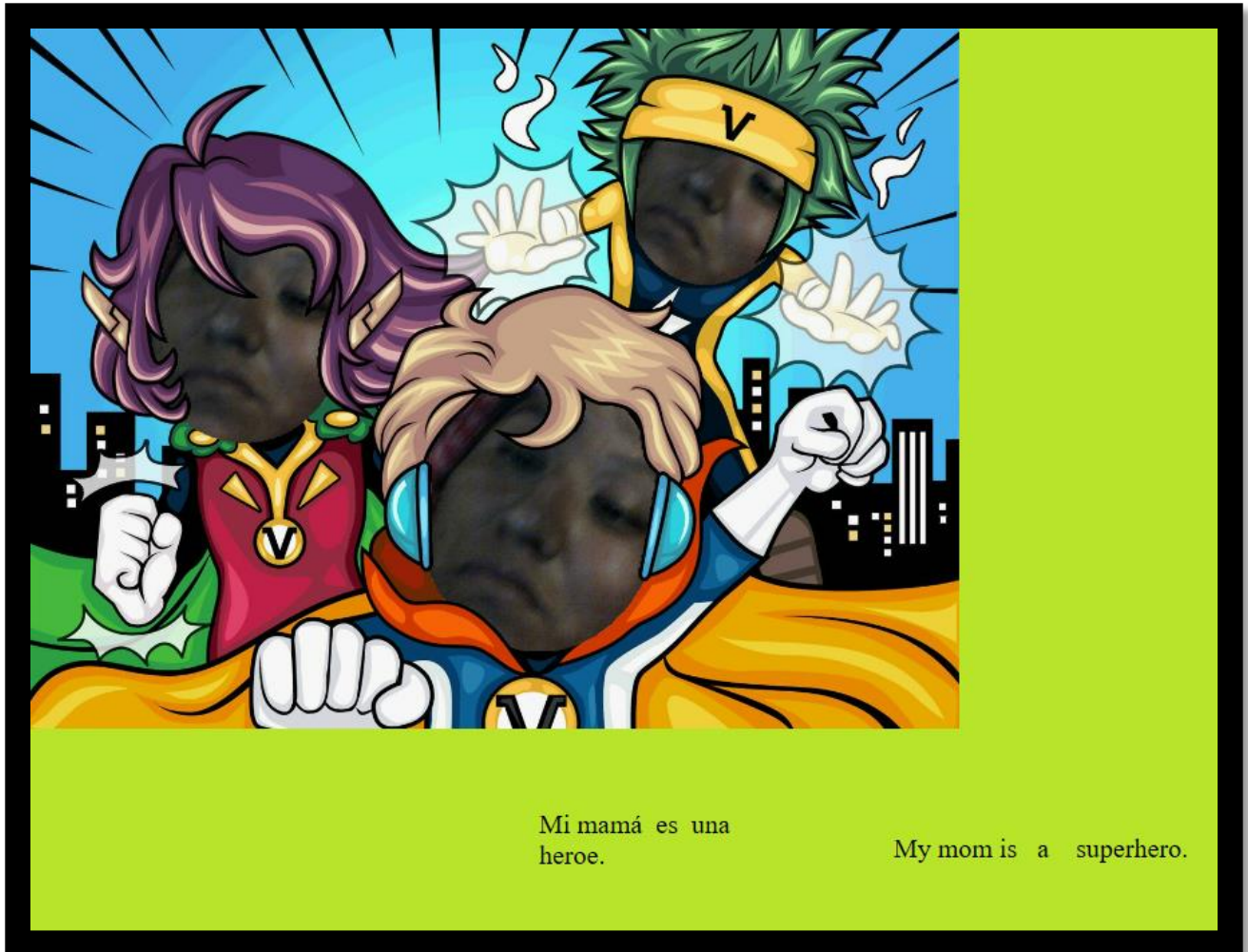


Figure 23. José's hero eBook page.

Moreover, I supported a cross-linguistic conversation with José by using strategies of *inviting the student to compare messages in different languages and questioning the student about linguistic features*. After José finished writing his English and Spanish superhero messages, we had the following discussion:

Miller: Let's look at both of those you wrote.

José: (Reads both sentences): Mi mamá es una héroé. My mom is a superhero.

Miller: Are there any things that look the same, or similar?

José: No. Well i has to go first then s. The only thing that is different is e then s.

Miller: Yeah, and they're almost in the same spot.

With my prompting, José compares his sentences, and he identifies the cognate *is/es*. I follow up on Jose's observation by commenting that 'is' and 'es' are in the same place in the sentences. By prompting students to talk about the similarities in Spanish and English syntax and vocabulary, students could recognize ways they could use what they knew in one language to support writing in the other language.

Ms. Trenton also used the strategy of questioning students about linguistic features. As she composed with Daniela and Bella, she orally recorded the message, "Estos son mis pájaros." On a subsequent page, Daniela wrote the message, 'Este es mi tio' [This is my uncle]. When Ms. Trenton noticed that Daniela wrote *mi* in the latter message, she questioned Daniela and Bella about it in the following conversation.

Ms. Trenton: What is the difference when you write *mi* and *mis* with s?

Daniela: *Mi* is my and *mis* is mine.

Ms. Trenton: So my and mine?

Daniela: my is *mis*.

Bella: No, they put an *i* in Spanish because the *y* is like *i*. They don't want to copy the English.

Ms. Trenton's question prompted Daniela to consider the meanings of the words 'mi' and 'mis.' 'Mi' and 'mis' both mean my, but 'mis' is used with a plural noun. Although Daniela does not give the correct answer regarding pronoun plural agreement, she clarifies that 'mis' is my, showing that she is thinking through how she has used 'mi' and 'mis' in her eBook written messages. Furthermore, Bella contrasts Spanish and English, and she asserts that Spanish is

different because, “They don’t want to copy the English.” Not only does Ms. Trenton’s questioning prompt students to consider word meanings and grammar, it also incites Bella to think about why languages may be different.

Third, all six focal students *used cognates* in their messages and *talked about word meanings* as they composed messages in more than language. For example, Amelia wanted to include flower names in English and Spanish for her book about flowers at her house. Amelia’s mom had labeled some of the flowers as ‘claveles’ in a heritage language journal entry. However, I did not know the English word for ‘claveles’, so I used a strategy of an *online translator* to support Amelia’s message composing. I used an online translator on my phone to look up the English translation for ‘claveles,’ or carnations, and the Spanish translation for ‘petunias’ which is just petunias. We discussed how the words labeled the same flowers, were spelled similarly and the same, but were pronounced differently.

Ms. Trenton used the online translator strategy more frequently than I did, since she did not speak Spanish, the majority minority language. As she looked up words to support students to compose Spanish messages, she also discussed word meanings and forms with students. Students had opportunities to engage in these kinds of metalinguistic composing conversations with adults and peers. Findings indicate that these conversations about language were important for students’ metalinguistic awareness, as they attended to language form and function and compared languages (Jiménez et al., 2015b; Miller & Rowe, 2014; Naqvi et al., 2013).

Summary. Emergent bilingual students in English-dominant classrooms may have few opportunities to engage in cross-language processing since students’ heritage languages are often excluded from instruction (García & Kleifgen, 2010). Yet my findings show that translanguaging instructional activities can be implemented in an English-dominant classroom, and students

engage in cross-linguistic processing as they compose translingual messages. Students applied their graphophonic and syntactic knowledge across languages to write and translate their messages (Al-Azami et al., 2010). Writing and reading in both languages also promoted metalinguistic awareness of linguistic differences, such as differences in script, accent mark use, grammar, spelling, and pronunciation (Kenner et al., 2004). Such cross-language processing promoted cross-linguistic transfer, as students were able to apply what they learned about language to compose subsequent messages (Naqvi et al., 2014). When translanguaging is normalized in the classroom, then literacy instruction is responsive to students' multilingual academic discourse and supportive of cross-linguistic processing (Gort & Sembiante, 2015).

Language Coaching and Learning

Students became language coaches and learners as they composed in their peers' heritage languages and taught peers and adults about their languages. Students and adults asked other students to help them orally record messages in Somali, Arabic, and Spanish so that they could, "have more languages," as Amelia put it. Although the majority of students in the class were Spanish speakers, Abdi, the Somali-Arabic-English speaker, became an outspoken teacher of his languages. Abdi taught peers words in Somali or Arabic for Daniela's and José's eBooks. In fact, Abdi was a frequent co-composer, and he daily stopped by the composing table to provide language coaching and eBook technical support, even though he was not composing his own book. The non-consented Arabic-speaking student in the class was not a study participant, but she also provided Arabic translations for eBooks as requested.

During the 12 focal composing sessions, all 6 focal students from all 3 language proficiency groups coached their peers and adults on how to compose in their respective heritage languages, or participated in *language coaching*. While composing oral messages, students

coached others on how to pronounce new words, repeating words slowly and with added emphasis on stressed syllables. In turn, peers and adults tried to pronounce words exactly as spoken by student language coaches, repeated words with different stress based on coaches' feedback, and then practiced using the words in eBook messages. While composing written messages, students coached others by segmenting and spelling words, providing vocabulary words, and changing syntax. Language coaching gave students a valuable purpose and opportunity for using their heritage languages in the classroom, an important part of the capital activation process.

After this pattern emerged during my analysis of the six focal students, I analyzed my field notes and composing video data to track down this pattern for the remaining 12 student participants. I found that 9 of the 12 students coached their peers and adults on how to speak and/or write in their heritage languages during composing sessions. The three students who did not participate as heritage language coaches were Janet, Damien, and Daniel. As previously noted in Chapter 4, Janet and Damien did not compose eBooks in Spanish and told me they did not speak much Spanish at home. However, Janet did listen as her Spanish-speaking peer Bernardo coached her on how to say a Spanish phrase, and allowed Bernardo to record a Spanish oral message in her eBook. Damien also listened to his Spanish-speaking peers as they suggested Spanish messages for his class eBooks, even though he chose not to include them. Furthermore, although Daniel did not coach others on how to use his heritage language, he coached Juanita on how to spell words in English in exchange for her help on Spanish spelling and pronunciation. These findings indicate that no matter what students' language proficiency was in English or in their heritage languages, students were willing to participate as language coaches and/or learners while composing.

Language coaching and learning also occurred in exchanges, as students taught their peers' new words in exchange for learning others' languages. In the following example, José, works with Abdi to compose Spanish and Somali oral messages for an eBook page about José's pet bird (See Figure 6).

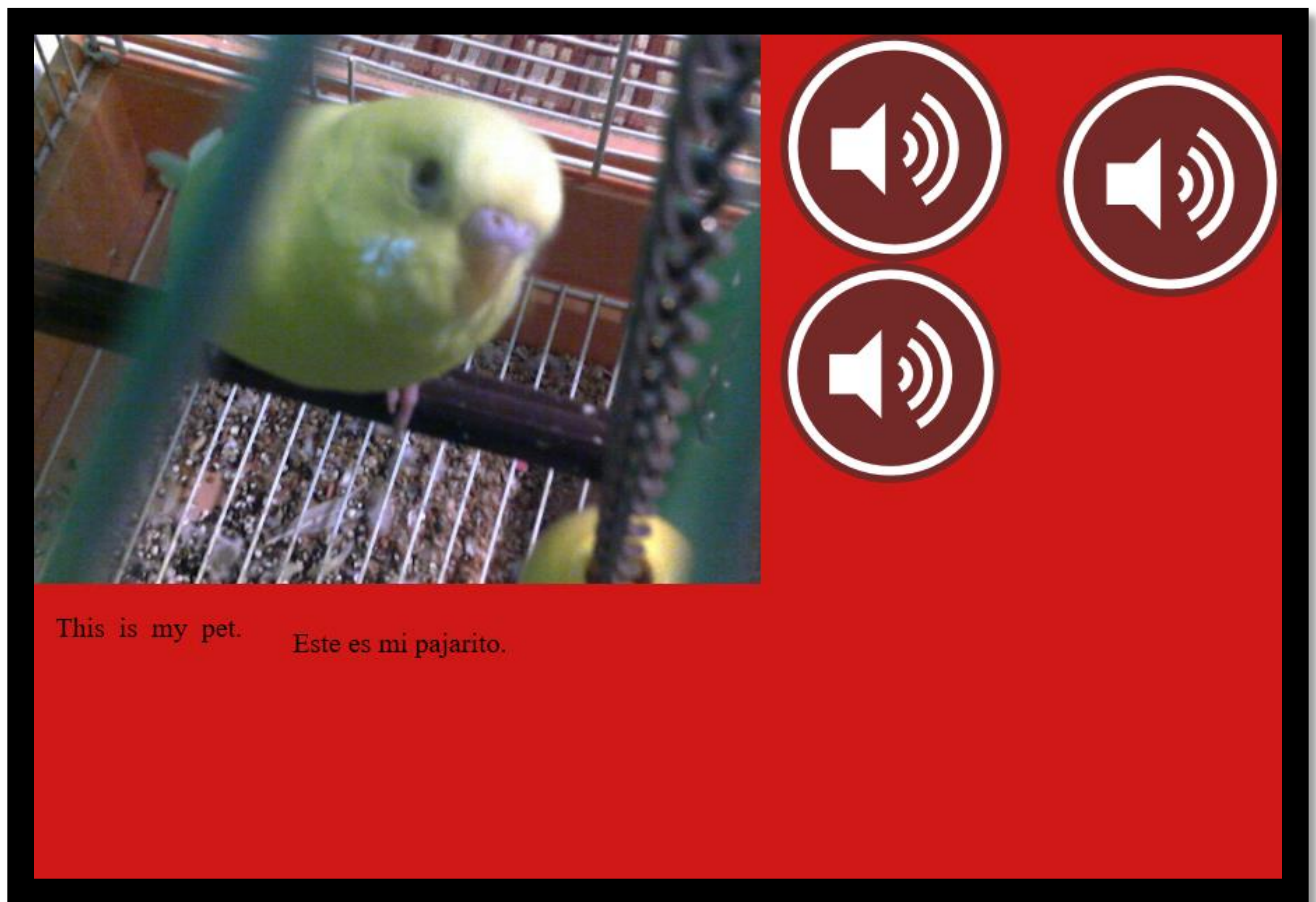


Figure 24. José's pet bird eBook page; Abdi records: "Este es mi pajarito."; Abdi records: "This is José's bird."; Abdi records: "Shimbir."

First, Abdi reads José's Spanish written message, and José coaches him on the pronunciation. Then, I encourage Abdi to teach us a word in Somali, and we practice it before he orally records it in José's book.

Abdi: Este es mi Padge-HAR-ito. [This is my bird.]

José: Pajarito (corrects Abdi's pronunciation).

Abdi: Este es mi pajarito (says it correctly).

Miller: Wow! You just said it in Spanish! Abdi is very good with languages.

Abdi: (orally records in the eBook) 'Este es mi pajarito.' Something like that.

Miller: That was good. Can you do it in Somali too?

Abdi: hmm

Miller: (to José) Do you want him to put Somali in your book?

José: hmmm..sure

Miller: Wow he's going to have lots of languages. You're going to have the most languages.

Abdi: (long pause) I don't want to do it.

Miller: Do you know how to just say bird?

Abdi: I know how to say bird-shumber.

Miller and José: shumber.

Abdi: shumber or shumbar.

Miller: shumbar.

Abdi: I don't want to do it. They'll (refers to the rest of the class) laugh.

Miller: They won't laugh! They like it. They want to learn Somali too. Everyone in this class speaks different languages.

José: My dad speaks-

Abdi: (orally records) shumber

In this exchange, Abdi, José, and I are all language learners, and Abdi and José are language coaches. When students took on both roles, they realized what kinds of supports they needed to provide to others to teach them new words, and they understood what kinds of behaviors they needed to engage in to support their language learning processes. They learned that their approximations were a valuable part of that process, and that all learners, even adults, make approximations as they learn new words. Lastly, and perhaps most importantly, these exchanges provided a purpose for all students to compose in their heritage languages in the classroom and placed value on all students' heritage languages. Abdi's hesitancy to speak in Somali and share the Somali recording with the whole class came from his fear that his language would sound strange and foreign to his peers, since he was the only Somali speaker in the class. Yet, I normalized speaking in different languages, and I placed value on Abdi's Somali-speaking skills because he was the only person in the class who could teach everyone Somali. Abdi accepted my response, and he allowed for his Somali to be played later for the whole class. As a result, Abdi and his peers developed another foundational piece of the language learning process—motivation to learn a new language and a positive attitude toward the language and its speakers (Cummins, 2001).

Summary. Overall, participants co-constructed composing translingual eBook messages as linguistic capital in the classroom field (Rios-Aguilar et al., 2011; Smith & Murillo, 2015). As they used their heritage languages in eBooks, taught others' their heritage languages, and learned their peers' heritage languages, students activated their linguistic capital and exchanged their linguistic resources to learn others' heritage languages, engage in academic tasks, and build their social relationships with peers and adults. Moreover, no matter what students' and teachers'

language proficiencies were in English or in students' heritage languages, they were willing to participate as language coaches and/or learners while composing translingual messages. My finding suggests that participants with diverse language proficiencies demonstrated translingual competence for how and when to mix languages while composing, in accord with Canagarajah's (2015) premise. This means that there is exciting potential for primarily English-speaking teachers and students in linguistically diverse classes to engage in and support translingual practices.

Discussion

My overall study goal was to disrupt linguistic hierarchies that privileged English in the classroom and change students' valuation of the utility of their heritage languages for classroom literacy activities through translingual home to school connections. Although this second grade classroom was located in an English-dominant school where English was the mandated language of instruction, all students and adults participated in eBook composing activities as heritage language coaches and/or learners. Students' willingness to teach others about their heritage languages for use in eBooks may be interpreted as evidence that participants positively valued and activated heritage language resources as capital in the classroom, across language proficiency groups. Students who were more proficient in Spanish but explicitly wanted to grow as English writers, like Juanita and José, coached their peers on how to compose in Spanish in exchange for learning English and Somali, respectively. Students who were similarly proficient in English and Spanish, like Amelia and Daniela, coached peers and adults on how to compose in Spanish and invited peers to teach them new languages for their eBooks. Students who were more proficient in English, like Berto and Abdi, coached others on how to use the heritage language words they knew, and provided peers with English support. Even Damien and Janet,

who were more proficient in English and not comfortable with composing in Spanish, listened as their Spanish-speaking peers taught them words in Spanish. My findings suggest that students and teachers can disrupt linguistic hierarchies and co-construct a classroom field where all of students' varying linguistic resources are valuable for literacy learning. As they used home to school, cross-linguistic, and language coaching and learning processes, students, their families, the classroom teacher, and myself translanguage to support literacy learning in more than one language during translingual eBook composing.

Home to school connections allowed participants to learn about each other's languages and lives outside of school, to build common ground, and to rehearse eBook messages. Furthermore, family members contributed to the literacy curriculum and to the creation of translingual instructional materials through heritage language journal entries. Journal entries provided classroom adults with insights into families' cultural experiences and subject matter for students' eBook messages. Additionally, the classroom teacher leveraged Spanish journal entries to teach herself and other students in Spanish, as she matched the words and phrases with the photo features. These home to school supports are a promising mechanism for building translingual home to school connections in English-dominant school contexts, when teachers do not speak students' heritage languages, and where students come from several different heritage language backgrounds.

Furthermore, through composing in more than language, students and adults engaged in cross-linguistic processes that supported students' translingual eBook message composition. Contrary to the belief that students will be confused when they use their languages together, or the idea that using their heritage languages at school will be a detriment to their English language development, students in my study purposefully used multiple languages to write, orally record,

teach, learn, compare, and discuss, demonstrating translingual awareness. Furthermore, both adults used similar strategies to support students' translingual composing, such as making explicit comparisons between languages, questioning students about language features, and using online translators. Since I designed the activity to promote translanguaging, students and adults had more opportunities to discuss language form, use, and meaning in metalinguistic composing conversations than if we had only composed in English. My findings suggest that these metalinguistic composing conversations are an authentic way to embed phonics, grammar, and vocabulary instruction in writing activities (Cummins et al., 2006; Gort, 2012).

Finally, students and adults became both language coaches and learners when they composed messages in Somali, Arabic, Spanish, and English in their eBooks and their peers' eBooks. As they engaged in the language learning process in dual roles, students supported others by repeating new words, attending to pronunciation, phonetically spelling words, connecting words to images and meanings, and providing opportunities to use words in meaningful ways. Lareau and Horvat (1999) argue that the value of capital depends, in part, on the institution's response to that activation. As representatives of the school institution, Ms. Trenton and I positively valued students' linguistic capital and facilitated the activation process by participating as language learners with students. Not only did we invite, celebrate, and display students' heritage languages in the classroom, we modeled and valued the language and literacy learning process (Cambourne, 1995, 2000). Researchers have documented how bilingual students and families often receive the message that conventional English is the only valuable learning goal at school (Murillo, 2012; Reyes, 2012). Teachers, even bilingual teachers in U.S. dual language settings, implicitly establish learning conventional English as the goal of their teaching (Martínez et al., 2015; Martínez-Roldán, 2015). In contrast, Ms. Trenton and I set a goal

to engage in the process of learning all of students' languages, to value students' approximations, to make our own approximations, and to accept students' feedback. Consequently, all participants could activate linguistic capital to meet this goal, and we worked to change the balance of expertise in the classroom (Taylor et al., 2008). Together, we developed a positive attitude toward learning all languages represented by students in the class, toward making approximations as a valuable part of that process, toward others as our teachers, and toward ourselves as language experts with valuable knowledge to share.

CHAPTER 6

INSTRUCTIONAL FEATURES THAT PROMOTE TRANSLANGUAGING AND SHARING

This chapter addresses the third research question: *What are the features of eBook events that promote an instructional context supportive of translanguaging and sharing about families and cultural experiences?* My goal was to examine how participants constructed practices and used tools during eBook events in ways that supported translanguaging and sharing in the classroom. The primary sources of data were field notes and video recordings of eBook composing and presenting sessions. The secondary sources of data were teacher reflections, student interviews, teacher demonstration eBook, and student eBooks. I examined how participation in eBook events changed over the course of the study, as participants responded to the eBook activity framework, engaged with the tools, and jointly constructed translanguaging and sharing practices. I traced the participation of two students, Abdi and Celia, across the study. Celia is a Spanish speaker and Abdi speaks Somali and Arabic at home. I selected Abdi and Celia because they were consented to participate at the beginning of the study, and they were part of eBook events throughout the entire study period. Moreover, they were both part of the key introductory events that established norms for composing and presenting. They assisted with composing and translating the teacher demonstration eBook, and they were the first students to present eBooks to the class. However, Abdi and Celia represent contrasting cases because they speak different heritage languages, and they had different kinds of supports, at home and at school, for translanguaging.

First, I will describe how the physical arrangement and tools were important instructional features, and then I discuss participants' supportive interactions. In the next sections, I describe the following instructional features that promoted translanguaging and sharing in the classroom: 1) embodied practices where students and adults are positioned as both teachers and learners; 2) using digital resources to learn more about students' languages and cultural experiences; 3) collaborative composing among participants who come from the same and different linguistic and cultural backgrounds; 4) norms that explicitly value all students' heritage languages and cultural experiences; and 5) opportunities to present family eBooks to an audience and make connections to others' eBooks.

Embodied Practices

Participants negotiated embodied practices to support their translanguaging and sharing in the classroom. Teachers' physical positioning sends messages about what is expected and possible during composing events. When teachers sit alongside students and compose, there are opportunities for conversation, observation of demonstrations, and collaborative composing (Rowe & Flushman, 2013). Moreover, teachers can encourage students to take up roles as teachers by positioning themselves as part of the audience in the classroom (Kuby & Rucker, 2016). In my study, students and adults positioned their bodies in ways that signaled how students were active meaning-makers, experts, and teachers. Participants' embodied supports and practices shifted across the study, as students became increasingly independent and confident eBook composers and presenters. In the following sections, I will describe how embodied practices changed at the beginning, middle, and end of the study.

Beginning of the Study: Giving Students Control

At the beginning of the study, I intentionally positioned myself in ways that gave students control during eBook composing. First, during composing sessions, I put the tablets and cameras in the hands of students. During their first sessions, I touched icons on Abdi and Celia's screens to demonstrate how to add photos or open Book Creator. Abdi and Celia also occasionally turned their tablets towards me and held their tablets closer to me to bid for technical support. However, they mostly retained physical control of the tablets while they composed. Since students had control of the tools, they had the freedom, opportunity, and responsibility to compose what they wanted, and students were positioned as active meaning-makers

Second, students were free to move around the room during centers time, as they participated in their chosen center. Since tablets and cameras were portable devices, students could take them with them as they went to different centers. During eBook composing sessions, students took advantage of their mobility, and they often took tablets and cameras around the classroom to take pictures of the people and activities that interested them. Moreover, centers time mobility allowed students to stop by the composing table, observe their peers' compositions, and make suggestions for eBook designs and messages. In their first sessions, Abdi and Celia both moved around the room to take photos and talk with their peers about their eBooks. Furthermore, there were various peers present as passersby during almost their entire sessions. Passersby stood over Abdi and Celia to see their screens, but they rarely touched the screens. Students respected the composer's control of the tablet and eBook content. Mobility created a context for student sharing, collaborating, and composing.

Third, our seating arrangements at the composing table provided students with different kinds of opportunities for composing and collaborating. When students sat across the table from

me and beside their peers, they could more easily see their peers' screens and learn from their peers' composing. Figure 25 shows Celia sitting across from me at the composing table and looking at her friend Delia's screen to see how Delia composed a sentence in Spanish. However, Celia and Delia also had their backs against the wall when they sat on this side of the table, which limited their mobility. Conversely, in Figure 26 Abdi composed while sitting next to me at the table, and he more often tilted his tablet towards me to signal that he needed support, or to show me a photo or message. Abdi also got up and left the table more often to take photos or show his peers his eBook, since he was not wedged between the table and the wall like Celia. Yet both seating arrangements enabled students to share with and learn from peers and adults.



Figure 25. Celia and Delia composing across from me at the table.



Figure 26. Abdi composing beside me at the table.

Furthermore, at the beginning of the study, Ms. Trenton modeled embodied practices during eBook presenting that supported students to take up a teacher role in the classroom. First, Ms. Trenton modeled how to present eBooks to the group, by standing in front of the class and

pointing to the eBook elements she wanted to highlight. Students in the audience showed engagement and appreciation by leaning towards eBooks projected at the front of the room and applauding at the end of her eBook. During Ms. Trenton's eBook presentation, the students who had translated her eBook had visceral reactions to hearing their voices speaking their heritage languages. Delia and Celia put their heads in their hands when they first heard their Spanish translations. Abdi stood in the back of the room over the other students. Abdi often stood instead of sitting during whole group instruction, small groups, and eBook composing activities. By standing like the teacher, he put himself in a position of control, and his peers looked to him as a leader in the class. However, after Abdi heard a few of his Somali oral recordings, he left the room. Ms. Trenton followed him, and I continued to read her eBook. Abdi told Ms. Trenton that he was feeling shy and embarrassed about sharing in Somali with the whole class.

Second, based on students' nervous reactions to hearing their voices during Ms. Trenton's presentation, we initiated an embodied practice to support students as they presented for the first time. Celia was the first student to present an eBook to the class, and I suggested that Delia stand with her at the front of the room. Although Delia did not speak for Celia, her presence with Celia at the front of the room provided social support in a new situation. Ms. Trenton marked Delia's role as a support person as valuable by saying, "Thanks Delia for helping out." After this, all students chose a support person to stand with them while they presented their first eBook.

Third, Ms. Trenton signaled to students that she was offering them the teacher role during eBook presentations by standing at the back of the room, or sitting to the side at the guided reading table. Although she was still present to facilitate as needed, she gave students the position that she typically occupied as the teacher. Moreover, she intentionally participated as an

audience member, following the same norms as the students. For example, during Celia's first eBook presentation, Ms. Trenton called out part of a question, stopped herself by putting her hand on her mouth, raised her hand, and waited for Celia to call on her. Ms. Trenton not only modeled how to follow the norms, she also reinforced presenters as teachers in a position to call on audience members and answer questions. Thus, presenters took up a teacher role through the embodied practices of standing in front of the room and pointing to audience members who had their hands raised.

Lastly, audience members engaged in supportive embodied practices by leaning forward toward student eBooks, and applauding at the end of presentations. These supportive measures helped to ease students' nervousness as they presented. When she presented for the first time, Celia rocked back and forth nervously, and she looked at her projected eBook instead of the audience. However, by the time she started to answer questions, she was not rocking as much, and she turned to face the audience. Abdi also shifted his weight repeatedly as he presented for the first time and started his presentation facing his eBook. During his eBook reading, as his peers reacted positively to his eBook, Abdi changed positions to face the audience and talk to them directly. He also pointed to the peers whose questions he wanted to answer, directed his gaze at the person asking a question, and took his time to respond. Both Abdi and Celia commented that they were nervous to present for the first time. However, after receiving positive attention and support from their peers and teachers, they repeatedly requested to present their eBooks.

Middle of the Study: Reducing Supports

By the middle of the study, students had become more independent composers and presenters, and they did not need the same embodied supports. While they composed in the

middle of the study, Abdi and Celia rarely turned their tablets to adults or peers for technical support. Moreover, they more often composed while holding their tablets, rather than resting the tablets on the table. In this position, students were able to maintain tighter control over the tablets, and the composing table adult role shifted to observer and learner, rather than demonstrator and teacher.

Additionally, sitting beside students at the table facilitated viewing their home photos together. Ms. Trenton always chose to sit on the wall side of table so that she could keep one eye on the rest of her students while they participated in centers. She invited students to sit next to her, and they spent the majority of time viewing and discussing students' home photos. Figure 27 shows Ms. Trenton seated next to Emilio, excitedly looking at photos of Emilio's pet birds in Figure 28. It was practical to sit alongside students to look at photos together because sitting across from each other meant that one person would see the photos upside down. Moreover, passing the tablet back and forth across the table would change the screen orientation in ways that sometimes obscured photo content. Yet, more than mere practicality, sitting beside students and looking at photos had a comfortable and familiar feeling to it. During reflections, Ms. Trenton commented that she cherished that time to learn about students' lives and families, and she felt like "barriers came down" as students talked to her about their home photos. Students were in a position to share, and adults and peers were positioned to learn.



Figure 27. Emilio and Ms. Trenton looking at Emilio's home photos.



Figure 28. Emilio's home photo of his pet birds.

Finally, we reduced supports by having students present without a friend standing with them at the front of the room. Ms. Trenton initiated the change during Abdi's second presentation. Abdi asked if he could bring a friend with him, and Ms. Trenton responded, "No, you're confident." From then on, students only had a support person during their first presentation. By taking away the embodied practice of a support person, Ms. Trenton signaled to students that she had confidence in their abilities to share in front of the group. She also reinforced that students were presenting to a supportive audience of their peers and teachers, so there was nothing to fear. The reduction in support was an important step for students as they

became independent presenters, able to represent their heritage languages, families and cultural experiences in front of their curious classroom community.

End of the Study: Solidifying a Community of Students as Teachers

During their final composing and presentation sessions, participants had solidified their roles as teachers and learners through their embodied practices. Students composed alongside each other, discussing home photos and recording in each other's eBooks. When they sat across from each other, they stood up to look at their peers' eBooks, and they leaned in to hear a peers' Somali, Arabic, or Spanish pronunciation. Furthermore, Ms. Trenton and I had taken up roles as learners, sitting alongside and across from students to observe their composing and participate in their recordings as directed by students.

At the end of the study, eBook presentations were a good example of what a community of teachers and learners looks and feels like. During Abdi's final presentation, Ms. Trenton sat to the side at the guided reading table, and Abdi stood in front of the class presenting his eBook. Abdi showed a series of eBook pages about his video games. Students in the audience became so excited that Ms. Trenton initiated a new embodied practice for participating as an audience member. As part of their class accountable talk moves, students signaled that they had a connection to the speaker by putting their thumb and pinky finger up on one hand and shaking the hand in front of them. Ms. Trenton invited them to make this signal if they had a connection to Abdi's eBook. As a result, many students were vigorously shaking their hands during the rest of Abdi's presentation (see Figure 29). Audience members leaned towards the presenter, and they asked many questions about Abdi's family, games, and religion. Both Abdi and Celia looked at the audience more often at the end of the study, and students talked directly to each other, rather than ideas circulating through the teacher. The embodied practices associated with

eBook presenting promoted a context of sharing and translanguaging and provided participants with multiple ways to participate in whole group, classroom activities.



Figure 29. Abdi's final eBook presentation.

Summary

Participants' embodied practices were foundational for creating a context supportive of translanguaging and sharing. Physical positioning and materials arrangement underpinned opportunities for students to participate in a community of teachers and learners. We engaged in different embodied practices at the beginning, middle, and end of the study to support student sharing as independent presenters and teachers. At the beginning of the study, we strategically

positioned students as in control of composing and presenting. First, we put the tablets and cameras in students' hands so that they were positioned as active meaning-makers. Second, students could move around the classroom during centers time so that they could take photos and show their peers their compositions. Third, students sat alongside their peers and adults, which facilitated collaborative composing and home photo conversations. Fourth, students were positioned as teachers as they stood at the front of the room and called on audience members (peers and adults) with their hands raised. Finally, students had the embodied support of a peer who stood with them at the front of the room during eBook presentations. However, during the middle of the study, we reduced this embodied support, and students typically no longer had someone stand with them. They realized that they were supported and appreciated by the entire classroom community in front of them, evidenced by how audience members applauded and leaned towards the presenter. By the end of the study, students were firmly positioning themselves as teachers in front of the room during presentations. Moreover, students had so many connections to eBook content that they used the hand connection gesture frequently. Students participated as teachers and learners with the support of their peers and teacher. And they were always virtually backed up by their families, featured behind them on their projected eBooks (see Figure 30).



Figure 30. Celia presenting an eBook page featuring her mom.

Digital Tools as Resources

Participants used online tools to support translingual composing at the end of the study. At the beginning, I could not access the school's internet on my mobile devices, limiting our ability to use online tools during eBook composing activities. Once Ms. Trenton and I found a way to connect the tablets, and connectivity was consistent, we started to use online translators and search engines. In the following paragraphs, I will discuss how adults and students used websites and applications to learn about students' heritage languages and cultural experiences, only at the end of the study.

Adults and students used digital tools, such as online translators, dictionaries, and alphabets, to support students' translingual message composing. Ms. Trenton started the practice of using online tools, and it was not part of my original study design. In March, I noticed that Ms. Trenton had her phone out when she composed eBooks with students so that she could translate students' messages, see how words looked in Spanish, and read the words off her phone. She talked with students about the words and phrases she found online, and students learned words with her, coached her on pronunciation, and explained the meanings of words. Ms. Trenton would use the translator to help students spell their Spanish messages, and she would try out Spanish words she learned as she orally recorded messages in students' eBooks. Since I speak Spanish, I did not need to use online translators to help students write most of their Spanish messages. Yet, I realized online tools provided a way for adults who do not speak students' heritage languages to support translanguaging in the classroom.

Ms. Trenton inspired me to start using online tools with Spanish speakers, once I had internet connection. While composing with Celia and Amelia, I looked up the Spanish word 'claveles' on the tablet. Amelia's mom had written a Spanish message in the heritage language journal, and it included the word 'claveles,' which neither Amelia, Celia, or I knew. I used an online translator and discovered that it meant 'carnations,' which corresponded with the photos Amelia had taken of carnations in her house. After Amelia wrote about claveles in her eBook, she wanted to make more pages about her pictures of petunias in her backyard. I told her the name for the flowers in English, but I had to look up the name in Spanish, which is the same word, 'petunia.' Amelia wrote and orally recorded about petunias in English and Spanish, and Amelia, Celia, and I discussed how words can be spelled the same in different languages, but we pronounce them differently. Even though I speak Spanish, I do not know specific flower names,

which are specialized vocabulary. Online tools helped us learn vocabulary in Spanish, and incited metalinguistic conversations where we compared spelling, pronunciation, and meaning across languages.

I also used digital resources to support students who spoke languages other than Spanish and English, but for different purposes. For example, Abdi and I used a search engine and Wikipedia to learn more about his cultural experiences so that he could share accurate information with his peers and teachers. When Abdi brought back a home photo of a screen depicting the pilgrimage to Mecca, he had some misconceptions about where Mecca was. We looked up where Mecca was, and we also found more information about the pilgrimage, including the Arabic name for it, *hajj*. Abdi deleted his prior eBook oral recording where he stated, “This is New York,” and he recorded, “This is Mecca in Saudi Arabia.” He also said Saudi Arabia with a Somali accent in the revised recording. Abdi learned more about his family’s religious and cultural experiences by researching online.

After his experience with using the tablet to research Mecca, Abdi wanted to use more online tools to learn about the Somali and Arabic alphabets. During his end-of-the-year interview, he talked about how he wanted to include Somali and Arabic writing in his book. We ended the interview by looking up the Somali alphabet on the tablet. Abdi practiced writing some of the symbols, and he listened to the corresponding sounds. Unfortunately, this was our last session, but it showed a promising way to use online tools to support students’ writing when teachers do not know students’ heritage languages, and there is a script barrier.

Summary

Although I did not plan to use online tools as part of my study design, digital resources became an important feature of a creating an instructional context supportive of translanguaging

and sharing in Ms. Trenton's classroom. As research has shown, digital online resources support vocabulary learning and can be used effectively by students in the classroom (Dalton & Grisham, 2011). By using online translators, Ms. Trenton and I were able to learn words in students' heritage languages, and, in some cases, teach those words to students for their eBook messages. Furthermore, online search engines provide an opportunity to research students' cultural experiences and include those experiences in a culturally relevant curriculum. Finally, online tools can help bridge script barriers, as students and teachers investigate students' heritage language scripts, listen to the corresponding sounds, and read about the meanings of symbols and how to use them. Online tools possess powerful potential to support the inclusion of students' languages and cultural experiences in the classroom, even when teachers and students speak different languages and come from different cultural backgrounds.

Collaborative Composing

I designed eBook composing activities so that students could compose simultaneously on the two Samsung Galaxy tablets at the composing table, while an adult sat at the table and worked with both students. Collaborative composing occurred as students sat beside each other or across from one another at the table, talked about eBook content and tablet functions, and showed each other their compositions. Although each student had a tablet to work on, students looked at each other's tablets often and sometimes touched a peer's screen to show her/him how to change a page color or resize a photo. Additionally, students stopped by the composing table during centers time to observe their peers' work on the tablets and support peers' composing. Since eBook composing took place during centers time, students were free to move around the room to different centers. They often took long detours at the composing center on their way to

the classroom library or computer station. Thus, collaborative composing was part of every eBook composing session.

Ms. Trenton and I also collaborated with students as they composed, discussing images, providing technology support, supporting student writing, and orally recording messages in students' eBooks. When I worked with Spanish-speaking students, I supported their message composing in Spanish by suggesting spellings, words, and syntax. Conversely, Ms. Trenton supported Spanish-speaking students by inviting students to teach her Spanish, using her phone to translate words and phrases, and reading Spanish messages in students' heritage language journals. However, we used similar strategies as we worked with Abdi and the non-consented Arabic-speaking student, and we provided them with regular opportunities to teach us their heritage languages. Moreover, neither Ms. Trenton nor I shared a cultural background with students, and collaborative composing provided us with opportunities to learn about students' cultural experiences and families. We often compared students' experiences to our own, and celebrated similarities and differences. Additionally, students enjoyed the one-on-one attention from Ms. Trenton as they browsed images and composed. In a reflection, Ms. Trenton commented that she was able to build relationships with students in a way she did not have access to before we started eBook activities. Students also valued the time with Ms. Trenton, and they wanted to share about their experiences with her, possibly more than anyone else in the classroom.

Furthermore, students had opportunities to collaborate with peers who shared their linguistic and/or cultural background. When students worked with peers who spoke the same heritage language, they translanguaged as they conversed and composed messages. They also supported each other as they translated messages across their languages, and provided an

interlocutor with whom they could communicate in their heritage language and be understood. Moreover, same language peers formed a language community within the classroom, and this normalized using and hearing their heritage language at school. In the same way, students from similar cultural backgrounds discussed their experiences and built on each other's sharing during composing and presenting sessions.

In contrast, when students collaborated with peers from different linguistic and/or cultural backgrounds, they translanguaged for different purposes. In this case, peers would not understand them when they used their heritage languages, so students taught others words and phrases using English and their heritage languages. Collaborative composing among students who spoke different languages promoted a community of language teaching and learning in the classroom. Everyone had opportunities to translanguange, even when no one in the class spoke a student's heritage language. When students from different cultural backgrounds composed, they also had opportunities to teach others about their experiences. Students asked each other questions about their experiences and made comparisons to their own lives, which fostered a context for sharing in the classroom.

In the following sections, I will describe how collaborative composing developed across the study by comparing Abdi and Celia's participation in eBook composing activities. I found that in the beginning of the study, I provided students with a purpose to share and translanguange in the classroom. In the middle of the study, collaborative composing promoted awareness of how peers' languages and cultural experiences looked and sounded. Finally, by the end of the study, participants collaborated to exchange words in their heritage languages.

Beginning of the Study: Providing a Purpose for Translanguaging and Sharing

When I introduced eBook composing activities to students, I told them our goal was to make eBooks in more than one language and represent our multilingual classroom community. As same language peers collaborated, they supported each other to meet this goal. For example, during Celia's first and second composing sessions, she collaborated with her friend, Delia, who was also a Spanish speaker. Celia and Delia often participated in class activities together as partners, and they were self-proclaimed "best friends." When I told them that we were making eBooks in more than one language, they responded by writing and orally recording in Spanish on each page. They supported each other as they translated from English to Spanish, and they finished each other's sentences and said things in Spanish simultaneously. Since they were working together in the same language, they talked about differences in their translations, which led to metalinguistic conversations. For example, to describe a classroom picture of her peers, Celia wrote the message, 'These are my friends.' Next, she and Delia collaborated on the translation. Celia offered, 'Estos son mis amigos,' but Delia pointed out that there were only girls in the picture, so she needed to write, 'EstAS son mis amigAS.' I agreed with Delia, and I extended the conversation by talking about gendered pronouns and nouns in Spanish. When students worked with peers and adults who spoke their heritage language, they had language support to scaffold their composing and talk about language features.

Conversely, when I introduced translingual eBook composing to Abdi, I provided him with an additional purpose—to teach others Somali. During Abdi's first composing session, I invited Abdi repeatedly to record in Somali, but he had no one to communicate with in Somali in the classroom community. Abdi orally recorded 'awesome' and 'hello' in Somali, but he had to rely on his own translation skills. Unlike Celia, he did not have a peer or adult to talk with about

his translations. However, the non-consented Arabic-speaking student in the class heard Abdi's Somali greeting, and she claimed that Abdi was using Arabic. We learned that Abdi knew more languages than even he realized, and he was able to communicate with another student in the class in one of his heritage languages. Furthermore, in the first session, I gave Abdi a purpose for translanguaging and sharing in the classroom: "to teach us Somali." Abdi also collaboratively composed with Delia and America during his first session, and he heard them speaking and composing in Spanish, reinforcing the norm that we compose books in more than one language.

Moreover, by inviting Abdi and Celia to translate the teacher demonstration eBook, I provided them with a purpose to translanguage in order to help out Ms. Trenton and include their heritage languages in whole group instruction. During their first composing sessions, Abdi and Celia translated Ms. Trenton's eBook into Somali and Spanish. Ms. Trenton's eBook had English writing and recordings on each page about her trip to a wedding dress store in Atlanta. In Celia's case, she and Delia collaborated on all of the Spanish translations, with my support. For example, we discussed which translation would be best for the message, 'the drive.' Delia suggested, 'el manejo,' and I offered, 'el viaje.' Celia liked 'el viaje' better to describe Ms. Trenton's trip to Atlanta, so the girls recorded 'el viaje' in the book. In contrast, Abdi relied on his dad's Somali knowledge to translate the teacher eBook. I sent home Ms. Trenton's English messages on a piece of paper, and Abdi's dad wrote the Somali translations on the paper. When Abdi brought the paper back to school, he orally recorded the Somali translations. Abdi explained some of the meanings of the words to me, but some of the words he did not know either, and he applied his English decoding skills to read the Somali for the eBook. Translating Ms. Trenton's eBook gave both Celia and Abdi an academic purpose for translanguaging in the classroom.

Middle of the Study: Promoting Awareness of Peers' Languages and Experiences

As students had more opportunities to collaboratively compose with others who shared and did not share their linguistic and/or cultural backgrounds, they became aware of how others' languages and experiences looked and sounded. During Abdi and Celia's composing in the middle of the study, they both continued to compose in their heritage languages. Celia worked with Delia again, and they talked in English and Spanish about Celia's home photos and family. Celia shared about her dad's car repair business that he ran out of their house. She also talked about how her mom was having a baby, as we looked at a photo of her mom knitting. This prompted Delia to tell me that her mom was also pregnant, which only Celia knew. Since I was pregnant at the same time, we talked about shared experiences of preparing for a baby. Conversations about shared experiences were common during collaborative composing.

Participants who did not share linguistic and cultural backgrounds also discussed shared experiences as they composed together. Ms. Trenton browsed home photos with Emilio, a Spanish speaker, and Abdi simultaneously, huddled around one side of the composing table. Abdi had a series of photos of his television screen that featured video game characters and television programs that he liked. Emilio, a very shy student who hardly ever talked to Ms. Trenton or me, shouted out the name of a video game character several times. Ms. Trenton used Emilio's excitement and connection to Abdi's photos as a way to learn more about both boys' interests. She told them that she "does not really watch TV," but she wanted to learn about what they like. Her invitations to share about their experiences with kid culture in school validated students' knowledge, interests, and expertise. Additionally, Abdi and Emilio built common ground as they shared about their video gaming experiences.

As Abdi composed with students who did not share his heritage language background, peers had opportunities to hear his language. When Abdi composed oral recordings in Somali, Emilio listened to Abdi's Somali word and suggested that it sounded like Abdi said an inappropriate word in English. I talked with Emilio and Abdi about how languages might have the same sounds, but different meanings. Angel commented that he thought Abdi had said, "dead," and I reiterated that in Somali that sound meant something else and, "He (referring to Abdi) has to TEACH you Somali." In the middle of the study, students from different language backgrounds were learning how others' heritage languages sounded and looked, as Abdi observed his peers speaking and writing in Spanish, and they heard him speaking in Somali.

End of the Study: Participating in Linguistic and Intercultural Exchange

By the end of the study, students were trying out others' heritage languages in their eBooks, and comparing their cultural experiences to those of their peers. Celia collaborated with Amelia, a Spanish-speaking peer, during her last two composing sessions. Celia and Amelia supported each other as they wrote and orally recorded in English and Spanish. Furthermore, Celia observed as Amelia invited the Arabic-speaking student to teach her Arabic for Amelia's eBook. Although Celia did not include any Arabic or Somali in her eBooks, she participated as the non-consented Arabic-speaking student taught us Arabic. Moreover, in her end-of-the-year interview, she said she had wanted to include Somali in her last eBook, but she could not because Abdi was not there on the days she composed.

Similarly, during his last composing session, Abdi worked with Daniela, a Spanish-speaking peer, to participate in linguistic and intercultural exchange. At one point, I was speaking to Daniela in Spanish about her home photos, and Abdi interrupted us saying, "What's the Spanish going on here?" His question made me laugh, and I explained our conversation to

Abdi in English. Abdi's interjection also prompted me to suggest that Daniela ask Abdi for help with including Somali in her eBook. In exchange, I told her she could help him with Spanish. Daniela and I looked at Abdi's screen to see what he was working on, and we saw that he was already writing a sentence in Spanish. Daniela helped Abdi with his Spanish writing and an oral recording, and then Abdi taught us words in Somali for Daniela's eBook.

Moreover, Abdi taught his peers about the pilgrimage to Mecca, in response to a home photo he took of Muslims praying in Mecca on his television screen. Amelia looked at the photo, and she asked me what the picture was. However, I prompted her to ask Abdi about it, and he shared, "That's like where you get rid of all the bad stuff, like your sins." Then, the non-consented Arabic-speaking student stopped by the composing table and shared more information about Mecca. Amelia, who was familiar with praying from her experiences at "la iglesia," learned about how Muslims pray.

Lastly, composing and sharing with Ms. Trenton continued to be important to students, especially for Abdi. Although Celia shared her all of her eBooks with the whole class, and she talked with Ms. Trenton about her eBook content, she did not work individually with Ms. Trenton on her eBooks. In contrast, Abdi actively pursued Ms. Trenton's time and recognition. Abdi asked me four times if Ms. Trenton was going to come over and look at his last eBook and home photos during his last composing session. Since it was the end of the school year, Ms. Trenton was involved with testing and "boosting reading levels," and she could not compose with students that day. Every time Abdi asked, I told him Ms. Trenton was busy, "but she does want to see your book though." Finally, at the end of the literacy block after Abdi finished his page about Mecca, he said, "Did Ms. Trenton see it?" He took matters into his own hands, grabbed his tablet, and showed Ms. Trenton the eBook. When he came back to the composing

table, he announced, “I showed Ms. Trenton, and she liked it!” For Abdi, sharing about his cultural experiences with Ms. Trenton counted in a different way from sharing with his peers and me. Ms. Trenton not only recognized students’ resources, but, as the classroom teacher, she made a place for them in the curriculum by participating in linguistic and intercultural exchange with students.

Summary

In order to establish a supportive context for translanguaging, it was important that I provided purposes for translanguaging in the classroom at the beginning of the study. Then, I provided students with opportunities to translanguage and share during collaborative composing. When students collaboratively composed with peers and adults who shared their linguistic and/or cultural background, they talked about their similar experiences, conversed in their heritage languages, commented on translations, and participated in metalinguistic conversations. Research has documented that such experiences support emergent bilinguals’ metalinguistic awareness, literacy development, and inclusion in instruction (Gort, 2012; Jiménez et al., 2015a; Miller & Rowe, 2014).

Moreover, when students worked with peers and adults who did not share their linguistic and/or cultural backgrounds, they became aware of how others’ languages and experiences looked and sounded, and they participated in linguistic and intercultural exchange. As emergent bilinguals have opportunities to leverage their linguistic and cultural resources in exchange for learning others’ languages and building social relationships, they experience how their translanguaging practices and cultural experiences are valuable (Naqvi et al., 2013; Taylor et al., 2008; Zapata & Laman, 2016).

Finally, when students had time to collaborate with Ms. Trenton, they showed her their experiences and taught her their languages. As the classroom teacher, Ms. Trenton was a representative of the school institution and a powerful sponsor of students' literacy (Brandt & Clinton, 2002). When she took time to learn about students, use their languages, and connect with their experiences, Ms. Trenton created a classroom context that valued translinguaging and sharing.

Norms that Explicitly Value All Languages and Cultural Experiences

Research has documented the importance of explicitly inviting students and families to contribute in their heritage languages for academic activities (Cummins et al., 2006). Setting explicit norms and expectations for translinguaging and sharing is a step towards counteracting the prevailing message that students' languages and cultures are not welcome in school (García & Kleifgen, 2010; García, 2014). Researchers working in English-dominant schools have shown that translinguaging does not occur merely because there are bilingual and multilingual speakers present in the classroom community, or even when students are invited to share in their heritage languages (Brown, 2014; Rowe & Miller, 2016). Therefore, educators need strategies for setting norms that value all languages and cultures in English-dominant settings in order to build translinguaging pedagogies (Zapata & Laman, 2016).

Ms. Trenton and I discussed how to construct and reinforce such norms throughout the study. In the sections that follow, I will describe how we developed and negotiated explicit norms with students at the beginning of the study, how we reinforced norms in the middle of the study, and how students appropriated norms at the end of the study.

Beginning of the Study: Negotiating Explicit Norms

At the beginning of the study, Ms. Trenton and I set explicit norms and expectations to value and support students' multilingual eBook composing and presenting. We negotiated these norms with students during eBook sessions, as students responded to invitations to translanguage and share in the classroom. During each student's first composing session, I set an expectation with students that we were composing books in more than one language. I also asked students about their experiences with using their heritage languages at home and at school. With Celia, I talked with her in Spanish, and I prompted her to write and record messages in Spanish, saying, "now we got to do it in Spanish." I reinforced that I valued her heritage language use by saying, "Muy bien" [very good], after every message she composed in Spanish.

With Abdi, I told him that "we are making books in MORE than one language," after he wrote his English title. I invited him to write his title in Somali, but he responded that his dad "doesn't really teach me much Somali." As a way to scaffold Abdi's Somali composing and value his emergent Somali, I asked him if he could translate his name. Abdi orally recorded his name with a Somali accent, and I responded with "wow" and excitement. Abdi continued to compose messages in English, and I invited him to record any of the words he knew in Somali, instead of the entire message. Together, Abdi and I constructed a norm that students only had to translate the words that they knew into their heritage languages. Since Abdi did not always know how to translate whole sentences into Somali, and no one in the class knew Somali, our norm valued Abdi's emergent translanguaging practices in the classroom. On the following day, I worked with Abdi on translating Ms. Trenton's eBook, and he reiterated the norm as, "Just say what you know," as a way to open a space for his Arabic-speaking peer to translate what she knew, and to value her contributions.

Second, during the first presenting session, we constructed norms about how we respond to students' heritage languages and sharing. Ms. Trenton was the first person to present an eBook, and she modeled sharing and being vulnerable as a presenter. Furthermore, she explicitly valued students' heritage languages by saying that she wanted to hear all the languages, and learn Spanish, Somali, and Arabic. When we played the first student oral recording in Arabic, students in the audience laughed. In a prior planning conversation, I told Ms. Trenton that laughter might happen, based on my experiences presenting multilingual eBooks with preschoolers. I suggested that she address it directly, and use it as an opportunity to value students' languages. During the presentation, Ms. Trenton responded to her students' laughter and said, "Let's not laugh when we hear people's voices because we want to respect them." Angel commented that hearing other languages was "cool," and Ms. Trenton revoiced his comment. Students started to repeat the words they heard in new languages in the recordings. Ms. Trenton asked student translators to repeat their phrases, and she and other students practiced saying 'the end' in Arabic and Somali. When students in the audience started laughing again, a student shouted, "Don't make fun of them." Ms. Trenton agreed, "You're right. Don't make fun." She proceeded to thank all of the student translators for their work on her eBook, and she initiated applause for them.

Through her eBook presentation, Ms. Trenton laid the foundation for norms that explicitly valued students' heritage languages and cultural experiences as part of the curriculum. Two days later, she crystallized these norms with students before the first students presented their eBooks. In the following transcript, Ms. Trenton starts the discussion by referencing her experiences with presenting her eBook and talking about how it feels to open up about personal experiences with the class.

Ms. Trenton: You have been working with Ms. Mary to create your own eBooks. You are sharing about your families and that is so important to you. Remember when I shared my book about my life not at school? And that was personal, but you guys were respecting me. You didn't laugh at me. You didn't make fun of me. So I felt safe-

Abdi: -and sound-

Ms. Trenton: -and sound to share my life with you. Well, when our students who have been making books about their lives share with us, we want them to feel safe and sound. We don't want them to think, 'oh someone might make fun of me'-

Student: -or they might feel nervous-

Ms. Trenton: or they might feel nervous.

Student: They might cry.

Ms. Trenton: We don't want any of that. So when students share their books, you just have to listen. You don't get to talk about it, unless they want you to ask them a question. They are going to share, and then they can answer only if they WANT to. There are going to be lots of languages. Now Ms. Trenton only speaks English, and I'm trying to learn Spanish (some students say 'Spanish' with her) and Arabic and Somali (some students repeat Somali). I'm not very good at it yet, but you guys help me. So when you hear other people's languages, that is so special to them. That is so cool. So we're not going to laugh about that either. You know what was so cool? When I shared my book, um, and the awesome translators who helped put my book in lots of languages.

Abdi: me

Ms. Trenton: and I think it was Angel-

Abdi: -me-

Ms. Trenton: -who said when he heard Somali for the first time, ‘That’s so cool, I want to learn that language.’ When we hear other languages, it inspires us to want to learn new languages.

After this conversation, Ms. Trenton wrote norms on the whiteboard in the front of the room, and the students read them as she was writing. Figure 31 shows Ms. Trenton’s list of norms. The first two norms had already been established in the classroom, but they applied to when Ms. Trenton was at the front of the room teaching. During eBook presentations, students took up roles as teachers who commanded the attention of their classmates. Ms. Trenton also established that student presenters could choose who they wanted to call on in the audience during the question and answer portion, and whether or not they wanted to answer a question. This norm gave students control over their sharing, and reinforced their role as the teacher during eBook presentations.

The latter two norms were specific to sharing about heritage languages and cultural experiences, and Ms. Trenton set the expectation for students to respect others’ languages and learn from their peers’ eBooks. A student pointed out that Ms. Trenton put an exclamation point on the last norm, and she talked about how she was excited to learn from everyone. Ms. Trenton valued and modeled learning from her students as a norm during presentations. When Celia and Abdi presented their eBooks for the first time, their peers followed their norms, listening and asking questions when they finished reading their eBooks.

At the beginning of the study, Ms. Trenton, the students, and I jointly constructed norms that explicitly valued students’ languages and cultural experiences. We set an expectation that students would compose books in more than one language, and we developed the norm that students could translate just the words they knew in their heritage languages. Furthermore, we established norms about what it meant to respectfully respond to hearing students’ heritage

languages and seeing photos of their families. We recognized translanguaging as a vulnerable act, and we built norms to create a safe space for translanguaging. Moreover, Ms. Trenton acknowledged that sharing about personal experiences and languages makes us vulnerable, and she modeled how to do that by sharing her eBook first. Finally, we made explicit that the purpose of eBook presenting was to learn about others' languages and cultural experiences, and Ms. Trenton modeled how to ask questions and repeat new words in students' heritage languages. By explicitly setting these norms at the beginning of the study, we laid the foundation for a context supportive of students' translanguaging and sharing.

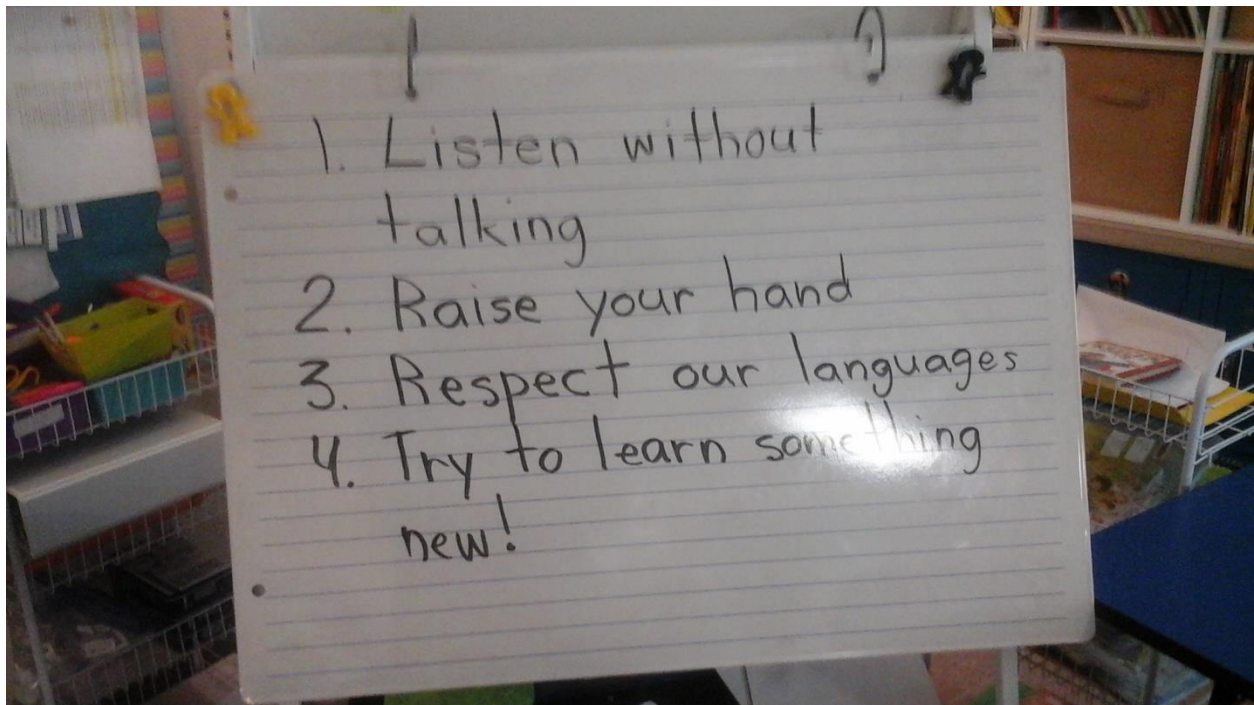


Figure 31. eBook presentation norms.

Middle of the Study: Reinforcing Norms

During the middle of the study, Ms. Trenton and I reminded students of our norms during eBook composing and presenting sessions as a way to support translanguaging and sharing. Celia and Abdi continued to compose in their heritage languages, in response to invitations and encouragement from adults and peers. Yet Abdi needed extra encouragement. During a composing session, I told Abdi, “Everyone wants to learn Somali,” to motivate Abdi to put Somali recordings in his eBook. Angel stopped by the composing table, and I pointed out that Angel especially wanted to learn Somali. Abdi said he would try to use Somali, but later in the session said he was scared to share his Somali recordings with the whole class. I told him that everyone liked his language, and he responded that he didn’t care whether people laughed at him. I referred to our norm to respect other’s languages, “so people won’t laugh.” Conversely, although Celia said she was nervous to present the first time, she never said that she was afraid that people would laugh at her heritage language. Our norm to respect other’s languages had a different meaning for Celia than it did for Abdi. As a speaker of a majority minority language in the classroom, Celia knew her peers would understand her language. However, Abdi needed the explicit reassurance that his peers would not laugh at hearing new sounds in an unfamiliar language. In a multilingual classroom where some students are the only speakers of their heritage languages, respecting others’ languages was a norm that needed to be regularly modeled and reiterated.

End of the Study: Appropriating Norms

By the end of the study, students had appropriated the norms, repeating the norms to themselves as they composed, and referencing them at the beginning of presentation sessions. The norms were a tangible reminder to students that the classroom was a safe space to

translanguage, share, make approximations, and provide peers and adults with feedback on their language use. For example, while Abdi worked with Daniela, he told her that her Somali approximation in her eBook oral recording was good and, “Nobody will laugh because it’s the rule.” Moreover, Abdi and Celia initiated using heritage languages in their eBooks as they composed, rather than responding to my invitations. Celia’s last eBook featured several English sentences on each page, and oral recordings of her Spanish translations. She announced that she wanted to do Spanish recordings for each page, and Amelia and I helped her. Furthermore, Abdi not only initiated recording in Somali, he also wrote messages in Spanish. When Ms. Trenton saw Abdi’s Spanish writing during his eBook presentation to the class, she burst out, “IN SPANish?!” I added that Abdi was learning Spanish from his peers, and Ms. Trenton valued her students’ language learning and teaching as “cool.”

Abdi’s Spanish-speaking peers and Ms. Trenton also ‘learned something new’ from him as he presented his last eBook to the class. When Abdi presented his eBook page about his baby brother, Yahya, to the class, he said the name with Somali phonology. Ms. Trenton and the students in the audience repeated the name, and Abdi corrected their pronunciation, but added that they could call him Ya-ya, which he said with an English accent. Abdi’s language coaching was reciprocated by his peers when he presented subsequent eBook pages with his Spanish writing. Abdi’s Spanish-speaking peers corrected Abdi’s Spanish sentences as they read them in his eBook. Abdi had written, “Este mi brother’s iPhone5,” and omitted ‘es’ from his sentence. Angel added the ‘es,’ and also translated ‘brother’ to ‘hermano.’ Since we had established a norm that valued approximations and feedback as an important part of learning languages, students and adults took up opportunities to try out new languages and provide language support to others.

In her end-of-the-year interview, Ms. Trenton reflected on how we constructed norms to create a community of language teachers and learners. She recognized that by positioning herself as a learner, students “get to be an expert,” and they had “discussions about the nuances of words.” Ms. Trenton admitted that, “At first you feel embarrassed when kids correct your Spanish...that’s how kids feel...makes you uncomfortable, but you have to get over it.” Ms. Trenton’s ability to empathize with her students and connect with their experiences was foundational to the “social emotional benefits” that she associated with the project. Her students knew that she “valued their cultures,” and they felt comfortable sharing about their experiences and languages because it was, “not about accurately using Spanish, Arabic, Somali.” Instead, Ms. Trenton and her students created a context where, “Your language is special about you...it’s also a tool to increase learning.”

Summary

At the beginning of the study, Ms. Trenton and I provided students with explicit norms to guide eBook activities. Through our discussions with students, and Ms. Trenton’s eBook presenting norms written list, we expected students to: 1) compose translingual eBooks; 2) listen to their peers’ eBook presentations without talking; 3) raise their hands if they wanted to ask their peers’ questions about languages, families, and cultural experiences represented in eBooks; 4) respect our languages; and 5) try to learn something new. We negotiated these norms with students, and they took them up in ways that supported their translanguaging and sharing in the classroom. For example, in response to the translingual eBook norm, Abdi established a practice where he translated only the words he knew into Somali or Arabic, since he could not translate whole sentences. We also co-constructed a norm that family members and peers were resources

for composing translingual eBooks, such as when Delia helped Celia translate into Spanish, and Abdi offered his Dad's help to translate the teacher eBook.

Furthermore, students interpreted, 'respect our languages,' as, 'don't laugh when you hear a new language.' They repeated the latter phrase as they composed and presented during the middle and end of the study, and we all recognized translinguaging as a vulnerable act. Consequently, students knew the classroom was a safe space for them to follow the final norm—try to learn something new! Ms. Trenton and I prompted students to teach the class about their languages and experiences, and we modeled approximating word and phrases in students' languages, and asking questions to learn more about students' families. In turn, students responded by providing language support and more information about their lives outside of school. Through setting explicit norms, negotiating norms with students, reinforcing norms through repetition and modeling, and encouraging student norm appropriation, we created a supportive space for students' translinguaging and sharing, in their English-dominant school.

Opportunities to Present eBooks

The eBook composing curricular framework (Miller & Rowe, 2014; Rowe et al., 2014) was designed to support students as they cycled through the writing process of generating ideas, drafting, revising, editing, and, finally, publishing (see Figure 32). The framework aligns with a writing workshop approach to writing instruction, where students have opportunities to write, revise, and share daily about topics that interest them (Calkins, 1994; Harste et al., 1988). Ms. Trenton did not use a writing workshop model in her classroom, since her district mandated a strict focus on guided reading during literacy instruction. However, eBook activities gave students time and space to participate in the writing process in school. Presenting eBooks provided students with an opportunity to publish their eBooks for their peers and teachers.

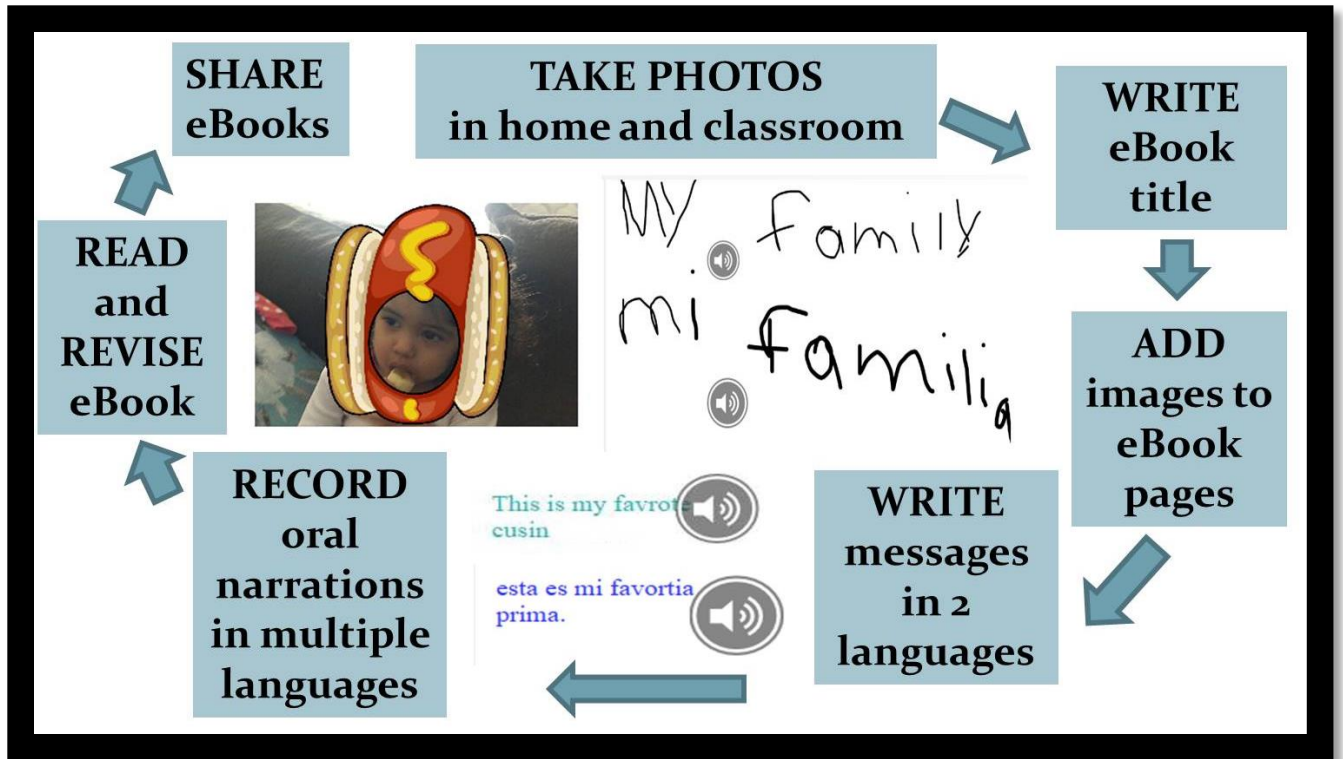


Figure 32. eBook composing curricular framework.

During students' first eBook composing session, I told them that they would be able to present their eBooks to the entire class. Students had opportunities to present all their eBooks to the whole class, although we gave them a choice about presenting. Abdi and Celia presented every eBook they composed, while the majority of students presented at least one eBook to the class. However, Emilio and Berto chose never to present their eBooks to the class, despite Ms. Trenton's, peers', and my invitations and encouragement. Emilio and Berto are negative cases because they did not present to the whole class, listing "feeling shy" and "not wanting to stand in front" of the group as their principle reasons for not presenting. Although they did not present to the whole group, both boys sought out Ms. Trenton's and their peers' individual and small group

attention for their eBooks. They created their own opportunities to share their eBooks, in a way they felt comfortable. Thus, eBook sharing was important for all the students, even if they chose not to present for the whole group.

Presenting eBooks was an essential part of creating a supportive context for translanguaging and sharing because: 1) students had a compelling and meaningful purpose and audience for eBook composing; 2) published eBooks were classroom models of culturally and linguistically relevant texts; and 3) students' heritage languages, cultural experiences, and families were included with the official, whole group, class literacy curriculum. As I analyzed the data, I found that all these features were important at the beginning, middle, and end of the study. Thus, in the following sections, I organize my findings around the features, rather than the time point in the study.

Meaningful Purpose and Audience for eBook Composing

When students share their work with an audience, they see how their composing communicates messages to others. Although most of class work is done for an audience of one, the classroom teacher, publishing provides students with a clear purpose and wider audience for their work. Since students in my study knew that they were going to publish their eBooks for their peers and teachers, they composed with that purpose and audience in mind. For example, Celia wanted to show us her dog, and she also wanted us to know that her mom was having a baby. In her first home photo eBook, she included photos of her dog, and a photo of her mom knitting baby clothes. When she presented her eBook, the audience erupted in 'awwws' and 'ooohhs' when these photos were projected. Students had lots of questions for Celia, and they also made connections to their personal lives. We learned that several other students' moms' were expecting, and a couple students suggested baby names for Celia's new brother. In her end-

of-the-year interview, Celia commented that adding photos that showed her family and what they did together at home was her favorite part of composing eBooks. She added that it felt “awesome” to present her eBooks to the class because people got to know her through the pictures. Celia’s purpose was to inform her peers and teachers about the important people, places, and events in her life, and eBooks gave her a medium and platform to fulfill that purpose.

In his end-of-the-year interview, Abdi also commented that he wanted to inform his peers and teachers about his “friends, family, where I go, Eid, where I pray, masjid.” However, Abdi also wanted to entertain his audience and compose “funny books.” To make his books entertaining, Abdi took photos of video game characters, added funny voices and sound effects, and wrote about being famous on almost every eBook page. When Abdi presented his first eBook to the class, his peers laughed, called out the names of the video game characters, and read Abdi’s writing. Ms. Trenton intervened to remind students about the norm to ‘listen without talking,’ even though, “Abdi’s book is entertaining.” Yet Abdi responded, “you all can laugh,” because he wanted them to think his eBooks were funny. On subsequent composing days, Abdi told me several times that he hoped his peers would like his book, to which I responded, “They ALWAYS like your books!” Students often stopped by to observe Abdi’s composing, and he would show them different photos to get their reactions before adding them to a page. Abdi was aware of his peers’ reactions, noting that he had seen specific classmates laughing in response to his presentation of funny eBook pages. As a result, he made design decisions to meet his purpose of entertaining his peers.

For both Celia and Abdi, the opportunity to present their eBooks to their peers provided them with a purpose and an audience for composing. In turn, they were motivated to go through the writing process, and they made design decisions that helped them meet their social purposes.

Even though they did not have an official writer's workshop in their curriculum, they were still meeting writing workshop goals, with opportunities to "write to hold our lives in our hands and to make something of them" (Calkins, 1994, p. 8).

Models of Culturally and Linguistically Relevant Texts

When students made their eBooks public for their peers and teachers, published eBooks became models of culturally and linguistically relevant texts for the classroom. Ms. Trenton, like many teachers, said she wanted her classroom literacy materials to reflect her students' experiences and interests, as mirrors (Bishop, 1990). However, teachers often do not have the time, money, or ability to access relevant literacy materials, especially when their students come from many different countries. Students' family eBooks were a shared resource for relevant literacy materials that Ms. Trenton did not have to buy or make.

Starting with the teacher demonstration eBook, all students had models of their heritage languages being used in classroom literacy materials. Prior to that, although Ms. Trenton had a few books in English and Spanish, she had no books in Somali or Arabic. When Abdi and Celia helped to translate Ms. Trenton's eBook, they composed a multilingual model that showed students how they could pair English writing with oral recordings in their heritage languages. After Ms. Trenton's eBook presentation, there were only three eBook presentations from the whole group (Janet and Damien) that did not include students' heritage languages. Abdi and Celia both reread Ms. Trenton's eBook, and they talked positively about their roles in translating it and creating the multilingual model. With such a powerful model, students did not often question the expectation to compose multilingual eBooks. Instead, they would comment that they wanted more languages and oral recordings, "like Ms. Trenton's book."

Furthermore, family members' contributions to eBooks through heritage language journal entries, Abdi's dad's Somali recording, and home photos invited inquiry into home and community linguistic and cultural practices. When Abdi played the recording of his dad speaking in Somali, his peers became aware of Abdi's heritage language. Students in the audience wanted to hear and understand Somali, and Angel and Celia both asked Abdi what his dad was saying in the recording. Although no one else in the class spoke Somali, Abdi relied on his dad to provide a model of Somali for the classroom through the eBooks. Abdi's peers and teachers responded with questions about Abdi's language and family, and a desire to make meaning from Abdi's heritage language, rather than dismiss it as unfamiliar sounds. Students and teachers were curious about other's languages and experiences and open to differences in the classroom. During eBook presentations, students and teachers had opportunities to question, to discuss word meanings, to make connections, and to build a place for their languages and experiences in the curriculum.

Even though Ms. Trenton's literacy classroom was still dominated by materials in English, multilingual eBooks were a visible and audible departure from the English-only curriculum. Moreover, eBooks featured photos of students' actual families and experiences, and content was personally relevant for students. Such personalized, culturally relevant texts represented the dynamic and intersecting threads of students' cultural experiences.

Inclusion of Students' Heritage Languages, Families, and Cultural Experiences in the Official Curriculum

When they presented their eBooks to the whole class, students' resources were included with the official curriculum, and they became shared resources among the classroom community (Naqvi et al, 2013). Students' heritage languages and sharing about their experiences were no

longer relegated to the margins of classroom life, tucked away in conversations during small groups, centers, recess, and lunch. Instead, during eBook presentations students' resources were at the center of whole group instruction and used to meet learning objectives. In her reflections, Ms. Trenton described how students' participation in eBook activities helped them achieve learning standards related to writing, reading, speaking, and listening. Specifically, she noted how students worked on "authentically questioning" each other and engaged in discussions during eBook presentations. Furthermore, she noticed how students became comfortable with translanguaging with their peers during literacy activities outside of composing and presenting eBooks. For example, students talked about books in their heritage languages, which supported their reading comprehension and conceptual understanding. Ms. Trenton said this was especially important for her "lower level guided reading groups."

Including students' eBooks with whole group instruction communicated to students that their languages and experiences were welcome, valuable, and useful in the classroom. In his end-of-the-year interview, Angel commented on his experiences with linguistic hierarchy in the school, and the difference he felt while presenting eBooks in Ms. Trenton's literacy class. Angel only came to Ms. Trenton's class during the literacy block, and he spent the majority of his day in his homeroom class. He told me that in his homeroom class, he did not like to use Spanish that much because teachers, "they don't know what you say (in Spanish), so they don't let you talk." Although Angel said he felt shy the first time he presented his family eBook in Spanish in Ms. Trenton's class, he felt comfortable sharing after that because, "I've been helping eBooks a long time." In contrast to his experiences in whole group instruction in his homeroom class, Angel realized that he was welcome to share about, "my culture, languages, family, what we do, things at our house," in Ms. Trenton's literacy class. As a result, Angel and his peers leveraged their

resources as part of their literacy practices in the classroom. Thus, whole group eBook presenting promoted a supportive context for sharing and translanguaging by purposefully including students' resources in the official curriculum.

Summary

Presenting eBooks on the big screen gave students a forum for making their work public, so that more people could learn about, connect with, and place value on, their heritage languages, cultural experiences, and families. Furthermore, eBook presentations provided students with a meaningful purpose and audience for translanguaging in their English-dominant classroom. The purpose and audience shifted away from writing only in English for a monolingual teacher to writing across languages and modes for peers and adults who both share and do not share linguistic and cultural backgrounds. In this authentic context, students strategically composed with different languages, oral recordings, and photos, with their audience and purposes in mind (Durán, 2016).

In turn, students' published eBooks became models of culturally and linguistically relevant texts for the classroom. Research has shown how providing models of translanguaging and sharing is an important feature of creating translanguaging pedagogies. For example, in order to promote translingual writing instruction in English-dominant contexts, Zapata and Laman (2016) found that teachers included community and family members as models of translingual practices in the classroom, and shared linguistically diverse literature as models of translingual approaches to writing. When students composed for an audience, had culturally and linguistically relevant models, and saw their languages and experiences included in the official curriculum, we challenged monolingual norms and normalized translanguaging and sharing for academic purposes.

Discussion

Many scholars have called on educators to include students' heritage languages, cultural experiences, and families in instruction as part of efforts to implement translanguaging pedagogies, build on students' funds of knowledge, and support culturally and linguistically diverse student learning (Au, 1998; García & Kleifgen, 2010; Genishi & Dyson, 2009; Moll et al., 2005). However, there are only a few practical guides in the literature for how teachers can do this work, particularly primarily English-speaking teachers working in English-dominant schools with multilingual classes (Durán, 2016; Jiménez et al., 2015a; Louie & Davis-Welton, 2016; Naqvi et al., 2013; Pacheco et al., 2017; Pacheco & Miller, 2016; Rowe & Miller, 2016; Zapata & Laman, 2016). Moreover, including students' heritage languages in the classroom is a widely-cited strategy for teaching English learners (Goldenberg, 2008). Yet, recently scholars working from a translanguaging perspective have argued that teachers can support students' literacy development in more than one language not just by mastering a set of teaching strategies, but by shifting to a translingual pedagogical approach (Canagarajah, 2013; Palmer & Martínez, 2016; Zapata & Laman, 2016). The instructional features that I outlined in this chapter provide a practical guide for adopting a translingual approach to instruction and leveraging students' linguistic and cultural resources in the classroom. This study both contributes to and extends the growing body of work on creating translanguaging instruction in English-dominant contexts.

First, my findings suggest that the physical arrangement of materials, space, and bodies, influences how participants embody a translingual approach to literacy and create a supportive context for translanguaging and sharing. Other researchers have described that when teachers sit alongside students during composing, they provide students with opportunities to observe demonstrations and collaborate (Rowe & Flushman, 2013). Furthermore, when parents sat

alongside their children in the classroom and composed in their heritage languages, students observed demonstrations of how to access their full linguistic repertoire for classroom writing (Zapata & Laman, 2016). My study extended these practices by positioning both students and adults as the teachers during composing interactions. As students sat alongside peers and adults, they had opportunities not only to observe others' translingual approaches to writing, but also to provide demonstrations of and supports for composing in their heritage languages for others. When students sat beside peers and adults to compose translingual eBooks, they became the models of translanguaging in the classroom.

Additionally, like other researchers, I positioned students as active designers by putting the tools in the hands of the students (Luttrell, 2010; Martínez-Álvarez & Ghiso, 2014). Through this embodied practice, we signaled to students that we were interested in their perspectives and experiences, and we gave them opportunities to represent their social worlds in the classroom (Allen et al., 2002; Orellana, 1999). Furthermore, Ms. Trenton and I built embodied supports around this premise during eBook presentations by: 1) allowing peers to stand with students during their first presentation; 2) positioning the teacher to the side of the back of the room; and 3) making embodied connections through hand motions. These embodied practices were important supports for students as they translanguaged and shared, particularly as we established translanguaging and sharing norms that departed from the norms of the English-dominant school. Although little attention has been given to how to arrange bodies, materials, and space to support translingual instruction, my findings suggest that embodied practices are foundational—to teachers as they adopt a translingual approach to instruction and students as they activate their resources in the classroom.

Second, online tools such as translators and search engines have untapped potential for including students' languages and cultural experiences in English-dominant classrooms, with speakers of several different languages. Although there are recommendations in the literature for allowing students to look up English words in their heritage languages to support reading comprehension (Dalton & Grisham, 2011), there are not examples of teachers and students collaboratively using online tools to construct meaning across languages in order to compose in the translanguaging literature. However, my findings suggest that these tools provide a pathway for teachers to implement translanguaging instruction, even when they do not know students' heritage languages. Using online tools as part of adopting a translingual pedagogical approach merits further research with powerful implications for practice.

Third, collaborative composing with home photos among participants who shared and did not share cultural and linguistic backgrounds promoted a supportive context for sharing and translanguaging. As prior research has shown, when students and teachers have open-ended opportunities to discuss home photos and use them to compose, they learn about and connect with others' social worlds (Luttrell, 2010; Martínez-Álvarez & Ghiso, 2014; Miller & Rowe, 2014). Furthermore, my study provides additional examples of how encouraging translingual collaboration among same-language peers is a practical way to implement translanguaging instruction in English-dominant classrooms and promote students' reading comprehension and writing development (Iddings et al., 2009; Jiménez et al., 2015a; Zapata & Laman, 2016). However, fewer studies have examined translingual collaboration among peers who speak different languages. My findings suggest that such collaborations are also beneficial because they provide opportunities for students to teach others about their languages, develop awareness of the diverse norms constituting language use, and meaningfully participate in a multilingual

community (Canagarajah, 2015). Since many U.S. classrooms comprise speakers of several languages, and students may be the only speaker of their heritage language in a class, collaborative composing is a promising way to support all students' translanguaging and sharing.

Moreover, a unique aspect of my study is that the classroom teacher participated as a co-composer with students. In my previous research with preschool students, we led all composing sessions, and the classroom teachers were not involved. However, I agree with scholars who have called for more research *with* teachers to include technology, heritage languages, and funds of knowledge as part of literacy instruction (Martínez-Álvarez & Ghiso, 2014). Thus, I designed opportunities for Ms. Trenton to compose with students. Although I facilitated Ms. Trenton's capacity to collaboratively compose with students by leading guided reading groups so that she could work at the composing table, she could have done this without me if she had time for daily writer's workshop (Calkins, 1994). Even without an extra adult in the classroom, teachers could: 1) provide opportunities to collaboratively compose and present; 2) set explicit norms and purposes to support translanguaging and sharing; 3) use digital resources to learn about students' languages and cultural experiences; and 4) engage in embodied practices that positioned students as teachers.

Furthermore, although there are guides in the literature on how the teacher can confer with students during writing workshop (Berne & Degener, 2015), Ms. Trenton and students constructed different roles during eBook composing activities. Students instructed and gave feedback to Ms. Trenton so that she could compose messages with them in their eBooks. Since Ms. Trenton took up a role as a co-composer with students, she provided them with a powerful purpose and opportunity to translanguage and share in the classroom—to teach her their heritage languages for eBooks. When the classroom teacher composes in students' heritage languages,

s/he demonstrates a translingual pedagogical orientation and uses students' linguistic resources as part of instruction.

Fourth, my findings suggest that students in English-dominant classrooms need explicit norms that value and structure their translanguaging and sharing. Although García (2014) argues that one of the goals of translanguaging pedagogies is to disrupt linguistic hierarchies and that translanguaging is a political act, English-dominant contexts provide different kinds of opportunities for such disruption. Therefore, in my study, Ms. Trenton and I not only modeled and invited translanguaging in the classroom, we recognized translanguaging as a vulnerable act. We negotiated norms with students that: 1) accepted students' initial reticence to share and translanguage; 2) acknowledged how sharing and translanguaging in an English-dominant context involves being vulnerable; and 3) anticipated students' reactions to laugh when they heard unfamiliar languages for the first time. Although other translanguaging scholars working in English-dominant classrooms have documented students' initial reluctance to translanguage, they have not examined how to set explicit norms to support translanguaging and anticipate peers' and teachers' diverse reactions to hearing new languages (Pacheco et al., 2017; Zapata & Laman, 2016). In our previous research with preschool students, we found that children laughed when they heard a language for the first time during whole group eBook presentations (Rowe & Miller, 2016). These experiences informed the norm that Ms. Trenton and I co-constructed with students to 'Respect our languages.' Students appropriated the norm as, 'we don't laugh when we hear new languages,' and they knew the classroom was a safe space for translanguaging. My findings illustrate a practical guide for how to set norms to create a supportive context for translanguaging and contribute to the literature on translanguaging pedagogies in English-dominant schools.

Fifth, opportunities to present eBooks to the whole class provided students with an opportunity to publish translingual, culturally relevant, multimodal texts for an audience of their peers and teachers. Although providing students with opportunities to publish writing is not a new idea (Calkins, 1994; Harste, 1988), giving students a sustained structure and forum for translanguaging and sharing as part of the official curriculum is innovative. In my study, students presented eBooks two or three times a week for a semester—more presentations than in our preschool eBook work (Rowe et al., 2014), and more consistent opportunities for *students* to share in the *whole group* than in other studies of translanguaging instruction (Louie & Davis-Welton, 2016; Pacheco et al., 2017). In English-dominant classrooms, it is particularly important for students to see the purpose and value of translanguaging during whole group curricular activities in order to disrupt linguistic hierarchies that students like Angel see at work in their classes. Overall, establishing such practices in the classroom in a sustainable way takes time and intention across the school year. However, as Ms. Trenton commented in her end-of-the-year interview, “A little thing like making an eBook goes a long way.”

CHAPTER 7

DISCUSSION

My dissertation study grew from research experiences I had five years ago when I started composing eBooks with preschool students in an English-dominant school. During my first eBook composing session, I sat beside Manuel, a Spanish-speaking four-year-old, and I spoke to him in Spanish about eBooks. My thinking at the time was that he would excitedly respond to me in Spanish, grateful for the opportunity to use his heritage language at school. I was wrong. Manuel just stared at me with a confused look. When he did talk to me, he spoke entirely in English. He did not seem to understand why I was talking to him in Spanish or why I wanted him to use Spanish in an eBook. Manuel's response made me realize that supporting translanguaging in an English-dominant space was much more complicated than I had anticipated.

The following week I sat beside Reena, a Nepali-speaker, and I realized how much work went into building common ground at the composing table when I did not speak a child's heritage language (Rowe et al., 2014; Rowe & Flushman, 2013). Furthermore, Reena was the only speaker of Nepali in the class, and she did not have an audience or purpose for using Nepali in eBooks. It was only after a year working with Reena, through conversations about her home photos, and after repeated invitations to teach me Nepali as the purpose for translanguaging, that Reena finally composed a Nepali-English eBook.

Then, four years ago, I realized the potential of including family members as contributors to translingual materials for instruction. We decided that we needed to provide a demonstration of all of students' heritage languages being used in oral recordings in the teacher eBook in order

to support translingual composing (Rowe & Miller, 2016). I invited a Spanish-speaking teacher assistant, a Karen-speaking community member, and an Arabic-speaking father to translate the teacher eBook. As the father and I stood in the hallway outside of the cafeteria, huddled around the iPad screen, he composed Arabic oral recordings that were played over and over again in the preschool classroom when children and adults read the teacher eBook.

My experiences with the preschool students raised many questions that have guided my research for the past five years. How do we support translanguaging in English-dominant schools? What are the purposes of translanguaging in English-dominant classrooms, particularly for students who may be the only speakers of their heritage languages in the class? How do teachers implement translingual instructional activities when they do not speak students' heritage languages? How do digital tools and composing with home photos and oral recordings open possibilities for including families, heritage languages, and cultural experiences? How can family and community members contribute to translingual instruction? When I consulted the literature for answers to my questions five years ago, I did not find much research to guide me. Therefore, my study contributes valuable knowledge to a nascent and growing body of work on implementing translingual instruction in English-dominant schools. What follows are my emerging answers to the questions that continue to resonate with researchers, educators, and myself.

Research Question Summary

My objective was to promote translanguaging and sharing about families and cultural experiences in an English-dominant school through home and classroom translingual eBook composing and presenting activities. This research documents participants' processes of

composing in multiple languages and instructional features that support translanguaging and sharing in classroom literacy activities. I focus on the following research questions:

1. *How do students represent their heritage languages, families, cultural experiences, and relationships in family eBooks for classroom use?*
2. *What processes do students and adults use as they compose translingual eBook messages?*
3. *What are the features of eBook events that promote an instructional context supportive of translanguaging and sharing about families and cultural experiences?*

In order to answer these questions, I analyzed data from a yearlong, qualitative study of second graders' translingual eBook composing and presenting in an urban, English-dominant school.

The following sections contain a summary of the findings, contributions, and directions for future research.

RQ1: How Do Students Represent Their Heritage Languages, Families, Cultural Experiences, and Relationships in eBooks?

I designed this study to explore ways of virtually including families in translingual instructional activities and materials in English dominant classrooms where: 1) English is the mandated language of instruction; 2) students in the class speak several different languages and some students may be the only speaker of her/his heritage language; and 3) the classroom teacher primarily speaks English. My goal was to examine how translingual, multimodal, digital, family eBooks provided participants with opportunities to learn about and include families' linguistic and cultural resources in the classroom. By analyzing students' eBooks, participants' interviews, and classroom composing and presenting interactions, key findings emerged regarding how

students composed eBooks to represent their heritage languages, families, cultural experiences, and relationships.

First, students leveraged the oral recording function to represent their heritage languages even when they did not know how to write in their heritage languages, to showcase the sounds and cadences of their heritage languages in home-composed eBooks, and to provide an opportunity for peers and adults to orally record messages in their heritage languages. However, I found that students needed different kinds of supports for composing oral recordings, based on their heritage language background. Students like Abdi, the only speaker of Somali in the class, needed to see examples of their heritage language being used in eBooks. When students translated the teacher eBook into their languages, and Ms. Trenton presented her book to the class, all students had a model of heritage language oral recordings. Moreover, when students heard Abdi's dad speaking in Somali in a home-composed oral recording, they became aware of how Somali sounded, curious about Abdi's families' Somali language practices, and eager to learn Somali. Overall, the oral recording function was a powerful affordance of using digital tools to include students' and families' linguistic resources in the classroom.

Second, students composed with digital photography to make meaning, meet their social purposes, represent their interests, families, and cultural experiences, and connect to others' experiences. By sending home cameras and tablets and then using home photos in eBooks, students and families visually represented their lives outside of school in the classroom. Moreover, it was important that students not only took photos of their homes and communities, but that they also had opportunities to include those photos in classroom instruction—to discuss photos with peers and adults, to compose with photos in eBooks, and to present family eBooks to a whole class audience. It was during these discussions that we learned about Celia's motorcycle,

Berto's love of Pokémon, and Angel's trampoline adventures. Beyond that, students and adults learned about their similarities and differences, and what made them a connected, diverse, and unique community. We learned that we shared interests, family careers, and religious experiences, and we respectfully compared diverse experiences. The opportunities to use photos as digital resources for composing and to make them public were important for including families in the literacy curriculum.

Third, students used multimodal composition resources of color design and typed text features to represent their interests, preferences, families, and what was important to them. Students demonstrated sociolinguistic flexibility and made complex, intentional design choices to communicate and have their say. Moreover, Janet and Damien, students who chose not to use their heritage languages in eBooks, used these multimodal composition resources to convey their meanings. My findings suggest ways to build an inclusive curriculum in English-dominant, multilingual classrooms, with speakers who primarily speak English, and those who speak other languages. With Janet and Damien, I considered how I could best support them to represent their experiences and interests in the classroom using multimodal composition resources. For Janet, this meant taking photos of her mom and brother and writing in English with typed text features about the places they went together. For Damien, this meant experimenting with drawing, contrasting colors, and labels. I found that part of building an inclusive classroom meant being responsive to students' choices to use or not use their heritage languages in the classroom, and valuing all students' experiences and ways of representing those experiences, regardless of heritage language use.

Finally, students created a translingual approach to composing where they coordinated the layout of the page and placement of text and oral recording icons to represent their heritage

languages and teach others about their heritage languages. Students' strategy was afforded by using digital composing tools. Moreover, it enabled them to communicate with a linguistically diverse audience and teach peers and adults their languages. As a result of paired text and oral recordings, students' heritage languages became shared, social, curricular resources in the classroom, such as when Abdi used Spanish eBooks to start writing in Spanish, or Ms. Trenton repeated Somali, Spanish, and Arabic phrases she heard in eBook oral recordings. Thus representations of heritage languages, families, cultural experiences, and relationships in eBooks facilitated both learning about and including families in translingual instructional activities in the classroom.

RQ2: What Processes Do Students and Adults Use as They Compose Translingual eBook Messages?

In order to describe the processes of disrupting linguistic hierarchies, constructing a classroom field where heritage language resources are valuable capital, supporting translingual practices, and facilitating exchanges in English-dominant classrooms, I analyzed classroom interactions to understand what supports and strategies students, the classroom teacher, and I used as we composed messages in students' heritage languages and about their families and cultural experiences. Three key findings emerged regarding participants' processes of composing translingual eBook messages in which they activated their heritage language resources as capital: 1) home to school connections; 2) cross-linguistic processes; and 3) language coaching and learning processes.

First, home to school connections allowed participants to learn about each other's languages and lives outside of school, build common ground, and rehearse eBook messages. I found that students used conversations with adults and peers about their home photos as a way to

generate content for their writing in eBooks. Furthermore, students may have been more motivated to compose messages for their eBooks so that they could show and describe their photos for their teachers and peers. Moreover, family members shared their cultural and linguistic knowledge with students and teachers in heritage language journal entries. Journal entries provided classroom adults with insights into families' cultural experiences, subject matter for students' eBook messages, and a model of heritage language literacy in an otherwise English-dominant space. Additionally, the classroom teacher leveraged Spanish journal entries to teach herself and other students in Spanish, as she matched the words and phrases with the photo features. Thus, journal entries became a shared curricular resource for composing translingual messages in the classroom, and family members were positioned as valuable contributors to translingual instructional activities. These home to school supports are a promising mechanism for building translanguaging pedagogies in English-dominant school contexts where teachers do not speak students' heritage languages, and students come from several different heritage language backgrounds.

Second, I found that students and adults engaged in cross-linguistic processes that supported students' translingual eBook message composition. Contrary to the belief that students will be confused when they use their languages together, or the idea that using their heritage languages at school will be a detriment to their English language development, students in my study purposefully used multiple languages to write, orally record, teach, learn, compare, and discuss, thereby demonstrating translingual awareness. Furthermore, both adults used similar strategies to support students' translingual composing, such as making explicit comparisons between languages, questioning students about language features, and using online translators. Since I designed the activity to promote translanguaging, students and adults had more

opportunities to discuss language form, use, and meaning in metalinguistic composing conversations than if we had only composed in English. My findings suggest that these metalinguistic composing conversations are an authentic way to embed phonics, grammar, and vocabulary instruction in writing activities.

Finally, all students and adults participated in eBook composing activities as heritage language coaches and/or learners. As they engaged in the language learning process in dual roles, students supported others by repeating new words, attending to pronunciation, phonetically spelling words, connecting words to images and meanings, and providing opportunities to use words in meaningful ways. Moreover, as Ms. Trenton and I participated as language learners, we modeled and valued the process of making approximations, receiving feedback, and using words and phrases in students' heritage languages. As representatives of the school institution, our willingness to translanguage and 'have a go' at learning students' heritage languages facilitated the activation process because we modeled, supported, and valued translingual practices. Additionally, students' willingness to teach others about their heritage languages for use in eBooks may be interpreted as evidence that participants positively valued and activated heritage language resources as capital in the classroom, across language proficiency groups. Students who were more proficient in Spanish but explicitly wanted to grow as English writers, like Juanita and José, coached their peers on how to compose in Spanish in exchange for learning English and Somali, respectively. Students who were similarly proficient in English and Spanish, like Amelia and Daniela, coached peers and adults on how to compose in Spanish and invited peers to teach them new languages for their eBooks. Students who were more proficient in English, like Berto and Abdi, coached others on how to use the heritage language words they knew, and provided peers with English support. Even Damien and Janet, who were more proficient in

English and not comfortable with composing in Spanish, listened as their Spanish-speaking peers taught them words in Spanish. My findings suggest that students and teachers can disrupt linguistic hierarchies and co-construct a classroom field where all of students' varying linguistic resources are valuable capital for literacy learning.

RQ3: What Are the Features of eBook Events that Promote an Instructional Context Supportive of Translanguaging and Sharing about Families and Cultural Experiences?

Through analysis of Abdi and Celia's composing and presenting events across the study, I identified five key features of eBook events that promoted a translingual instructional context: 1) embodied practices where students and adults are positioned as both teachers and learners; 2) using digital resources to learn more about students' languages and cultural experiences; 3) collaborative composing among participants who come from the same and different linguistic and cultural backgrounds; 4) norms that explicitly value all students' heritage languages and cultural experiences; and 5) opportunities to present family eBooks to an audience and make connections to others' eBooks. By describing these instructional features, my overall objective was to provide teachers with practical ways to create a translingual instructional context, even in English-dominant classrooms.

First, my findings suggest that the physical arrangement of materials, space, and bodies, influences how participants embody a translingual approach to literacy and create a supportive context for translanguaging and sharing. As students sat alongside peers and adults during eBook composing events, they had opportunities not only to observe others' translingual approaches to writing, but also to provide demonstrations of and supports for composing in their heritage languages for others. When students sat beside peers and adults to compose multilingual eBooks, they became the models of translanguaging in the classroom. Moreover, Ms. Trenton and I

positioned students as active designers by putting the tools in the hands of the students. Through this embodied practice, we signaled to students that we were interested in their perspectives and experiences, and we gave them opportunities to represent their social worlds in the classroom. Furthermore, we built embodied supports around this premise during eBook presentations by: 1) allowing peers to stand with students during their first presentation; 2) positioning the teacher to the side of the back of the room; and 3) making embodied connections through hand motions. These embodied practices were important supports for students as they translanguaged and shared, particularly as we established translanguaging and sharing norms that departed from the norms of the English-dominant school. Embodied practices were foundational to our efforts to adopt a translingual approach to instruction and supportive of students as they activated their resources in the classroom.

Second, online tools such as translators and search engines have untapped potential for including students' languages and cultural experiences in English-dominant classrooms with speakers of several different languages. Ms. Trenton used online translators so that she could support students' translingual composing in languages that she did not speak. Moreover, Abdi and I used online search engines to research Mecca and the Somali alphabet. My findings suggest that these tools provide a pathway for teachers to implement translingual instruction, even when they do not know students' heritage languages.

Third, collaborative composing with home photos among participants who shared and did not share cultural and linguistic backgrounds promoted a supportive context for sharing and translanguaging. As students and teachers had open-ended opportunities to discuss home photos and use them to compose, they learned about and connected with others' social worlds. Furthermore, I found that translingual collaboration among same-language peers was a practical

way to implement translanguing instruction because peers, like Delia and Celia, supported each other's heritage language translation, spelling, pronunciation, and vocabulary. However, I also found that translanguing collaboration among peers who speak different languages was beneficial because it provided opportunities for students to teach others about their languages, develop awareness of the diverse norms constituting language use, and meaningfully participate in a multilingual community. Moreover, I found that as the classroom teacher participated as a co-composer with students, she provided them with a powerful purpose and opportunity to translanguage and share in the classroom—to teach her their heritage languages for eBooks. Ms. Trenton demonstrated a translanguing pedagogical orientation and used students' linguistic resources as part of instruction. Therefore, collaborative composing emerged as a promising way to support all students' translanguing and sharing in a linguistically diverse classroom.

Fourth, my findings suggest that students in English-dominant classrooms need explicit norms that value their translanguing and sharing, and recognize translanguing as a vulnerable act. Ms. Trenton and I not only modeled and invited translanguing in the classroom, we negotiated norms with students that: 1) accepted students' initial reticence to share and translanguage; 2) acknowledged how sharing and translanguing in an English-dominant context involves being vulnerable; and 3) anticipated students' reactions to laugh when they heard unfamiliar languages for the first time. Ms. Trenton, the students, and I co-constructed the norm 'Respect our languages.' Students appropriated the norm as, 'We don't laugh when we hear new languages,' and they knew the classroom was a safe space for translanguing. My findings illustrate how to set norms to create a supportive context for translanguing in English-dominant classrooms.

Fifth, opportunities to present eBooks to the whole class provided students with an opportunity to publish translingual, culturally relevant, multimodal texts for an audience of their peers and teachers. We created a sustained structure and forum for translanguaging and sharing as part of the official curriculum, as students presented eBooks two or three times a week for a semester. Moreover, during eBook presentations, we signaled that translanguaging and sharing were central to whole group curricular activities, and students realized their cultural and linguistic resources had a valuable place in the curriculum. Students reflected on this understanding in their end-of-the-year interviews, like Angel who said he could share about “my culture, languages, family, what we do, things at our house” in Ms. Trenton’s literacy class. Taken together, these instructional features provide a practical guide for what a translingual instructional context looks, sounds, and feels like, and how to create a safe space for translanguaging and sharing in the curriculum.

Contributions

Through an examination of students’ translingual, multimodal, digital, family eBooks, participants’ translingual composing processes, and eBook event instructional features, this study provides new and needed insights into how to include families’ linguistic and cultural resources in the curriculum and make translingual instruction possible in an English-dominant classroom. The following paragraphs describe my study’s unique contributions to the literature.

First, my work contributes to a growing body of research on using digital tools to build on children’s multimodal composing practices, to learn about students’ resources, and to include families’ heritage languages and cultural experiences in the curriculum (Cummins et al., 2006; Martínez-Álvarez & Ghiso, 2014; Pacheco et al., 2017; Rowe & Miller, 2016; Taylor et al., 2008). In accord with previous research, I found that using digital cameras and tablets to

compose provided children, families, and teachers with a wider array of semiotic resources and tools to use to represent their heritage languages, families, interests, and cultural experiences (Martínez-Álvarez & Ghiso, 2014; Rowe et al., 2014). However, I have also extended this work to make several unique contributions to the literature. In prior work, there are only examples of researchers and teachers sending home cameras with students. In my study, I sent home tablets with students so that families could compose eBooks with digital photos, text, and voice recordings at home. When students brought back their tablets and presented home-composed eBooks, their peers and teachers could hear the sounds and cadences of students' languages and lives outside of school. Hearing students' family members speaking in their heritage languages through voice recordings provided a way for students and adults to develop awareness of families' multilingual communities and translingual practices. In addition to making home visible through digital photos, voice recordings made home audible in the classroom.

Furthermore, my research builds on previous studies of exchanging personalized, translingual texts across home and school boundaries (Al-Azami et al., 2010; Durán, 2016; Rowe & Fain, 2013; Smith & Riojas-Cortez, 2010). As families in my study wrote about home photos in heritage language journals, we learned about families' languages, even amidst script barriers, like when Abdi's dad contributed Somali translations for the teacher eBook. Moreover, as families wrote personalized, translingual messages in journals for their children to use in eBooks, students had an authentic purpose for, audience for, and model of translanguaging. Yet, there is little information in the literature on how teachers actually use translingual texts as part of instruction (Durán, 2016; Rowe & Fain, 2013). My study addresses this gap in the literature, and my findings show how Ms. Trenton used heritage language journal entries as a shared, curricular resource to support translingual composing in the classroom. Family-composed translingual texts

helped to make translingual instruction possible in this English-dominant, second grade classroom.

Moreover, my study provides much needed insights into a teacher's perspectives on translingual instruction in English-dominant schools. The majority of previous studies are researcher-driven, and there is little information on teachers' perspectives on translingual instruction and strategies for doing this work (Martínez-Álvarez & Ghiso, 2014). By collaborating with Ms. Trenton on study design and implementation, I learned about her perspectives on how translingual instruction fit in a Turnaround school. Moreover, I watched Ms. Trenton productively navigate tensions inherent in her English-dominant context in order to enact a translingual orientation to literacy. As the classroom teacher, Ms. Trenton had different responsibilities, roles, needs, and concerns from me as the researcher. Together, we negotiated how to make translingual home to school connections happen in her classroom, and what emerged was a practical guide for doing translingual instruction that reflected our solutions to issues that arose along the way.

Second, my work contributes to the literature on home to school connections by discussing the processes of how capital is constructed as valuable in schools. The current study builds on previous critiques of Bourdieu's conceptualization of human capital as deterministic, and I show how participants jointly construct what is considered valuable capital in a dynamic and fluid way. Moreover, I am pushing back on the way human capital theory is taken up in the home to school connections literature. Instead of a focus on increasing non-dominant families' and students' capital so that they can more successfully interact with a system that rewards dominant cultural expressions, my research shows how students, Ms. Trenton, and I disrupted

the status quo and transformed the classroom field by valuing families' linguistic and cultural resources as valuable capital during eBook activities.

Moreover, I answer Rios-Aguilar et al.'s (2011) call to investigate the processes by which funds of knowledge and cultural and linguistic resources become useful and beneficial to students in the classroom. We went beyond mere recognition of students' heritage languages, families, and cultural experiences as we participated in linguistic and cultural exchanges. As Ms. Trenton and I engaged in the process of learning all of students' languages, valued students' approximations, made our own approximations, and accepted students' feedback, we facilitated students' activation of their heritage language resources to meet the goals of teaching and learning peers and adults. Consequently, all participants, regardless of their varying linguistic proficiencies, could activate linguistic capital to meet these goals. This supports Canagarajah's (2015) premise that all speakers have basic translingual competence. Taken together, these findings provide much needed hopeful insight into how to create translingual instruction in English-dominant schools with linguistically diverse classrooms of students and teachers.

Third, the current study has compelling implications for practice, and contributes to the sparse research and practice-based literature on translingual instruction in English-dominant schools. Although previous research has shown the benefits of translingual collaboration among same-language peers (Iddings, 2009; Jiménez et al., 2015; Pacheco et al., 2017), few studies have examined the potentials of grouping linguistically diverse students (Martin-Beltrán, 2014). My findings suggest that collaborations among linguistically diverse peers are also powerful, as students teach each other about their languages. Also, although studies have described collaborative, translingual composing among students and researchers, there is little research on a primarily English-speaking classroom teacher taking up the role as a co-composer with

students. As a powerful social actor in the classroom, I found that Ms. Trenton's position as a co-composer provided students with a valuable purpose for translingual composing. Furthermore, through Ms. Trenton's participation at the composing table, we started the practice of using online tools such as translators and search engines to facilitate translingual composing. Using online tools to support translingual instruction is a unique contribution to the literature made by the current study.

Moreover, although research has shown that material, spatial, and embodied features play an active role in classroom literacy events (Kuby & Rucker, 2016; Rowe, 2008), studies on translanguaging instruction in English-dominant classrooms have not focused specifically on how these features support translingual practices. My study contributes much needed insights into how to arrange materials, space, and bodies in the classroom so that teachers and students are positioned as both language teachers and learners. My findings suggest that these embodied practices reflected and shaped an instructional context supportive of translanguaging and sharing, and they merit consideration while planning translingual instruction.

Finally, the current study provides a nuanced understanding of translanguaging as a vulnerable act, particularly within the context of English-dominant schools. Other researchers have described translanguaging as a politically charged act (García, 2014; Zapata & Laman, 2016), and I agree with that assessment. However, I think we also need to see translanguaging as a vulnerable act in order: 1) to understand why students might decline our invitations to translanguage (Brown, 2014; Pacheco et al., 2017; Rowe & Miller, 2016); and 2) to create norms to make a safe space for translanguaging in the classroom. Another unique contribution of my study is that I explored young students' perspectives on translanguaging in the classroom. Through our interviews and conversations, I learned that students were worried that their peers

would laugh at them when they used their heritage languages, and that teachers would disapprove. In response, we constructed explicit norms with students that acknowledged translanguaging as a vulnerable act and eased students' fears about using their heritage languages in the classroom. Although many studies recommend that teachers value students' heritage languages, my study actually provides explicit norms and steps to do this.

Directions for Future Research

Previous research has emphasized sending home cameras and using home photos as a way to learn about students' resources and include families' heritage languages and cultural experiences in the curriculum (Allen et al., 2002; Cummins et al., 2006; Martínez-Álvarez & Ghiso, 2014; Rowe & Miller, 2016; Taylor et al., 2008; Zapata & Laman, 2016). Moreover, researchers have explored using oral recordings of family stories and interviews in multimodal compositions (Louie & Davis-Welton, 2016; Pacheco et al., 2017). The current study extends this research by illuminating ways of providing families with opportunities to compose with digital photos, voice recordings, and print through sending home tablets. I found that featuring families' voices and images in eBooks was a powerful way to include them in the classroom community in our limited number of Home-composed eBooks. Although there is exciting potential involved with sending home tablets, more research is needed in this area to address the questions raised by the current study. How can we demonstrate for families the potentials of composing translingual, digital compositions? In addition to photos and voice recordings, how do children and families compose videos? How could families leverage the digital tools that they already have access to, such as cell phones and tablets, to create translingual, digital compositions that can be used in the classroom? What are ways that the classroom teacher could

create literacy, social studies, science, and math units by including families' languages and experiences through translingual, digital compositions?

Furthermore, researchers have documented how families often receive the message that conventional English is the only valuable learning goal at school (Murillo, 2012; Reyes, 2011), but they are willing to participate in translanguaging activities for school purposes (Alvarez, 2014). My study provides examples of family members contributing to translingual instructional materials and activities for classroom use. Moreover, I had email contact with four families who wanted electronic copies of their family eBooks and data from heritage language journal entries. Based on these contacts, family members responded positively to the project. However, more research is needed to understand families' perspectives on translingual instruction in English-dominant schools. How do families view translanguaging, in and out of school? What have been their experiences with using their heritage languages in English-dominant schools? How do they want to contribute to the curriculum? In order to build translingual home to school connections, families' perspectives on their potential contributions need to be explored.

Finally, researchers have engaged students and families in translingual literacy activities (Cummins et al., 2006; Martínez-Álvarez & Ghiso, 2014; Pacheco et al., 2017; Rowe & Miller, 2016; Taylor et al., 2008), but there is little research that shows how teachers have done this work (Zapata & Laman, 2016). The current study's findings provide insights into how a primarily English-speaking teacher participates in translingual instructional activities, but they also raise new questions about disrupting linguistic hierarchies in an English-dominant school. How can teachers like Ms. Trenton create and sustain translanguaging pedagogies without researcher support? How can translingual instruction extend beyond a single classroom? How could a translingual orientation be enacted throughout an entire school? What are the processes

of transforming the *school* field so that students like Angel know they can translanguage in their literacy class *and* their homeroom? Future research needs to focus on how to build translingual home to school connections at the school and even the district level so that students' and families' linguistic and cultural resources are valuable and useful across classrooms, grades, and schools.

Implications for Practice

The current study has implications for practices that promote the disruption of linguistic hierarchies in English-dominant classrooms through creating translingual home to school connections. My findings suggest practical ways that primarily English-speaking teachers can create translingual instructional activities with the support of families, even in English-dominant contexts. First, teachers can invite families to contribute to translingual literacy materials for classroom use through home photos, heritage language journals, and home-composed eBooks. Once content comes back to the school, teachers and students need opportunities to use the content during classroom literacy activities. For example, they can discuss home photos and use them to compose books for the classroom library. We asked students questions about their photos such as:

- What is happening in this photo?
- What did you want to show us?
- Why is that special to you?
- How would you say that in your heritage language?

Conversations about home photos provided entry points to learning about students' families, languages, and cultural experiences, inspired connections among students and teachers, and "broke down barriers" in the words of Ms. Trenton. Additionally, teachers can use heritage

language writing in journals as the basis for composing written messages in students' heritage languages in the classroom. Moreover, it is important that students have opportunities to publish translingual, family literacy materials during whole group time so that they see their languages, families, and experiences valued in the official curriculum.

Second, teachers can engage as language learners and co-composers with students in the classroom. Hopefully, my findings inspire teachers to ask their students, "How do you say that in your language?," and, "Will you teach me how to say that?" Teachers are powerful social actors in the classroom. When they make efforts to use students' heritage languages and model the process of saying words in a new language, teachers create a translingual instructional context. The implication is that teachers do not need to speak their students' heritage languages in order to implement translingual instructional activities. However, my findings suggest that it is important for teachers to be willing to learn students' languages and make approximations as part of instruction. As a result, they provide students with a valuable purpose for translanguaging and sharing—teach others. In turn, teachers facilitate linguistic and cultural exchanges as part of literacy instruction in English-dominant schools with multilingual classes.

Finally, findings from my study highlight the need to create explicit norms to make a safe space for translanguaging in English-dominant classrooms. I found that students were worried their peers would laugh at their heritage languages, and teachers would disapprove. In response, we constructed the norm 'Respect our languages,' and together we operationalized our norm by: 1) not laughing when we heard unfamiliar languages; 2) asking others to teach us words and phrases in their heritage languages; and 3) valuing heritage language approximations. Instead of discontinuing translingual eBook presentations because of students' laughter and fears, we recognized that translanguaging and sharing were valuable and vulnerable processes. The

implications for practice are that teachers prepare for a range of student reactions to translanguaging and sharing in the classroom, construct explicit norms with students to value translanguaging and sharing, and reinforce norms throughout the school year.

Conclusion

A growing body of work explores the possibilities of implementing translingual instructional activities in English-dominant schools with primarily English-speaking teachers and linguistically diverse classes (Jiménez et al., 2015a; Pacheco et al., 2017; Rowe & Miller, 2016; Zapata & Laman, 2016). In accord with this research, my study shows ways to promote translanguaging and sharing about families and cultural experiences through home and classroom translingual eBook composing and presenting activities. By including families' cultural and linguistic resources in instruction through translingual, digital, family eBooks, providing students with valuable purposes for translanguaging through teaching and learning heritage languages, and supporting translanguaging as a vulnerable act, we created a translingual instructional context.

Some of my participants' words continue to resonate with me as indications that we have come a long way on the path to building translingual home to school connections. I think about Abdi's first composing session when he asked me, "Why do you need my Somali language so much?" His question gave me the opportunity to place value on his heritage language as capital to teach peers and adults and also exchange for learning others' languages. I think about Celia's comment that it felt "awesome" to present her eBooks to the class because people got to know her through the pictures. Presenting eBooks provided students with a safe space to translanguage and share, have their heritage languages, families, and cultural experiences included as a valuable part of the curriculum, and feel affirmed and "awesome." Finally, I think about Ms.

Trenton's comment that she believed her students knew that she "valued their cultures," and they felt comfortable sharing about their experiences and languages because it was "not about accurately using Spanish, Arabic, Somali."

Ms. Trenton captured the essence of a philosophy supportive of translingual home to school connections when she said, "Your language is special about you...it's also a tool to increase learning." All of our children deserve to be in classrooms where their languages and experiences are treated as special and as tools for learning.

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APPENDIX A

Student Interview Questions

Student Interview Part 1: Questions to ask students while looking at their eBooks:

1. Did you write a title? How did you pick your title?
2. Why did you use that background?
3. Why did you put that color on this page?
4. What did you want to show about the person, character, object, or place on this page?
How?
5. What did you like to do best while making books—add photos, write, make sound recordings, or draw? Why?
6. What did you want each page to have on it?
7. What languages are in this book? Did anyone help you with any of the languages? Who?
How did they help?
8. Is there anything else you wanted to add to this book?
9. Did you put any of the same things in your book that you saw your friends put in their books? What?
10. If you were going to make another eBook, what would you put in it?

Student Interview Part 2: Questions to ask students in independent interviews:

1. What languages do you speak at home with your family and friends?
2. What languages do you speak at school with your teachers and friends?
3. When do you use Spanish/Somali at school? With whom? Why?
4. Do you like to use Spanish/Somali at school? Why or why not?
5. What did you like about making eBooks with the photos that you took at home? Was there anything that you didn't like? Why?
6. Did you show your eBooks to the whole class? How did you feel about showing your book the first time? How do you feel about showing books now?
7. What kinds of things did your friends and teachers learn about you and your family when you showed them your eBooks? What connections did your friends and teachers make to your eBooks?
8. Was there anything else about your family and house that you wanted to show the class but did not get to show them?
9. What have you taught your friends and teachers while making and showing eBooks?
10. What have your friends and teachers taught you while making and showing eBooks?

APPENDIX B

Teacher Interview Questions

1. How would you describe the eBook project to a colleague or teacher?
2. What was your favorite part about the project? What were some challenges?
3. If you were going to do the project again next year (without researcher support), what would you do the same/differently? What advice would you give a teacher trying to integrate students' home languages and cultures into the classroom in this way?
4. How do you see using kids' home languages during literacy instruction and learning about kids' lives outside of school as beneficial for your classroom learning and instruction? Does it ever hurt?
5. What did you learn about kids through their family eBooks? What do you think kids learned about you?
6. How did the kids' perceptions of your role/position in the classroom change over the course of family eBook composing? How did their perceptions of me change?
7. Did you notice changes in the classroom community? How kids related to one another? What they knew about each other, and how they invited each other to share and participate?
8. How does making eBooks and learning kids' home languages help YOU with teaching and supporting students?
9. If one of your administrators walked in and saw you speaking in kids' home languages or making eBooks, what would he/she say?
10. How do your experiences with learning language, living in a different country, and being in PROPEL this year shape your teaching of emergent bilinguals?

11. In your view, what is good literacy instruction? What does it look like?

12. Do you have a favorite home photo eBook? Why? What is your favorite memory of children sharing their eBooks?

13. How do you think kids view the use of their home languages in school? Is it different for different groups of kids? Did that change over the course of this year? How?

14. Did you notice changes in how students used their home languages in class? Changes in student writing? Changes in engagement?

APPENDIX C

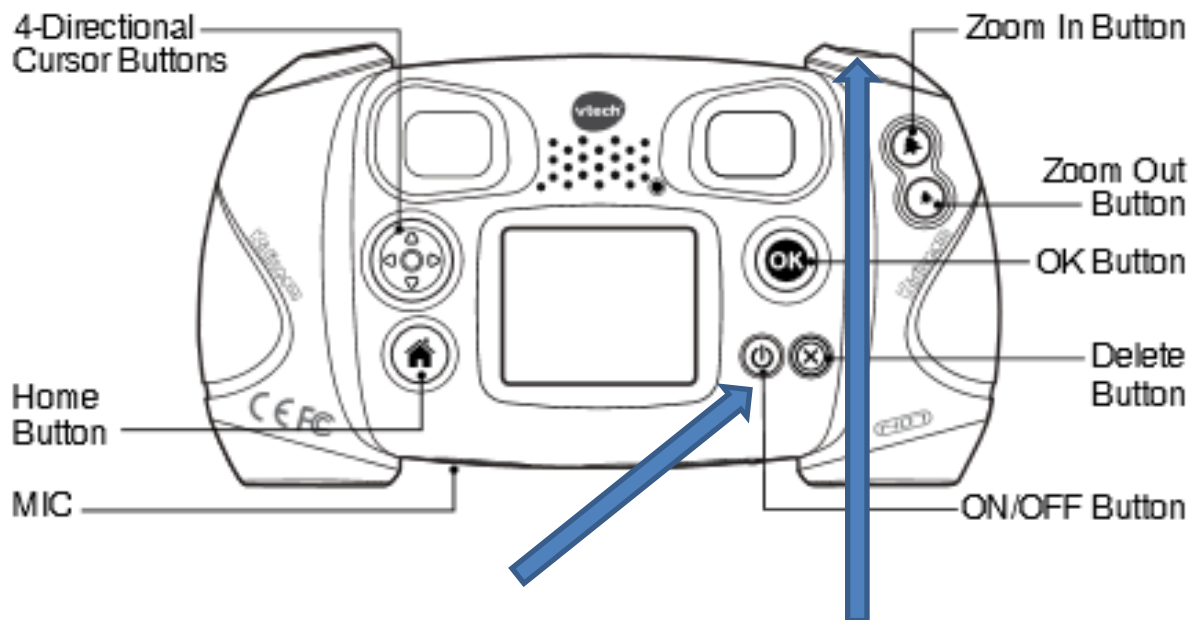
Camera Introduction










Thank you for your participation in the Home Photo eBook Project! This week your child is bringing home a kid digital camera. Please return the camera with your child to school on the day written on the outside of the camera bag.

While your family has the camera, please have your child and family members take photos of anything you all want to show about your experiences. We have included a dual language book that shows some examples of the types of events and places that you might want to photograph. We have also included a notebook where you and your child can write about the people, places, and events in the photos in your home language(s). Our goal is to make eBooks in your family's home language(s), so your notebook responses will support our goal.

When your child brings the camera back to school, he/she will make an eBook in his/her home language using his/her home photos and home language notebook entries. If you want a copy of your child's eBook, please write your email address on the information page in this bag and return it to the school. We will then email you a copy of your child's eBook.

Here are a few directions for operating the camera:



1. Turn on the camera by pressing the ON/OFF Button.
2. Take photos by pressing the shutter button on top of the camera.
3. To view photos you have taken, press the home button  . Then move the arrow  to the left until you reach the playback button  and press the OK Button  .
4. To delete a photo, press the delete button  and then touch 'YES' on the screen.
5. To take videos, press the home button  . Then move the arrow  until you reach the movies button  and press the OK Button  .

APPENDIX D


Tablet Introduction

Thank you for your participation in the Home Photo eBook Project! This week your child is bringing home a small tablet. Please return the tablet with your child to school on the day written on the outside of the tablet bag.

While your family has the tablet, please have your child and family members make an eBook with photos, print in your home language(s), and sound recordings of your voice reading each page. You can make a book about your family history, the countries that you are from, family holidays and events, or whatever you would like to show the class. We have included a dual language book that shows some examples of the types of events and places that you might want to show in your eBook. Our goal is to make eBooks in your family's home language(s) to share at school, and we will add your eBooks to our multilingual digital library.

When your child brings the tablet back to school, he/she will show the eBook to the class. If you want a copy of your child's eBook, please write your email address on the information page in this bag and return it to the school. We will then email you a copy of your child's eBook.

Here are a few directions for operating the tablet:



9mm

1. Turn the tablet on and off by pressing the power button.
2. Open the Book Creator App by pressing the App icon on the screen.
3. Start a new book by pressing the plus sign.
4. On each eBook page, press the plus sign and then add video, sound recordings, written text, photos, and typed text by pressing the symbol next to the word.
5. Add a new eBook page by pressing the arrow on the right side of the page.

