

Digital Literacy, Language, and Latinos: L1.4Word¹

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¹. We coin L1.4Word, a web-like term, to indicate the transformative potential of digital spaces in which Latino/a youth can create a relevant, hip, hybrid digital language to move their use of mother tongue literacy into the 21st century.

Abstract

This case study examines language opportunities and practices vis-à-vis digital literacies. Participants were 29 native Spanish speakers from grades one to seven in a South Texas colonia, or unincorporated settlement. Data sources were literacy logs and three sets of interviews. Using grounded theory for data analysis, we found participants did not have school instruction and assignments focused on Spanish or technology. Most had negative views about digital writing in Spanish and lacked confidence in L1 writing. We discuss digital literacy opportunities and practices in and out of school, dialogue and third space possibilities in code-switching, and heteroglossia, or socio-ideological, conflicting digital languages and literacies. Last, we coin the term L1.4Word to signify revaluing and reappropriating one's mother tongue literacy through digital tools to move the language forward.

Introduction

Which languages did Latino/a colonia children, participants in the present study, use when accessing digital literacies in and out of school? This question is important because Latinos are the fastest growing U.S. group (U.S. Census Bureau, 2011); most emergent bilinguals (García, Kleifgen, & Falchi, 2008) in the U.S.A. are native Spanish speakers (Batalova & McHugh, 2010) and U.S. born (Suárez, 2007). Also, researchers have not explored children's digital literacy preferences and practices vis-à-vis language in Texas colonias, which number at least 2,300, mostly along the Mexican border (Texas Secretary of State, 2010), and which constitute at least 500,000 people (Brenner, Coronado, & Solden, 2003). A colonia is an unincorporated settlement in the U.S. Southwest; thus, city services, such as police protection and utilities, are non-existent (U.S. Department of Housing and Urban Development, 2005). About 50% of colonia residents live below the poverty level (Brenner, Coronado, & Solden). Additionally, because emergent bilinguals receive scant literacy support in their first language (L1) in many U.S. schools (Gándara & Contreras, 2009), it is important to discover what language they use for digital literacy purposes away from school. Our question is also significant because of the dearth of research on internet use in languages beside English. In a review of language use and the Internet, Stein (2003) stated, "A large body of research is simply not represented: research that is not in English" (p. 162). This study also theorizes why 29 Texas colonia children of poverty (all L1Spanish speakers) used Spanish and English when accessing digital technology. Each child completed an open-ended log focusing on daily literacy practices and took part in at least one semi-structured interview. All data gathering took place in respondents' homes or at the same community center in their South Texas colonia.

Perspectives

Six theoretical frameworks inform this study: New Literacy Studies; language revitalization; dialogue; heteroglossia; third space; and social justice. Most researchers use one or two constructs to frame their investigations; however, all six frameworks in the present study complement and inform each other and highlight the transformative potentials of multiple perspectives. Next, our theoretical underpinnings inform the relationship between bilingualism, socially situated practices, and policies.

New Literacy Studies

Like New Literacy Studies scholars, we focus on participants' use of communication and information technologies in *and* out of school (Leu, O'Byrne, Zawlinski, McVerry & Everett-Cacopardo, 2009). According to O'Brien and Scharber (2008), digital literacies are "socially situated practices supported by skills, strategies, and stances that enable the representation and understanding of ideas using a range of modalities enabled by digital tools" (p. 66-67). Digital literacy tools include computers, information and communication technologies (ICTs), video games, and hand-held devices (Skudowitz, 2009). We include television (Bianculli, 1993) because it relates to participants' socially situated practices, or patterns of activity (Gee, 2000; Pahl & Rowsell, 2005).

Language Revitalization

Like Jiménez (2003), we believe a neglect of culturally diverse students' mother tongues and dialects cheats everyone. For the 21st century García and Kleifgen (2010) state: "All children, regardless of language background, need to develop bi/plurilingual abilities ... " An official neglect of the mother tongue, over time, can contribute to home language loss. Thus, a language shift framework enables us to comprehend how native-Spanish speakers can shift to English, the

dominant language, because of their experiences in schools, or high-powered spheres (Fishman, 2001). Similarly, language revitalization theory helps us to fathom how digital literacy use in low-powered spheres (e.g., in homes) can be helpful in not only reversing language shift (Fishman, 1990), but also in moving mother tongue literacy forward. Colonias constitute special sites to study language revitalization due to demographic characteristics (U.S. Census Bureau, 2010), and the constant mobility of border residents between U.S.A. and Mexico (Anderson & Gerber, 2007).

Dialogue

Related to the theoretical framework of language revitalization is dialogue, or multiple perspectives through language (Bakhtin, 1986). Revitalization of the L1 can occur in diasporic communities, or when people of the same ethnicity live as a bounded community away from their ancestral land (Conner, 1986). We posit this L1 revitalization is happening precisely because the English language is becoming problematic in high-powered spheres, such as schools, which serve predominately low-income Latinos who use their L1 in their community, or low-powered spheres. According to Bakhtin (1996) a language, such as English, undergoes “dialogization when it becomes relativized, de-privileged, aware of competing definitions for the same thing” (p. 427). Perhaps because the Spanish language is no longer valued in schools due to federal English-only education policies (U.S. Government Printing Office, 2011), Spanish can actually gain more popularity in low-power spheres and can be perceived as a challenge to hegemonic language education schooling practices. This appears to be what is happening nowadays with some Latino/a children’s resistance to school-related basic skills homework in English, which we call *papelería*. *Papelería* in Spanish can mean masses of papers, and this definition connotes mundane bureaucracy; we apply the term to school settings in which Latino/a

students of poverty have a school menu full of dull, decontextualized, test-preparation worksheets and benchmarks (Bussert-Webb, 2009a; Díaz & Bussert-Webb, 2013). Furthermore, dialogic theory relates to online collaboration because of the polyphonous, or multi-voiced nature of collaborative online learning (Koschmann, 1999).

Heteroglossia

Thus, Latino/a youth may not see *papelería* as relevant to their digital, hybridized worlds and may engage in heteroglossia, or socio-ideological choice in multilingual and dialectical juxtapositioning. Heteroglossia occurs as a hybrid utterance in which voices, dialects, beliefs, and contexts are juxtaposed. Heteroglossia is the language space in which centripetal (unifying) and centrifugal (decentralizing) forces collide, which counters monoglossia. Centripetal discourses are monoglossic because they tend to standardize language and close meanings and centrifugal forces open meanings (Bakhtin, 1996). The hybrid utterance is a passage employing only a single speaker—the author, for example—but one or more kinds of speech. Bakhtin believed the juxtaposition of the two different speeches brings with it contradictions and conflicts in belief systems:

The centripetal forces of the life of language, embodied in a “unitary language,” operate in the midst of heteroglossia. At any given moment of its evolution, language is stratified not only into linguistic dialects in the strict sense of the word ... but also into languages that are socio-ideological: languages of social groups, “professional” and “generic” languages, languages of generations and so forth... alongside verbalideological centralization and unification, the uninterrupted processes of decentralization and disunification go forward (p. 271-272).

Third Space

Similarly, third space theory, or hybridized, multi-voiced practices disrupts first and second space binaries (Gutiérrez, Rymes, & Larson, 1995). Centripetal forces could be conceived as official spaces and centrifugal forces as unofficial spaces. Third space opportunities, appearing between both spaces, provide prospects for hybridized languages and transformative practices. This third space can be digital translanguaging (García, 2009), or sense-making in authentic communicative contexts. Although translanguaging includes code-switching, García noted that emergent bilinguals may view the former as a single, coherent system for meaning-making. Thus, digital translanguaging can create L1.4Word. L1 connotes the first language and 4Word signifies the importance of mother tongue literacy for language revitalization. However, many U.S. born Latinos/as need help and confidence in developing Spanish literacy skills and knowledge to create this third space of transformation.

Social Justice

Although we perceive Latino/a children as intentional actors of their worlds (Merleau-Ponty, 1962) and position-takers (Bakhtin, 1996), we also acknowledge they are acted upon vis-à-vis U.S. language, literacy, and immigration policies, as well as No Child Left Behind (NCLB) legislation (U.S. Department of Education, 2002). Thus, bilingualism and biliteracy relate to social justice because we embrace children's home languages and discourses, or socially situated identities (Gee, 2008), to write back to totalizing discourses. People who use standard English in certain domains, but choose alternate languages or dialects in other digital forms, may do so to resist a monolingual America (Warshauer, 2000). Next, like García, Kleifgen, and Falchi (2008), we are deliberate in our reference to participants as emergent bilinguals (versus English language

learners): “When officials and educators ignore the bilingualism that these students can and often must develop through schooling in the United States, they perpetuate inequities in the education of these children” (p. 6).

Thus, when we combine New Literacy Studies, language revitalization, dialogue, heteroglossia, third space, and social justice – we realize how non-neutral digital technologies are (Jiménez, 2003), and in this non-neutrality, we see possibilities. Like Luke (2005), we believe digital literacies and translanguaging have the potential to counter hegemonic notions of literacy and language “for a more equitable redistribution of social goods, power, and capital” (p. xiii). This redistribution relates to power and change in societal structures vis-à-vis U.S. language, immigration and education policies. High-powered spheres and official spaces and low-powered spheres and unofficial spaces (Fishman, 2001) can blend into hybridized, transformative third spaces (Gutiérrez, Rymes, & Larson, 1995) to move L1.4Word. Also, like New Literacy Studies scholars (e.g., Barton & Hamilton, 1998; Gee, 2008; Leu, O’Byrne, Zawilinski, McVerry & Everett-Cacopardo, 2009; Street, 2003) and Bakhtin (1996), we perceive language and literacy practices as ideological and as contextualized.

Methods

This section focuses on the research site, participants, data gathering, data sources, and analysis for the three institutionally-approved data gathering phases.

Site

This study took place in an after-school tutorial agency and in the homes of participants, all in Esperanza, pseudonym for a South Texas colonia. With approximately 7,000 residents and over 50 years of existence, Esperanza is the oldest and largest U.S. colonia (U.S. Department of

Housing and Urban Development, 2005). Esperanza residents have an average per capita income of \$6,000 and 45% over age 24 have less than a ninth grade education (U.S. Census Bureau, 2010); an estimated 37% of Esperanza residents are foreign-born; 99% are Latino; 95% are of Mexican origin; and 97% speak Spanish at home. Despite these obstacles, Esperanza residents have community and family unity, which are important determinants of language revitalization (Fishman, 1990). Although some have accrued wealth, they do not leave because of relationships with neighbors (Bussert-Webb, 2011). Another strength is the importance community members place on education. Most Esperanza children attend Texas Education Agency (TEA) recognized or exemplary public school campuses; to have this classification a school must demonstrate above average attendance, retention rates, and results in state-mandated academic tests among all students (Long, 2010).

Participants

The 29 Latino/a children for all phases were 15 males and 14 females, ages six to 14, and in grades first through seven. All acquired Spanish as a first language; 23 attended elementary, or primary school, and six were enrolled in middle school. All participants (except one, in the first phase) attended the after-school tutorial agency. Thus, we collected data for all phases either in respondents' homes or at the tutorial center.

Data Gathering

Three participated in phase one between February 2009 and December 2010; they were part of Díaz's dissertation (2011). Phase two, in May 2010, involved 27 children (one of whom was in the first phase). Phase three, in May 2011, involved 13 children (all of whom were in phase two); unfortunately, many participants no longer attended the center so we could only contact about half of them for the last phase. All interviews lasted between 25 to 30 minutes and

were English and Spanish combinations, depending on respondents' preferences. We audio-taped and transcribed all interviews. Phases one and two consisted of structured interviews and phase three utilized a semi-structured approach. Participants' responses during phases one and two piqued our interest about the languages participants used while accessing digital media, so we dug deeper into this phenomenon by re-interviewing them in the third phase.

In phase two 27 participants completed a 24-hour literacy log. They received and completed a Spanish or English hard copy of the log based on their language of preference; some mixed languages when responding to the log questions. During the same phase, Díaz interviewed 26 children, but two friends or siblings at a time; we made this methodological decision because the children were part of an on-going tutoring and gardening program with a tight university schedule. Bussert-Webb's methods course and reciprocal service learning project (in which teacher candidates tutored and gardened with the children) lasted only three weeks every May. Technology and language responses from the first and second phase piqued our interest, so in the third phase, we combined these two areas and focused on the language the youth accessed while engaging in digital literacy. To avoid the methodological problem of a respondent possibly providing the same information as a peer, we conducted one-on-one interviews in the third phase.

Data Sources

Data sources were three sets of interviews, literacy logs (Bussert-Webb, 2009b), and participant observations. The open-ended 24-hour log, comprised of six questions, focused on children's self-reports of reading while: getting ready for school, during school, to and from school, for homework, and while using digital media. In the left column, participants wrote what

they read and did and in the right they wrote what language used during different parts of their day. The following table demonstrates the focus of each phase and sample interview questions.

Table 1: Phase, Focus, and Questions

Phase	Focus	Sample Interview Questions
One	Language maintenance and loss and biliteracy	<ul style="list-style-type: none">• Tell me about what you read in Spanish and in English.• Do you like to read in Spanish? Why or why not? Do you like to read in English? Why or why not?
Two	Print and digital literacies	<ul style="list-style-type: none">• This summer what do you plan to read?• What do you do on the computer?
Three	Languages used for digital literacies and perceptions	<ul style="list-style-type: none">• What language do you use for each type of technology? Why?• How do you feel about the ways you use technologies and the languages you use to access them?

In the last phase we also sought to determine interviewees' text-processing and purposes by conducting cell phone and internet think alouds (Damico & Baildon, 2007). The protocol was: "Here is a cell phone/computer. Please tell me what you're doing and your purposes." Follow-up questions pertained to where participants navigated and why.

Analysis

Data analysis consisted of looking for patterns in the data and was based on grounded theory (Glaser & Strauss, 1967). During the data analysis process, we read the transcripts repeatedly and took notes. As a result, several themes emerged, which we identified and categorized by making comparisons and looking for similarities across the data (Bogdan &

Biklin, 2007). Next, we selected and labeled some data as more significant than others by cycling back and forth within our theoretical framework (Barton & Hamilton, 1998). This section focused on the colonia where we conducted this grounded theory case study with children participants; the three phases consisted of interviews and a 24-hour literacy log.

Results

Findings are divided into three main sections: in-school contexts, language preferences, and out-of-school contexts.

School-related Digital and L1 Experiences

This section focuses on participants' dearth of school-related digital experiences, a test-preparation curriculum, and rare school opportunities to learn L1 reading and writing.

Paucity of academic digital experiences. Participants lacked digital experiences in school and for homework. We noticed that only one participant brought in a technology-related school project during the May 2010 service learning project. Few participants could recall any digital projects they did during school or for homework, also. A lack of technology integration is particularly marked in low-income urban schools because of the test preparation focus vis-à-vis NCLB (Henry, 2007; U.S. Department of Education, 2002). Furthermore, NCLB legislation has intensified a test-preparation focus, especially in schools serving predominately low-income Latino/a children (Gándara & Contreras, 2009).

Test preparation. Participants experienced mostly a discrete-skills curriculum to prepare them for high-stakes tests. When asked if she used the computers at the tutorial center, Cadamayo, 12, responded, "not anymore because I have a lot of [paper] homework." In reference to homework, some said they would like to have technology-based reading passages with comprehension questions to prepare them for the state-mandated standardized test, or the Texas

Assessment of Academic Knowledge and Skills (TAKS) during data gathering. Because of the paucity of technology-based school instruction and assignments and participants' experience with test-focused instruction (Díaz & Bussert-Webb, 2013), we were not surprised when Artista, seven, said she would like to have the following type of school experience:

Passages, like the stories for the TAKS test. I would like this. So I could use the computer. I like the TAKS passages 'cause I don't have to get any homework. Like when you take the TAKS, you don't get homework.

When asked what kinds of homework she received, Artista said, "Spelling and passages (for the TAKS) and sometimes we have to write sentences with the vocabulary." Artista's brother, PSP, a nine-year-old, said he did "homework, boring homework" at the tutorial center. Thus, participants may have grown tired of *papelería*, or countless worksheets and print-based test-preparation activities. Perhaps, at a primordial level, they have come to associate paper with school-related literacy practices. Unfortunately, it appears test-preparation and testing may shift to digital formats. Starting in 2012, all end-of-course Texas-mandated high school tests will be offered on paper and online (Texas Education Agency, n.d.). This does not mean students will be tested on locating, synthesizing, and evaluating online information (Leu, McVerry, et al., 2009). What it indicates, however, is high-stakes testing is becoming digitalized.

Little L1 instruction. Besides decontextualized discrete-skills homework and paper-forms of test-preparation, these children alongside the Mexican border said they received little curriculum and instruction related to reading or writing in Spanish, e.g., "in the school I learn only English" and "*Los libros de mi escuela están en inglés, las notas de la maestra están en inglés*" (The books at my school are in English; the teacher's notes are in English). It is difficult

to become biliterate if L1 instruction and materials are insufficient (Reyes, 2011). Also, several researchers over the last 40 years have found that teaching children of other languages to read in their mother tongue helps their reading achievement in English (Chuang, Joshi, & Dixon, 2012; Goldenberg, 2008). In summary, these school-related findings related to participants' reading and writing and authentic technology experiences.

Digital Language Preferences

This section builds upon the previous one and focuses on how the dearth of L1 instruction and materials influenced most participants to prefer reading and writing in English. Francisca, 13, said: "*Prefiero inglés que español. Pues no puedo en español porque está muy difícil; nunca me enseñaron a escribir en español*" (I prefer English more than Spanish. I cannot write in Spanish because it's harder and I was never taught to write in Spanish). Many respondents expressed reluctance to text or type in Spanish in informal contexts because of a lack of confidence and skills. Hermanito, 11, said, "Sometimes I text in English; it's better for me to spell. Like the word "because," is it *porque* or *por qué*?" After he typed in his email and password in *Facebook* during this laptop think aloud, Hermanito said, "See who's connected. Email them. Write them in English because it's better for me to spell." Chateo, 14, explained why he texted mostly in English: "I have more sentences. I have more things when I click." Francisca noted, "*Para mí, es más fácil hacerlo en inglés porque las palabras están más cortas*" (For me texting is easier in English because the words are shorter).

According to Wong-Fillmore (2000), many English emergent children in the U.S.A. receive this impression at school: "The home language is nothing; it has no value at all" and they believe "they must disavow the low status language spoken at home" (p. 208). In a seven-year investigation of Mexican-heritage immigrant and U.S.-born parents and their U.S.-born children,

respondents held consistently positive opinions about English because they perceived it more highly than Spanish (Pease-Alvarez, 2002). Lee's (2002) Korean-American college participants did want to develop their L1, but they had received inadequate L1 instruction at the primary and secondary school levels. It follows that if L1 instruction is limited, then children may not feel as confident or positive about reading and writing on paper or online. This section related to the children's digital language preferences.

Out-of-school Practices

This section focuses on participants' out-of-school: digital access and practices; translanguaging; interlocutor contexts; family influences; digital secrets; writing in low-powered spheres; using internet design features to gain L1 literacy and to resist English hegemony; television viewing; and perceptions of digital language use.

Digital access and practices. All participants reported playing games, mostly in English, with computers, *DSs*, *PSPs*, *Xboxs*, and cell phones. Most communicated with friends through *Facebook*, *Myspace*, and texting in both English and Spanish. Texting was also split between both languages, but participants in grades one, two, and three did not report texting. Next, despite living in one of the most economically disadvantaged U.S. communities for its size (U.S. Census Bureau, 2010), most respondents had home computers and Internet for non-academic purposes (Bussert-Webb & Díaz, 2012). Those who did not have the tools used design and redesign (Janks, 2010) by finding alternate access points, e.g., tools and equipment at the tutorial agency or in the homes of neighbors, family, and friends. The most popular websites mentioned were *Facebook*, *Myspace*, and sites with games. None mentioned using the Internet to find out about current events. This may be due to participants' ages, because the most popular website among

U.S. Latinos in May 2011 was *Univisión*, *Televisa*, *impreMedia*, and *Yahoo en español* were in the top 10 (Guskin & Mitchell, 2011).

Translanguaging. Participants reported translanguaging (García, 2009) while reading and writing digital texts. An example in reading comes from the laptop think aloud of Frank, 13: “Check my friends, like this: *Solicitudes de amistad*” (friend requests). He read aloud: “*La Sadgirl*” and smiled widely. The picture was of a pouty-faced, but pretty teen about Frank’s age, with waist-length black hair and puppy dog brown eyes. In Frank’s hybridized world, the juxtaposition of “*La Sadgirl*” was a clever use of Spanish-English translanguaging, a digital collapsing of two words and worlds, and visual and verbal irony because the pretty girl looked more sulky than sad. Also, Frank’s oral descriptions and navigations in *Facebook* and during gaming demonstrated that he made conscious decisions regarding Spanish and English digital practices. Warshauer (2000) also discusses hybrid ethnic and language identities of Latinos/as:

To the extent that a US Hispanic identity has emerged (or that national identities such as Mexican/Mexican-American have been preserved), it is once again largely due to language, with Latin American immigrants united by their use of either Spanish or “Spanglish” (p. 154).

In the following interchange, we can see Hermanito perceived translanguaging as part of his identity. Also, he switched between Spanish and English to facilitate communication:

Díaz: *¿Y qué piensas tú de las personas que mezclan los dos lenguajes? ¿Se te hace curioso, o estás acostumbrado?* (What do you think about mixing both languages? Do you find it unusual, or are you used to it?)

Hermanito: *No sé, pues yo hablo así* (I do not know, because I speak like that).

Díaz: *¿Y te das cuenta cuando lo haces?* (Do you realize when you are mixing both languages?).

Hermanito: *Sí, y lo hago pues no sé cómo decir la palabra en español* (Yes, and I do it when I do not know the word in Spanish).

This translanguaging is necessary for continuity in oral and written communication (Skiba, 1997). In another interview, Hermanito said, “I text with all the friends that know both, like Spanish and English. I text them in Spanish or sometimes in English.” Francisca said, “*También tengo Facebook en inglés y de vez en cuando en español*” (I have also *Facebook* in English and sometimes in Spanish). In the following interchange, Cain, 14, reported not just translanguaging, but enjoying doing so:

Díaz: What do you think about the people who mix both languages? Do you think it is okay?

Cain: Yes, we do it, too. It is cool.

Díaz: Why do you think it is cool? I would like to know how do you feel when you are switching so easily from one language to the other.

Cain: It feels weird. It’s like, “*Hola. ¿Qué onda?*” What’s up?

Díaz: Do you feel okay with that?

Cain: (Laughing) Yeah!

The “weird coolness” described by Cain when he and others translanguage is at the heart of heteroglossia and dialogue. This “weird coolness” is in juxtaposition and it demonstrates a tension between centripetal and centrifugal forces and between worldviews. Centripetal discourses centralize language, while centrifugal discourses are on the periphery; they diversify language and resist closure. Heteroglossia is the conflict between two or more languages within

an individual and her or his interlocutor and context. Thus, their writing, be it printed or digital texts, becomes dialogized with translanguaging: “It is from there that one must take the word, and make it one’s own” (Bakhtin, 1996, p. 294). Making the word one’s own in a socio-ideological context, for Cain and the other Latino/a participants, meant translanguaging, or a sense-making process that includes hybrid language use. Bakhtin stated, “After all, one’s own language is never a single language: in it there are always survivals of the past and a potential for other-languedness ...” (p. 66). Thus, heteroglossia and dialogue focus on context and struggle related to language uses and contexts.

Next, participants’ translanguaging represented a third language, a trilingualism, or a hybridized language for authentic communicative contexts. Although Bakhtin (1996) was referring to parody in literature when discussing bilingualism, the concept of translanguaging appears to apply: “This is an already fully developed, intentionally dialogized bilingual (and sometimes trilingual) hybrid” (p. 78). Bakhtin (1997) believed in “nonself-sufficiency” (p. 287), multiple voices, and dialogue. He opposed closed systems and single consciousnesses and he posited dialogue and context were essential to de-privilege any particular culture, language, or utterance. Biliteracy and bilingualism vis-à-vis digital literacies also relate to third space theory to break any first- and second space binaries. Written translanguaging online resembles face-to-face translanguaging (Hinrichs, 2006). Gutiérrez, Baquedano-López, & Tejada (1999) discussed hybrid language practices as opening up third space in their ethnographic study of the literacy practices of children and their teacher in a dual immersion elementary school classroom. Similarly, Bhatt (2008) discussed how Hindi translanguaging in English newspapers created a third space in which readers, writers, and speakers could reposition themselves.

Indeed, L1.4Word can help L1 speakers revalue and reappropriate their mother tongues through digital literacy. Although many parents of Latino/a children attempt to teach them print literacy skills in their home language (Reyes, 2011; Zhang, 2005), these efforts are lost, for the most part, when the children are told, explicitly or implicitly in schools, that Spanish literacy does not have value. According to Hornberger (2006), language revitalization “is not so much about bringing a language back, as bringing it forward!” (p. 281). Similarly, García and Kleifgen (2010) state that groups who have lost their language, tend to “recover bits and pieces of their existing ancestral language practices as they develop a bilingualism that continuously reaches back in order to move forward” (p. 42-43). Thus, L1.4Word has the potential to open up linguistic diversity for children in diasporic communities. Hurtado’s and Vega’s study (2004) suggests the “hybridity of bilingualism” allows for heritage languages to be retained. They examined the simultaneous phenomena of language shift from Spanish to English and Spanish maintenance, and found what they call “linguistic bands,” when two or more people speak a language together (p.147), which allows for speakers to continue to use Spanish after becoming dominant in English. They also suggest Spanish can have periods of dormancy in the lives of speakers who are in communities where Spanish is spoken and still be available for use in response to appropriate triggers. Bakhtin (1996) argued,

But unintentional, unconscious hybridization is one of the most important modes in the historical life and evolution of all languages. We may even say that language and languages change historically primarily by means of hybridization, by means of various ‘languages’ co-existing within the boundaries of a single dialect, a single national language, a single branch ...” (p. 359).

Next, Bakhtin (1997) theorized the idea of threshold to describe, in part, a person living between two worlds, or two spaces, and engaging in genuine dialogue where hegemonic conventions, e.g., standard English and standard Spanish, are broken. A threshold can be a place where two or more languages collide, as in translanguaging, in which Spanish and English are combined to create a hybrid language for making and sharing meaning. This can apply to Latino/a youth, living in the United States, and digital translanguaging “on the *boundary* between one’s own and someone else’s consciousness, on the *threshold*” (p. 287). In a home a threshold is between two rooms. A threshold, thus, be a space between two worlds, e.g., a digital tool, such as a cell phone, in a Spanish-dominant home, and this threshold can propel Latino/a youth to another realm of reality. Also, a digital threshold can also be conceptualized as a third space – alternative and transformative and not confined to time or place (Gee, 2011).

Interlocutor contexts. Participants’ digital language use often depended on the preferences of the interlocutor; participants texted or emailed in the dominant language of the receiver and the context. This relates to the communication accommodation theory (Giles & Ogay, 2007), in which people change their dialect or language to either emphasize or minimize differences between themselves and the interlocutor. For instance, Cadamayo stated: "When I'm texting I use English because most of my friends know more English than Spanish; I text in Spanish to a friend who lives in another part." Hermanito said he texted in both languages, depending on the language dominance of the receiver, “When I'm texting to friends that don't know Spanish, I text to them in English.” Cain expressed similar practices: “If they text me in Spanish, I text in Spanish; and the same with English.” Indeed, heteroglossia “insures the primacy of context over text” (Bakhtin, 1996, p. 428)

Paolillo (1996) found little mother tongue use in a study of a Usenet Newsgroup of Punjabis in the United Kingdom, Canada, and the United States. Paolillo attributed English dominance to the prevalence of non-fluent second and third language Punjabi speakers. Similarly, Androutsopoulos (2007) found German dominated in web-based discussion forums among Greeks, Persians, and Indians residing in Germany. Paolillo attributed the preponderance of German partly to language shift among second and third-generation immigrants.

Family influences. The digital influence of family members, particularly mothers, appeared to help participants maintain some Spanish; Dulce, seven, said she chatted online with her sister in Spanish, and Francisca said, “Texting *en español, lo hago sólo con mi mamá porque ella no entiende el inglés. Y a todos los demás es en inglés*” (Texting in Spanish, I do it only with my mom because she does not understand English. With the rest it’s in English). Francisca engaged in “... *Texting en inglés, con mis friends. Lo hago en inglés, pues ellos saben sólo inglés. A mi mamá en español, y a mis primos en inglés*” (Texting in English with my friends. I do it in English because they only know English. With my mom, in Spanish, and with my cousins in English). PrimeraComunion, 10, texted her mother in Spanish, but her friends in English: “*Sólo a mi mamá, me confundo en español porque mis amigas casi no hablan español*” (Only my mom. I get confused in Spanish because my friends hardly speak Spanish). The same was true for EsponjaBob, 12: “*I text en los dos. A mis amigos en inglés y a mi familia en español*” (I text in both. To my friends in English and to my family in Spanish). Indeed, family members are influential in shaping children's linguistic and cultural identities (Luo & Wiseman, 2000).

Participants appeared to be influenced by older siblings’ practices related to texting, gaming, and music, as well as their suggestions of websites, music, and games. The sister of

Flor, 13, recommended game websites, such as *videojuegos.com*, and famous Latino/a entertainers, such as Winson y Yandel, a Reggaeton duo from Puerto Rico - all in Spanish. Flor's sister was transmitting language and cultural understandings and was creating Flor's desire to read in Spanish (Fishman, 1990). Although it was encouraging that older, influential siblings reinforced the importance of Spanish, we are concerned their practices related to friendship versus interest-driven digital literacies (Warschauer & Matuchniak, 2010), and consumption versus creation (Attewell & Winston, 2003).

Next, digital technologies appeared to help participants to maintain family ties and identities in Mexico, from where most participants were. Years ago it may have been relevant for Latinos/as to write cards and letters to family members in other countries. Correspondences through traditional postal systems appear a thing of the past for participants, as none mentioned engaging in reading and writing cards and letters. Francisca said, "*Tengo e-mail y mando e-mail a mis friends, cousins, y a mis tías*" (I have email and I send email to my friends, cousins, and my aunts). The power in digital literacies relate to socio-historical and dialogical moments. Bakhtin (1996) stated, "The temporal model of the world changes radically: it becomes a world where there is no first word (no ideal word), and the final word has not yet been spoken" (p. 30).

Results indicate that Latino/a youth are using digital tools to move mother tongue literacy into the future, to create L1.4Word, or a relevant language for them. Also, within a Bakhtinian perspective of unfixed phenomena, our findings of L1.4Word can be relevant to participants' (possible) future children, who may continue to transform their mother tongue by emerging technologies. Nowadays Latino/a youth can instant message (IM) families, can see their loved ones' faces and hear them online inexpensively through *Skype* and *FaceTime*, and if they do send them a message, there is less time lag than through the paper postal system. Digital tools are

immediate, interactive, contextualized, and ever-changing. Latino/a youths' digital reading, writing, and visual images (the latter are also literacies) will constantly evolve in relation to socio-ideological and political contexts (Bakhtin, 1996).

Telephone calls and visits to Mexico, especially during holidays and summers, also helped to maintain mother tongue literacy and language. LuchaLibre, nine, and Abuela, eight, were still planning to spend their summer in Mexico, despite the recent violence there. However, with the increased dangers in Mexico, some families choose not to travel to Mexico as frequently and to forego summer vacations being immersed in the Spanish language and Mexican culture. Cho (2000) found second generation speakers' discomfort with native speakers, particularly during travel the home country, frequently motivated them to improve their L1 knowledge.

Guardado (2002) studied English dominant and bilingual Latino groups, both U.S. born, and found parents' concern for their children's Latino identity related to whether their children became English dominant or maintained Spanish. Zhang's study (2005) confirms parental L1 commitment as a key factor in children's language maintenance. Indeed, positive relationships with parents and affirmations of L1 use in the home influence L1 maintenance through the generations (Arriagada, 2005; Romero, Robinson, Haydel, Mendoza, & Killen, 2004). Also, cultural maintenance predicted adolescent ethnic language proficiency among Mexican, Vietnamese, and Armenian families (Phinney, Romero, Nava, & Huang, 2001). However, even though family dynamics and parents' L1 use are important for language maintenance among children, Hinton (1999) discovered Asian-descent college students still lost L1 fluency.

Digital secrets. Although participants' adult family members appeared important in shaping children's beliefs and practices, peers were also influential, especially for participating pre-adolescents and adolescents (Robertson & Simons, 2003). In their study of first, second, and

third generation Mexican Americans using surveys and interviews, Hurtado and Vega (2004) found language preference is influenced by peer groups and contact with L1 speakers. In the present study, participants preferred to text peers more than family members. PrimeraComunion said she texted Latino/a friends in English so her Spanish-dominant mother would not decipher messages deemed private: "(I text friends in) *inglés porque mi mamá no sabe leer el inglés*" (English because my mother does not know how to read in English). When asked if cell phone owners minded if participants texted in English and the cell phone owners did not read English, participants said the owners (mostly parents and older siblings) did not mind. In a study of second generation Chinese American adolescents, peers were the most important influential on language preference and L1 maintenance (Luo & Wiseman, 2000). Both Chinese-speaking and non-Chinese speaking peers were influential in U.S.-born children's use and retention of Chinese.

Digital use in high-powered and low-powered spheres. During a joint interview with Mayor, 13, and Hermanito, the brothers mentioned the language fluency of the interlocutor was not as important as the location from where Mayor and Hermanito texted or typed digital messages. Although they felt more comfortable writing electronically in Spanish from home, they said it did not bother them to read texts or emails in Spanish or English at home:

Díaz: *¿Y por qué lo haces en español? ¿Es porque tus amigos hablan sólo español?* (And why do you text in Spanish with your friends? Is it because your friends speak only Spanish?)

Hermanito: *Es que hago 'texting' desde mi casa, y como en casa hablo más español, entonces me siento más cómodo con el español.* (This is because I text from home. Since at home I speak more Spanish, I feel more comfortable to text in this language).

Other participants demarcated language use in high-powered spheres (e.g., English for school-related work) and in low-powered spheres (*Facebook* in Spanish to communicate with friends). Frank said: “The projects for school are in English and *Facebook* and stuff like that is in Spanish.” Also, during the first round of interviews, participants said they wrote peers in Spanish when the topics were about personal matters; however, they wrote peers in English when the topics related to school.

Digital features to improve L1 reading and writing skills. Although most respondents preferred to engage in digital literacy practices in English because they were not taught to read or write in Spanish, some, like Flor, were able to use graphics, inextricably linked to the Internet, to assist them in Spanish reading comprehension. For instance, during her think aloud, Flor showed Bussert-Webb a website in Spanish and said she looked at the pictures to assist her comprehension. The Internet was teaching Flor how to read in her mother tongue. Another example of the Internet teaching participants L1 literacy comes from Cadamayo. During her laptop think aloud, she began looking for the house where she had lived in Nuevo Leon, Mexico: “Ca-der-ey-ta, Nuevo Leon. That's where I lived. I can't spell it.” (She then attempts a spelling and the Internet performs an autocorrect.) “Ah, here it is!” Indeed, digital tools have the potential to teach people their first language through visual context clues and auto-correct features.

Smith (2006) explained that people learn to read by reading and that digital tools help us to learn to read and write through authentic contexts: “Computers help everyone write. And what helps writing helps and promotes reading” (p. 125). When an internet site has graphics that match the texts and when a search engine corrects the spelling of a city one is looking for, it is possible the Internet can help to contextualize literacy learning. However, people must have

exposure to these electronic and print sources in their mother tongue for L1.4Word. Thus, although the Internet first spread global English, it can also provide opportunities to challenge English language hegemony (Warshauer, 2000).

Some participants mentioned switching the language of games, social media, and cell phones so they could communicate in Spanish. Frank said, “*XBOX 360*, English. *PS3*, Spanish. *Call of Duty Block Ups*, in Spanish and English. I play it in English and I put it for my brother in Spanish.” Frank’s quote demonstrates he knew how to change the game language. During his laptop think aloud, Frank stated: “I go to the start button and I go to the Internet and I put *Facebook*.” After typing his Hotmail username and password, he went to “*notificaciones*” (notifications). When Bussert-Webb remarked about Frank traversing in a Spanish-only site, Frank showed her the bottom button where he said he could change *Facebook* to any language.

Also, EsponjaBob showed Bussert-Webb how to change her cell phone settings to Spanish during the think aloud part of the interview. With her own cell phone, EsponjaBob said, “*Toco aquí. Busco mis contactos. Le pongo así. Y luego empiezo a escribir en español*” (I touch here. I look for my contacts. I put it like this. And then I begin to write in Spanish). We interpret Frank’s and EsponjaBob’s maneuvering away from English as their way of talking back to official language practices, perhaps the ones in schools, where they had spent at least seven academic years. The claim that digital technologies mask differences related to race, gender, class, and ethnicity is unfounded (Jiménez, 2003). However, some digital technologies have the potential to challenge power relationships. Switching a social network site and cell phone settings to one’s mother tongue is one example. Jiménez stated that this is nothing extraordinary in many parts of the world, but it is in a country (such as the United States) where many in power view the bilingualism of low-income culturally diverse populations “with suspicion” (p. 127).

Power relationships and hegemonic language practices are hard to change, however. In a newsgroup study, Paolillo (1996) found people of Punjabi descent only used Punjabi for jokes and greetings; he posited that little Internet use in Punjabi related to users having to type their mother tongue in Roman characters. In fact, early planners conceptualized the Internet from a monolingual, American worldview. Danet and Herring (2007) explained that the American Standard Code for Information Interchange (ASCII) created in the 1960s, had graphical characters based on the Roman alphabet and English language sounds: “ASCII character set has privileged English online” (p. 9). Before 2004, when Unicode 4.1.0 with 50 scripts was introduced to accommodate more languages, internet users in non-Roman languages resorted to Romanization and numbers to provide tone. U.S. internet users have been decreasing in proportion to other world-wide users. In 1985, these users represented 90% of the world population, in 2010 they comprised 12.5%, and in 2015 they are expected to represent 10%. China and India are among the biggest populations of internet users (Computer Industry Almanac, n.d.).

Although Frank and other participants could, and did, switch internet social network sites, games, and cell phone settings to Spanish, others may not know about this option and may be reluctant to type in Spanish. They may not know what keys to push to create Spanish accent marks and other diacritic marks, such as: *ç*, *í*, and *ñ*, and may be corrected constantly by the English auto-correct. For instance, when we text in Spanish, or type in the Internet in Spanish, it can be frustrating and time-consuming if either tool’s setting is in English.

TV viewing. Television viewing was in both languages, depending on the program. Ten (37%) watched TV in English, seven (26%) in Spanish, and two (7%) in both languages.

Although their TV viewing was about split in both languages, we wonder if this was because of

parents and other adult members living in their homes preferred Spanish-language programs. Also, in terms of the content of what they watched, *telenovelas*, or soap operas, and the news were in Spanish. This may be because of adult family members wishing to apprise themselves of Mexican current events and because of the custom of watching Mexican soap operas. In this particular colonia, several families may live in one home to share costs. In English participants watched cartoons (e.g., *Dora the Explorer*, *Pokémon*, and *Sponge Bob*) and other programs such as the *Good Morning America*, a news and entertainment program, and the *George López* comedy show about a Latino family in Los Angeles, California. In Spanish they watched news programs, some cartoons, and soap operas. English-speaking Latinos still watch Spanish-language TV; about 25% of Latinos who speak mostly English at home, and 40% who speak mostly Spanish, watch between one and three hours of Spanish-language TV daily (Guskin & Mitchell, 2011).

Participants, such as Flor, tended to watch TV in Spanish with their mothers. Although Flor said she loved going to the tutorial center, she prioritized time spent with her mother watching a Spanish-language soap opera. Flor said she savored watching this Mexican TV show with her Spanish-dominant mother. In fact, she did not come to the tutorial center until their program was over; this indicated that Flor connected this Spanish-language program to her mother and to her Mexican heritage (Gándara & Contreras, 2009). The cultural and family connections were apparent when Flor described the program, which appeared on “canal 19, *El canal de las estrellas*” (channel 19, The Channel of the Stars): “*In la rosa de Guadalupe* (the Rose of Guadalupe) the kids talk about problems and someone asks Guadalupe to help them and she helps them. Mom watches it with me.” The Virgin of Guadalupe is the Roman Catholic icon in Mexico for the Virgin Mary, Mother of Jesus. The use of *Rose* in the series title is a reference

to roses that spilled out of Juan Diego's blanket, so he, a poor peasant man, could prove to an incredulous bishop that the Virgin Mary appeared to him (Juan Diego) in the mountains. *La Virgen de Guadalupe* is also a national symbol of Mexico (Arizona Adult Literacy and Technology Resource Center, n.d.). In a randomized national survey of 1,200 Latinos conducted by the Pew Research Center, 66% of Latino Catholics said religion was very important in their lives (Taylor, López, Martínez, & Velasco, 2012); hence, religion is also linked to identity.

Flor was so committed to watching the regularly scheduled *telenovela* with her mother that she did not come to the center, which demonstrated a close bond, a shared tradition, and the importance of the Mexican culture and Spanish language in Flor's out-of-school life. As mentioned, mothers play critical roles in L1 maintenance because when they use the L1 to interact with their children, they help their children to develop their Spanish-speaking and Latino/a identities (Kondo, 1997). Mother-child relationships are significant factors in children's L1 use, proclivities, and proficiencies (Luo & Wiseman, 2000). Similarly, in a 1988 National Education Longitudinal Study (NELS) study of 2,736 first, second, and third generation Latino adolescents, Arriagada (2005) found family context and Spanish language use facilitated Spanish proficiency among youth; these contexts were Spanish spoken at home, close parental relationships, and intact families.

Flor also described acting as language broker (Morales & Hanson, 2005) for her Spanish-dominant mother when they watched English programs together: "I read *letras en la tele y se las explico a mi mamá*" (I read subtitles on the TV and I explain them to my mom). Other participants mentioned translating for their parents if the television content was in English. Factors related to L1 literacy and "defying" the three-generation model, include language brokering, or mediating between two languages (Tse, 2001).

Participants' views of digital language use. When asked how they felt about not using Spanish more with digital literacies, all said they were fine with the situation, which saddened us; some even demonstrated a disdain for their mother tongues. Artista said she even felt good about her language choices while accessing the Internet because she did not understand Spanish. Deportes, 10, said, "*También prefiero leer en inglés*" (Also, I prefer to read in English). Because language is so closely tied to identity (Fishman, 1990), participants who reject Spanish reject part of who they are. In a study of Mexican, Vietnamese, and Armenian adolescents and families, Phinney, Romero, Nava, and Huang (2001) found ethnic language proficiency and in-group peer interaction predicted ethnic identity across all groups, and parental cultural maintenance predicted adolescent ethnic language proficiency. This does not mean a dualism, e.g., either a Latino or European ethnic identity, or a Spanish or English language identity. In her study of Korean-American college students in a Korean language class, Jo (2001) found use of English and Korean, and knowledge of both cultures, constituted a third space for the diasporic participants. In summary, this section related to the children's out-of-school digital access and practices.

Conclusion

The first major conclusion relates to structural inequalities in the children's inauthentic digital and Spanish literacy experiences related to school. The second conclusion focuses on participants' language preferences, and the third concentrates on the context in which participants used Spanish.

Systemic Inequalities

Participants' language use while accessing digital literacies in school mirrored systemic inequalities relating to schooling and language policies. Indeed, a lack of digital integration

(Henry, 2007) and a testing-focused curriculum (Gándara & Contreras, 2009), are more marked in schools serving predominately culturally diverse children of poverty. Although Esperanza children live just 15 minutes from Mexico, native language resources and opportunities are limited. Most participants did not receive much L1 instruction in school or for homework. Thus, participants' lack of technology use in Spanish could be related to a void in school-related technology use. Indeed, when we asked participants how they used technology during school and for school-related homework, none said they used technology on a regular basis related to school; the only occasions related to *Accelerated Reader* (AR) tests, a program in which children read books and take tests on them for points and prizes. This lack of technology integration is connected to NCLB and the requirements teachers have to prepare students for high-stakes tests not related to critical digital reading (Leu, McVerry, et al., 2009; Leu, O'Bryne, Zawlinski, McVerry & Everett-Cacopardo, 2009; U.S. Department of Education, 2002).

Language Preferences

Although all participants were Latino/a and native Spanish speakers, few expressed confidence in engaging in technology in Spanish and most said they were more comfortable writing electronically. Also, some said they preferred English over Spanish for engaging in digital technology, which is difficult to understand in a community where mostly everybody speaks Spanish as a first language. Yet, perhaps because of their school-related language experiences, few respondents demonstrated a close connection between literacy practices and Spanish-language identity or between Spanish language use and deep emotions (González, 2001; Hull & Schultz, 2001).

Our findings concerning participants' L2 preferences do not appear to correspond with other studies about L1 beliefs, however. In a Pew Research Center study of 1,220 randomly

selected Latinos in 50 states, participants expressed a strong, shared connection to the Spanish language (Taylor, López, Martínez, & Velasco, 2012). Over 80% of adult participants in the National Survey of Latinos (NSL) said they spoke Spanish, and almost all (95%) said it is very important for future generations to continue to do so. Other studies demonstrate that second and third generation Latinos wish to maintain Spanish (Rivera-Mills, 2001), U.S.-born Korean Americans and Chinese Americans want to sustain their culture and language (Lee, 2002), and Armenian-born and U.S. born Armenian children had closer relationships with the Armenian community than Armenian-born children (Imbens-Bailey, 1996). Other researchers have found that American-born speakers of other languages may have a stronger desire to keep the heritage language and culture than those born abroad (Lee, 2002; Pease-Alvarez, 2002). Indeed, these studies focus on language beliefs of L1 speakers, and youths' L1 beliefs are the most important factors in language maintenance or loss (Portes & Schauffler, 1994).

However, desire is half of the language revitalization battle; transmissibility is equally important (Fishman, 1990). If one cannot speak, read, write, or understand spoken language, s/he cannot pass it on. Because many participants lacked confidence and skills in digital reading and writing, schools could help them to enhance their biliteracy skills and could foster the positive school-home interactions necessary for biliteracy development (Reyes, 2006). Also, practices are just as important as beliefs, and the combination of both creates praxis, or being in sync with one's beliefs and practices in order to transform the world (Freire, 1986). Citing eight different studies, Suárez (2007) noted, "most studies of long-term heritage language maintenance conclude that the shift to English, and the accompanying loss of the heritage language, remain the norm" (p. 28). Given what *really* takes place in terms of long-term language maintenance,

some of the contradictory studies begin to make sense; for instance, of U.S.-born Latinos, 51% were English dominant (Taylor, López, Martínez, & Velasco, 2012).

That nearly half of the U.S.-born Latinos were more comfortable with English than their mother tongue shows a language shift. Next, about 90% felt that Latino immigrants needed to learn English to succeed in the U.S.A. Results in the present study indicate that English may be seen as the language of power in Esperanza, and that poverty is a crucial factor in language shift, as speakers of any language tend to identify themselves with the most socioeconomically prestigious language (Batibo, 2009). Unfortunately, Spanish is often characterized as the language of recent immigrants, and a language of poverty (García & Mason, 2009). Warshauer (2000) noted, “A Spanish-language-based identity remains important for a certain section of Latin American immigrants, while a faith in English immersion as a vehicle to American middle-class life overrides that identity for others” (p. 154).

Context of L1 Use

Participants did use Spanish outside of school in these instances: Language preference of the receivers, the association between comfortable home settings and Spanish, influence of Spanish-dominant mothers, and language brokering for parents during TV viewing. Even the parents of adolescent participants still had roles in language maintenance. It is possible Erickson, a European-American, may have created an adolescent peer pressure theory (Erickson, 1968) that does not apply to all cultures. Although we found that peers influenced participants’ use of Spanish, we also discovered that respondents savored watching television with their mothers in Spanish. In Díaz’s study in the same Latino community (2011), she found that participating children watched TV in English more with siblings, but in Spanish more with their mothers. Also, the youths in our study were more likely to text in Spanish more often in their homes,

regardless of language of preference of interlocutors. They said this was because they felt more comfortable texting in the language embracing them at home. Indeed, familism, or structural settings in which people with different activities and interests are bound together, were important contexts for our participants (Zinn, 1982). Given our Bakhtinian perspectives, it would be impossible to separate these contexts from our findings. In summary, we found that participants faced several school-related inequalities in technology and Spanish use, that they preferred communicating in English, and that they tended to use Spanish more at home.

Implications

Many Latino/a youth will one day be parents and grandparents. Some will communicate with their offspring exclusively in English, and the loss of Spanish spoken at home, over the generations, may lead to a language shift (Fishman 2001). Thus, parents should be empowered to create a culture that reflects the importance of being bilingual and biliterate. Culturally diverse children and families and teachers of emergent bilinguals need to understand that learning to read in the first language helps English reading achievement (Chuang, Joshi, & Dixon, 2012; Goldenberg, 2008). Fishman (1990) stated that complete language revitalization is easier if schools teach the language formally, but that “intergenerational transmission linkages” (p. 100) are the most important. These intergenerational linkages could be strengthened if families knew that L1 reading assists L2 reading.

Indeed, biliteracy is closely tied to home language maintenance in future generations. However, Díaz (2011) found many Esperanza residents lack biliteracy. If people do not read and write well in their L1, the next generation will be less biliterate (Pucci, 2000). Languages with literacy traditions have a better chance of long-term survival than languages with only oral traditions (Anonby, 1999; García, Morín & Rivera, 2001). As scholars interested in social

justice, we ponder possibilities. Native language resources and opportunities could be made available for Esperanza children and participants could learn about challenging video games in Spanish, could be taught to change browsers or URLs to Spanish, and could be shown Spanish websites, such as <http://www.google.com.mx/>. They could also receive challenging technology-based class work and homework in Spanish to develop their academic Spanish language. The tutorial center, with the help of Spanish-proficient preservice teachers at the local university, could help in Spanish digital literacy practices, also. Indeed, L1 literacy is a community effort (Van Broekhuizen, n.d.). Yet, it is also important for classroom teachers to affirm and build upon the translanguaging practices and skills of emergent bilingual youth and to help them with sense-making, e.g., finding web-based resources in the L1, reading in the L1 and synthesizing in the L2, and discussing L1 and L2 cognates (García & Kleifgen, 2010). By engaging in these transformative practices, the third space of languaging in out-of-school contexts undergoes another iteration to become the third space of languaging in schools.

In terms of digital practices and language, “Wherever multilingualism exists, language choice becomes an issue. Language choice online depends on the technological, sociocultural, and political context” (Danet & Herring, 2007, p. 21). This context, and even language revitalization, can be shaped by the media. Relocalization occurs when large media companies must shape their products for local contexts, e.g., CNN in Hindi and Spanish to compete with regional media giants (Warshauer, 2000). *Univisión*, the largest Spanish-language network by far, is still growing, reaching audience sizes that compete with the three major English-language broadcast networks (*CBS*, *ABC*, and *NBC*). *Univisión* announced the launch of a 24-hour Spanish-language news station (Guskin & Mitchell, 2011). This is part of L1.4Word. According

to Warshauer, “People will fight to maintain their language when they see it as not only an important part of their grandparents' past, but also of their own future” (p. 167).

Language revitalization cannot happen through outsiders. Instead, L1 survival depends on will, or attitudes and values of heritage language speakers, as well as transmission, or families' values, practices, and skills in passing on the mother tongue (Fishman, 1990). Transmission has occurred through closely-knit communities, such as Esperanza, and this colonia's unity cannot be overlooked for future language maintenance.

In Hawaii, communities are experimenting with new media, e.g., electronic bulletin boards, to assist in L1 transmission (Warshauer, 2001). Even though Latinos do not use the Internet as much as other Americans, there is growth. Also, bilingual and English-dominant Latinos/as are online more than those who are Spanish-dominant (Guskin & Mitchell, 2011). Latinos and European-Americans with shared socioeconomic backgrounds have similar usage patterns. Furthermore, U.S.-born Latinos and bilingual and English-dominant Latinos are more likely to be digitally-attuned than Spanish-dominant Latinos. English-dominant and bilingual Latinos are significantly more likely than Spanish-dominant Latinos to have a cell phone, have a home internet connection, have home broadband access, or use the Internet. However, Spanish-dominant internet use has increased from 36% in 2009 to 47% in 2010 (Guskin & Mitchell). Warshauer (2000) stated, “... Internet contact with Latin America is creating opportunities for language-based identity formation among US Hispanics” (p. 168). Success in the 21st century will be measured by all people's abilities to use multiple literacies, languages, and technologies (García & Kleifgen, 2010). García & Menken (2006) concluded, “We must look for ways of being in the borderlands with language minority students, and so increase more authentic

interaction and heteroglossia ... so all voices are heard, thus creating a 'third space' for Latino students in U.S. schools" (p. 177).

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