Language and Education

Multilingual literacies in transnational digitally mediated contexts: an exploratory study of immigrant teens in the United States

Wan Shun Eva Lam [a]; Enid Rosario-Ramos [a]

[a] School of Education and Social Policy, Northwestern University, Evanston, Illinois, USA

PLEASE SCROLL DOWN FOR ARTICLE

Multilingual literacies in transnational digitally mediated contexts: an exploratory study of immigrant teens in the United States

Wan Shun Eva Lam* and Enid Rosario-Ramos

School of Education and Social Policy, Northwestern University, Evanston, Illinois, USA

This study explores the literacy practices that are involved in transnational social and information networking among youths of immigrant backgrounds in the United States. In particular, it investigates the ways in which young migrants of diverse national origins in the United States are utilising digital media to organise social relationships with friends and families, and engage with news and media products across the United States and their native countries. Based on results of interviews with 35 adolescents of diverse national origins, and survey data with a larger group of youths, this paper shows that digital media have become major tools and avenues for these young people to maintain and develop relations with people, media, and events across territorial boundaries. Within their digital networks, the youths mobilise multiple languages to conduct interpersonal relationships and seek out ideas and information from various sources in their 'home' and 'host' societies, and sometimes across a larger diaspora. We suggest that such literacy practices of a transnational scope provide a basis for re-assessing our understanding of multilingualism as both community and transnational resources and envisioning societal education that recognises and leverages such transnational resources in the literacy education of our young people.

Keywords: adolescents; cultural diversity; digital literacy; language minority students; minority language; multilingual education

'[The computer is] so important . . . cuz in the computer, I can see something, news, talk with my friends, learn something about Mexico, and what's happening in the city where I lived'. (Emanuel, 15 years old)

'The friends that are here, you see them every day and talk to them, and then the people who are in India, you don't see them, you just talk to them. Indian friends you don't see them every day, it makes you talk more and more'. (Dhatri, 17 years old)

Dhatri, Emanuel and other adolescents who had been living in the United States for various periods of time were among participants in our research study whose social relationships, media use and information-seeking behaviours traverse multiple geographical territories. They 'talked' to friends and family via instant messaging and e-mail, accessed news web sites and internet portals based in different countries, participated in chatrooms that include visitors from other parts of the world and obtained movies, music and other resources for their hobbies on the net. When growing up in a globalising world meets growing up in a digital world, what kinds of literacies do adolescent children of migrants develop to engage with our global conditions of mass electronic mediation and transnational movement of people?

---

*Corresponding author. *Email: evalam@northwestern.edu

This research study explores the literacy practices that are involved as young migrants use the internet to engage in forms of social networking and media and informational activities across their countries of origin and settlement. Based on results of interviews with 35 adolescents of diverse national origins, and survey data with a larger group of youths, this study shows that digital media have become major tools and avenues for these young people to maintain and develop relations with people, media and events across territorial boundaries. Within their digital networks, the youths mobilise multiple languages to conduct inter-personal relationships and seek out media information from various sources in their 'home' and 'host' societies, and sometimes across a larger diaspora. The youths' literacy practices situate them in cross-border circulations of news and ideas where they are exposed to social experiences and political viewpoints that are not confined to one single social system. We suggest that such literacy practices of a transnational scope provide a basis for re-assessing our understanding of multilingualism as both community and transnational resources and envisioning societal education that recognises and leverages such transnational resources in the literacy education of our young people.

Background

Multilingual literacies in transnational context

An accumulating body of research that examine multilingual literacy practices in linguistic minority communities has revealed the complex communicative repertoires, language resources and diverse range and functions of home and community-literacy practices that are often outside of the purview and sanction of official institutions such as schools (e.g. Cruickshank 2006; Farr 1994, 2005; Gregory and Williams 2000; Gregory, Long, and Volk 2004; Guerra 1998; Hamilton, Barton, and Ivanic 1994; Kenner 2004; Martin-Jones and Jones 2000; Moll et al. 1992; Saxena 1994, 2000). The complex ways in which families and communities negotiate uses of and cultivate competence in both dominant societal language(s) and languages of their cultural inheritance allow them to transmit valuable knowledge across generations, conduct economic activities within ethnically differentiated job markets, maintain religious affiliations and identities and engage in communal activities and activism, among other practices that are integral to the functioning and well-being of their families and communities. Yet, although there has been recognition that many of the families studied maintain transnational connections and kinship ties with people in their countries of origin or a larger diaspora (Martin-Jones and Jones 2000), the majority of the research literature has focused on analysis of multilingualism and literacy practices at the family or community level.

Saxena's (1994, 2000) research of the language and literacy practices of Punjabi speakers in West London (Britain) in the late 1980s to mid-1990s stands as one of the pioneering studies that examined issues of language attitude, choice and maintenance among immigrant families in relation to their migratory histories and transnational ties to their places of origin. He found that the ways in which Punjabi migrants positioned themselves in relation to different language choices (Punjabi, Hindi, Urdu) and script choices (Gurmukhi, Devangari, and the Perso-Arabic script) for usage and teaching the next generation were strongly influenced by their cultural and religious roots in their place of origin, their diasporic connection and the religio-political conflicts that took place in India at different points in time. Saxena's research serves to illustrate the role of what some migration scholars have called 'transnational social fields' (Basch, Schiller, and Blanc 1994; Levitt and Schiller 2004) in shaping and fostering particular language and literacy practices and dispositions.

Introduced by Basch, Schiller, and Blanc (1994, 7), the term 'transnational social fields' is used to describe the 'multi-stranded social relations' linking places of origin and settlement, within which 'transmigrants take actions, make decisions and develop subjectivities and identities'. These cross-border networks of relationships are created and sustained through processes of migration and affect the ways in which ideas, practices and resources are structured and exchanged (Levitt and Schiller 2004). Transnational exchanges are manifested in a range of social fields involving personal relationships and kinship ties, media or information networks, economic and material exchanges (in the form of remittances and exchange of material goods), religious practices and politics (e.g. Kennedy and Roudometof 2002; Levitt and Schiller 2004; Levitt and Jaworsky 2007; Smith 2003; Vertovec 2003). Often with these transnational fields of relationships and exchanges, people are exposed to and have to negotiate social expectations, cultural values and patterns of human interaction that are not confined to one societal system.

While Saxena's (1994, 2000) study illuminates the ways in which the larger socio-political field of transnational relations affects language values and literacy practices at the community level, a decade long research conducted by Marcia Farr and her colleagues with a transnational community of Mexican immigrants in Chicago (United States) from late 1980s to late 1990s reveals how oral and written language is used in the actual negotiation of social relationships across geographical and national borders (Farr 1994, 2006; Farr and Guerra 1995; Guerra 1998). In their research, Farr and Guerra showed that the use of Spanish and particular rhetorical practices and verbal styles in the speech and writing of members of the community were reinforced by the steady inflow of new immigrants and back-and-forth movement of these community members between Chicago and their village of origin in Mexico. The relatively close proximity between the two 'home fronts' (Guerra 1998, 9), economic uncertainty and close social and emotional ties between families created conditions for the fostering and maintenance of a close-knit transnational social field that involved active negotiation of inter-personal relationships among family members and friends on both sides of the border. It was within such inter-personal communication and negotiations that particular language and literacy practices were maintained and affirmed (Farr 2006; Guerra 1998).

More recently, Rubinstein-Ávila's (2007) case portrait of a teenage Dominican immigrant in the United States also reveals how the girl's transnational affiliation affects her literacy practices surrounding the choice of texts (books that relate to the Dominican Republic) and relation to media (watching, predicting and discussing *novelas* – Spanish-language soap operas). Rubinstein-Ávila's (2007) work shows that the transnational space occupied by her case participant is not only a social space mediated by inter-personal relationships but also a symbolic space mediated by cultural productions and mass media.

Diaspora digital networks and literacies

While the majority of immigrants may not live in transnational communities where there is frequent back-and-forth movement between the country of origin and the country of settlement, the growing prominence of digitally mediated communication has reduced the cost and increased the speed and immediacy of inter-personal exchanges across geographical boundaries. Moreover, different forms of local, national and transnational news and cultural media are propagated through the internet which may constitute a symbolic transnational field for migrants who want to access up-to-date information and media products from their country of origin or a larger diaspora (Karim 2003; Kennedy and Roudometof 2002; Stald and Tufte 2002). Although the literacy practices associated with transnational digital

networks are under-studied in the education literature, some recent work has pointed to the potential of transnational communication and media use in extending the literacy resources and practices of young migrants and children of immigrants (Cruickshank 2004, 2006; Fitzgerald and Debski 2006; J.S. Lee 2006).

Cruickshank's (2004, 2006) research with Arabic-speaking families in suburban Sydney (Australia) documented changes in their literacy practices in relation to global developments in media and technology during 1999–2000. It was during that time that the four focal families in his study began receiving Al-Jazeera television through cable TV and accessing the press from the Middle East on the internet. The teenage children in the families also started using E-mail and participating in chatrooms on a regular basis, which put them in touch with Arabic-speaking teenagers around the world, creating 'a network of friendships that is immediate but linked across space and time' (Cruickshank 2004, 470).

Recent research by Fitzgerald and Debski (2006) and J.S. Lee (2006) have explored the role of transnational online networks for heritage language and literacy maintenance among young Polish-Australians and Korean-Americans, respectively. Based on results of a socio-linguistic survey of 56 Polish-Australians living in Melbourne, Fitzgerald and Debski (2006) reveal the popular phenomenon of the use of Polish on the internet by the younger members of the Polish community to communicate with their friends and families in Poland and call for the inclusion of new interactive technologies in language maintenance research. In a case study of the heritage language development of two Korean-American college-age siblings, Lee (2006) found that their social networking on Korea's widely used web site, Cyworld.com, provided them with a community of Korean speakers – speakers who were minimally present in their local environments – and a source of motivation for them to use their heritage language and to engage in reading and writing for authentic purposes. The siblings' social and literate practices on Cyworld.com, in turn, helped to promote their socio-psychological attachment to the Korean language and culture.

Building on this emerging research literature, the present exploratory study seeks to further understanding of the literacy practices that are involved in transnational social and information networking among young migrants. In particular, it explores the ways in which young migrants of diverse national origins in the United States are utilising digital media to organise social relationships with friends and families, and engage with news and media products across the United States and their native countries. We chose to focus on youths who migrated in their childhood as these young people might be more likely to engage in transnational networking than second-generation children of immigrants, and hence, would provide an informative case for this exploratory study (Levitt and Waters 2002). Through the use of semi-structured interviews, this study examines from the perspective of 35 young migrants how diverse languages are used in their transnational social and information networks, the opportunities for language learning and maintenance arising from their digital engagements and the kind of literacy that is fostered through negotiating media information and social relationships across societies. In addition, results from a survey among a larger sample of first-generation youths serve to provide some information of the extent to which these youths engage in transnational communication.

In analysing the literacy practice involved in navigating media input and relationships across countries, I adopt the notion of 'bifocality' (Vertovec 2004, 974) that is proposed in the literature of transnational migration studies. Bifocality refers to the ways in which transnational forms of exchanges, communication and activities impact upon the cognitive, social and cultural orientation of migrants (Vertovec 2004). Guarnizo (1997, 311) and Suárez-Orozco and Suárez-Orozco (2001, 114) have called this 'a dual frame of reference' through which migrants compare life experiences, events and situations from the dual points

of view of their native society and their adopted society. Bifocality is especially relevant in understanding the media orientation and comparative perspectives that may emerge in textual practices as young migrants navigate social relationships and information sources coming from different societies.

Research context and methods

The site of the study was Corey High School (all names are pseudonyms), a suburban public school located on the border of a metropolitan Midwestern US city that served approximately 2200 students in Grades 9 through 12 in 2005. Officially designated as a language minority school, Corey High is ethnically and linguistically diverse with about 70% of students living in homes where English is not the native language. Over 50 different languages are spoken by students as their primary language. As the numbers show, the school serves a large population of students from immigrant families and prides itself on a well-structured and organised English as a second language (ESL)/bilingual programme that serves 12% of the student population. The student body includes 48.2% Whites, 5% Blacks, 13.5% Hispanics, 32.9% Asian/Pacific Islanders and 0.3% Native Americans; approximately 30% of the students are in the low-income bracket and qualify for free- or reduced-price lunch.

A survey questionnaire on internet use was administered to students from immigrant backgrounds who were enrolled in the ESL programme and those who were in mainstream classes in October 2005. The questionnaire was given to 169 students enrolled in ESL reading classes at the intermediate to advanced levels during regular class time. Later, the same questionnaire was administered to students from mainstream classes on a voluntary basis during their lunch time and free periods when they came to the cafeteria, library and computer centre.[1] A sample of 362 students volunteered to answer the questionnaire, among whom 100 students indicated that they were born in countries outside the United States. Altogether, the survey yielded a sample of 262 foreign-born students. The questionnaire included questions about general practices of internet use and specific questions about online communication with in the United States and in other countries (e.g. nature of relationship, location of interlocutors and means of communication). Items that provided information about patterns of communication across countries were used for analysis.

Focus groups and individual interviews were carried out with 35 students to gather more in-depth information about the kinds of transnational media use and literacy practices that the students engaged in. The semi-structured interviews included open-ended and probing questions about students' history of migration, history of computer and internet use, current activities with digital media, language choice online, social networks and transnational relationships and the impact of internet communication on their language use. The flexibility and ability to probe that comes with interviewing allowed us to understand how the youths confer meaning to their digital practices, which provides an important basis for an exploratory study given the paucity of research in immigrant adolescents' digital practices (Kendall 2007).

We first recruited for the interviews students who had taken part in the survey and indicated that they communicated with friends or families in other countries. In recruiting these students, we concentrated on those who came from Eastern Europe, Latin America, South Asia and East Asia, which are the major regional groups represented in the school. We received positive response from 18 survey participants, and conducted interviews with the students individually and in groups of two to four people each. Students participating in this first round of interviews were asked to suggest potential interviewees for our study who

were also foreign born and communicated with people in other countries. This combination of purposeful and snowball sampling (Kuzel 1999) yielded a final group of 35 students. The tape-recorded interviews lasted for a minimum of 40 minutes to a maximum of slightly over one and a half hours depending on the size of the group. All interviews were conducted in English, with bilingual interpretation where necessary, and took place between November 2005 and June 2006, providing a total of 22 hours of recorded data for analysis.

Descriptive statistics were generated to examine patterns of cross-border communication among the entire survey sample and subcategories of students in the sample. All recorded interviews with students were transcribed, and then analysed through a process of open and focused coding (Coffey and Atkinson 1996; Miles and Huberman 1994). We began by closely reading the interview transcripts to identify major themes related to students' use of language and literacy to manage transnational relationships online. Several major themes emerged in this process, which include (1) the use of multiple languages to conduct social and informational activities, (2) language learning and language maintenance and (3) the development of comparative perspectives or 'bifocality' on events and issues. Focused coding was then performed within each of the main themes to identify dimensions and subcomponents of each thematic domain. In addition, we used organisational matrices (Becker 1998; Miles and Huberman 1994) to tabulate students' responses, compare and contrast them across different students and their background characteristics, such as national origin, life stage at arrival, language status (ESL vs. mainstream programme placement) and history of internet use to examine convergences and divergences in the students' reported practices.

Results

Survey findings of cross-border communication

Our survey sample (see Table 1) included 262 foreign-born high school students, 62.6% of whom were enrolled in the ESL programme and 37.4% were in mainstream classes. Close to 33% of the respondents were from Eastern European countries, 28.2% were from

Table 1.   Demographics of survey sample ($N = 262$).

	%
Region of origin	
Eastern Europe	32.5
South Asia	28.2
East Asia	14.9
Latin America	13.3
Other	11.0
Programme placement	
ESL	62.6
Mainstream	37.4
Gender	
Male	57.8
Female	42.2
Life stage at arrival	
Early childhood	12.2
Middle childhood	36.6
Adolescence	50.0
Adulthood	1.2

Table 2.   Cross-border communication.

	%
Communicate across countries	71.8
With home country	66.3
With other countries	27.1
Media of communication	
Instant messaging	70.6
E-mail	62.8
Chatrooms	40.6
Web sites	15.6
Blogs	8.3

South Asia, 14.9% were from East Asia and 13.3% were from Latin American countries.[2] The rest of the students were from the Middle East, the Caribbean and Western Europe. In our sample, 12.2% of the students came to the United States during their early childhood (0–5 years of age), 36.6% during their middle childhood (6–12 years of age) and 50% during their adolescence (13–17 years of age). Only three students arrived when they were 18 years old.

As shown in Table 2, close to 72% of the students in the sample reported that they use the internet to communicate with people in countries outside the United States. A total of 62% of the students noted that they communicate with people in their home countries and 27% reported communication with people in countries other than their home countries. The youths in our sample use multiple avenues to engage in online communication across countries: 70.6% use instant messaging, 62.8% use E-mail, 40.6% use chatrooms, 15.6% use web sites and 8.3% use blogs.

Table 3 shows students' engagement in online communication across countries by various demographic categories (region of origin, programme placement, gender and life stage at arrival). Across most of the categories, we see a significant majority of students reporting that they communicate online with people in their home countries. A higher

Table 3.   Cross-border communication by region of origin, programme placement, gender and life stage at arrival.

	Cross-border communication %	Communication with country of origin %	Communication with other countries %
Region of origin			
Eastern Europe	84.3	80.0	28.8
South Asia	66.2	59.7	29.0
East Asia	73.0	70.3	24.3
Latin America	70.6	66.7	21.2
Programme placement			
ESL	75.6	71.7	28.9
Mainstream	65.3	56.8	23.9
Gender			
Male	67.8	62.2	25.9
Female	76.9	71.8	29.1
Life stage at arrival			
Early childhood	54.8	46.7	23.3
Middle childhood	65.2	61.2	21.2
Adolescence	80.0	75.4	32.2

Table 4. Demographics of interview partici-
pants ($N = 35$).

	N
Region of origin	
Eastern Europe	9
South Asia	9
East Asia	9
Latin America	8
Programme placement	
ESL	19
Mainstream	15
Gender	
Male	14
Female	21
Life stage at arrival	
Middle childhood	15
Adolescence	20

percentage of students of Eastern European origin reported such transnational communication than students from other regions. As would be expected, proportionally more students who migrated at a later stage of their childhood reported communicating with people in their home countries. Those who migrated later in their childhood would have cultivated more friendships and family attachments that they would wish to maintain from a distance. Moreover, these youths are more likely to have started using the internet to manage social relationships and informational needs of pre-migration and carry over these social and informational activities to their post-migration location. However, it is important to note that, even among students who came to the United States in their early childhood, almost 47% of them reported communicating online with people in their country of origin. The higher percentage of recent arrivals reporting online communication with their home countries is also reflected in the higher percentage of students in the ESL (71.7%) than mainstream programme (56.8%) who noted such transnational communication.

In the following, we draw on analysis of the interview data to provide a portrait of the kinds of literacy practices that are fostered in these transnational online spaces.

Language and literacy practices in transnational fields of communication

Table 4 shows the demographic information of the 35 interview participants. The students of Eastern European origin include eight from Poland and one from Slovakia; students originally from Latin America include four from Mexico, two from Ecuador and one person each from Bolivia and Peru; those of South-Asian origin include seven Indians, one Pakistani and one Bangladeshi; and students from Korea make up all of the East-Asia category. All of the youths came to the United States during their middle childhood or adolescence. Close to one-third of them received free- or reduced-price lunch, which mirrors the percentage of students in the school as a whole.

Multilingual practices

All of the students we interviewed told us that they employed more than one language when using the internet. Their multilingual activities were used to manage multiple ties across the United States and other countries (in most cases, their countries of origin) and

were mediated by a variety of online communication channels, including instant messaging (sometimes with voice and camera), e-mail, chatrooms, internet portals (Yahoo, MSN, SBC and those in their native languages), web sites (on world and entertainment news, movies and TV shows, music, sports, games and creative writing such as fiction and poetry) and personal web pages or blogs. Punita, a 15-year-old girl who emigrated to the United States from India when she was 13, described to us a daily routine of the internet use despite the fact that she didn't have a computer at home. On a regular school day, she would arrive early to the school computer lab to listen to Hindi music on Indian web sites, e-mail her friends who were living in India, and look up news about Indian TV programmes on English-language web sites that were based in India and tailored to an English-speaking Indian diaspora. The after-school hours were devoted to homework and family, after which at 8:00 pm, she would spend an hour at her friends' house down the block from her home to get online to chat with friends in India and the United States and also to listen the music. She would usually distribute the hour evenly among friends in the United States and India, and use both Gujarati and English in her online correspondence. Punita noted that since she had moved to the United States, the computer was the only place where she would read or write Gujarati.

Mariola was also 15 years old and came to the United States from Poland at about the same time as Punita. Like Punita, she managed her relationships across the United States and her native country via both Polish and English:

> I use Polish to talk to friends who can't speak English . . . [who are in] in Poland. And I use English with the people who can't speak Polish . . . people from my school. I have Yahoo messenger. My neighbor friend can't speak much Polish, but she can speak English. And sometimes I use English for research, find stuff. Sometimes, I even talk to my [older] sister in English, who can speak Polish. (laughs) When I don't feel like talking [with sister] on the phone, I just type. And sometimes, I use English to improve my English skills. And when I go on the chatrooms, I usually go to Polish chatrooms, so I type Polish.

Juan was 18 and had been in the United States for half a year. Originally from Ecuador, he communicated with friends and family across Latin America and visited several Latino multimedia web sites regularly. In describing his choice of language on these sites, he showed a routine and intentional use of both Spanish and English:

Juan:	So, first, I check my E-mail and send (inaudible) . . . watch video, music [both Spanish and English music on PlanetaTV] . . . and then I go to the chat, one hour.
Interviewer:	And you use Spanish?
Juan :	Yes.
Interviewer:	Anybody use English there?
Juan:	Some people use English in this chat. For example, the room is Spanish and English.
Interviewer:	So there are rooms that are Spanish and there are rooms that are English [yea]. Which one do you go?
Juan:	The Spanish.
Interviewer	Do you go to the English one at all?
Juan:	Yes.
Interviewer:	When do you go to the English one?
Juan:	For example, when I am tired of them, I need – something.
Interviewer:	When you want to switch [yes], when you are tired of the conversation.
Juan:	Yes. I switch Spanish-English, Spanish-English.

Juan further noted that he used the site in English 'to learn something, or I want to know more about English, like reading'. For Punita, Mariola, Juan and other students, their multilingual practices were an integral part of their daily lives as they sought to sustain and cultivate social and cultural relationships across geographical boundaries. It was within these networks of relationships that their literate use of multiple languages took on significance as both a functional and social tool to access resources and manage diverse sets of inter-personal ties. While the choice of which language to use was often dependent on the interlocutor and media domain (e.g. using Polish on Polish chatrooms and Gujarati with friends who are in India), within these plural linguistic and cultural fields in which the students participated, language functions tend to cross ethnic and geographical boundaries. English was found on the Indian web sites that Punita visited and Gujarati was used in her online correspondence with friends in the United States. Other students from South Asia also expressed using English on the internet with their compatriots in the Indian subcontinent and around the world, and incorporating their native languages when communicating with their local US friends online. Mariola used English to chat with her older sister and Luis interweaved both Spanish and English in a Latino web space. One of the two Polish chatrooms that Mariola visited, which was a local US site (the other one being a site based in her hometown in Poland), included visitors from Poland and the use of a mixture of Polish and English:

> . . . sometimes people from Poland click on Chicago and go there, come to the Chicago one. This guy I was talking to, he asked for help translating stuff. Some people come to English-Polish chatrooms to find help with English, or to communicate with relatives in the USA or something.

Multilingualism permeates these students' inter-locking networks of social relationships on the internet.

Although the use of multiple languages online was prevalent among these young people, there was an observable unevenness in the proportion of use of the native language versus English among students from South Asia and Korea. Except for two Korean-Americans who came to the United States with their family at the age of 6 and 8, the majority of students from Korea who arrived in this country when they were 10 years or older noted that they used Korean 70–90% of the time when they were online. This pattern contrasts with students from South Asia who consistently expressed that they used English at least 50%, and more often closer to 80%, of the time, even for students who had been in the United States for only two or three years. The early penetration of the internet and broadband connection in Korea allowed the students from Korea to have prior exposure to computer-language input in Korean and conducting social and informational activities on the Korean internet before coming to the United States. In contrast, most of the South-Asian students started using the internet after they had arrived in the United States. These students also noted more communication in English with people of South-Asian origin around the world. Whereas only one out of the nine youths from Korea had participated in chatrooms or instant messaging networks that included ethnic Koreans living in different countries, six out of the nine youths of South-Asian origin had participated in such kind of diaspora social forums. Hence, comparing these two groups of students, the difference in technological infrastructure in their native countries, the extent of diaspora connection that may necessitate communication in a lingua franca, together with the post-colonial status of English in the Indian subcontinent, had created quite diverse linguistic resources and constraints in their transnational social fields online.

Language learning and maintenance

A majority of the students across ethnic or regional groups expressed that using their native language online helped to maintain, or even improve, their proficiency in the language. Mario's (18-year-old from Mexico) remark: 'If you don't practice it, you gonna forget it' was a refrain that was echoed by many other students. Nineteen students (10 mainstream, nine ESL) articulated how reading and writing their native language on the internet had helped them practice using the language and pay attention to language forms, e.g. in areas of vocabulary, grammar and spelling, especially since they seldom used the language in writing outside of the computer realm. For example, Judith told us that she would get up at 5:00 every morning to chat with her friends in Korea before getting ready for school. She noted that 'Korean-wise it actually helped me because I don't write Korean anywhere else, so by typing, it helped'. Judith moved to the United States at the age of 6 with her family, and was then a 15-year-old sophomore at Corey High. She met all her friends in Korea a year ago when they traveled to the United States and visited her church on a youth-mission trip, and she had been keeping in touch with them using instant messaging and E-mail in Korean. While the vast majority of the youths we interviewed had met the friends with whom they communicated online back in their home countries or in an online forum such as a chatroom or instant messaging, Judith was an exception in that her participation in a Korean-American church with ties to its sister churches in Korea had facilitated her transnational connections which she maintained via the internet.

Seventeen-year-old Sandra, who came to the United States when she was 12, likewise asserted the importance of internet communication for keeping up her Korean:

> That's the only way I see Korean, like, if I don't have a computer at home, the only thing I can do is, like, homework from school. That'll be all in English. I'd have no chance to see Korean words or anything else without the computer. It's not like I'm looking at the Korean newspaper, you know. We don't get that everyday. And, like, radio, TV, it's like all in English, so computer is like the only way I see the Korean words and Korean stuff.

This sentiment reverberated in a number of our conversations with the students, including Mariola and Justyna, both 15 years old and had been living in the United States for two years:

Interviewer:	How does the internet affect your ability to read and write in Polish?
Mariola:	It's improving cuz we don't read Polish, well I don't, so if I read at least something in Polish, it's not getting down but it's improving or it's at the same level.
Interviewer:	Keeping up?
Justyna:	Yea, otherwise I would forget Polish.

Mariola specifically noted that communicating online helped her with 'grammar, and I learn how to spell things. I learn how to say things aloud cuz some words are really long and you can't say them quick, but you'll read it slow and then you can read it fast. And then it kind of stays in your mind'.

Among the 19 students who noted that using their native language online had helped them to maintain the language, 12 of them migrated to the United States during their middle childhood. In other words, a much higher ratio of these youths (12 out of 15 in the interview sample) than the youths who migrated in their adolescence (6 out of 20) responded positively about language maintenance through online communication. For these youths, their proficiency in their native language was less solidified through years of schooling than

their counterparts who migrated in their adolescence. Moreover, among all the students we interviewed, only three of the eight Polish students were attending a community-language programme in Polish, and four of the eight Latino students were taking Spanish classes for foreign language credit at Corey High. Hence, most of these students were not receiving formal instruction in their native language and were conscious of the exposure to their native language that the internet usage afforded them. The students' discourses, as illustrated in the above excerpts, also indicate that many of the literate functions that they would carry out in their native language had been transferred to computer-mediated environments. Many youths expressed that they would rather look up news or other media information online than in newspapers or magazines (see more discussion in the next section), and few of them still exchanged hand-written letters with their friends in their home countries.

The use of instant messaging and E-mail not only increases the immediacy and frequency of cross-border communication, but also seems to allow the young people to keep up-to-date with the youthful colloquialisms and electronic styles and conventions of the language in their country of origin. This is articulated by Adriana, who was 17 and came to the United States with her family at the age of six:

> It makes me understand how they talk, like their slang . . . cuz the way they sometimes cut the word out, sometimes I don't understand what they're saying . . . I tell them write the entire thing out so I can understand it, and they have to take their time and write it all out . . . I learn a lot of things, like, the equal sign is 'igualmente' and 'porque' is 'pq' or 'px' or something.

While Adriana was enrolled in a Spanish-language class at Corey High at the time of the interview, her transnational correspondence gave her exposure to the electronic language styles of Peruvian youths that differ from the formal and generalised Spanish taught in the classroom.

The perception of language learning online was not confined to the students' first language, but also reflected in the use of English. Twenty students from various national origins commented on this aspect of learning, among whom 15 students were in ESL and five were in regular English classes. The difference in the proportion of use of the native language versus English online among students from South Asia and Korea was paralleled in the greater number of South Asian (seven) than Korean students (two) who commented on their English learning, even though their representation in ESL and mainstream placement was similar to one another. The number of students who noted learning English online was comparable between those from Latin America and Eastern Europe.

There was both an eagerness and intentional effort to seek out opportunities to learn and practice English online among students in the ESL programme. Besides reading online on a range of topics including movies, songs, video games and current events, many of these students pointed out the use of chat to improve their conversational fluency, vocabulary and writing skills. For example, Justyna (15-year-old from Poland) described her experience as follows:

> Sometimes I just talk to the people who live here and who speak English, not to Polish people, just to learn some English . . . When I came here and I didn't speak good English, I started to use MSN [instant messaging program] and then I was talking to people. I was going so slow cuz I had to use the dictionary, and I was looking up every word.

Jamal (17, from Pakistan) and Rahim (15, from Bangladesh), who had been in the United States for two years, further elaborated on the role of online conversations in their learning of English:

Interviewer:	So you think chatting online helped you a lot?
Jamal:	Yea. A lot.
Rahim:	Yea, it helps.
Jamal:	Especially chatting with people in English.
Interviewer:	So without chatting, you wouldn't be as good as you are now?
Jamal:	I don't think so. Well, we do talk to people in English, I mean, in our real life, but sometimes, there are like words, they just say it, but you don't know the meaning, you don't know how to spell it. But in chatting, they type it and you know how they spell it, you then go to dictionary.com or other web sites for the meaning. You find out how do they pronounce it, and what's the meaning, what's the synonym, what's the antonym, you find them.

According to their description, the use of text-based chat affords the students more composing time to carry on a conversation in a new language and to reflect on both language form and meaning, at the same time as it serves as an avenue for the youths to develop social relations with their American peers. By mobilising multiple online language tools, these youths are superimposing a pedagogical model (dictionary, synonym/antonym) to their socialising activities carried through a youthful medium such as instant messaging.

In addition to the acquisition of English literacy that was described by Justyna, Jamal and other students, it is interesting to note that, particularly among students from South Asia, the model for acquisition seems to be influenced by the English used in the South-Asian diaspora. Besides chatting with Indians, Pakistanis and Bangladeshis around the world, the students would regularly look up information on Hindi movies and cricket on English-language web sites based in South Asia. Rahim noted that: 'Sometimes when I read the cricket news, I learn from there too, learn the vocabulary words, I mean English, like grammar and stuff, how to use in sentences'. Kavi, a 16-year-old boy who had been in the United States for two years, remarked on the mutual influence of Indian and American English in communicating with his friends in India:

> . . . like you can tell we talk this way over here, and they would tell you how they speak over there . . . You can keep touch to the language they speak in India and they can even learn the language we speak over here.

The maintenance and creation of transnational social ties through internet communication allowed the students to diversify their access to linguistic resources, especially those that are not easily available in their physical environments. These linguistic resources include models of the students' native languages, the English language and even diverse forms of world Englishes as seen in the case of students of South-Asian origin. The students' digital practices situated them within social fields in which their multilingual abilities were valued and fostered, as these linguistic abilities served as important tools to build social relationships with friends and families and access information for personal benefit and pleasure. There is a mutual reinforcement of social networks and language practices (De Bot and Stoessel 2002; Wei 2000), as the networks create conditions for the development of the practices, and the practices become a contributing component in sustaining and shaping the networks. Hence, the students' multilingual development is integral to their continued participation in social relationships and information networks that cross geographical borders.

Bifocality

The youths' positioning within transnational networks of media and social relations also seems to contribute in important ways to the multiple perspectives on events and situations that they develop. A majority of the youths remarked that they obtained news from both US web sites (most often their default homepage on the internet browser like MSN, Yahoo and SBC) and news web sites from their native countries. For those who had access to newspapers and TV programmes in their ethnic language, many commented that these media did not carry the most up-to-date news or programmes from their native countries and tended to focus on local events. For these youths, keeping up with news in their countries of origin is, as Angelina (17, from Poland) puts it, 'a relationship you have with your country . . . you want to know what's happening'. Reading news online not only enabled the students to learn about major political and cultural events, but also the kinds of conditions under which their families were living in other parts of the world. For example, Anna Maria, who was 17 years old and came to the United States at the age 10, maintained strong ties with her extended family in Mexico and noted that she kept in touch with news in Latin American because, 'It worries me, because they [her family] are right there. They are the ones who are going to be impacted by whatever is going with the government'.

Beyond the general comment that reading news from other places helped them to learn about what was happening in their home countries and other parts of the world, 15 students articulated the multiple kinds of and differences in perspectives that their online news reading afforded them. Miguel (from Ecuador) and Mariola and Justyna (from Poland) were among students who remarked that reading news from web sites in their native countries expanded their scope and choice of information beyond the news they received in their present locality in the United States:

Miguel:	Because on TV, they don't give, you want to read more about on internet, what's happening. They talk, but they don't give the whole chapter about what's happening in Ecuador.
Mariola:	In, like TV news, they usually talk everything about USA, Chicago, war on Iraq. They usually don't say stuff about Poland . . . or Europe. It's like, America America America. So it depends on what you wanna look for.
Interviewer:	So on the Polish sites, you find news about Poland?
Mariola:	Yeah, and other countries.
Interviewer:	Like other countries in Europe?
Justyna:	Not only in Europe.

Students also pointed out the contrasting perspectives that were reflected in the different kinds of news that they accessed online. For example, Kala, Dhatri and Vineeta, three girls from India who had been in the United States for seven, four and three years, respectively, expressed both the kinds of cognitive enrichment and dissonance that could result from having multiple sources and perspectives on which to base one's evaluation.

Dhatri:	Like Indian news people blame on somebody else, and here they might blame somebody else, different points of view. . .
Vineeta:	Yea, different attitudes.
Interviewer:	Can you give me an example of that?

Dhatri:	For example, you know, Iraq, the fighting, the American people might say it's not Bush's fault, and then Indian people might say it's Bush's fault, who [sic] give permission to fight against Iraq for no reason. They have different points of view.
Interviewer:	Do you feel like being exposed to these different perspectives is helpful?
Dhatri:	Yea.
Vineeta:	I guess.
Kala:	Because then I can compare to what's right versus what's wrong. Like again, what she said, if they're blaming on somebody, if I know the whole situation, I can support one side versus what not to support. So, I just get to know a little bit more about how different, you know.
Dhatri:	I get confused cuz I don't know which side to pick, which one is right and which one is wrong cuz maybe Indian people are right, and I get confused.
Interviewer:	So having different perspectives sometimes is confusing?
Dhatri:	Yea.
Interviewer:	Do you agree?
Kala:	I don't, because what's right and wrong, that's up to you. There shouldn't be confusion. I'm just saying.

Here, we see the girls' conscious awareness of the different accounts and perspectives on world events, such as the war in Iraq, that are presented in the US media versus the Indian media. Kala noted that, by knowing a bit more of the 'whole situation', or the different accounts or stories that are told, she would be better able to assess which perspective or standpoint she would be willing to support. However, for Dhatri, seeing from diverse points of view brings about a sense of dissonance, confusion and perhaps competing loyalties. Yet, it should be noted that this sense of confusion or hesitation to form judgement emerges from her awareness of the diversity and complexity of viewpoints that exist across societies.

Besides comments on the Iraq War made by a number of students across national backgrounds, several Latino students noted differences in discussion of immigration issues on US versus Latin-American web sites. Fifteen-year-old Emanuel, who had been in the United States for one and a half years, noted that Mexican web sites reported 'so much discrimination' in the United States and that 'sometimes white people don't like Mexican and black people', while what he saw on the US sites was a great amount of discussion of how 'Mexicans were keeping jobs away from white people'. Miguel, who had been in the United States for three years, described the following perspective that he saw in Ecuadorian online media, which casts the immigration debate as a transnational issue that also involves migrants' relations to their home country:

> They (the US) should make . . . the social security, the green card to those who are illegal in here who are working hard. They are not doing anything bad, just working, that's what they talk about . . . Sometimes people live here for about 13, 20 years, they don't go back to their countries you know, so in order that they could go back sometimes, that's why they say they need a green card.

In addition to discussing the different perspectives that they found in news across the United States and their countries of origin, some of the youths we interviewed were engaged in assessing their life situations from different points of view through electronic exchanges

with their peers in their native country. For example, Dhatri observed that she would try to dispel what she considered misperception of American life among her peers in India: 'The people who live in India, they think that America is really good and really beneficial, so I tell them that it's really hard work, you work your butt off. You have to work and study at the same time'. Hana, who was 17 and came to the United States at the age of 10, participated actively on a popular social networking site in Korea called Cyworld. She described a forum on the site where youths in Korea dialogue with youths of Korean origin living in the United States about their experiences of schooling and everyday life.

> They always say some bad stuff about them [people in Korea] and some good stuff about them and some bad stuff about international people and some good stuff . . . And people who are in Korea, they're telling us how lucky we are to study out of Korea cuz they have way different system of studying. But then, I think the difficulties are exactly the same . . . For example, like, the people in Korea, they always say, 'we need to stay until 11 o'clock at school'. And they have harsh rules, and for guys, they could never grow their hair cuz they need to keep it short. But some good stuff will be like, the karaoke rooms right there, right by their school, or they have a lot of places to go, they have a lot of food they could eat. But, for international people, there are not that many people you can actually rely on, and . . . there are not that many whom you can actually trust. And . . . like we have essays and projects right after finals and so on and so on. But some good part will be, we're free to go after school, and we could do whatever we want . . . But we manage our time, you know, so we actually take our time to do our stuff and have some fun and all that.

Here, we see Hana noting the relative structures and freedoms of student lives in the two countries, and assessing her own experience in view of what her age peers are experiencing in Korea and what they project as the experience of Koreans in the United States. In particular, she pointed out the experience of isolation as a minority to counter the perception among her Korean peers that life in the United States is easier and holds more opportunities. The comparative discourse that forms in such a social-networking environment shows that those who have migrated and those who stay behind are both involved in a transnational field of exchange of perception and evaluation of life chances.

These students' digital literacy practices situated them in a transnational circuit of news and ideas where they were exposed to political narratives, social expectations, cultural values and societal experiences that are not confined to one single social system. These literacy practices seem to foster the cognitive orientation of bifocality – the inclination to see things from multiple perspectives coming from the 'home' and 'host' societies – that is part of growing up in transnational networks. The adoption of a bifocal orientation or a dual frame of reference has the potential to promote cognitive complexity in view of the demands to assess and evaluate information that comes from diverse sources and forms of reasoning. It may also lead to more contextualised understanding of events or life situations as one is exposed to other texts and other ways of representing and interpreting these events and situations. Yet, seeing from diverse points of view may also bring with it the sense of cognitive dissonance and competing loyalties. For these youths, harnessing the bi-/multi-focality associated with their multilingual literacy practices in positive ways is both a challenge and opportunity for becoming digitally literate in a transnational and global world.

Conclusion and implications

This study has sought to explore the language and literacy practices associated with transnational digital networking among adolescents of immigrant backgrounds that have so far been under-examined in educational research. Our interviews and survey with adolescents of diverse national origins and histories of migration show that digital communication is

used to maintain and create relations with people, media and events that encompass multiple localities across state boundaries. Their positioning in the digital networks allows the youth to develop types of linguistic dispositions that are expressed in multilingual literacies and learning, as well as perspectives on events and life situations that draw from diverse cultural and societal sources. As these young people develop habits of mind and symbolic representation in cross-border networks of ideas and practices, they are acculturating to a world where the movements of bodies, media, technology, beliefs and values are occurring on a transnational scale. The question for literacy educators and researchers becomes how we could envision societal education that recognises and leverages these habits of mind and multilingual literacies as human resources to enhance our young people's capacities as citizens and workers in a pluralistic world.

The students' experiences demonstrate that multilingualism can be productively utilised through digital media to facilitate human interactions, maintain social ties across geographical boundaries and seek out ideas and information from various sources. In many cases, the students' social and informational networks have extended and diversified their linguistic resources and enabled them to participate in linguistic communities (in the form of instant messaging networks, diaspora chatrooms and social networking sites) and public spheres (national and transnational news and cultural media targeting ethnic diasporas) that stretch beyond their physical locality. For these youths, their first language is not simply a 'heritage language' that is passed on from previous generations, but can be seen as a 'global language' (in terms of scale rather than dominance) that is spread out across geographical and national space and is used to connect people in different parts of the world. In other words, language maintenance for these young people goes beyond the preservation of culture and identity among minority groups in a society to the construction of new identities as transnational friends and family members and global information seekers.

As the internet becomes increasingly multilingual (Danet and Herring 2007; Graddol 2006), with a rapid growth of web content and users who are fluent in ascending languages such as Arabic, Chinese, Spanish and a variety of other languages, proficiency in languages other than English serves as a vital tool to participate in social networks and access sources of information and knowledge base across geographical territories beyond the Anglophone world. Even as English remains strong as a lingua franca, web content that is communicated in English is now derived from a wide array of cultural and regional sources and represents a greater diversity of viewpoints, as news in English on Indian or Middle Eastern web sites can be very different than that on BBC or CNN.[3] These changes in the geopolitical and linguistic dynamics of networked information and communication patterns suggest that knowledge of multiple languages and multiple 'Englishes' (as English is used to encode different perspectives and communicative norms) (Canagarajah 2005; Cope and Kalantzis 2000) is becoming increasingly tied to participation in a global and networked society.

Such characteristics of contemporary networked media, as reflected in the experiences reported by the youths in our study, require us to consider the multilingualism of migrant children and youth beyond simply issues of majority–minority relations (in regard to majority accommodation to minority rights and culture) within the nation–state and grapple with how multilingual literacies can be fostered and used to build connections and develop knowledge across cultural and geopolitical territories. A language education that takes into account the transnational connections of young migrants would need to move between the local and the global, between language as community resources and language as transnational resources. This would be a language education that draws from and fosters the funds of knowledge (Moll et al. 1992) of immigrant students coming from their communities, and also the funds of knowledge that come from their points of connection across societies.

In the United States where the immigration debate is continuously raging, we can ask students to gather perspectives on the issue locally from their own community, nationally from the US media, and transnationally from media in the sending countries (in Latin America, Asia or other parts of the world) and interviewing the students' friends and relatives in these sending countries through instant messaging, E-mail or posting question on a social networking site. We can use an integrated language and social studies unit such as this to develop the skills to gather information from various sources, evaluate these sources in the context of their social and political location, promote the exchange of viewpoints between diverse communities represented in the classroom and foster students' ability to move across different media platforms, social networks and languages in the process of learning. A language education that helps students move between the local and global in developing and using their linguistic and semiotic resources may not only be more relevant to the experiences of transnational and multilingual youths but more relevant to a globalised future that many youths will be living in.

To further understand the literacy practices associated with the use of transnational media among migrant children and youth, we need to go beyond self-reported data of the digital experiences of these young people to examine ethnographically and longitudinally how their social, cultural and semiotic networks develop and change over time, and the textual practices that are fostered through participation in these networks. We need fine-grained documentation and analysis of the processes through which the youths' communication with peers and family members across countries, their information seeking behaviours and their content production (e.g. in the forms of electronic messaging, activities on social networking sites, web page authoring and media use and production) affect the degree to which the youth maintain and develop competence in their mother tongue, English or other additional languages, the ways they navigate different media representations of events and issues and their identity development in these transnational spaces. An ethnographic approach would allow us to contextualise the use of new technologies within the migration experiences and linguistic/cultural backgrounds of the youths in different localities, and develop a comparative and situated perspective of how young people are engaging in forms of literacy and socialisation associated with digital and transnational media.

Moreover, such research would need to encompass the digital experiences of second-generation children of migrants to further understanding of the ways and extent to which these youths engage in transnational networking and literacy practices, and how their forms of engagement converge with or diverge from the practices of first-generation children of migrants. There is an indication from Cruickshank's (2004, 2006) research with Arabic youths and other studies in diaspora media (H.M. Lee 2006; Panagakos 2003) that, where these transnational digital networks exist in the second generation, they may be more dispersed across a wider diaspora than clear bilateral ties between the countries of origin and settlement. Ultimately, it is our hope that such investigations of the literacies of transnational communication of migrant and multilingual youth would contribute to the conception and design of educational practices that leverage the linguistic and semiotic experiences, knowledge and skills of these young people and further develop these capacities as resources to forge bridges and understanding across cultures, traditions and societies.

Notes

1. The cafeteria, library and computer centre were the three main places where student could choose to spend their lunchtime and free periods. The students were asked to indicate on the survey the English classes that they were taking to help us determine their programme status.

2. Among students from Eastern Europe, 56 were from Poland, eight from Ukraine, three from Bulgaria, three from Romania and one each from Belarus, Lithuania, Moldova and Slovakia. Among students from Latin America, 22 were from Mexico, four from Ecuador, four from Peru and one each from Bolivia, Costa Rica, Honduras and Puerto Rico. A total of 62 students of South-Asian origin came from India, nine from Pakistan and one from Bangladesh. Students from East Asia include 26 from the Philippines and 12 from South Korea.

3. For example, Al Jazeera, an international news channel based in Qatar, claims as its raison d'être the offering of an independent source of news about events in the Middle East apart from the influence of western governments and its neighbouring Arab states. It maintains web sites in both Arabic and English, the latter of which has become a major source of news for American internet users (Graddol 2006). Al Jazeera launched an English-language channel in early 2007, in addition to its Arabic channel, that broadcasts from network hubs in Qatar, London, Washington DC and Kuala Lumpur.

References

Basch, L., N.G. Schiller, and C.S. Blanc. 1994. *Nations unbound: Transnational projects, postcolonial predicaments, and deterritorialized nation-states*. Luxembourg: Gordon and Breach Publishers.

Becker, H. 1998. *Tricks of the trade: How to think about your research while you're doing it*. Chicago: University of Chicago Press.

Canagarajah, A.S., ed. 2005. *Reclaiming the local in language policy and practice*. Mahwah, NJ: Lawrence Erlbaum.

Coffey, A., and P. Atkinson. 1996. *Making sense of qualitative data: Complementary research strategies*. Thousand Oaks, CA: Sage.

Cope, B., and M. Kalantzis, eds. 2000. *Multiliteracies: Literacy learning and the design of social futures*. London: Routledge.

Cruickshank, K. 2004. Literacy in multilingual contexts: Change in teenagers' reading and writing. *Language and Education* 18, no. 6: 459–73.

Cruickshank, K. 2006. *Teenagers, literacy and school*. New York: Routledge.

Danet, B., and S. Herring, eds. 2007. *The multilingual internet: Language, culture, and communication online*. New York: Oxford University Press.

De Bot, K., and S. Stoessel. 2002. Introduction: language change and social networks. *International Journal of the Sociology of Language* 153, no. 1: 1–7.

Farr, M. 1994. En los dos idiomas: Literacy practices among Mexicano families in Chicago. In *Literacy across communities*, ed. B. Moss. Cresskill, NJ: Hampton Press.

Farr, M. 2006. *Rancheros in Chicagoacán: Language and identity in a transnational community*. Austin, TX: University of Texas Press.

Farr, M., ed. 2005. *Latino language and literacy in ethnolinguistic Chicago*. Hillsdale, NJ: Erlbaum.

Farr, M., and J. Guerra. 1995. Literacy in the community: A study of Mexicano families in Chicago. *Discourse Processes* 19, no. 1: 7–19.

Fitzgerald, M., and R. Debski. 2006. Internet use of polish by polish melburnians: Implications for maintenance and teaching. *Language Learning and Technology* 10, no. 1: 87–109.

Graddol, D. 2006. *English next*. London, UK: The British Council.

Gregory, E., S. Long, and D. Volk, eds. 2004. *Many pathways to literacy: Young children learning with siblings, grandparents, peers, communities*. London: Routledge.

Gregory, E., and A. Williams. 2000. *City literacies: Learning to read across generations and cultures*. London: Routledge.

Guarnizo, L.E. 1997. The emergence of a transnational social formation and the mirage of return migration among Dominican transmigrants. *Identities* 4, no. 2: 281–322.

Guerra, J.C. 1998. *Close to home: Oral and literate practices in a transnational Mexicano community*. New York: Teachers College Press.

Hamilton, M., D. Barton, and R. Ivanic. 1994. *Worlds of literacy*. Clevedon, UK: Multilingual Matters.

Karim, K.H. 2003. *The media of diaspora*. London/New York: Routledge.

Kendall, L. 2007. The conduct of qualitative interviews: Research questions, methodological issues and researching online. In *Handbook of research on new literacies*, eds. D. Leu, J. Coiro, C. Lankshear, and M. Knobel. Mahwah, NJ: Erlbaum.

Kennedy, P. and V. Roudometof. 2002. *Communities across borders: New immigrants and transnational cultures*. London: Routledge.

Kenner, C. 2004. *Becoming biliterate: Young children learning different writing systems*. Stoke on Trent: Trentham Books.

Kuzel, A. 1999. Sampling in qualitative inquiry. In *Doing qualitative research*, eds. B. Crabtree and W. Miller, 33–46. Thousand Oaks, CA: Sage.

Lee, J.S. 2006. Exploring the relationship between electronic literacy and heritage language maintenance. *Language Learning and Technology* 10, no. 2: 93–113.

Lee, H.M. 2006. Debating language and identity online: Tongans on the Net. In *Native on the Net: Indigenous and diasporic peoples in the vitual age*, ed. K.M. Landzelius. London: Routledge.

Levitt, P., and B.N. Jaworsky. 2007. Transnational migration studies: Past developments and future trends. *Annual Review of Sociology* 33: 129–56.

Levitt, P., and N.G. Schiller. 2004. Conceptualizing simultaneity: A transnational social field perspective on society. *International Migration Review* 38, no. 3: 1002–39.

Levitt, P., and M. Waters. 2002. *The changing face of home: The transnational lives of the second generation*. New York: Russell Sage Foundation.

Martin-Jones, M., and K. Jones., eds. 2000. *Multilingual literacies: Reading and writing different worlds*. Amsterdam: John Benjamins.

Miles, M.B., and A.M. Huberman. 1994. *Qualitative data analysis*. Thousand Oaks, CA: Sage.

Moll, L.C., C. Amanti, D. Neff, and N. Gonzalez. 1992. Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice* 31, no. 2: 132–41.

Panagakos, A.N. 2003. Downloading new identities: Ethnicity, technology, and media in the global Greek village. *Identities: Global Studies in Culture and Power* 10, no. 2: 201–19.

Rubinstein-Ávila, E. 2007. From the Dominican republic to drew high: What counts as literacy for Yanira Lara? *Reading Research Quarterly* 42, no. 4: 568–89.

Saxena, M. 1994. Literacies among Punjabis in Southhall. In *Worlds of literacy*, eds. M. Hamilton, D. Barton, and R. Ivanic. Clevedon, UK: Multilingual Matters.

Saxena, M. 2000. Taking account of history and culture in community-based research on multilingual literacy. In *Multilingual literacies: Reading and writing different worlds*, eds., M. Martin-Jones and K. Jones. Amsterdam: John Benjamins.

Smith, R.C. 2003. Diasporic memberships in historical perspectives: Comparative insights from the Mexican, Italian, and Polish cases. *International Migration Review* 37, no. 3: 724–59.

Stald, G., and T. Tufte. 2002. *Global encounters: Media and cultural transformation*. Luton, UK: University of Luton Press.

Suárez-Orozco, C., and M. Suárez-Orozco, eds. 2001. *Children of immigration*. Cambridge, MA: Harvard University Press.

Vertovec, S. 2004. Migrant transnationalism and modes of transformation. *International Migration Review* 38, no. 3: 970–1001.

Vertovec, S., ed. 2003. International perspectives on transnational migration: An introduction. *International Migration Review* 37, no. 3: 565–75.

Wei, L. 2000. Towards a critical evaluation of language maintenance and shift. *Sociolinguistica* 14: 142–7.