EMPOWERMENT OF FOREIGN-BORN LATINO STUDENTS THROUGH THE USE OF
DIGITAL EDUCATIONAL TECHNOLOGIES: A COLLECTIVE-CASE STUDY

Oscar Ignacio Guerra Núñez

A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill in
partial fulfillment of the requirements for the degree of Doctor of Philosophy in Mass
Communication in the School of Journalism and Mass Communication.

Chapel Hill
2014

Approved by:

Rhonda Gibson

Juan F. Carrillo

Paul Jones

Patricia Parker

Joe Bob Hester

ABSTRACT

Oscar Guerra: Empowerment of Foreign-Born Latino Students Through the Use of Digital
Educational Technologies: A Collective-Case Study
(Under the direction of Rhonda Gibson)

This dissertation followed four newcomer foreign-born Latino (FBL) at Frank Porter

Graham Elementary School in North Carolina and examined how they engaged with critical

educational technologies. I designed this collective case study to examine the relationships

among the places, spaces, actors, and objects that affect their learning experiences and their

engagement with digital educational technologies.

Using qualitative methods of data collection, I observed and interviewed the four FBL

students, and also interviewed other actors (i.e., teachers, peers and parents) and observed other

spaces (i.e., classroom, afterschool program and home) relevant to their educational experiences.

Using a constructivist grounded theory methodology, I examined each FBL student's (1) dual-

socialization experience of acculturation and enculturation; (2) their use of digital educational

technology in the classroom; and (3) their family dynamics at home. I developed a conceptual

analysis of the participants' behaviors and responses with the goal of developing a grounded

model based on *their* perspectives and experiences.

I documented two different approaches to digital educational technology in the

classroom: the one-to-one approach and the organic approach. The organic approach successfully

resulted in the creation of empowering educational third spaces in the classroom; however, these

spaces proved difficult to foster in home settings. The challenge of fostering educational third

spaces at home was found to exceed general problems of access and to represent a larger

pedagogical problem: that academic goals and expectations were largely based on middle-class, Anglo parenting standards. Further research is needed to assess how family dynamics affect students' engagement with digital educational technologies.

In presenting the cases of these four FBL students I sought not only to understand their use of technology in classroom, but to better understand the empowering potential of digital educational technologies. In an era of digital dominance, digital nativity can be the key to Latino youth becoming the producers of their own future.

Para nuestro buen Dios, mi Mamá, Lagüi, María Inés, Cesarín, Regina y Escobedo. Soy quien soy gracias a ustedes.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ILLUSTRATIONS

CHAPTER 1: INTRODUCTION

Foreign-born Latino (FBL) students who attend American public schools face critical challenges in matching the performance of their native-born peers, particularly if they arrive after the early years of elementary school (Fitts, 2006). These challenges are even more evident in non-traditional Latino settlement states where the public education system still lacks the necessary mechanisms for addressing shifting demographics and growing inequality (Wortham, Murillo, & Hamann, 2002).

To strategically address this problem, some schools have opted to implement digital educational technologies to better foster student empowerment; however, the underlying premise of most of these interventions—the Diffusion of Innovations (DOI) model introduced by Rogers (1964)—is based upon an understanding of socioeconomic dynamics as they manifest and function within mainstream culture. The majority of Latino immigrants, though, come from working-class families with lower levels of income and education (and therefore lower rates of technology adoption) than the middle-class Anglo mainstream (Warschauer, Matuchniak, Pinkard, & Gadsden, 2010, p. 180). Moreover, according to Valdés (2001), the schools that should help reduce this disparity in fact simply reproduce the prevailing relations of power and reinforce the idea that working-class children are destined to "remain at the bottom" (p. 4). Within such a context, it is unlikely that the guiding principles of educational technological interventions could properly respond to the particular backgrounds and contexts of FBL students and their families.

A principal goal of digital educational technologies should be the legitimization of the lived experience of FBL students and the traditional knowledge (or *funds of knowledge*) associated with it; the DOI model's basis in modernization theory causes it to neglect these assets completely. The DOI model fundamentally overlooks the FBL student's identity and agency, and therefore overlooks his or her potential ownership of the learning process; founded upon a narrow approach to modernization theory, it ignores crucial issues of media ownership and control. In the definition of media ownership and control, I follow the Pew Hispanic Center report (Lopez, Gonzalez-Barrera, & Patten, 2013) that explains it in terms of the proportion of a given population with access to both traditional media (television, radio, and newspaper) and digital media (Internet, cellphone, smartphone, computers, and social networking). The DOI model further reproduces the dissemination of a capitalist ideology of innovation that ultimately propagates the false assumption that all development, progress, and opportunity should be defined in terms of an ability to respond to market trends. Melkote (1991) noted that, according to "Western sociologists," traditional beliefs and practices always present obstacles to modernization (p. 112). Within the modernization paradigm, in other words, the role of traditional culture and that of progress are fundamentally opposed. Because the DOI model promotes innovation at the expense of individual students' ownership of the learning process, educational technological interventions based on such an approach are bound to fail in their attempts to promote empowerment among marginalized student populations.

I. Key terms

Before turning to the details of the study itself, it is necessary to begin with the definition of some key terms that will be referenced frequently throughout my research. One of these key concepts is the idea of *learning* itself. Halliday-Wynes and Beddie (2009) defined learning as the

acquisition of knowledge and theorized three distinct kinds of learning environment: formal, non-formal, and informal. Formal learning occurs within a program of instruction in a certified institution (i.e., school activity), while non-formal learning takes place within a program that is not certified by an institution (i.e., community-based activity). Informal learning, finally, derives from daily work-related, family, or recreational activities (i.e., home activity). *Learning* can be understood as a communication process reinforced by the conversations or dialogues occurring within a combination of formal, non-formal, and informal processes (Sharples, 2005).

I use *dual socialization experience* to describe the two-fold process of social and cultural adaptation that immigrants experience when migrating to a foreign culture. *Acculturation* is the process by which an individual adopts the beliefs and behaviors of a new culture (Huda, 2012); for my student participants, this process took place primarily in school settings. *Enculturation*, by contrast, is the process by which an individual grows into her or his native cultural group—a process that, in my students' case, took place primarily in the home (Knight, Bernal, Garza, Cota, & Ocampo, 1993).

In this paper, a *space*—dynamic, active, and full of human meaning—differs from the place, the empty set of physical coordinates, in which it exists. Unlike the bare existence of a place, a *space's* meaning derives from the relationships among the actors and objects involved in it (Gustavson & Cytrynbaum, 2003, p. 256). A *third space* refers specifically to a space that challenges power asymmetries: in educational theory, a *third space* can be understood as an alternative space in which students are able to redistribute the power dynamics and transform their discourse into something meaningful (Fitts, 2009; Gutiérrez, Baquedano-López, & Tejeda, 1999; Gutiérrez, 1999, 2008; Pahl & Kelly, 2005; Skerret, 2010). In this context, *empowerment* is the process by which young people gain the ability, authority, control, and agency to make

decisions and implement changes in their own lives and the lives of others in their community (Darder, 2012; Freire, 2000).

Throughout the study, discussions of *technology* and *educational technologies* always refer to *digital educational technologies* unless otherwise noted. The Board of Directors of the Association for Educational Communications and Technology (AECT) define the field of educational technology as "the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources" (Richey, 2008, p. 24). I define the term as digital tools—whether hardware (i.e., laptops, iPads, S.M.A.R.T. Boards) or software (i.e., educational websites like KidBiz)—that aid the processes of learning in both school and home settings. A *technological educational third space*, therefore, is characterized by the intersection of digital educational technologies fostering critical thinking and the redistribution of educational power dynamics.

A variety of acronyms appear throughout the paper. *FBL*, or foreign-born Latino, refers to a Latino immigrant living in the United States; the FBL families in my study all emigrated from Mexico. I tend to use the term "my FBL families" to distinguish the four foreign-born Latino families in the study from other FBL families or communities. I use *NBL*, by contrast, to describe native-born Latinos, or those individuals of Latino background who were born in the United States. Lastly, I frequently use *FPG* to abbreviate Frank Porter Graham Elementary School, the study's primary research location.

II. Rationale for the study

This dissertation aims to contribute to a growing body of education research that does not rely upon the articulation of a universally applicable formula for the implementation of digital educational technologies. Rather, it focuses on bringing attention to the multiplicity of factors

that must be taken into account prior to the shaping of an educational technology intervention. This growing body of research investigates the roles of Latino students at schools and the strategies designed to empower them (Cummins, Bismilla, Cohen, Giampapa, & Leoni, 2005; Wortham et al., 2002; Urrieta, 2004). Moreover, some of the leading researchers in the field of educational technology (Gutiérrez, 1999, 2008; Gutiérrez et al., 1999; Warschauer, Matuchniak, Pinkard, & Gadsden, 2010; Warschauer, 2000, 2004; Fitts, 2009) share a common theoretical interest in emphasizing an ever-broadening understanding of the complex relationships among Latino education, educational technology, and critical pedagogy. Recently, Granger (2014) has particularly stressed the need for research examining the relationship between understudied demographic groups—like FBL students—and educational technologies. Even where there has been valuable research on the use of educational third spaces to reconfigure power dynamics at the classroom level (Cummins et al., 2005; Fitts, 2009; Gutiérrez, 1999, 2008), the implementation of such approaches for the empowerment of FBL students in American public schools remains unexplored.

This study aims to shed light on the variables and dynamic processes that must be thoroughly taken into account prior to the design of educational technology interventions. A properly critical intervention seeks to support students' backgrounds rather than invalidating or delegitimizing their prior knowledge: within the context of an educational third space, an FBL student is seen as a unique and active participant in the production of knowledge rather than as a passive recipient of data. The underlying sense of agency engendered by this approach is a requirement for realizing the ethical goals underlying the development of digital educational technologies.

The Unites States and, more specifically, rapidly growing non-traditional Latino settlement states like North Carolina urgently need to reconfigure their primary and secondary public school systems in order to respond to the challenges of changing demographics and growing inequality (Wortham et al., 2002). The use of educational technology inside and outside of the classroom possesses real potential for bridging the inequality gap through the promotion of student empowerment. This potential cannot be realized, however, without taking into consideration the particular and varied backgrounds of the target population—in economic as well as social, cultural, and political registers (Gutiérrez, 2008).

Because of its economic opportunities, North Carolina has become an attractive state for Latinos of both native and foreign origin, and local school districts have recently begun implementing initiatives to help manage the area's changing demographics. There is still, however, an overall lack of research regarding optimal classroom compositions in the context of dual-language programs serving Latino students (Warschauer, 2004). To maintain an appropriate level of specificity and emphasize a level of qualitative depth in the current study, I have limited the scope of inquiry to one educational space—the dual-language program at Frank Porter Graham Elementary School (FPG)—and its student population.

III. Research questions

My original research question sought to address how the application of two theoretical frameworks—a Freirean critical pedagogy and an emphasis on the benefits of educational third spaces for the acculturation process—might help in the understanding and design of educational technologies as empowerment tools for foreign-born Latino students. The final research question evolved over time, however, and emerged from my own involvement with the places, spaces, actors, and objects in the study. It does not seek definitive articulation, but rather to gesture to the

open and ongoing nature of the research problematic: the relationship between FBL students and new technology. Instead of the normative approach implied by the original research question, the final research question seeks a fuller descriptive account of how and to what extent newcomer FBL students engage with digital educational technologies. Moreover, in order to properly address this question, I first needed to tackle a series of preliminary questions: for instance, what are the central elements of the acculturation and enculturation processes that FBL students experience? Within the school setting, how frequently and in what ways are existing digital educational technologies incorporated into the classroom space? Finally and most importantly, why is it so difficult to foster successful classroom educational third spaces in the context of the FBL home?

In the next section I set the stage for my research by briefly examining the growing importance of the Latino demographic within the American public education system and introducing the idea of using educational technologies as tools for empowerment. The use of digital educational technologies as tools of empowerment will be addressed at greater length in later chapters, but a short introduction to some key concepts is necessary before proceeding to the body of the paper.

IV. Setting the stage

The importance of Latino youth within the American public education system is becoming a common interest among cultural studies scholars, especially in relation to potential empowerment strategies designed to specifically target this group (Cummins et al., 2005; Wortham et al., 2002; Harmann & Harklau, 2010; Urrieta, 2004). There has also been extensive research investigating role of technology in education and its potential as a catalyst for student empowerment. Despite increasing scholarly interest in these complementary fields, however,

there is little available research bringing together in one place a sensitive qualitative analysis of the FBL socialization experience, an emphasis on the empowerment of FBL students through critical pedagogy, and a discussion on the use of digital educational technologies to create educational third spaces.

Digital educational technologies hold great potential as tools for student empowerment, particularly for members of marginalized groups like immigrant Latino children within the American public school system. Realizing this potential is not merely a matter of providing access to the necessary technological devices, however; rather, only a process that involves a critical understanding of the target population, a carefully targeted development, and a sensitive implementation can result in lasting positive outcomes. The lack of the knowledge required for such an intervention is increasingly and especially obvious in those states where Latino settlement is a relatively recent phenomenon (Wortham et al., 2002).

At both the local and national level, there is a lack of critically tailored programs designed to foster the successful adoption of new technologies in the classroom (Warschauer, 2004). To some extent this can be attributed to the general paucity of qualitative research concerning FBL students' adaptation to life in the United States and their engagement with digital media. Although my study seeks to bring attention to the Latino student context within the United States as a whole, it focuses more specifically on the experience of FBL students in a particular North Carolina community. In the next sections, I begin with a discussion of the broader context of Latino demographics in the United States before turning to examine in greater detail Latino demographics —with a special emphasis on the FBL population—in non-traditional Latino settlement states like North Carolina. I then examine the public school system in North Carolina and Chapel Hill-Carrboro and the position of FPG's dual-language program within it. I

conclude the chapter with a discussion of two features of the Chapel Hill-Carrboro area that dramatically impact the FBL social experience: the rapid growth of the Latino community, and the largely fraught public opinion regarding Latino immigrants and immigration.

The statistical information presented below is based on tabulations of the Census Bureau's 2012 American Community Survey (ACS). The ACS is the largest household survey in the United States and with a sample of about 3 million addresses it was designed to provide estimates of the size and characteristics of the resident population, which includes persons living in households and group quarters. To supplement this data I used the latest survey reports from the Pew Research Center's Hispanic Trends Project, an institution that publishes demographic studies, policy analysis, and other social science research on Latino issues. In addition to the data from the Pew Hispanic Center, I also used "DataFerrett," a U.S. Census Bureau online data analysis and extraction tool designed to customize federal, state, and local data. It is important to note that data from both the Pew Hispanic Center (based on ACS tabulations) and Data Ferret is based on annual and monthly surveys, estimates, and extrapolations. In a study with such a limited geographical area, the reliability of reports tend to decrease as the reports get more recent. Therefore, in order to optimize a balance of updated and reliable information, I used a combination of data from the official 2010 U.S. Census and from several collected estimates and extrapolations from 2011-2014.

V. Setting the national and state stage

In order to properly examine the effect of digital educational technology on the empowerment of FBL students, it is necessary to understand the demographic composition and the complexity of demographic trends at both state and national levels. According to the latest ACS update (2012), roughly 17% of the U.S. population self-identifies as Latino, a group

representing a population of 52.9 million people; of that number, 35.5% or 18.8 million represent

Latinos who are foreign-born. Since 2000, the major source of growth has shifted from

immigration to native births, as the U.S.-born Latino population grew faster than the Latino

foreign-born population. As a result, the share of foreign-born Latinos in the 2000s decreased

from about 40% to 35.5% in 2012. That is, foreign-born Latinos population is a decreasing but

still substantial population that should not remain as an understudied group (Lopez, 2014).
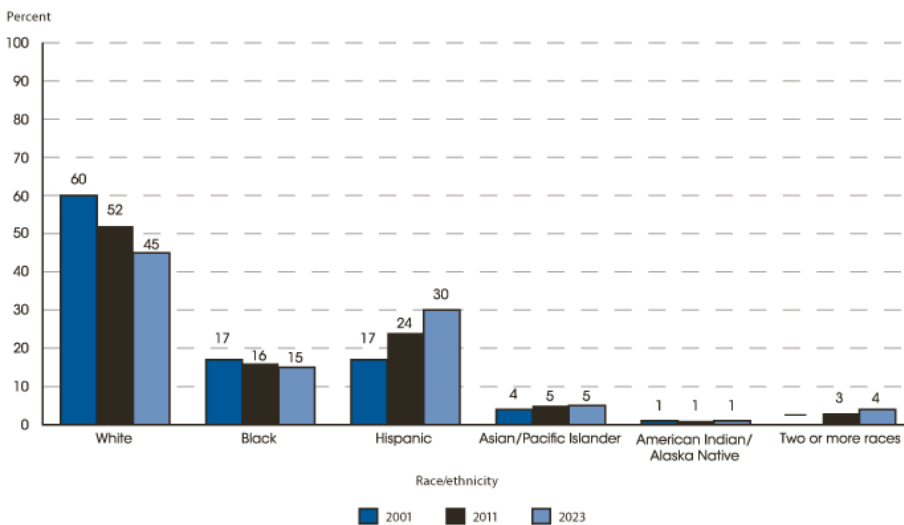
Figure 1. Percentage distribution of U.S. public school students enrolled in prekindergarten through 12th grade, by race/ethnicity. Figure shows data from the fall of selected years: 2001, 2011, and 2023. Adapted from The National Center for Education Statistics [NCES], 2013.

Recent data suggest an unprecedented need for addressing the place of Latino students

within the American public school system. The National Center for Education Statistics (NCES)

is the primary federal entity responsible for collecting, analyzing, and reporting data on

education in the U.S., and its database includes information and statistics on demographic trends

in school enrollment across the country. Data from NCES, collected by the U.S. Census Bureau

and represented in Figure 1, shows that from fall 2001 through fall 2011, the number of White

students enrolled in prekindergarten through 12th grade in U.S. public schools reduced from 28.7

million to 25.6 million, and their share of public school enrollment reduced from 60% to 52%. In

contrast, the number of Latino students enrolled during this period increased from 8.2 million to 11.8 million students, and their share of public school enrollment increased from 17% to 24%. Data also indicates that, for the first time, Latino students constituted the largest share of public school enrollment in four states: Arizona, California, New Mexico, and Texas (NCES, 2013).

In October of 2011, roughly 12.4 million Latino students were enrolled in the nation's public schools, from pre-Kindergarten to twelfth grade (Fry, 2012, p. 1). For the first time in U.S. history, fully one-quarter (25%) of public elementary school children were Latino. One year later, according to the latest U.S. Census (2010), Latinos aged 10-13 (both native- and foreign-born) accounted for 3,744,000 of public elementary school students. Of that number, 52% were male and 48% were female.

The state of North Carolina reflects a similar pattern in its demographic re-composition and public education enrollment. In the latest ACS update in 2012, the Latino population in North Carolina represented 8.7% of the total state population, a 111.1% increase since 2000 when the Latino population made up only 4.71% of the state total. Latino enrollment in North Carolina public schools has accordingly increased from 8.4% in 2005-2006 to 14.3% in 2012-2013 (North Carolina Public Schools, 2013).

The evident growth of Latino participation in North Carolina's public schools makes it increasingly important to take into account the academic performance of this population. These children will one day represent a substantial portion of the workforce, as well as a considerable share of the college-aged population. Despite the fact that in North Carolina Latino students are seeing gains in test scores and high school graduation rates (from 52.3% in 2006 to 72.8% in 2012), the graduation rates for both male and female members of this group that remain far behind those of their Anglo and Asian-American counterparts (86% and 84%, respectively;

North Carolina Public Schools, 2013). From these numbers we must conclude that there is a distinct need to improve the academic performance of Latino students in North Carolina, and my study investigates the use of critical educational technology in the service of such a goal.

Foreign-born Latinos and native-born Latinos: internet use and computer ownership. To assess the use of critical educational technologies—their role in student empowerment and therefore their efficacy in improving academic performance—it is necessary to explore the relationship between children and technology. A child's ability to adopt and adapt to technological innovations does not develop in a vacuum; it is significantly influenced by the technological resources available both in school and home settings. This is particularly relevant in the case of marginalized groups like foreign-born Latinos: FBL children are deeply influenced by their parents' origin, language dominance, and other factors such as age, socioeconomic status, and education. The interrelationships between such factors and Latinos' use of technologies like computers and the Internet are complex, and critical educational technologies must be developed and implemented with such complexity in mind.

According to a Pew Hispanic Center (2013) study on the digital divide between native- and foreign-born Latinos, 56% of Latinos age 16 and older were foreign-born, while only 44% were born in the U.S. Interestingly, Internet use is closely correlated with nativity: only 51% of foreign-born Latinos use the Internet while 85% of native-born Latinos are online (Figure 2). This disparity in Internet use is due in part to the fact that the native-born are younger on average than their foreign-born counterparts, but it is also closely linked with language dominance: some 87% of English-dominant Latinos ages 16 and older go online, compared to 77% of bilingual Latinos. The share drops to only 35% for Spanish-dominant Latinos. Livingstone (2010) has further highlighted the digital divide by showing that technology use (i.e., combined use of cell

12

phones, smartphones, mobile devices, and computers) among foreign-born Latinos remains

significantly below that of their U.S.-born counterparts.
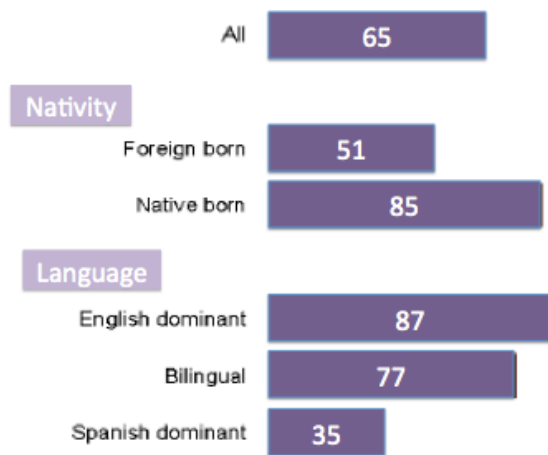
Figure 2. Latino internet use. Adapted from *The Latino Digital Divide: The Native Born versus the Foreign Born*, by Livingston, 2010. Pew Internet & American Life Project.

    While computer ownership is similarly associated with nativity and language dominance,

other factors—including age, socioeconomic status, and education—come into play as well. The

Internet and American Life Project (Lopez, 2012) found that native-born Latinos are more likely

than foreign-born Latinos to own a desktop or laptop computer by a margin of 83% to 64%.

Similarly, English-dominant Latinos and bilingual Latinos are more likely than Spanish-

dominant Latinos to own a computer—82% and 78%, versus 59%, respectively (Figure 3).
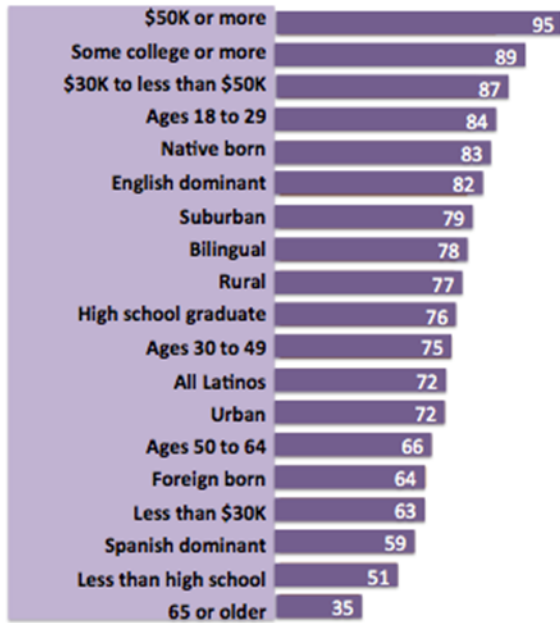
Figure 3. Computer ownership among Latinos, 2012. Adapted from *Computer Ownership*, by Lopez et al., 2013. Pew Internet & American Life Project.

The implementation of new educational technologies to increase academic performance requires taking into account the accessibility and usage patterns of new technologies, as data plainly shows that foreign-born Latinos have lower levels of access to the devices necessary for distributing critical educational technologies.

VI. Setting the "new South" stage

Latino researchers have begun using the label "New Latino Diaspora" (Wortham et al., 2002) to refer to the striking demographic phenomenon in the American South in which "many newly arrived immigrants, as well as some who had previously settled in traditional destination states in the U.S., are taking up residence both temporarily or permanently in non-traditional Latino states such as North Carolina, Arkansas, Georgia, Tennessee, South Carolina, and Alabama" (Wortham et al., 2002, p. 1). This trend, and the increase in Latino population within these target geographies, can be attributed to the changing patterns of U.S. labor markets, notably within agriculture, construction, manufacturing, and assembly (Harmann & Harklau, 2010). The

community surrounding Franklin Porter Graham Elementary School, locate in Chapel Hill, North Carolina, is exemplary of the New Latino Diaspora, and so—in order to better contextualize my FBL students' situations—in the following section I explore the demographic trends within new settlement areas in the American South, highlighting economic factors that have contributed to the increase of Latino migration into the region. The data is based upon the latest findings of the Pew Hispanic Center, and is further developed by supporting demographic data published by the Western Interstate Commission for Higher Education, The Public Schools of North Carolina, and the ACS U.S. Census Bureau (Whatley & Batalova, 2013; Passel & Cohn, 2009; Howard, Lindholm, Sugarman, Christian, & Rogers, 2007; Lindholm-Leary, 2005; Genesee, Lindholm, Saunders, & Donna, 2005).

Population. After four decades of rapid growth, the number of Latino immigrants in the U.S. reached a record 18.8 million in 2010, but has since stalled. However, according to Lopez (2013), not a single state experienced a decline in its Latino population. This means that the primary source of growth has changed from foreign born to native births. In the same study, North Carolina figured as the seventh-fastest-growing Latino state from the *non-traditional settlement areas* (i.e., Alabama, South Carolina, Tennessee, Kentucky, South Dakota, Arkansas and North Carolina) with an increase of 120% from 2000 to 2011. According to the Pew Hispanic Center, as of 2012 the Latino population in North Carolina represented 9% of the total population (with a 58% majority of Mexican origin). Of that percentage, 38% were foreign-born Latinos (Lopez, 2014). In 2013 the median age of foreign-born Latinos in North Carolina was 33 years old; strikingly, the median age for native-born Latinos was 11 years old (Pew Hispanic Center, 2011). That is, the group of fifth-graders that I observed at FPG were therefore a minority within a growing minority. According to DataFerrett, in 2013, this group of students

accounted for 8548 foreign-born Latinos aged 10-13 in North Carolina (53% male and 47% female), all of them from Mexico.

Economic status. With regard to the economic status of Latinos in North Carolina, the Pew Hispanic Center (2011) found an annual median income per person of $17,200 USD compared to a median African-American income of $22,000 USD and White income of $30,000 USD. Similarly, the rate of Latino homeownership rate was 43%, compared to the 48% and 74% for African-Americans and Whites, respectively. Finally, the study revealed that 43% of Latinos in the state were living without healthcare, and—even more alarmingly—that 71% of foreign-born Latinos lacked health insurance. (Pew Hispanic Center, 2011).

English proficiency. According to the Pew Hispanic Center, in 2011 there were 25.3 million Limited English Proficient (LEP) individuals, both foreign- and native-born, living in the United States. Among those in this group, an estimated 81% were Latino (with 55% of Mexican origin; 4% of Puerto Rican origin; 3% from El Salvador; and 8% from other Latino countries). Although most of the LEP individuals accounted for in this statistic were foreign-born, around 19% (an equivalent of 4.8 million) were native-born. Over the past 20 years, in other words, the share of the total U.S. population with limited English proficiency has grown from roughly 6% in 1990 to nearly 9% in 2011 (Whatley & Batalova, 2013, p. 1).

Legal status. In order to help safeguard the accuracy of their self-reported data, the U.S. Census Bureau actively avoids inquiring about the legal standing or immigration status of its survey participants. The logic behind this decision is the assumption that—despite promises of confidentiality regarding personal information—undocumented participants facing the prospect of deportation might be more reluctant to provide truthful responses. However, the available current research does show that substantial shares of the FBL population in the new South are

undocumented (Passel & Cohn, 2009). At the national level, about 80% of the immigrants arriving from Mexico since 1995 have been unauthorized residents. The state of North Carolina, with roughly 300,000 undocumented immigrants, now ranks eighth among states with the largest undocumented populations (Passel & Cohn, 2009). According to the latest Pew report regarding unauthorized immigration, however, since reaching a peak of 12.2 million unauthorized immigrants in 2007, the nationwide trend in unauthorized immigration has seemingly slowed, resulting in a current population of 11.7 million undocumented immigrants. Further evidence of this trend comes from a report that the number of Mexicans who moved from the U.S. back to Mexico between 2005 and 2010 roughly doubled from the number who had done so in the five-year period a decade earlier (Pew Hispanic Center, 2013).

Education. With regard to education in *non-traditional settlement areas*, the Center predicts that—driven primarily by the expansion in the Latino population—by 2020, 45% of public high school graduates will be non-white. The Western Interstate Commission for Higher Education's study, *Knocking at the College Door,* similarly predicts that by 2020 White high-school graduates will have dropped by 228,000 while the number of Latino graduates will have risen by 197,000. The number of Asian-American graduates is expected to increase as well, while the number of African-American graduates is projected to decrease (Pew Hispanic Center, 2011).

However, even while Latino school enrollment numbers are rising, lower levels of education persist within the non-traditional settlement areas, or the "new South". The FBL population in this area display lower levels of education than in the rest of the country. Nationwide, roughly 43% of FBL adults (with an average age of 25) failed to complete a high school education. Within the new South, however, fully 62% of FBL adults lack a high school

diploma. North Carolina's Rowan and Alamance counties, where 82% of the FBL population had not completed high school, represent the highest rates in the country (Pew Hispanic Center, 2011).

In the new South a similarly booming population trend became more apparent as many of the initially single foreign-born adults started settling down and starting families. As larger amounts of immigrant women relocate to the region, the number of families is expected to rise exponentially. Consequently, despite the fact that a decade ago the Latino school-age population accounted for only a modest proportion of the total, this number has quickly escalated. In counties where Latino youth numbered in the dozens, they now number in the hundreds; were they numbered in the hundreds, they now number in the thousands (Pew Hispanic Center, 2011). Compared to the nation's total student population, the number of school-aged Latinos in the new South is small. However, their impact on local schools is amplified by two factors: (1) children who come from non-English speaking families have special needs in terms of English-language instruction; and (2) most school systems do not have the institutional resources or programs in place to deal with the special needs and particular family circumstances associated with the undocumented Latino community (Warschauer et al., 2010).

VII. The school system in North Carolina and Chapel Hill-Carrboro

Title III of the federal Elementary and Secondary Education Act of 2001 (No Child Left Behind or NCLB) requires states to implement yearly student academic assessments that include, at a minimum, academic evaluations in mathematics and reading/language skills. On May 31, 2012, the United States Department of Education (USED) approved North Carolina's request for a flexibility waiver from some of the requirements of NCLB as specified in the Elementary and Secondary Education Act. The waiver process allows states the flexibility they need to improve

schools and supports efforts at the state level to close achievement gaps and improve learning for students.

While North Carolina schools will still be measured against the annual measurable objectives (AMOs) calculated and reported under NCLB, they will no longer be subjected to the "all or nothing" measure of the past. The new AMOs include more specific achievement targets for each student group: guarantees that at least 95% of students participate in testing, high school graduation rate targets for each group, and attendance rate targets for students in grades K-8.

Under the new Elementary and Secondary Education Act, schools are categorized as follows:

- Focus Schools, elementary and middle schools that contribute to the achievement gap in the state, or high schools not already identified as a priority school and with a graduation rate of less than 60%. There are 130 Focus Schools in North Carolina, of which Frank Porter Graham is one.

- Priority Schools, schools that have been identified as among the lowest-performing schools in the state. There are 77 priority schools in North Carolina.

- Reward Schools, high-performing schools that do not demonstrate significant achievement gaps across subgroups and that are making the most progress in improving the performance of all students. There are 120 Reward Schools in North Carolina. (Public Schools of North Carolina).

The state of North Carolina is divided into 100 counties and has 115 school districts. Frank Porter Graham Elementary School belongs to Chapel Hill-Carrboro City Schools (CHCCS) district. This district educates around 12,000 students (pre-K through 12th grade) in the southeastern part of Orange County, North Carolina (North Carolina Public Schools, 2013).

The Chapel Hill-Carrboro District's mission, as stated on their website, is to "enable all students to acquire, through programs of excellence and fairness, the knowledge, skills, and insights necessary to live rewarding, productive lives in an ever-changing society" (Chapel Hill-Carrboro City Schools, 2014)

The district operates 3 high schools, 4 middle schools, 11 elementary schools, a school for young people being treated at UNC Hospital, and an alternative high school. With its close proximity to three major universities and to the Research Triangle Park, one of the most prominent high-tech research and development centers in the country, the Chapel Hill-Carrboro District serves the children of one of the best-educated populations in the United States. It is the school district associated with most of the town of Chapel Hill—excepting the area of the town located within Durham County—and the entire town of Carrboro. The school district's funding derives from state property taxes as well as federal funding. Its administrative center at Lincoln Center additionally provides services for gifted, special needs, and limited English proficiency students. Nevertheless, according to the Public Schools of North Carolina and the NC State Board of Education, only 1.02% of the North Carolina's Public School expenditures go into the Limited English Proficient Students category (North Carolina Public Schools, 2011).

VIII. Frank Porter Graham Elementary School: a dual-language program

The CHCCS district currently offers a dual-language program at Glenwood Elementary (Mandarin Chinese/English), at Carrboro Elementary School (Spanish/English), and at the Frank Porter Graham (FPG) Elementary School, where it offers a dual-language magnet program (Spanish/English). FPG is a public Focus School located in Chapel Hill, North Carolina and seeks to ensure that all students "become bilingual, biliterate, and develop multicultural awareness."

Located adjacent to the Frank Porter Graham Child Development Center, FPG's dual-language program opened in 2009 and became the district's first magnet school in 2013. Since every student is a second-language learner in either English or Spanish, classroom instruction must include strategies to ensure students are experiencing and using language in meaningful ways by building upon what they already know. The school's primary goal is to teach both children and adults to value, appreciate, and work with others who may not share the same language or cultural background. As of the 2013-2014 academic year, FPG was one of eleven elementary schools in CHCCS and served 525 students from preschool to the fifth grade, with an overall student-to-teacher ratio of 12:1 in 23 classrooms. The Latino population represents the largest share (237 students, or 49%) of the total school population, compared to the White (198 students, or 40%), African-American (24 students, or 5%), Asian-American (2%), and multiracial (23 students, or 4%) student populations.

The term "dual-language" refers to any program that offers course content and instruction to all students in two languages and that promotes bilingualism and bi-literacy, grade-level academic achievement, and multicultural competence for all students (Howard et al., 2007, p. 1). Little research has been conducted to determine the best classroom composition for bilingual education programs in general or dual-language programs in particular (Fitts, 2006, 2009; Warschauer, 2000. 2004). In FPG´s dual-language program, the purpose is to maintain an environment of educational and linguistic equity in the classroom and to promote interactions between native speakers of the two languages; the most desirable ratio is 50% native English speakers to 50% English-language learners. In order to ensure that there are enough students to model each language and promote interactions between the two groups of students, there should be no more than two speakers of one language to one speaker of the alternative. At FPG, the ratio

of Spanish/English in kindergarten classes is 90:10. The ratio increases each year: to 80:20 in first grade and to 70:30 in the second grade before finally leveling out to a 50:50 ratio for the third, fourth, and fifth grades. The students who participated in my study were newcomer FBL fifth graders.

The populations represented in the dual-language education model vary considerably by school site. Many times the English-speaking and non-English-language populations are not comparable in terms of nativity, age, education, English-language skills, country of origin, legal status, and gender. These differences must be addressed in the program structure, program planning, curriculum, instruction, assessment, professional development, and home-school collaborations. For instance, there is often more socioeconomic diversity among English language learners from Asian and European backgrounds than among those from Latino backgrounds (U.S. Census Bureau, 2010). The former are more likely to be members of the middle class and to come from homes with educated parents (Lindholm-Leary, 2005). Most of the Spanish-speaking children in dual-language programs in the new South come from a different socioeconomic status. According to research, this status can be characterized as largely immigrant, with working-class parents who have only 5-6 years of formal education (Lindholm-Leary, 2005; Genesee et al., 2005). It is important to note that there is variation within this group as well. For instance, some Spanish-speaking students are native-born or have parents who are highly educated members of the middle class, while others live in impoverished conditions. Also, some parents are very involved in their children's education and understand how to promote achievement, while other parents are less involved—for a variety of reasons—or have no formal education that would enable them to help their children with their schoolwork (Lindholm-Leary, 2005).

IX. Public opinion in North Carolina

The Pew Hispanic Center estimates that the undocumented population in the United States during 2011, the last year for which an estimate is available, was of 11.1 million unauthorized immigrants, with a 52% of Mexican-born majority (Cohn, 2012). According to the Center's most recent (2013) survey regarding immigration policy, a substantial amount of Americans (71%) believe that undocumented immigrants currently residing in the U.S. should be granted amnesty if they meet specific criteria. Among these prospective requirements, English proficiency ranks the highest. Public opinion trends are strongly correlated with political affiliation: 60% of Democrats believe that a comprehensive immigration reform can take place at the same time as border improvements, while 56% of Republicans believe that borders must be effectively controlled before advancing towards immigration reform. The debate is also polarized along ethnic lines: native-born Latinos and Asian-Americans believe that alleviating undocumented immigrants from the threat of deportation should be prioritized over the creation of a pathway towards citizenship. Altogether, despite the nation's struggling economic situation, the survey results showed a generally positive attitude regarding immigration. Moreover, three-quarters of respondents believe that granting legal status to undocumented immigrants would improve the economy.

Another aspect of the survey relates to the perception of unauthorized immigrants. The majority of Americans believe that illegal immigration rates are higher than they were ten years ago; recent studies, however, have found that the number of undocumented immigrants has actually decreased. It is important to investigate the factors behind this discrepancy between public perception and reality.

Over the last 40 years, undocumented immigration from Mexico alone accounts for the presence of approximately 12 million people in the U.S. (Cohn, 2012). The increase in the risks associated with immigration and changing work prospects in the face of an economic recession have affected this influx, bringing it almost to a halt. A recent study that sought to explain the rationale behind this shift found that, when surveyed, the majority of Mexicans (61%) reported a lack of interest in moving to the U.S., even if they had the means and opportunity to do so (Goo, 2013).

A disapproving North Carolina. Regardless of the somewhat increasingly favorable attitude nationwide towards immigration reform, North Carolinian voters showed no signs of sympathy for legislative bill S.744, which, if passed, would grant amnesty to more than 12 million illegal aliens. On June 2013, the non-profit Federation for American Immigration Reform (FAIR), described as non-partisan but with politically conservative leanings, conducted a poll and concluded that North Carolinians (N=500) display a strong opposition to such measures: 52% of North Carolina voters opposed S.744, and 33% of this figure "strongly opposed" the document; 63% opposed granting legal status to "illegal aliens" before a border security plan is fully implemented; and 25% of those surveyed opposed granting amnesty under any circumstance (Federation for American Immigration Reform [FAIR], 2013). A majority (53%) of the voters believed that, given the chance, state authorities should deport all the undocumented immigrants. Further elaborating on the public opinion of North Carolinians, FAIR presented a 2007 study conducted by Elon University among 476 adults. This study revealed that 63% of the participants disagreed (34% strongly disagreed) with any proposal that would allow the prolonged stay of undocumented immigrants with current employment (FAIR, 2013).

These findings are in line with those published by a University of North Carolina study (Watson & Riffe, 2013) regarding North Carolinians' opinions (N=529) on immigration policy. This research found that respondents who viewed immigrants as threats also perceived media coverage as hostile, and believed further that if media coverage were not biased in immigrants' favor, their fellow North Carolinians would share their point of view. This perception clearly existed despite the lack of any clear relationship between the perceived threat and third-person effect (mass communication as having a greater effect on "others" than on the self). In light of such results, the researchers noted the possibility that the media contributed to the frustration of "the will of the people." In June of 2013, the president of FAIR Dan Stein admitted that nothing in the current bill would especially benefit North Carolinians. Watson and Riffe (2013) confirmed that the majority of sampled North Carolina residents perceived immigration as a threat. The perceived threat was negatively related to income, education, race, and age, with poorer, less-educated, and poorer white respondents most worried. In addition, the use of Internet news outlets was influential in the construction of "feeling threatened," leading the authors to conclude that coverage and increased knowledge can contribute to a sense that immigrants are less threatening.

It is evident that the current public opinion of North Carolinians is not favorable towards illegal immigration, and a latent sense of racism can be perceived in the studies presented above. This unfavorable sentiment impacts the process of acculturation of newcomer foreign-born Latinos. However, the socialization experience of both undocumented and legal Latino immigrants is influenced by the public opinion not only in their acculturation process but also in their enculturation (to their own ethnic group) process that takes place mainly within their Latino community and media.

X. Enculturation of media and physical spaces: symbolic Latino environments in the

Chapel Hill-Carrboro and Durham area

Adams, Baskerville, Lee, Spruiell, and Wolf (2006) stated that newcomer immigrants'

enculturation process is influenced by the media, the available social space, and social dynamics

in the area. According to the Latino Journalism and Media at Carolina (Latijam) website, there

are at least 29 Latino media outlets in North Carolina. These include magazines (1), television

stations (2), newspapers (8), and radio stations (18). Two weekly newspapers publish in Raleigh:

La Conexion USA and *Que Pasa*. One radio station, La Grande 1000 AM, and one 24-hour

television station, WUVC Channel 40-1, serve the greater Raleigh/Durham area. The cities of

Chapel Hill-Carrboro and Durham have two radio stations, WCOM LPFM Carrboro 103.5 FM

and Mega 1310 AM, and one television station, WTNC-LD Channel 40. According to Vargas

(2006), Latinos—in general but specifically in the Durham/Chapel Hill-Carrboro area—are

enculturated not only by these media but also by mainstream English media, transnational media,

nationwide Latino media, and black media. Newly arrived undocumented immigrants are

influenced by far more tangible factors than just the media: they are significantly influenced as

well by the local community in which they reside.

Communal spaces and socialization dynamics in the area: (*tiendas*, churches, and

Latino organizations). When Latinos migrate to the U.S., they rely on their Spanish-speaking

family and friends, who operate as mentors and brokers helping them with the transition and

adaptation processes (Morales & Hanson, 2005). This closeness fosters a profound sense of

loyalty and gratitude (Adams et al., 2006). The intertwining of cultural traditions, consumerism,

and socialization spaces is demonstrated by the importance of ethnic stores within Latino

communities. According to the Chapel Hill-Carrboro and Durham *Yellow Pages*, there are 30

Mexican and Latin American grocery stores in the area. My fieldwork among Latino parents corroborated that these *tiendas* [stores] represent extremely important socialization spaces for the community due to their "enculturative" characteristics (i.e., language of interaction, familiarity of brands, etc.).

Another setting that plays a crucial role in the Latino community is that of the church. Nationwide, more than two-thirds of Latinos (68%) identify themselves as Roman Catholics and 15% as Protestants (Pew Hispanic Center, 2007). In the latest "Latino Religion" survey conducted by the Pew Hispanic Center (2007) most Latinos said that they consider church to be "the most trusted voice in this community." Roughly 64% of Latinos attend church on a regular basis, compared to a rate of 40% among Americans at large. Respondents of the survey further demonstrated the role of the institution within their everyday life, reporting that church "influences family life and community affairs, giving spiritual meaning to the Hispanic culture" and explaining that "a person seeks refuge among a culture that is understanding" (Goo, 2013). Taking into account the stress associated with migration, it is reasonable to assume that many distressed religious newcomers looking for solace end up finding it in the context of the church. The Chapel Hill-Carrboro and Durham *Yellow Pages* list 43 Catholic churches in the area.

To better understand how individuals' enculturation processes are influenced by the greater Latino community, one needs only to point to the history of the foundation of El Centro Hispano, one of the largest Latino community-based organizations in the area. El Centro Hispano began in 1992 as a small program serving 200 people from the basement of *La Iglesia de San Andrés* (now *Iglesia del Buen Pastor*) in Durham. Now operating with private funding and serving more than 11,000 Latinos annually, El Centro Hispano has been working to fulfill its mission by offering programs and services in four core areas: support services, education, health,

and community organizing. Within these focus areas, they offer 38 distinct programs and services to meet expressed community needs, thus assisting in the acculturation process of Latinos in the area. They have also opened a branch in Carrboro to better serve the community in that part of their service area (El Centro Hispano).

Another communal space that has emerged to aid Latino immigrants is the Latino Community Credit Union, a financial institution founded 14 years ago to serve immigrant communities who have difficulty accessing other kinds of financial services. The Latino Community Credit Union educates individuals in different churches, schools, refugee agencies, and other non-profit organizations about its ethical and affordable financial services and free financial education programs. As it states on its website, this *cooperativa* began as a measure for preventing crime against Latinos. Because of their lack of financial experience and banking options, immigrants tend to use cash more often than other forms of money, making them more vulnerable to fraud. The Latino Community Credit Union tries to empower and educate individuals and families through economic opportunities, and has been so successful that today it has 11 branches across the state and over 52,000 members (Latino Community Credit Union).

So far, I have explained the demographics of Latinos—with special emphasis on foreign-born Latinos—in the United States and in North Carolina. I also described the school system in North Carolina and Chapel Hill-Carrboro and FPG with its dual-language program. Finally I concluded this section with an examination of two aspects that impact the socialization process of FBL in the Chapel Hill-Carrboro and Durham area. The first one was the public opinion on undocumented immigrants and provided examples of the growing Latino community.

In order to understand the dual socialization process of newcomer immigrants it is important to understand both their background and how their new reality is shaped by their

symbolic (public opinion, media) and physical (schools, stores, churches) environments. There is a complex web of factors that affect and influence the socialization experience, factors that permeate the socialization dynamics with their family, communities, and even their physical spaces. These factors mutually affect and influence the adoption of new behavior patterns relevant to their new reality. How immigrants experience this socialization process affects the ways in which they engage with different situations. For instance, in the case of the FBL fifth-grade students in this study, how is the socialization process impacting their approach to digital media, and more specifically, to digital educational technologies.

XI. Outline of dissertation

In the next chapter, I examine and discuss theoretical foundation for the current research. It begins by setting the stage for the need of a critical framework for educational technologies by explaining and critiquing the current model under which these interventions are carried on: the Diffusion of Innovation Model. In an additional attempt to situate my research within the framework, I explore the key constructs and theoretical models involved in my intervention, that is: a participatory approach with a Freirean perspective, including subsections covering the foundations of critical pedagogy as well as *Pedagogy of the Oppressed* and its shortcomings; the theoretical background to the notion of third spaces and its translation into an educational third space and its possible challenges; and the empowering of Latino students in educational settings through educational technologies, its moving elements, challenges and potential as critical pedagogy tools. Finally, in order to broaden the discussion on acculturation and enculturation, I examine how a disapproving North Carolinian public opinion of undocumented immigrants affects the acculturation process, and on the other hand, how a small but growing Latino community (physical and symbolic) in the area impacts the enculturation process.

Chapter 3 covers an overall approach to Grounded Theory, which constitutes the methodological foundation of my study. It also includes a description of the research site and population; and the instruments, measures and sources of data. It also includes the data analysis process of the applied grounded theory approach, highlighting the themes that emerge from the interviews and field observations, as well as the ethical considerations respected throughout the research process to conclude with a self-reflection about how I may influence my research.

In Chapter 4, I provide detailed profiles of the four FBL students and their families in order to familiarize the reader with the qualitative data that will be incorporated into the analysis and discussion of subsequent chapters. I describe the individual situations and contexts of each of the four FBL students included in this study. Each description includes the student's level of English, the levels of English proficiency and education of the parents, the parents' occupations, the level of technology use in the home, the level of traditional media present in the home, and the student's performance in the classroom.

Then in Chapter 5, I confirm that the majority of socialization adjustments among my FBL students and their families occur within the school and home settings. Two themes emerged within a school setting: "accepting the other," or a willingness to recognize and value cultural difference; and "creating cultural competence," which requires the encouragement of sensitive teachers who have experience working in a diverse and multicultural setting. Next, I discuss the related and complementary themes that determine the process of enculturation within the home setting. Finally, I describe how this dual socialization experience is shaped not only by a student's experiences within the school and home settings, but also by factors deriving from a student's experience in the external community, like their perceptions of systemic racism.

Once I have established a detailed account of my participants' dual-socialization experience, in the next chapter, I offer a discussion and analysis of the five major themes to emerge from my research regarding FBL's use of digital educational technology. The themes are as follows: (1) Defining digital literacy, access and use: the difference between having the technology and using it for higher-level thinking; (2) Mapping FPG: relationship between places, spaces, objects, and actors; (3) Being digital natives; (4) Classroom approaches of technology for FBL as digital natives; and (5) Using educational technologies at home: the real challenge. Once I have confirmed that digital educational technology has the capacity to empower FBL students under classroom settings, in the next chapter I discuss why the fostering of such spaces in the home are so challenging.

In Chapter 7, I focus more closely on FBL family dynamics in order to better understand their incompatibilities with the American school system. The main argument of this chapter is that if the school expectancies of FBL parents are under Anglo middle-class standards, these expectancies and attempts to empower Latino families will always fall off short. I address the following themes: (1) Acknowledging how FBL families work; (2) Explaining that FBL parents are not adjunct teachers; and (3) Empowering critical FBL parents: FPG's attempts to support Latino parents.

Drawing from the research problem and sub-questions, and analyzing the findings in accordance with the conceptual framework, in the last chapter I summarize the main categories and present an overview of my research claims. I also highlight the limitations arising from the study's particular approach and point to the broader implications of the research. Finally, the last section of the document contains all of the visual supporting material—like diagrams, images, interview instruments, and observation protocols—as well as consent and assent forms.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This chapter condenses and articulates the theoretical foundations of the current research. I demonstrate the need for a critical framework for educational technologies by explaining and critiquing the Diffusion of Innovation model according to which most traditional technological interventions are carried out. Following these criticisms and in response to them, I present a more appropriate framework for educational technological interventions that is founded upon Paulo Freire's critical pedagogy. The proposed model uses the idea of the third space to challenge the hierarchical relations of knowledge inherent in the traditional concept of the learning space (Gutiérrez, 1999; Gutiérrez, 2008; Fitts, 2009), and so I explore the concept of the third space both in theory and in application. Lastly, these elements are brought together in an examination of the empowering potential of using critical pedagogical educational technologies with foreign-born Latino children in the American public school system.

I. Diffusion of Innovations Model (DOI)

Melkote (1991) indicated that "the coexistence of traditional and modern life styles casts doubts on the widespread belief among certain Western sociologists that traditional beliefs and practices are always obstacles to modernization" (p. 112). Similarly, Hung, Lee, and Lim (2012) affirmed that educational programs designed from a top-down perspective are not sustainable in the long-term. Top-down innovations rarely acknowledge the importance of tacit knowledge (defined as "funds of knowledge," or prior knowledge or what Melkote's refers to as traditional beliefs and practices), in the educational process, yet they continue to be used in the educational

field (Hung et al., 2012). The Diffusion of Innovations (DOI) model is the current and traditional model used in understanding the development and adoption of many educational technologies.

Everett M. Rogers, who originally theorized the model in 1964, argued that DOI should be understood as the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 1983). In the process of adopting a given innovation, each individual passes through five distinct phases: (1) the phase of knowledge or awareness, in which the individual becomes aware of the innovation and has a general idea of its use; (2) the persuasion period, in which that individual develops an attitude toward the new concept; (3) the decision phase, during which the individual chooses to accept or reject the innovation; (4) the phase in which the adopter implements or uses the innovation to his or her advantage; and (5) the evaluation phase, in which the individual reflects upon the results of using the innovation. Although the DOI model is described in terms of an individual undertaking, it is important to recognize that other members of the social system weigh heavily on its application.

Rogers (1983) also categorized members of a given population as belonging to one of five possible groups, who demonstrate varying amounts of influence in the adoption process. Based on their level of "innovativeness," or degree to which they are able and willing to adopt new ideas in relation to the rest of the population, each member is classified in one of the five categories: (1) innovators; (2) early adopters; (3) early majority; (4) late majority; and (5) laggards. According to the model, innovators represent only about 2% of the population and are the first group to try out new ideas, processes, goods, and services. They are generally affluent, with a high level of education and an appreciation for change and new experiences. They constitute a well-informed and visionary group when it comes to deciding their next "purchase" or innovation assimilation. Early adopters are strongly influenced by innovators. This group

accounts for 14% of the distribution and is important for the opinion leaders that arise from within its ranks. Since the remaining population cannot be part of these first two groups, they place their trust on the lived experiences of those members in a higher group. The early majority, which comprises roughly 34% of the population, generally waits to see whether the innovation is successful, and only when its success is proven do they adopt it. Members of the early majority tend to be less educated than those in the first two groups and wait for cues to choose what they think is best for them. The next group, the late majority, also represents roughly 34% of the population, and generally represents a group that is older, less educated, and from a lower socioeconomic status. They sometimes adopt innovations but more often are forced to do so by the larger trend of adoption in the rest of the population. The "laggards," as Rogers dubbed them, is a group that accounts for 16% of the population and tend to be either very conservative or very isolated within the social system. The social isolation of low-income Latino populations, for example, most often results in their being portrayed as laggards. Examining this fifth category in finer detail, however, one encounters a vast degree of variation based on factors like class, income, or specific ethnic cultural background. In other words, variability within the laggards group requires that particularities be considered at a more granular level. Within this already very specific low-income Latino demographic, for instance, a foreign origin further exacerbates the factors underlying this isolation and makes this sub-group an even clearer expression of the laggard profile.

Rogers's model assumed that the DOI process is universal and that cultural differences do not play a part in its operation; this ideality or insularity is closely related to the model's broader theoretical underpinning: the modernization theory of development. Armer and Katsillis (2001 p. 1885) identified four principles either explicitly or implicitly present in the application

of modernization theory within the different social disciplines: that development in societies takes place in discrete evolutionary stages; that these stages are based on degrees of social differentiation and reintegration of the structural/cultural components necessary for the maintenance of society; that developing societies remain at a "pre-modern" stage and will eventually take on the socio-political and economic expressions of the Western societies that have reached the highest stage of development; and finally, that this modernization in the developing world will be prompted by the importation of Western technology and the overcoming of traditional structural-cultural features incompatible with development. Technology in this context represents the motive force behind not only economic growth, but behind structural and cultural transformations that eventually manifest—both in institutional structures and individual activities—the increased socio-political and economic specialization, differentiation, and integration characteristic of Western societies.

Critiques of the DOI model. Modernization theory's linear and rigid conception of development has been contested on several different fronts, but the alternatives tend to share in common the notion that modern "underdeveloped" countries face a unique set of circumstances and that they therefore cannot and should not follow the same path as developed countries. One such counter-theory that has arisen amongst theorists of the Global South is "dependency theory" (Cardoso, 1979; Casanova, 1983). Whereas modernization theory postulates that "underdevelopment" is an endogenous process within the societies of the Global South, advocates of dependency theory argue that developmental problems in this global region are rather the result of the global capitalist order (propagated by "developed" countries) and the unequal distribution of resources fostered by a world market economy.

Even today the DOI model and its underlying modernizing logic are often presented in a fairly positive light. I follow Jucker (2002), however, in the belief that society always remains blissfully ignorant of the institutional, political, and social consequences that a given technological innovation will bring about. Ulrich (1992) detailed how in the aftermath of World War II faith in scientific and technological progress spread across the globe like a universal law. The mighty forces of science and technology, Ulrich pointed out, were thought to hold out hope for the progress of the "underdeveloped," or so-called Third-World, countries. In the adoption of innovations, however, the resulting transformations have often been overlooked. Ulrich (1992) narrated the story of the introduction of the automobile, and how "underdeveloped" governments were not aware of all the technical, social, and psychological costs that would be introduced along with it—street networks, petrol stations, refineries, insurance, safety, driving lessons, training for children crossing streets, and so on. To describe the effects of innovation researchers have commonly invoked the metaphor of an invasive foreign species colonizing a particular ecosystem (Zhao & Frank, 2003). The timbre of the metaphor makes clear why the development of more sustainable, organic, and ecological innovations is becoming a growing area of theoretical interest, especially in the field of education.

McAnany (1984) suggested that the DOI process and its consequences are unequal among different social classes. In the third edition of *Diffusion of Innovations*, Rogers conceded that the uneven consequences of innovation adoption represent a topic of interest. According to McAnany (1984), however, Rogers only brought the weakest of evidence to bear on an explanation of how the inequalities within the DOI model could be avoided. The third edition of Rogers' DOI provided a useful insight into one of the prevailing DOI criticisms by highlighting the problem of pro-innovation bias, or the assumption that innovations are always good. Rogers

(1983) defined pro-innovation bias as "the implication of most diffusion research that an innovation should be diffused and adopted by all members in the social system, that it should be diffused more rapidly, and that innovation should be neither re-invented nor rejected" (Rogers, 1983, p. 92).

Rogers (1983) also described multiple causes for the pro-innovation bias in diffusion research. The first is that much innovation research is funded by change agencies who support innovation in itself as part of their own business strategies. Secondly, because a visible trace is easier to document and analyze, "successful" innovations—that can more clearly demonstrate the rate of adoption—are more often selected as objects of study. Furthermore, due to a similar bias resulting from the imperatives of the research process itself, we know more about the adoption of rapid diffusion technologies than slower diffusion technologies. In other words, it is easier to study successes than failures. Rogers (1983) concluded by conceding the importance of innovation researchers with an anti-innovation bias whose work could balance the overwhelming pro-innovation bias of early studies.

Taking this critique even further, Melkote and Steeves (2001) argued that change agencies decided what innovations were best for their clients and implemented marketing campaigns to convince the users of the potential of the change agency's choice. The problem, according to the authors, is that the innovation was not created and implemented by local users, resulting in a problem of ownership.

Another fundamental problem is that the DOI approach does not take into account the cultural context in which the diffusion process takes place. To address this issue, a more participatory approach to development communication emerged as an alternative to the DOI model. Advocates of the participatory approach held the primary goal of empowering local

communities to manage their own development. This emphasis on empowerment aligns with the

underlying precepts of Paulo Freire's critical pedagogy, which I review below as a critical

complement to the participatory approach and a viable alternative to the DOI model as a tool for

the empowerment of Latino students at the classroom level.

Diffusion of innovations in educational research. According to Dooley (1999), the past

four decades in the U.S. have been characterized by extreme social, political, economic and

technological revolutions. Despite these mainstream ideological transformations, however, the

basic organizational structure of public schools remains unchanged. In response to this

institutional rigidity, Dooley (1999) has developed a model to test the adoption of technologies

in different American schools. This model seeks to take into account the unique context of each

school that could impact the rate of diffusion. Dooley took into account both the DOI stages and

contextual factors, and determines that educational innovation research should begin by

> determining where school personnel are in the innovation-decision process and
> what their concerns are with regard to technology in the school. Only with this
> information can we begin to design appropriate professional development programs
> and an environment where impediments are minimized. (p. 43)

Dooley concluded that teachers have the greatest impact on the use of technology in the

classroom and her findings highlight the crucial role of the teachers in the reception and

appropriate implementation of educational technologies. The study failed to take into account,

however, the role of the student or the role of classroom diversity (i.e., gender, race, age, and

background) in the use of technology in the classroom. The lack of acknowledgement of the

student's perspective in an application of the DOI model to educational innovation is the reason

why many FBL children encounter educational programs not tailored or designed to meet their

actual needs (Warschauer, 2004). The negative results of this disconnect reinforce the need to

evaluate the role of the student when adopting new technologies into the classroom, but also

38

demonstrate the need for an alternative and more critical approach to educational innovation than the DOI model permits.

Hung et al. (2012) offered an alternative and more sustainable model to the DOI model. After researching 250 educational projects in Singapore, they propose the notion of *Communities of Practice* (CoP). These groups of people with shared interests and/or professions were conceived as a resource for diffusion and a mechanism to encourage dialogue among students, teachers, principals, and policy makers throughout the school system. This alternative model stresses the importance of meaningful dialogue and contextualized activities, and is therefore heavily influenced by critical pedagogy. The authors explained that while in the past innovations have been created in laboratories and then spread to the masses, innovations today either grow or should grow out of a more ecological approach. In other words, innovation should be driven in an organic or natural way by the target community or users rather than being manipulated by a small group of people and then thrust into a broader context. School and education policymakers typically scale up and spread established practices, which results in standardization and minimizes each learner's potential to experience a unique learning process. Finally, it is necessary to pay close attention to an innovation's development and evolution in order to properly assess whether the technology is in fact beneficial to the target community.

To ensure this, Hung et al. (2012) emphasized that researchers working with organic educational technology in the classroom should strengthen the teacher-researcher relationship in order to "walk the journey" together and allow a sustainable interventions (p. 36).

II. A participatory approach with a Freirean perspective

The participatory approach emerged as reaction to the precepts of the modernization paradigm. Advocates argue that the DOI model presents an ethnocentric and paternalistic view of

development (Freire, 2000; Kahn & Kellner, 2007; Mazzer Barroso, 2002). This school of theorists and researchers has criticized traditional approaches that develop in large cities without the involvement and guidance of local people. For example, in their book "Communication for another Development: Listening Before Telling," Quarry and Ramirez (2009) defined communication as a participatory two-way process between people or groups with an understanding of the context and the people as the highest priority (p. 14). A sound definition of communication is a condition for a sensitive participatory model of development.

Within the participatory approach, interventions are perceived as useless unless they are modified and tailored by the very community in which they will be implemented (Fraser & Restrepo-Estrada, 1998). In other words, the community must possess ownership over the system that is being introduced. The biggest problem with the top-down approach of modernization theory is the paternalistic position that governmental and developmental agencies take with regard to marginalized communities. They perceive the targeted communities as ignorant and unable to think for themselves, dependent upon help that must proceed from the outside "civilized world." Without a sense of ownership, these marginalized communities struggle to implement any innovations. Even more problematic are situations in which there is a generalized perception of a forced intervention of foreign experts into the community, when this struggle can become an active resistance. In order to foster a sense of community ownership that feeds into a successful adoption of innovation, people should be encouraged rather than forced.

Paulo Freire was a Brazilian national and considered one of the most influential educators of the twentieth century (Taylor, 1993). His ideas exceeded the scope of the field of education and merge with broader social movements which seek to use participatory modes of communication as tools for social change. Freire's highly influential ideas have been taken up by

researchers working among a variety of marginalized Latino and African-American communities in the U.S. (Cummins et al., 2005; Darder, 2012; Urrieta, 2004; Warschauer 2004; Wortham et al., 2002). Since the first edition of *Pedagogy of the Oppressed* in 1970, Freire has criticized the "banking" conception of education, in which the student is seen as an empty vessel ready to be filled with knowledge or formal education (Freire, 2000). He has used the metaphor of a piggy bank to illustrate his point: the educator invests knowledge in the student's mind, this being entirely a one-way process. The power dynamic is fixed and the teacher or educator plays a very active/authoritarian role in the learning process while the student is a passive actor; education is seen as a donation from those who know to those who do not. Two different levels are established in this model: superior and inferior. Who, then, has the right to educate? The banking concept does not inspire motivation, creativity, or a critical mind. It is the pedagogy of the oppressor, one based on bourgeois ideals. The only way to achieve freedom is through the liberation of education through critical consciousness and active dialogue.

Pedagogy of the Oppressed is based on two main concepts: conscientization and dialogue. In Freire's original Portuguese, *conscientizacao* was defined as the process of developing the kind of consciousness able to transform reality (Taylor, 1993). According to Freire (2000), "conscientizacao" requires learning to identify social, political, and economic features of social reality and learning to take action against oppressive powers. The oppressed will start questioning his or her reality and then will attempt to change it. In other words, Freire (2000) tries to change the passive role of the oppressed into a more active and critical one. Literacy, according to Freire (2000) requires more than the capacity to read and write; critical consciousness must come first in order to trigger a personal motivation. Only through critical consciousness can the oppressed begin his or her liberation cycle. This goal can only be achieved

through active dialogue and a critical pedagogy. Education cannot be imposed from above; on the contrary, education must encourage the learner's experience by incorporating his or her background and linguistic tools into the learning process.

The participatory approach encourages the participation and critical thinking of the community in every stage of the development process (planning decision-making, implementation, and evaluation); by participating, communities increase their level of ownership and consequently their *empowerment*. Empowerment, under the participatory approach, can generally be understood as the process of giving marginalized people basic opportunities— whether social, political, or psychological—to redistribute power within their social reality (Friedmann, 1996; Mazzer Barroso, 2002). Freire's concepts have contributed to a clearer understanding of the processes of social change and education in the U.S., especially among Latino communities. Liberating education, (i.e., education seen as acts of cognition rather than the merely transfer of knowledge) has the capacity to empower people and give them the chance to become producers of their own future. This kind of theoretical foundation is necessary for educational research in minority communities because it gives a voice to the unheard and aims to reconfigure the dynamics of power.

But Freire's (2000) pedagogy of the oppressed has its shortcomings. Most notably it has been criticized as tending to universalize oppression, leaving aside issues of culture, ethnicity, language, race, and especially gender (Freire, Freire, & Macedo, 1998). In an interview conducted by Macedo, Freire was asked why he had not addressed the issue of gender; in his critique, Macedo explained that being an oppressed black man is different than being an oppressed black woman, who is oppressed at the same time by the black male. Freire responded that although he completely understood the critique, his main concern when writing the book had

been social and class inequality rather than gender inequality. According to the Brazilian author, men and women should confront their oppression both individually and together in order to develop more effective strategies for combating it (Freire et al., 1998).

III. Third spaces and empowerment: current research trends

A third space should be understood as an alternative space in which students can transform their discourse into something more powerful and meaningful (Fitts, 2009; Gutiérrez et al., 1999; Gutiérrez, 1999, 2008; Pahl & Kelly, 2005; Skerret, 2010). There are at least three current theoretical perspectives on the third space among educational theorists. Soja's (1996) use of the concept derives from hybridity theory, which examines people's everyday spaces in a globalized world (Phompun, Thongthew, & Zeichner, 2013). The premise of his research is that in order to make sense of their world, people conceptualize and create a mental representation to help them understand their reality. Soja's (1996) argument focused on how physical space affects human interactions and how social spaces can shape the physical world. Using his concept of *spatial trialectics*—an updated version of Henri Lefebvre's spatial dialectical model which addresses space as it is perceived, conceived, and lived—Soja characterizes *space* as a social construct involving the history and the geography of human creations.

Another conception of third space derived from Bhabha's (1994) post-colonial perspective. According to Bhabha (1994), a third space is produced in language when people resist cultural authority. Academic texts can be seen as propagating the colonizer's ways of knowing and thus these texts and the discourses they reproduce limit students' personal funds of knowledge; and yet if the student is outside of the texts' terrain, he or she will be considered an outsider. In his research, Bhabha (1994) defined the first space as the native space (home and family); the second space as public places like schools, churches, and institutions; and the third

space as the cultural space. Bhabha's third space is a hybrid space that may or may not have a physical location. When the student realizes that his or her first space is different from their second there is a rupture or fragmentation that represents a pivotal moment of questioning one's identity. This moment of struggle can be directed to a transformational space where the student acknowledges his or her reality and more importantly acknowledges his or her role as a legitimate producer in the knowledge-production process.

An additional conception of an alternative space came from Ray Oldenburg (1997), who used the term *third place*. For Oldenburg the third place is a physical location in which the individual finds relief from both work and home demands. The person goes to these places to interact with his or her community; this activity strengthens the sense of belonging, participation, and local communication through visible interactions. In these places, individuals keep in touch with their reality through informal conversations with people from the same community. Oldenburg (1997) argued that the introduction of the automobile and the onset of consumer culture represented fragmentations of individuals' worlds and an alteration of these third places. The disappearance of these places has resulted in a fundamental lack of places of relief outside people's home or work. Oldenburg (1997) described bars, coffeeshops, barbershops, and salons as the perfect examples because they share certain characteristics, including that they are neutral places, are accessible, exhibit a playful atmosphere, include conversation and dialogue as the main activities, offer cheap goods and services, and feature regular patrons.

Educational third spaces. Gutiérrez et al., (2008) presented a more educational account of the notion of third space, and their area of research is particularly relevant to my dissertation. The authors explained that different discourses can be viewed as tools for students to construct and understand their own realities. Each discourse is associated with a different space, and the

navigation among these spaces can be seen as a potential field for contention. The authors argued that socio-critical literacy—understood as students' socio-historical lives as powerful tools oriented toward critical social thought (Gutiérrez, 1999)—allows for a successful navigation through these spaces. Socio-critical literacy reframes everyday literacies into powerful ones, oriented towards fostering critical social thought. In socio-critical literacy theory, attention to contradictions between official discourse and socio-cultural practices is crucial to appreciating the balance of power dynamics. Socio-critical literacy therefore involves the intentional collision of formal and informal discourse; what emerges is the conscious attempt to create a new genre of meaningful texts that support students' pasts, presents, and their ability to transform their futures. As Gutiérrez et al. (2008) argued, socio-critical literacies help organize new opportunities for students to situate themselves as social actors. In other words, students become agents in the design of their future. Socio-critical literacy is a powerful tool needed in the creation and maintenance of third spaces.

Gutiérrez's use of third space goes beyond the celebration of the local literacies of non-dominant cultures. The author points out the use of third spaces as transformative spaces where an expanded form of learning and the development of new knowledge are a priority. "Raise your hand if you are a historical actor." This is the kind of instruction that teachers give students in transformational learning spaces or third spaces (Gutiérrez, 2008). These spaces are not focused on students' deficiencies but on the socio-historical influences upon their language, learning practices, and most importantly their economic, cultural, social, and educational realities. A third space can be found when a teacher's and a student's funds of knowledge intersect, creating a potential interaction that transforms the social organization of learning (Gutiérrez, 1999). Students and teachers use funds of knowledge to connect with and transform academic tasks,

discourses, and practices. In transformational third spaces, students' personal experiences (their first space), along with official discourse (second space) can be merged (third space) to enrich the learning process.

The main difference between the greater theoretical trends described thus far and third spaces within educational theory is that educational theorists argue that the same space can be reconstructed and reconfigured, such that the categories of first and second spaces can be interpreted in rather arbitrary ways. For example, in one student's experience a first space (home or community) could be dominant, while a school (considered as a second space) might be the liberating one; for another student it could be the reverse. The overarching argument among educational theorists is the search for and necessity of third or alternative spaces where both discourses (dominant and non-dominant) and funds of knowledge (different backgrounds) can be reconstructed in a more balanced way.

Educational third spaces and Latino empowerment. Gutiérrez and a handful of other researchers have been examining the empowerment of Latino students in the American school system. However, research on this emerging field is scarce. My own search in EBSCOhost's complete database using keywords like "educational" or "instructional technologies," "Latino," "Hispanic," "elementary school," and "critical technologies" concluded that research combining the use of educational technologies and critical thinking within Latino communities is a small but growing field.

The research on the intersection of educational third spaces and Latino empowerment at the classroom level has started to make use of technology as means of facilitating this alternative space. The following section details some of the main research regarding critical empowerment

technologies as potential third spaces, as well as the intersection of educational third spaces and Latino empowerment.

Fitts (2006) worked at Pine Mountain School, a dual-language elementary school in the U.S. She worked with fifth graders and attempted to merge cultural forms and personal background with official school discourse, leading to a more integrated learning experience. According to the author, the students' learning experience is strongly influenced by the role they play in their classroom: central members, peripheral members, or marginalized members. Newcomers may start as peripheral members but with time have the opportunity to become central members, able to interact and guide the classroom dynamic. Many bilingual students face the problem of being marginalized members because they lack the access to certain practices, tools, and language. It is important for different discourses to interact in the central role. By not accepting this role and responsibility, minority students are being left out and are limiting their potential to produce more knowledge.

The use of third spaces in this context is relevant because it offers Latino students with different backgrounds and diverse linguistic resources an opportunity to become active producers of knowledge rather than passive receivers. Educational researchers have investigated the ways in which official discourse can interact with students' funds of knowledge (Fitts, 2009; Skerret, 2010). Moje, Ciechanowski, Kramer, Ellis, Carrillo, and Collazo (2004) defined three categories of third spaces. First, there are bridges, in which prior knowledge is drawn upon to understand the official discourse: teachers use the student's linguistic resources to make personal connections to the current topic of study. Secondly, there are navigational spaces, in which learning to express oneself articulately in two languages requires the student to engage in certain crossings that allow the student to gain certain rights from the given discourses. Finally, there are

47

transformational spaces: here the goal is not just bringing the funds of knowledge to bear on a topic but using them to create new meaning and forms of learning. In order to create this new knowledge, both official and unofficial discourse will be put to the test, affected, and negotiated. Only in transformational spaces can biculturalism be truly established. Moje et al. (2004) discovered that English-speaking students are accustomed to being central members no matter which language they were speaking or which classroom they were in.

Another example of this kind of research is that of Gutiérrez (2008). During a four-week summer residential program the author conducted a case study of the Migrant Student Leadership Institute (MSLI) at the University of California in Los Angeles. The learning activities were organized around socio-cultural views of learning and development. Students understood their potential outside the classroom. In the study, learning in third spaces occurred in the form of conversation, dialogue, discussions, performances, theatre, and mini-lectures. In these classes the student's background is highly valued and used towards the production of new knowledge. Third spaces should provide social semiotic tool kits or instruments to create and generate meaning, to increase students' repertoires of practice in order for them to become designers of their own future (Gee, 1989).

Educational third space research under different names. Additional related studies do not refer explicitly to the concept of third space, but make use of the same tools, ideas, and principles underlying the concept. It is important to note that many of the researchers in the next section confront similar situations and that often they present similar solutions without naming it with the same names. However, it is evident that the next group of researchers, even when they do not use the term: *educational third spaces*, share the same goal: the empowerment of Latino students.

Cummins et al. (2005) found that it usually takes about one or two years for students to become reasonably fluent in conversational English. The study shows that the same period of time is required for students to obtain basic decoding skills. For English as Second Language (ESL) students, the process may take up to five years. Students from diverse backgrounds created stories initially in English and then with the help of parents, older students, and teachers translated these stories into their home language. A dual-language showcase website was created to share the stories with parents, relatives, and friends in both Canada (where the study was conducted) and in the students' countries of origin. Newcomers were able to write in their own language. The study concluded that the perception of newcomers—both in their own eyes and in the eyes of their classmates—become more positive when they have the chance to express themselves without language constraints. These students were highly motivated to complete the assignment because they knew what they were talking about. These results confirm the authors' hypothesis that identity reinforcement and the use of technology can empower minority newcomer students. One limitation to the study was with the measure of change in the perception. The authors resorted to broad questions like whether the student enjoyed reading in their own language and if they thought they were improving their writing and reading of English. There is certain social desirability built into these questions, and the students' self-reported answers may have been influenced both by that bias and by the researchers' expectations.

Warschauer's (2000) study revealed useful insight regarding the use of critical empowerment technologies as potential third spaces. The name of the project was Fresa. The study included third and fifth graders of farm-working families at Mar Vista Elementary School in California. Students critically examined the work of their parents in the surrounding strawberry fields in order to understand their social reality. Here, a third space was created to

analyze, critique and reflect upon the students' reality. After the students conducted their own mini-studies, they were able to present their findings and propose a change. Unfortunately, not many schools have access to the digital technology used in the study, and it remains to be seen how this problem of access affects the implementation of third spaces.

In a different study, Warschauer (2004) defined *digital divide* as the unequal access to digital technology. He pointed out five categories of difference that impact approaches to technology for teachers and learners: school access*, home access*, school use*, gender gap, and generation gap*. School access refers to the unequal availability of technologies in schools. Even when schools have successfully decreased this gap, differences inevitably persist. Furthermore, some schools make special use of technology during enrichment activities for students that already outperform others who might benefit more from such access (Schofield & Davidson, 2002). Home access refers to the availability of computers and Internet access in the home environment. This component is highly correlated with income: in high-income school communities, access levels will be higher, while in low-income schools access levels tend to be lower. Many teachers from low-income schools do not even consider the potential benefits of the use of technologies due to the lack of access and computer skills among students.

The third component is school use. Warschauer (2004) observed that the manner in which students make use of computer technologies is strongly correlated with student income and race. Low-income students—in the study, primarily African-American and Latino students—used computers for drills and practice, whereas higher-income students—largely white—used them for simulations or authentic applications. Discussing the digital gender-gap, Warschauer (2004) suggested that though girls and boys usually have similar access to computers, girls use them more often to communicate and use social networking sites with friends, while boys generally

play more computer games. To engage both demographics equally, the author recommends a better integration in the use of technology for collaborative games and simulations with academic content. The fifth and last component of the digital divide is the generation gap. It is not surprising that students today tend to feel very comfortable with new technologies, and the vast majority of youth can be considered digital natives or technologically savvy. Teachers, on the other hand, need to adapt and adopt these new delivery processes. The teacher must rearrange his or her traditional pedagogy in order to make it more approachable and to reduce the uncertainty of the new learning process. One limitation for the study was the researcher's unwillingness to delve more deeply into the students' contexts and backgrounds. This level of detail is essential because even though Latino student populations are often approached as a homogeneous group, there can be enormous variations (i.e., in socioeconomic status, parents' level of education, parents' occupation, etc.) among them. Warschauer concluded that—as with the *Fresa* project—all students' educations can be enhanced through the meaningful use of technology applied in the proper ways.

Others have examined the question of using digital tools to empower Latino students through the legitimization of alternative literacies, like pop culture literacy. In their study, Haddix and Sealey-Ruiz (2012) questioned the overrepresentation of academic research that emphasizes the low academic performance of men of color, both Latino and African-American, and the resulting creation of low expectations or "deficit constructions" for these groups. In both of their case studies, the use of pop culture and digital tools could be understood as ways of creating third spaces. According to the authors, students in many schools are not supposed to use their cell phone during class time; however, when students are allowed to use their personal digital media, the activity becomes more personal and thus more powerful and relevant for them.

The use of these technologies in the classroom reconfigures the relations of power: the use of technologies in the classroom de-centers teacher authority, which is why many schools forbid the open use of digital devices during class time. The authors concluded, however, that a smart use of technologies and the integration of pop culture in the classroom actually empower students in the learning process. In this process students become producers and creators of knowledge in the classroom and are easily motivated towards more critical conversations. Overall, the authors carefully examined the potential benefit of digital literacies and new technologies, but unfortunately never include an analysis of the possible risks overusing such strategies. A paragraph or two explaining the potential risks of their recommended pedagogy would certainly have enriched their valuable analysis.

Finally, Bao (2006) explored how ESL students use technology for developing their second language literacy skills through online intercultural communication. The study concluded that the use of the Internet helps ESL students acquire some online expressions but that their second language literacy development varies because on the Internet "no one cares" whether you express yourself correctly or incorrectly (p. 6). Electronic literacies can be either empowering or stultifying third spaces because the Internet can be used for anything and everything, from the creative construction of knowledge to the passive reception of information. These results confirmed the potential for empowerment inherent in online technologies but also warned of the risks of using such technologies without instruction or guidance. The study presented interesting conclusions but lacked specificity in the methods section; the author did not present any background information on the participants, explained his analysis methodology only briefly, and generalized conclusions from only three in-depth interviews. Nevertheless, the author added

to the understanding of the risks and challenges of empowering technologies, and raised the important question of whether third spaces are always beneficial or positive.

Educational third spaces: distractions and challenges. The concept of third spaces is not without baggage, despite the fact that most of the available literature on the matter lacks any discussion of its limitations. It seems that many researchers present third spaces in the Latino classroom as the most desirable possible learning dynamic, and in fact, the literature entirely lacks any warnings concerning the use of third spaces in the classroom. I contacted Dr. Gutiérrez, from the School of Education at the University of Colorado at Boulder, to address this important topic that nevertheless does not appear in her published work. Gutiérrez argued that third spaces are inherently "heteroglossic," or multi-voiced, and like any activity-system are rife with contradictions; contradictions, however, (not between people but within systems) do not always result in clashes, conflict, identity crises, or detrimental power struggles, but on the contrary can often be the source of change, possibility, and strength.

For Dr. Gutiérrez, the potential contradiction in the clash of many voices is instead taken as an opportunity or a source of change. The central goal of an educational third space is to bring students the opportunity to express their knowledge and use their ideas toward the production of more knowledge. An assumption to be examined among third space researchers, however, is whether all knowledge brought to class is positive. As educators and researchers, it is important to differentiate between funds of knowledge and distractions. Students must be able to use critical thinking skills to distinguish between what is useful and what is not. Third spaces are transformational spaces where individuals can achieve a sense of ownership, but the risk of distraction is also latent. Distractions are not inherently bad; on the contrary, leisure and light talk are a must in third spaces (Bhabha, 1994). In an educational setting, however, distractions

need to be limited in order to obtain a more focused group who will better understand the subject matter. Despite the benefits and limitations of third spaces, educational researchers hold one point in common: there is now an urgent need to transform the power dynamics in the classroom to empower minority communities.

IV. Challenging power dynamics in the classroom

The paradigm of knowledge production has radically changed because of the rapid pace of innovation in educational technologies. Today more and more students are becoming the producers of their own mediated knowledge (Warschauer, 2000). New technologies—both in hardware (computers, phones, tablets) and software (social networks, apps, browsers)—are reaching more people (Warschauer, 2004). This important change represents an interesting opportunity because, by shifting the dynamics of knowledge production, a student can also alter the power dynamics in the classroom (Darder, 2012, p. 4).

From an educational point of view, a critical pedagogy demands that teachers and students learn from each other in order to decentralize power and emancipate the powerless (Darder, 2012). To some extent, students are often ahead of their teachers in a variety of technological literacies and technical skills (Kahn & Kellner, 2005). The teacher shares the power and authority by providing these interactive environments. Interactivity, understood in terms of an increased level of dialogue, is inherent to new technologies (Pask, 1975). Research shows that the use of technology in the classroom allows students to engage in a more critical mode of thinking, and learning through praxis transforms them into active participants (Mundy, Kupczynski, & Kee, 2012).

In order to establish any formal educational practice, technological or not, educators must transform their classrooms into democratic environments where students can genuinely address

their actual needs (Darder, 2012). Darder (2012) has suggested several principles of critical pedagogy in order to achieve student empowerment. Five of such principles draw on the theoretical foundations that I have condensed from the body of previous educational research in this review (Bao, 2006; Cummins et al., 2005; Fitts, 2009; Gutiérrez et al., 1999; Gutiérrez, 1999, 2008; Haddix & Sealey-Ruiz, 2012; Warschauer, 2000, 2004; Warschauer et al., 2010) and they are as follows:

1. *Cultural Politics.* In order to achieve a critical pedagogy, the learning experience should empower the powerless and transform the social context; according to the author, teachers should struggle *with* rather than *for* the oppressed. A teacher must convert himself or herself into a humanized social agent in the world.

2. *Historicity of knowledge.* The study of students' own history must play a critical role in the learning process. The historicity of knowledge underlies any examination of the role of schools within their social and historical realities. Minority students especially should learn the history of disruptions, breaks, and discontinuities; in this way, individual agency becomes an attainable tool for students.

3. *Praxis.* Following Freire, Darder suggested that there cannot be theory without practice, or practice without theory: one should not exist without the other. Praxis leads to transformation. Through action and reflection, students can accept their current condition and therefore challenge it. Through action they will be able to move from point A to point Z.

4. *Critical Discourse.* It is essential to develop a critical discourse to combat the dominant discourse. Discursive practices determine what we can be, what can we do, and what we cannot do. They determine who may speak up and who should remain silent.

Critical educational technologies should therefore give equal opportunities and fight for plurality in the classroom.

5. *Dialogue and* conscientizacao. Only through dialogue can human beings reflect on their reality. The learning experience should be an experience in which both students and teachers learn from each other. The teacher in the classroom should foster a sense of agency so students better understand their reality. Once students understand their situation in an unequal socio-economic and political context, they enter into a form of consciousness which allows them to struggle and problematize the oppressive regime.

These principles condense the main concepts in the theory of empowering educational third spaces and are common to almost all of the educational researchers presented above. After an extensive literature review regarding the empowering potential of digital technologies in the classroom under third spaces environments, however, I noticed a gap that has been left unaddressed by many educational researchers: very little of the available research acknowledges the variations among Latino individuals (i.e., foreign- or native-born, class status, period of arrival, etc.). Indeed, according to Valdés, "Latino subcultures are likely obscured in these studies" (cited in August et al., 2013, p. 13). For this reason, my study considers and pays close attention to the personal and unique contexts and socialization process of each of my four students. In-depth study (beyond surveys and official data) of FBL students' and their families' unique backgrounds and actual contexts can provide useful insight in order to broaden the understanding on empowering digital educational technologies within this group. Next, I define the two different socialization processes—acculturation and enculturation—that were used to analyze my FBL's social experience both in school and home settings.

V. Acculturation and enculturation

      Acculturation is the process of adapting from one culture to another one (Zayas, 2011).

By contrast, enculturation is the process of adaptation to your own ethnic culture (Knight et al.,

1993). Berry (2006) has theorized four outcomes of the dual process of acculturation and

enculturation:

Table 1		
Acculturation and Enculturation Matrix		
	High Enculturation	**Low Enculturation**
High Acculturation	Biculturalism	Assimilation
Low Acculturation	Separation	Marginalization
Note: Adapted from "Stress perspectives on acculturation," in D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 43–57). New York: Cambridge University Press.		

      Table 1 shows four different categories of social adaptation: biculturalism (high

acculturation and high enculturation; or integration), assimilation (high acculturation and low

enculturation), separation (low acculturation and high enculturation; or withdrawal), and

marginalization (low acculturation and low enculturation; or alienation). These adaptations occur

through developmental and socialization processes that develop throughout the lifespan of ethnic

minorities whether they are newcomers or they have been in the U.S. for several generations.

      According to Huda (2012), the process of acculturation can occur through the adoption of

cultural traditions by those who are unaccustomed to a culture. Additionally, the author states

that education in school settings is in itself an independent process of acculturation. This point is

relevant since it demonstrates that schools have the capacity to lead each child to recognize (or

abandon) their own potential and contribute to the maintenance of society as a whole (Huda, 2012). In my study, school is understood as the primary setting for acculturation among my foreign-born Latino students.

Acculturation is a unique and changing process among groups and individuals. Padilla and Perez (2003) suggested that traditional acculturation models conceive a static view of intergroup relations and a relatively a uniform process (Gordon, 1996). Their study is richer since it proposes a model of immigrant acculturation that analyzes (1) social cognitions, or the mental processes that guide social interactions; (2) social identity, or the collective membership that guides individuals' thought and behavior; and (3) social stigma, according to which people hide or expose ideas and behaviors in order to be perceived in a certain way. Newcomer immigrants form perceptions or expectations regarding what members of the dominant group might project onto them. These expectations in turn reshape the immigrant's future ideas and behaviors and redefine their identity (Padilla & Perez, 2003).

The enculturation process can be seen as the adaptation of cultural influences to local traditions and environments (Zayas, 2011). This enculturation process is dynamic, fluid, and changing, and it is influenced as well by other cultures and their symbols. The difference between acculturation and enculturation is that the latter is a process every individual passes through when entering a community or a society; acculturation refers not just to the process of entering your own society but of entering a society foreign to your own. The difficulty of the acculturation process for immigrants is highly determined by the public opinion that the host culture holds of them.

This chapter has stressed the theoretical foundations that guide my research and the need for a digital educational critical framework. The Diffusion of Innovation model, to which most

traditional technological interventions are carried out, is inappropriate when working with non-mainstream cultures. A more appropriate framework for digital educational technological interventions that was founded upon Paulo Freire's critical pedagogy is presented and discussed. This approach uses the idea of the third space to challenge the asymmetrical power relations in the traditional concept of the learning space. For this reason, I explored and examined the concept of the third space in classroom settings. The five critical educational principles that were presented condensed the main concepts in the theory of empowering educational third spaces. Lastly, the socialization processes of acculturation and enculturation were defined and will be used for the analysis of the FBL experience both in school and home settings. However, to further compare and contrast insights my study, the literature review will continue throughout the rest of the document (Creswell, Hanson, Plano, & Morales, 2007). In the next chapter, I discuss the methodology used for this study. I examine the research context, the fieldwork, the data analysis, the reflexivity or my positionality as the researcher, ethical considerations, and limitations of the study.

CHAPTER 3: RESEARCH METHODS

According to recent educational media research in the U.S., what we know about Latino families and digital media only scratches the surface of what our understanding should be (August et al., 2013). Scholars have highlighted the need to innovate in the research, design, and implementation of technological interventions in order to expand our understanding and support of Latino families' use of digital technologies (August et al., 2013). They furthermore have emphasized the need for more qualitative research to add depth to what is gained from survey research (Valdés, 2001). A qualitative approach would allow the voices and behaviors of multiple family members to be incorporated into the study of this research area (Warschauer, 2000). This dissertation addresses the need for qualitative research.

As it has been theorized by Goddard (2010), a collective case study "involves more than one case, which may or may not be physically collocated with other cases" (p. 164). Goddard added that "a collective case study approach is especially useful in social settings such as schools, where the distinctions between the context and the events being observed are sometimes blurred" (p. 164). Creswell et al. (2007) recommended that no more than four cases be included in a collective case study, because a larger number of cases require a corresponding decrease in depth and detail. My collective case was the school, Frank Porter Graham Elementary School, which included the cases of four FBL students—Gaby, Pedro, Pepe, and Adi—for over six months. With the help of the two fifth-grade teachers, who became my key informants, I was able to select four students for observation. These four students needed to meet four basic

criteria: (1) to be fifth-grade FBL students; (2) recently established in the U.S. (i.e., less than one year's residence); (3) possess a low level of English proficiency; and (4) were enrolled in FPG's dual-language program.

I. Fieldwork

My main fieldwork site was Frank Porter Graham Elementary School (FPG). At the time of the study, FPG was one of seven elementary schools in the local North Carolina school district (Orange County) with a dual-language program. The primary educational sites in FPG were: the Spanish fifth-grade classroom, the English fifth-grade classroom and the after-school program classroom. I obtained access to the school through a friend who had taught as a second grade dual-language teacher at FPG for five years. After hearing about the great work that FPG was doing for FBL students, I thought that it would be an ideal site for conducting my research.

Participant	Site (observed and or interviewed)
4 FBL Students	-English and Spanish fifth-grade classrooms -After-school program classroom
2 Fifth-Grade Teachers	-English and Spanish fifth-grade classrooms
1 Teaching Assistant	-English and Spanish fifth-grade classrooms -After-school program classroom
2 NBL Students	English and Spanish fifth-grade classrooms
1 Second-Grade Teacher	School
1 After-School Counselor	After-school program classroom
1 IT Manager	Technology Lab
4 FBL Parents	FBL houses

Figure 4. Participants and site of observation and/or interview.

Figure 4 introduces the participants and the sites at which they were observed and/or interviewed. The participants in the study included two fifth-grade teachers, one second-grade teacher, one teaching assistant, the counselor in charge of the afterschool program, the IT manager, four FBL students, two NBL students, and five FBL parents.

My own role evolved throughout the fieldwork. I shifted from an initially passive form of participation—a stance in which, according to Gobo (2008), the ethnographer is merely a spectator of the scene under study, maintaining a distance from it and never intervening—to a more active form of participation, in which I was "not content to observe and participate marginally in the everyday activities of social actors," but instead sought to learn those activities myself and to test them (p. 106). My role also evolved as the teachers began to perceive me as a "digital educational expert" and began to ask my advice when conducting digital activities. This was my trade-off: because I helped create an active dialogue between my own emerging insights and the classroom experience, the teachers trusted me as a potential resource for developing more critical digital pedagogy.

Using qualitative methods of data collection, I observed and interviewed these four FBL students and the other, above mentioned, social actors influencing their digital educational learning experience. Examining four FBL students from different demographics facilitated a cross-comparison of the diverse contexts that can be found among a population often labeled singularly as "Latino" without taking into consideration whether they are foreign- or native-born. These two groups differ primarily in the comparative lack of English proficiency among foreign-born Latinos, a disadvantage that makes their situation even more challenging than that of the average native-born Latino.

The data collection techniques aimed to illuminate the unique and diverse perspectives of each FBL student in their two primary settings: home and school. Using a constructivist grounded theory methodology (Charmaz, 2006), I examined the nuanced dynamics of each FBL student by exploring their: (1) dual-socialization experience of acculturation and enculturation; (2) use of digital educational technology in the classroom; and (3) family dynamics at home. This afforded a better perspective of how different places, spaces, actors, and objects can affect the learning experiences of FBL students and their engagement with digital educational technology.

Data Collection Method	Quantity
Fifth-Grade Classroom Observations (60 minutes)	26
After-School Classroom Focused Observations (45 minutes)	3
Fieldnotes	--
Photographs	40
In-Depth-Semi-Structured Interviews (30 to 60 minutes – Audio-recorded)	Teachers and assistant: 17 FBL Students: 8 FBL Parents: 9 NBL Students: 2 IT Manager: 1
Informal In-Class Conversation with Teachers and Students	--
-- Countless	

Figure 5. Data collection: method and quantity.

My fieldwork consisted mainly of 26 observation sessions with one of the fifth-grade classrooms at FPG over a six-month period. The observation sessions took place roughly twice each week on Tuesdays and Thursdays, between 10:30 and 11:30 in the morning. During the observation sessions, I paid close attention to my four FBL students in both Spanish and English sections, but also examined their interactions with other peers, teachers, and digital technologies

in the classroom. I observed classes which involved the use of instructional technology and classes in which technology was not used at all. During the classes in which educational technologies were included, I was able to document two different digital educational approaches. I observed the teachers' pedagogy and the numerous classroom activities that they performed. Initially, my observation protocol was intentionally rigid. I evaluated the students' interactions and their participation in both group and individual activities, as well as any notable non-verbal behavior. The protocol included questions like: What motivates students in their use of digital technologies? What is their level of concentration? I observed the non-verbal communication, trying to discern or infer by their body posture expression (i.e., position of body, facial expressions, eye movement and focus, and proximity with others)

After the first three weeks, a new observation protocol emerged from my time and experience in the classroom. Whereas I had initially brought a set of questions and points of evaluation, I began to focus more upon the discovery of unexpected scenarios and questions that led me towards more fruitful questions. For instance, during an early classroom observation session, I learned that Adi, one of my FBL students, was in fact a year younger than anyone had thought and thus did not belong to the fifth-grade but to fourth-grade class. This incident fell outside of the initial protocol's parameters but it offered valuable insight into the mentality of working-class FBL parents who may be too afraid of institutional oversight to clarify seemingly basic confusions with the school.

As theorized in Charmaz (2006), *theoretical sampling* refers to the process of choosing new research sites or cases to compare with ones that have already been studied. After the completion of my planned fieldwork, I realized that it was necessary for me to return to the school to observe the after-school program. A theme that had emerged from my analysis

("explaining that FBL parents are not adjunct teachers") made me realize that I had to explore the alternatives that FPG offered in their attempts to empower Latino families. For this reason, I conducted three focused observations of the after-school program, each of which took place from 2:30 to 3:30 in the afternoon. During the first visit, I took pictures of the classroom configuration and the technology used, and generally documented the place itself. The other two sessions were dedicated to observing the program's teaching dynamic and the approach taken to digital educational technology. I noted that the teaching dynamic of the instructors was similar to the one used during regular class hours, with the significant difference that—with fewer students in attendance—the instruction could be much more personalized. During my observations, I focused on the only one of my four FBL students who was attending the program. In Chapter 7, I offer a more detailed discussion of the after-school program.

Throughout my visits, I kept a journal of field notes regarding the school's features as an institution, its location, the types of cars in the parking lot, the trees surrounding the area, the ways in which the buildings and the decorations were placed. All of these field notes helped to build context for the school and classroom observations. As I entered the school, I recorded routines, people, behaviors, student work, and posters in order to better understand the environment and how the students and teachers feel in the school setting. These observations also related a sense of the school culture as it presented itself to the FBL students and their families. I noted, for example, the school announcements displayed in both English and Spanish and the kind of art presented on the walls.

Along with the classroom observations, also, to enrich my fieldwork, I photographed the school extensively, especially where technology in the form of hardware (e.g., computers) was readily visible. I benefited from the example of O'Reilly (2009), who confessed, "when I reflect

on fieldwork I have done in the past, I realise that there are many elements I overlooked that a visual lens would have illuminated" (p. 22). My roughly 40 photographs on location at FPG helped me, for instance, in the analysis of the placement of technology as I was able to use the photos to visually map the physical locations of the different technological objects in the school. I also created a photographic record of activities in the classroom where technology was being used, which later helped me to understand the differing spatial dynamics of the one-to-one approach and the more organic, collaborative approach. Ultimately, this visual record was instrumental to my conclusions that the organic approach to educational technology better suited the needs of the classroom's FBL students.

In preparing this dissertation, I made the decision to add a "pencil sketch" filter to the pictures and to present them as illustrations rather than as photographs. I did this both to protect the privacy of my study participants (whom I have introduced under pseudonyms), and to create a more interactive visual dialogue with my reader. I hope that the high level of qualitative detail in the following chapters succeeds in painting a vibrant portrait and in humanizing the participants in the mind of the reader, and that—in viewing a picture of Gaby, another of my FBL students, being assisted in her lesson by Jovanna, an NBL student—my reader might be curious enough to imagine for themselves just what Gaby or Jovanna might look like.

In addition to the field observations, I conducted in-depth, one-on-one, semi-structured interviews with each adult participant roughly once per week, ranging in duration from 30-60 minutes. Some of the questions that I asked in the earliest interviews were quite generic. I asked parents questions like: What kind of technologies do you use? What kind of technologies do you allow your child to use? How often do they ask for help? How confident do you feel when using new technologies? Do you think that your child has learned their technology skills at school?

On the other hand, in the early rounds of teacher interviews, I asked questions like: Is technology used regularly in the classroom? Is the technology allowing students to do old things in new ways? Is the technology engaging new learning experience? What is the difference between classes with no technology and classes with technology? When using these technologies, do you perceive any differences in your students?

As the study proceeded, however, the questions became much more individually tailored to each particular interviewee. The questions in later interviews were more specific and were linked to their previous answers or to my personal observations inside and outside the classroom. While some interviews remained close to the interview protocol, many took a less-structured path due to a particular topic that the student, parent, or teacher was especially interested in discussing. For the most part I listened, but I often asked participants to expand on points and ideas related to my own research interests.

The interviews with students were more challenging. During the first round of interviews with my FBL students, the information was very scarce—most of the answers came in the form of "yes," "no," or "*no sé*" [I don't know]. Still, the first round of interviews did provide me with a basic level of personal information (i.e., technology at home, favorite games, best friends, etc.), and more importantly, revealed a lot about their individual personalities (i.e., extroverted, introverted, etc.). I decided that during the next round I would interview them in pairs so they could be more attentive hearing and relating to other answers. In the paired interviews, I asked questions like: What is the coolest use of technology you have seen in class? Do you think the time you spend using computers in class is enough? What about outside class? What websites do you use to do your homework? What do you do when you do not understand a word? This method paid off, as I was often able to triangulate their responses for a richer understanding of

their answers. Nonetheless, I was still not getting the "fresh" feedback that I was looking for. Docherty and Sandelowski (1999) recommended that "children should be interviewed as soon as possible after their experience of a target event, as these interviews will yield the most accurate information" (p. 181). Following their advice, I decided that instead of conducting formal interviews, I would ask the students short and direct questions during class in the form of informal in-class conversations. That is, as soon as the activity was done, I would approach the student with a very simple question. For instance, I would ask Gaby (FBL student) how she felt about using the computer to complete a given task, or Pepe (FBL student) about a specific Math lesson.

I conducted all of my interviews with FBL participants in Spanish. I include the quotations in their original form to better represent the inflections of the original Spanish, but provide a translation immediately below each excerpt. Representing the language of my participants in appropriately colloquial English equivalents was not always an easy task. I had to ask three different native English speakers, for example, about possible slang renderings of the word 'job.' If I had translate the Spanish *chamba* in the same way that I might translate *trabajo*, some of the social context of the population who use *chamba* might have been lost. I felt that 'nine-to-five' was the best translation possible, though all translations remain in some sense an approximation of the original.

I conducted a total of 37 in-depth semi-structured interviews. The decision to conduct weekly interviews was made not only to create a space in which broader questions could be addressed, but also to create a sense of dialogue with teachers, parents, and practitioners about how the FBL students were developing. These interviews allowed for a thorough exploration and understanding of each student's and each family's culture and their process of adaptation to a

new culture. Primarily, I conducted interviews in the student's classrooms, but I was also able to visit their homes for some of the family interviews. Interacting not in neutral territory but in the families' personal spaces was important, as I wanted to be able to portray a deeper understanding of the "multiple realities" (Stake, 1995, p. 64) in which foreign-born Latinos live when they first arrive in the United States.

Analysis. Using a constructivist grounded theory methodology (Charmaz, 2006), I sought to understand how these different FBL students were engaging in digital educational technologies in the classroom. I wanted to create a sensitive understanding of the meaningful interactions of my FBL students with other places, actors, and objects by analyzing the material collected through grounded theory (Charmaz, 2006). This framework allowed for a conceptual analysis of the participants' behaviors and responses with the goal of developing a "grounded" model based on *their* perspectives and experiences (Glaser & Strauss, 2009). My intention was to construct an original, innovative, and non-linear analytic process, as shown next on Figure 6. To achieve that, I first separated, sorted, and synthesized my early data through qualitative coding. I then coded the data according to the coding procedures presented in *Grounded Theory* (Charmaz, 2006) (i.e., initial, focused, axial, and theoretical) with the aid of a qualitative software program called Dedoose 4.12.0. The workflow took a cyclical form because I frequently returned to early points of data analysis to incorporate and compare new material or to link, contrast, and modify future plans for fieldwork.
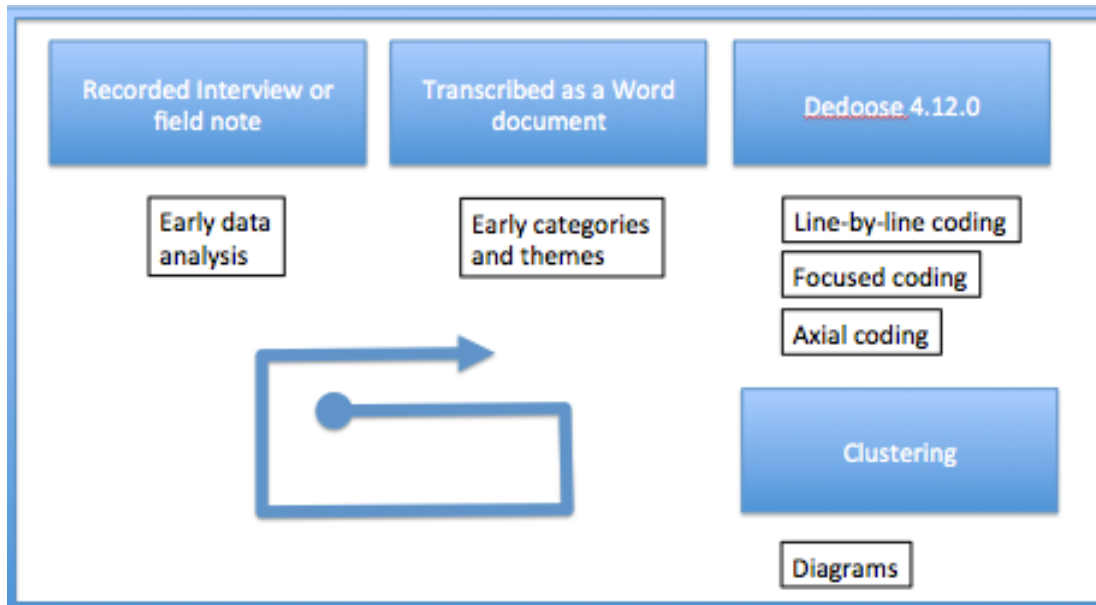
Figure 6. Non-linear analysis diagram.

I audio-recorded the interviews, and later transcribed them into Microsoft Word documents. I then fed the analytic program, Dedoose 4.12.0, with all the transcripts and field notes. While I was importing the transcriptions, I made notes of categories and themes that I felt were emerging through my early data analysis. I created a separate document with emerging themes such as: "components of academic success," "creating parental support," "assessing English proficiency," and "recurring dynamics." After this initial analysis I felt more comfortable when managing the data and proceeded to further coding and memo writing.

I then started the line-by-line coding process. The software facilitated this process because of its easy visualization and arrangement of the data (see Appendix 6). During the line-by-line coding, I named and labeled each line, or segment, of the data. I also created a code called "important quotes" to capture the richest moments of the interviews or observations. I used very simple codes and created the codes using my participants' words (Charmaz, 2006). While creating the list of codes, I also wrote memos on emerging themes. These memos encouraged recurrent analysis of the data throughout the coding process (Charmaz, 2006). For

instance, memos included, "overwhelming technology," "playing videogames with kids," or "peers in the classroom."

The next stage was focused coding. Here, I selected more salient themes in order to develop categories in the data (Charmaz, 2006). Some of the focused codes were, "being digital native," "discovering organic technologies," "empowering more critical FBL parents," and "connecting technology with funds of knowledge." Even during the focused coding stage, I had to go back and forth to reassess my earlier analysis of the data.

Once I had identified the salient categories, I started the axial coding to link and give logic to the emerging analysis (Charmaz, 2006). Through constant comparison (Parry, 2004), I developed several categorical codes in order to look for connections and emerging themes. Three *main categories* emerged as the central findings of my study: (1) understanding the dual processes of acculturation and enculturation; (2) understanding foreign-born Latinos' use of digital educational technology; and (3) understanding foreign-born Latino family dynamics. I then analyzed these three main categories to arrive at the core category of my study.

The *core category* to emerge from this method can be articulated as "understanding the all-encompassing FBL digital educational experience in the classroom." A core category, according to Glaser (1978), should "account for a pattern of behavior which is relevant and problematic for those involved" (p. 93), and therefore should encapsulate and summarize the central phenomenon addressed by the study. The core category emerged from a *theoretical sorting* of the study's three main categories. Theoretical sorting is the conceptual act of integrating both the relations among the main categories and the relations between the main categories and the core category (Glaser, 1978); in this study, theoretical sorting involved a

theorization of these various interrelations through the sorting of memos, the comparison of categories, and the analysis of data (Charmaz, 2006).

According to Charmaz (2006), *clustering* is a "shorthand prewriting technique for getting started" (p. 86). By clustering the aforementioned three main categories, I developed diagrams to visually represent the central themes in each main category and the nature of their interrelations. The evaluation of the interrelations among each category's main themes focused my analysis, helped identify the emergence of new properties, and assured the consistency of the collected data (Charmaz, 2006). Figure 7 represents, for example, the three main themes that emerged from an analysis of one of the main categories, understanding foreign-born Latino family dynamics.
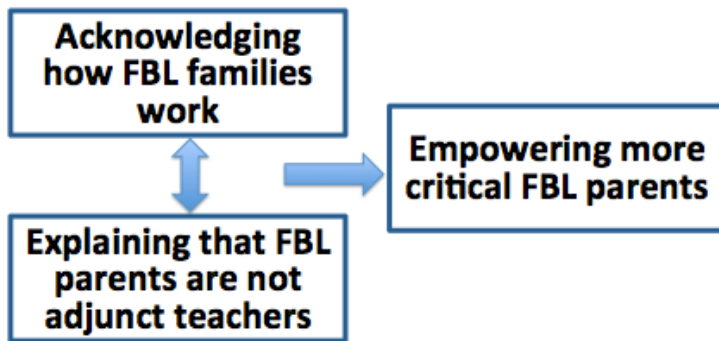
Figure 7. Emerging themes from the main category "Understanding foreign-born Latino family dynamics."

Only in the composition and organization of the diagram was I able to draw the conclusion that "empowering more critical FBL parents" should logically be considered the *resulting theme* of the comparative analysis of the category's two other themes, "acknowledging how FBL families

work" and "explaining that FBL parents are not adjunct teachers." (For a complete list of diagrams, see Appendices 1-4.)

The three main categories were intended, furthermore, to address the study's subsidiary research questions. The main category, "understanding acculturation and enculturation," explores the factors that contribute to FBL acculturation at school and the mediated factors contributing to FBL enculturation at home; the main category, "understanding foreign-born Latinos' use of digital educational technology," examines how FBL students approach digital technologies and create empowering third spaces in the classroom, and why it is so challenging to foster those learning spaces at home; and finally, main category "understanding FBL family dynamics," explores how the FBL family functions and justifies why school expectations are normally not reached by FBL families. I also included the reasons why Frank Porter Graham or FPG failed in their attempts to reach out and empower Latino students and their families.

Finally, to discuss the theory emerging from my analysis, and as a means of "member checking" (Guba & Lincoln, 1994) during my last round of fieldwork, I talked to some of the study participants (school staff and FBL parents) to assess their reactions and feedback as individuals and as a group to the emerging theory that I was presenting. For instance, I spoke with Mrs. Sandra to tell her about the two different technological approaches I discovered within her classroom activities to corroborate if this was representing the learning space as she saw it. I also talked to Adi's mother Sagrario to see how Adi was doing in fourth grade and to encourage her to bring Gaby to the after-school program for help with her homework. In confirming that the emerging theory represented the challenges and experiences of the study subjects, I was able to continue my theoretical analysis. I then moved to continue composing, and re-composing, an

early draft of my findings and to begin the theoretical coding required to reorganize the data and tell the story of my participants from an analytical perspective (Charmaz, 2006).

II. Reflexivity

Constructivist approaches prioritize the data collection and interpretation processes as the result of the mutual influences and experiences of researcher and participants. Since my research was qualitative in nature, it required a constant process of reflection. During the study I continuous considered my positionality and my relationship with both my participants and the context. I examined my own experiences, assumptions, and preconceptions, and assessed the manner in which they influenced my decision-making throughout the research process. I made sure to constantly reflect on my relationships with the respondents, trying to remain attentive to the way in which our interactions shaped the dynamics of the study. Giddens (1984) has convincingly demonstrated the necessity of constant reflection and self-scrutiny among qualitative researchers. According to the prominent sociologist, researchers—just as much as the objects of research—are socially and historically situated agents; consequently, the way in which we conduct research and the methods we choose to apply are very much conditioned by the socio-historical moment in which we are embedded and our own situated reality.

The male Mexican immigrant.

*Whenever I remember them, I picture them as the pioneer, the forerunner, the Mexicano who became a Latino, the lonely dreamer, the vulnerable hero, and the unnoticed martyr…(*From my reflective memos*)*

Beginning in 2006, I had the opportunity to work and learn for over a year with a group of undocumented male Latino workers in Austin, Texas, an experience that represented my first approach to this "so far away from me group": foreign-born Latinos living in the United States. My brother-in-law had come to the U.S. to work with some of his cousins. These *primos* had a

74

big roofing company, and at the time this company had been fixing and building roofs on several Texas sites. I worked with a group of seven male undocumented Mexican immigrants. The work was excessively hard and sometimes without proper hydration, under the Texas weather, one could easily faint. As a college student, however, the pay of six dollars per hour was very tempting—and the hard work was healthy. Of course, I came from a more fortunate background and was living in a very different reality than the other workers. Our workday would begin by 5am, before the roof began to get too hot; we would work for eight or sometimes ten hours with one-hour break (unpaid, of course) for lunch. It was a full day of arduous physical activity accompanied by Mexican folk songs or *norteñas,* continuous laughter, and the most obscene jokes I have ever heard. At the end of the day I would go back to a nice warm bed while the magnificent seven would stay in a trailer home waiting for the next day, a day that might take them closer to their loved ones. After a year, I went back to Mexico and quickly forgot about them. It would take me five years and a second experience of living in the U.S. (this time on my own) to understand the importance of the situation in which these overlooked people were living.

The FBL student in the U.S. public educational system. My own experience as an FBL student in the public educational system of the state of North Carolina has considerably informed my understanding of my research. Three years ago (2011) I moved to North Carolina from Mexico City to start my doctoral studies at the University of North Carolina at Chapel Hill. Because of my professional experience working in Mexico City as a media labs manager, when I initially arrived I thought that my research would be about mobile learning. While immersed in the Mexican context, I had learned a lot about different media equipment and software. After some months within the doctoral program, however, a variety of factors began reshaping my research interests. My first semester was extremely difficult, as I was learning about very

complex topics in a foreign language. I experienced feelings of inadequacy and frustration deriving from my inability to express myself in the classroom. Despite the fact that I could understand what the other students and professors were talking about, I was unable to communicate my ideas in a successful and compelling manner. I was instantly blocked. This made me believe that I was at a very different level—an inferior level—than the rest of my classmates.

"What is wrong with me?," I thought; "I am well-educated, I come from a middle class family, I have high self-esteem, I am healthy, and there is nothing to complain about." After months of inner struggle I decided that I needed to make a change in order to better myself. I needed to study harder, yes, but I also needed to realize that I was navigating a different language, a different culture, and a different reality. Only then did my real research interest emerge: if someone with a privileged upbringing could experience such migration stress, what about the Latino youth who come from very poor families and are thrown into this shocking experience without any tools whatsoever? Who can help them? How do they cope with this uncertainty?

For many of these children, this is the first time that they have had to deal with migration stress. This was not my experience. I was born and raised in Guadalajara, Jalisco, but moved to Mexico City when I was 18 because my twin sister entered a television reality show and did not want to live by alone in such a big city. I moved with her and finished my studies in Communication in Mexico City. I never really liked it there, but if you want to become a well-recognized television producer in Mexico, living in the capitol city is a requirement. When I was 22, because of some financial difficulties my family decided to move to San Antonio, Texas for a year. In the beginning everything was an adventure and a novelty; months later we realized that

the lower quality of life and the loneliness we were experiencing were not worth the effort. We all moved back to Mexico City. For immigrant Latino youth and their families, the option of moving back and forth is much more limited. Like these families I migrated in the pursuit of economic opportunities, but unlike these families, I belong to a privileged class with the social, educational, and economic resources to secure the option of going back.

In addition to these resources I have a solid grounding in the use of educational technologies, and these skills played a key role in my academic and personal development—and thus in my agency. This helped me cope with the migration stress that I experienced during the first year of my doctoral program. For instance, I was able to look up the meaning of words and phrases on my phone. I kept an online diary of the "word of the day" so that I could increase my vocabulary. I used online libraries with access to thousands of journals related to my field. I used these technologies to broaden my informal education: I learned how to send a letter through the U.S. Postal Service, how to mount a television, how to get directions to certain places, and even how to play the guitar. I learned other seemingly insignificant things that collectively made a change in my daily life; regardless of the task, idea, or concept, the Internet could offer me an insight or an opinion. I began to wonder whether working-class Latino students used these technologies to their advantage. Do they even know about them? What kinds of technologies are available to them? Do they care about improving their skills? These are the kinds of questions that prompted my interest in the current research, and I hope that my work can make a positive impact, if only among the FBL students I with whom I worked.

III. Ethical considerations

I treated all study participants in accordance with the ethical guidelines of the American Psychological Associations (APA) and the University of North Carolina at Chapel Hill Review

Board (IRB). My study was determined as of minimal risk and approved by the IRB (Study no. 13-1509). It is important to note that the immigration status of participants is central to this research. It might be possible that some of the participants feel uncomfortable talking about their current immigration status. I approached the topic cautiously so that all of my participants felt safe and comfortable at all times. In order to protect the privacy of my participants I used pseudonyms and made sure that the dissertation cannot link individual responses with participants' identities (e.g., illustrations instead of pictures). However, I deliberately did not change the name of the school since it is the only dual-language program in the Chapel Hill-Carrboro area. Secondly, because of its positive results when dealing with FBL students, the study might provide an opportunity to invite other area schools to consider the inclusion of a dual-language program, especially in those areas with a growing Latino population. Finally, study participants were made aware that they could withdraw from the study at any time.

IV. Limitations of the study

A fundamental limitation of the study derives from using myself as a research instrument. I am researching working-class immigrants who were oppressed in Mexico by the middle-class in which I was raised and whose social characteristics I embody. My access to the FBL families was limited not only by social or class signifiers but also by my physical characteristics. Researchers must deal with embodied perspectives; they must recognize—as Lala and Kinsella (2011) wrote—"the body as a path of access, a medium through which the world comes to be" (p. 84). Lala and Kinsella added a further relevant dimension to theory of embodiment in research with the concept of *intercorporeality*, which highlights the space between individuals as well as the experience of being with the "other" (p. 82). Intercorporeality in the research process can be monitored by examining the embodied response in the space between the researcher and

the participant. For instance, during my first interview with one of the FBL mothers, for example, she told me as soon as she opened the door of her house, "*Ay, no te esperaba güero, alto y de ojo azúl*" [I didn't expect you white, tall, and blue-eyed]. Her first reaction to my appearance was surprise at the "white" from Mexico.

Being aware of my embodiment as a researcher, I made sure to reinforce the features than bound us together: without exception, I shared my story with each of the FBL parents at the beginning of the first round of interviews. I told them that I conducted my research because— even as a 30-year-old guy who had studied at a prestigious Mexican university—I had been completely shocked and afraid upon entering the American school system. I told them that I was self-conscious of my accent when speaking in English, and that I would sometimes mispronounce verb tenses or completely miss the idea I wanted to express. For this reason, I told them, I was able to relate to their children and also to them. Nevertheless, thanks to my discipline and determination at preparation, and especially with the aid of digital educational technologies, I had been able to enhance my self-perception and come closer to realizing my potential as an English-speaker student. Of course, despite this shared experience, there is no way of knowing whether my attempts to relate were sufficient to overcome any sense of difference they may have harbored.

Tackling a topic like FBL education presents a possible limitation of its own. Because of both my belief in the importance of the subject and my interest in the positive development of the population with which I work, it is inevitable that some bias may affect the way I see and interpret the data. I believe furthermore that the education of FBL students in the United States should be a primary educational goal. I have no illusions about the purity or ideality of the study, and I know that there may be more practical limitations than I am able to include here in this

discussion, but it is important to note that I work within a critical and Freirean pedagogical tradition, and that my position and attitude towards the importance of this research are greatly influenced by the perspective found in this literature.

Lastly, it is important to keep in mind that the emerging theory that I have developed within the context of this study does not seek to "discover" an objective and existing reality. In fact, I attempt to avoid broad generalizations about the issues in this study. My goal is to provide insight regarding the particular situations I was able to observe and to avoid developing any static or dogmatic assumptions about FBL students and their use of educational digital technology. Acknowledging these limitations does not reduce the value of my study; on the contrary, I hope it enriches the field by making the underlying assumptions, ideas, and approaches open to critique and possibly transferable to other researchers, schools, and policymakers.

CHAPTER 4: KNOWING MY FOREIGN-BORN LATINO STUDENTS

In this chapter, I describe the individual situations and contexts of each of the four foreign-born Latino (FBL) students included in this study. Each description includes the student's level of English, the levels of English proficiency and education of the parents, the parents' occupations, the level of technology use in the home, the level of traditional media (commercial and public television, radio, newspapers, and magazines) present in the home, and the student's performance in the classroom. The purpose of this chapter is to give a detailed account of the four FBL students and their families in order to familiarize the reader with the qualitative data that will be incorporated into the analysis and discussion of subsequent chapters.

Table 2, which summarizes the stories of Gaby, Pedro, Pepe, and Adi, illustrates the variations among my FBL students and the broad differences in their individual realities. Crucial to the findings of this ethnographic were the invaluable insights of my key informants, two fifth-grade teachers and one teaching assistant at Frank Porter Graham (FPG) Elementary School: Mrs. Sandra, the Spanish teacher; Mrs. Chela, the English teacher; and Mrs. Paty, the teaching assistant. Research suggests that an account of a teacher's background is central to understanding their relationships with FBL students (Fitts, 2005); therefore, a later section will be dedicated to a more in-depth look at these instructors' backgrounds.

Table 2

Profile Table for the Four FBL Students

	Gaby	**Pedro**	**Pepe**	**Adi**
Level of English	Medium	Low	Very Low	Very Low (fast learner)
Parent's Level of English	Medium-High	Low	Very Low	Very Low
Parent's Level of Education	High	Low	Very Low	Very Low
Parent's Occupations	High	Medium	Low	Low
Technology Use at Home	High	Medium	Medium	High
Traditional Media at Home	Medium	High	High	High
Performance in Classroom	Medium-High	Low	Low	Special Case

I. Gaby

Gaby was brunette and brown-eyed, light skinned—brown and of average height and weight. She was extremely outgoing, and confident. At the time of the study, she was 11 years old, mature for her age and quite aware of her charm. Gaby was an only child and was born in Mexico. She had been in the United States for a little less than one year. Her parents were José, a professor from Spain, and Carmen, a therapist from Mexico. She had plenty of experience traveling, having visited Spain and several cities in Mexico. Her parents were well-educated and both came from upper-middle-class families. They moved to the U.S. because her father accepted a job as a Spanish professor at a local university.

Carmen told me that their first concern upon moving to the area was finding the best bilingual school possible for Gaby. After conducting plenty of research, José and Carmen concluded that even though it was located far from José´s job, FPG would be Gaby's best option.

According to Carmen, the dual-language program at FPG was able to facilitate a subtle transition into an English-language environment, which Gaby needed in order to acclimate naturally to her new environment.

The transition was not easy for Gaby, who missed her friends and family in Mexico. Gaby's family came to the U.S. without acquaintances or contacts, and as an only child, Gaby explained that without her mother, her father, and her one close friend, she would have felt completely alone. I observed that she spoke mainly with other Latino children in the class but that she was never afraid of speaking in English with other students.

Level of English. Gaby told me that she had had English classes in Mexico but that these were too boring for her and that she had thought that she was not learning anything. In addition, she had a very *gritona* [grouchy] teacher that she did not like and therefore had a very negative initial English-acquisition experience. Nevertheless, she regretted not participating or paying sufficient attention in those classes; she noted that if she had been less timid, her level of English would already have been much better. Living in the United States, she added, had forced her to attempt new and unfamiliar things, which made for a difficult transition. Gaby told me:

> *En México yo era muy tímida y es por eso que no me gustaba hablar para nada en clase pero al menos sabía que podía hablar cuando yo quisiera. Cuando llegué acá, decidí que ya no quería ser tan tímida pero ahora el inglés me tiene tímida [arrghh, se queja y después ríe] a veces es imposible para mi decir lo que quiero decir.*

> [In Mexico I was very shy and that is why I did not like to talk at all in the classroom, but at least I knew that I was able to talk whenever I wanted to. When I moved here, I decided that I did not want to be that shy, but now my English keeps me shy and quiet. *Arrghh,* (she complains and then laughs) sometimes it is impossible for me to say what I want to say.]

Gaby appeared genuinely concerned when she shared her frustration. She considered it a pity that when she finally felt ready to be more expressive, she encountered the problem of a language barrier. With a smile on my face, I explained:

Gaby, no tienes que preocuparte por eso, cuando yo me mude acá, digo, a los Estados Unidos, exactamente me pasó lo mismo. Tenía tantas ideas en mi cabeza y no era capaz de expresarlas.

[Gaby, you don't have to worry about that. When I first moved here, I mean, to the United States, the exact same thing happened to me. I had so many ideas in my mind and I was not able to express them.]

I then mimicked some frustration and she smiled back. I wanted to gain Gaby's trust and to let her know that as FBL students, we all go through that same frustrating process. Gaby next confided that on many occasions she had known the answer to a question posed by a teacher, but wished she was allowed to respond in Spanish. For this reason, she preferred the Spanish class with Mrs. Sandra to the English class with Mrs. Chela. In fact, her Math scores increased when the language of instruction switched from English to Spanish.

Parents' levels of English and education. Gaby´s parents were well-educated: her mother Carmen held a bachelor's degree, and her father held a Ph.D. José, her father, was the most English-fluent member of the household and helped both Gaby and his wife with words or phrases that they could not understand. He confessed, however, that upon first moving to the U.S. he had occasionally made up translations in order to project a feeling of security, even if he did not actually recognize the words. Carmen, on the other hand, admitted that she did not consider herself fluent in English:

Cuando llegué acá, pensaba que mi nivel era bastante decente pero luego me di cuenta de que no por las cosas más simples. Por un buen rato en el súper no entendía que era lo que me estaban preguntando. Al final solo les sonreía y movía la cabeza sin entenderles una palabra. Me tomó varias veces darme cuenta de que me preguntaban si quería papel o plástico.

[When I first moved here I thought my level was pretty decent, but later I realized that it wasn't sufficient for the simplest things. For the longest time at the grocery store I never understood what they were asking me. In the end, I would just smile and nod without understanding a word. It took me several visits to realize that they were asking me if I wanted paper or plastic.]

Carmen found it extremely difficult to learn English but was highly motivated to improve. She

attended English classes and persevered in her practice despite the poor quality of the instruction;

she began volunteering at a local organization where her interactions would allow her to practice

her English at least three hours each day. Gaby told me that her dad was the most fluent in the

family and that her mom wanted to learn English so that she would not remain *"como los demás*

Latinos que no quieren aprender inglés" [like the rest of the Latinos who do not want to learn

English]. Carmen distinguished herself from other (working class) Latinos.

Parents' occupations. Before his current faculty position at a local university, Gaby's

father had been a professor at a Mexican university. Because of his work, his family had lived in

a variety of places around the world. Both José and Carmen welcomed new experiences and

considered the transition to English a learning opportunity, especially for Gaby.

Gaby's mother earned a degree in psychology from La Universidad Intercontinental in

Mexico City but never worked in the field because after her marriage she decided to become a

full-time housewife. However, Carmen specialized in Chinese Medicine, and decided to start her

own small business in the area. She explained:

> *Yo le dije a mi esposo que se tenía que encargar de todos los gastos porque yo no iba a trabajar [risas] pero después decidí empezar mi consulta médica aquí. Comencé con dos clientes y ahora tengo entre quince y veinte clientes; todos ellos Latinos. Pero sòlo trabajo dos veces a la semana porque para mí es importante estar ahí para Gaby.*

> [I told my husband that he had to take care of all the expenses because I was not going to work at all (laughs) but then I decided to start my medical practice here. I started with two clients and now I have between 15 to 20 clients. All of them are Latino. But I only work two days a week because it is important to me to be there for Gaby.]

Carmen told me that even on their busiest evenings, the three of them always ate dinner together

and discussed the events of the day. "José is so sweet; he is always there for us," Carmen

commented—she smiled every time she spoke of her husband. It was clear that they had a strong

sense of unity and that they provided support for each other. Carmen's privileged economic position allowed her more time to be there—both academically and emotionally—for Gaby. This extra level of support was not always available for my other FBL students, a difference that I discuss further in the Chapter 6.

Technology use at home. Gaby´s family owned plenty of technological devices. They had three personal computers (two Macbooks and one PC), an iPad that was used primarily by Gaby, and smartphones for each of the parents. Gaby's mother told me,

> *La tecnología en esta casa se hereda. Mi marido compra lo último en aparatos o computadoras y después de seis meses pasan conmigo y luego con Gaby. Le compramos un iPad y le encanta, lo usa más que la computadora.*

> [Technology in this house is always passed down. My husband buys the latest gadgets or computers and after six months they come to me and then to Gaby. We bought her an iPad and she loves it—she uses it more than the computer.]

In addition to these devices, an Internet connection was available at Gaby's house because the family considered the service a basic amenity. Carmen explained that the family used the Internet for everything: reading the news, paying bills, looking up directions on Google Maps, accessing homework resources, and many other things. Carmen told me, *"Las computadoras y el Internet son tan naturales para los niños estos días, Gaby me dice constantemente que ella no entiende cómo le hacíamos para vivir antes sin Internet, le dije, 'Bueno, ¿sobrevivimos, no?'"* ["Computers and the Internet are so natural to kids these days. Gaby constantly tells me that she doesn't understand how we were able to live without the Internet. I told her, 'Well we survived, didn't we?'"].

According to Carmen and Gaby, José was quite proficient with technology and would help them any time they had a question; however, Carmen and Gaby also considered themselves

proficient with technology. Carmen told the story of Gaby's first experience hearing a typewriter:

> *El otro día Gaby y yo estábamos caminando en la calle y escuchamos unos ruidos (*clack, clack, clack—*Carmen imita una máquina de escribir). Gaby estaba tan sorprendida y me preguntó que qué era. Le sonreí y le expliqué que antes usábamos máquinas de escribir en vez de computadoras. Estaba en* shock*, pero más bien confundida.*
>
> [The other day Gaby and I were walking in the streets and we heard some noises (*clack, clack, clack*—Carmen imitates a typewriter). Gaby was so surprised and asked me what it was. I smiled at her and explained to her that back in the day we would use typewriters instead of computers. She was shocked, but even more confused.]

Gaby was excited when we spoke about technology and computers. She said that when she grew up, she wanted to become a reporter or a movie star. Gaby proclaimed, *"La cosa es que soy muy buena con micrófonos y cámaras"* [The thing is, I'm really good with microphones and cameras]. Gaby's interest had been influenced by a particular YouTube channel featuring two Mexican kids cooking meals from recipes. Gaby thought technology was great because it allowed her to express ideas in a very *padre* [cool] way.

> Gaby: *"Con la tecnología tú puedes ser tú misma y puedes ser muy creative."* [With technology, you can be yourself and you can be super creative.]
>
> Oscar: *"Y ¿qué hay de la tarea?"* [And what about homework?]
>
> Gaby (frowning): *"Sí, eso también."* [Yeah, that too.]

Gaby's comments and proclamation of her talents demonstrated high self-efficacy. She believed she had the skill and capability to reach her goal, exhibiting motivation, effort and positive thinking. In Chapter 7, I revisit the potential of ICT's (information and communication technologies) as tools enabling immigrants to maintain their funds of knowledge.

Traditional media at home. Among my FBL families, Gaby's family reported the lowest use of traditional media. In their house, they had a (~42") flat-screen television with cable

service and a Wii console used to play videogames and stream Netflix movies. Carmen explained that even though they paid for a cable subscription, they rarely watched television: *"Rara vez vemos televisión, las noticias intentamos verlas por Internet… es más sencillo acceder a las noticias tanto de México como de España"* [We rarely watch television. The news we try to get through Internet—it's easier to access news both in Mexico and Spain]. Carmen did report, however, that one of their favorite activities was to watch movies on DVD or on Netflix: *"nos gusta ver películas en familia"* [we like to watch movies as a family]. Gaby was the heaviest consumer of television in her family; Carmen reported that Gaby loved to watch Disney movies (on DVD or Netflix) and that she also enjoyed watching the Disney Channel on cable.

Performance in the classroom. When Gaby first began attending school in the U.S., she found it very hard to understand what was going on in the classroom. Out of my four FBL students, Gaby demonstrated the fastest adaptation to the school environment and the highest performance in classroom. Mrs. Sandra confirmed this and shared the further observation that at her age, parental support was one of the most important components of academic success:

> The parents' support is determined by two main factors: time spent with the child and the level of education of the parents. In other words, the parent might be there but not necessarily have the knowledge to explain or help his or her child.

According to her teachers, Gaby's parents provided the two elements necessary for thriving in the school system: parents who were both well-educated and able to offer a high level of support. In this sense, Gaby validated what ESL research has shown: FBL students who already possess a strong academic background in their native language acclimate more quickly than other students (Cummins et al., 2005).

Her concurrently high level of self-motivation was evident. She started the year struggling in Mathematics but after six months had surpassed some of the native-born students.

At the time of the study she was still lagging in her English reading ability, but her teachers believed that she would improve quickly there as well. Mrs. Chela said, "The work that she produces at times exceeds that of some of the native-speaking English students." Gaby indeed acquired new material more quickly than my other FBL students and at a pace similar to some of the native-born Latino (NBL) students. Moreover, in her written work she communicated her thoughts clearly and at times produced work better than that of any other high-performing student in class; in fact, written expression seemed to be the easiest way for her to access information and communicate her understanding of it.

Gaby was a sensitive girl and would sometimes cry during certain classroom activities. During a lesson called "The Navajo Boy," which told the story of a Navajo boy taken from his Navajo family by white missionaries after the death of his mother, Gaby seemed very troubled and had to leave the classroom for 20 minutes. A similar incident occurred a week later while the class was using a computer to complete an assignment. Despite this rough start, the agency that Gaby was able to exert over her own achievements strengthened with time.

A splendid moment with Gaby occurred during one of my observations of Mrs. Chela´s classroom. Mrs. Chela had the students participate in an activity called "Change Over Time," in which the students were asked to think about the earliest Americans and what their lives must have been like. The students researched different Native American tribes while Mrs. Chela facilitated a reading aloud on the same subject. Being a complex activity even for native-born students, I was intrigued to see what Gaby came up with and if she was able to apply her findings to her written work. Once the teacher felt the students had an adequate background—that is, information and knowledge regarding different tribes such as farmers, hunters, nomads, and stationeries—the students formed "tribe-groups" and discussed their points of view. Mrs. Chela

challenged them with the complex activity and introduced them to new terms. Mrs. Paty, the teaching assistant, was also very surprised at the end of the class. Referring to my Gaby, she said, *"¿Viste qué rápido se le movían los ojos? Estaba procesando información muy compleja, ¿verdad?"* [Did you see her eyes moving so fast? She was processing very complex information, right?]. In the end, they had done a magnificent job, especially Gaby, and we were all very pleased to see that she was able to truly step up and apply the content. After this activity, both teachers and the teaching assistant agreed that Gaby was likely to be on the same level as any other native student given one more year.

II. Pedro

Pedro was a dark skinned, short and skinny boy with buzzed black hair. Despite knowing me from my classroom observations, Pedro appeared reluctant to answer some of my questions during our first interview, so I decided to begin by talking about something that he might find interesting. I said, *"Oye, Pedro, soy de Guadalajara, no tan lejos de Guanajuato, ¿sabes cuál es el mejor equipo de futból en México?"* [Hey Pedro, I am from Guadalajara, not that far away from Guanajuato--do you know which is the best soccer team in Mexico?] He smiled and said, *"Chivas."* I high-fived him and responded, *"Claro, Chivas de Guadalajara. ¿Hay algún otro equipo?"* [Of course, Chivas de Guadalajara. Is there any other team?] From that moment on, Pedro knew I was a solid guy, another "Chiva" he could trust.

When I first met Pedro, I thought he was just a little boy who wanted to run around and play all day. He was full of energy, cheerfulness, and humor. At recess he would scamper around and play typical little-boy games; he just wanted to have fun, to be crazy and happy-go-lucky. Pedro had been in the United States for approximately 2 months when I interviewed him. At 11 years old, he was the eldest of his siblings. Pedro had two brothers, eight-year-old Emilio and

Jeremias, a one-year-old infant. At the time of the study, Pedro lived with his mother Isabel and Don Pedro, his father. Prior to his arrival in the United States, he lived in Guanajuato, Mexico with his grandmother. Pedro told me, *"Vivía con mi abuelita desde que era así bien chiquito y mis papas vivían aquí"* [I lived with my grandma since I was a little kid, and my parents lived here].

Pedro and I talked about our grandmothers and how much they meant to us. Pedro told me that his grandmother had taken care of him for as long as he could remember, and for that reason that he missed her a lot. I asked Pedro if he had ever met his parents before moving to the U.S. He said, *"No conocía a mis papas antes de venir aquí… pero mi abuelita me enseñaba fotos de-llos así que sí los conocía"* [I had never met my parents before coming here… but my grandmother showed me pictures of them, so I knew them]. I wanted to get more information regarding how Pedro felt when he first saw them in person:

Oscar: "¿Qué sentiste cuando los viste, Pedro?" [What did you feel when you first met them, Pedro?]

Pedro (responding drily): "Bonito." [Nice.]

Oscar: "¿Estabas emocionado cuando los viste?" [Were you excited when you saw them?]

Pedro (his expression unchanged): "Sí estaba emocionado." [Yes, I was excited.]

Oscar: "¿Y tus hermanos, también llegaron aquí contigo?" [What about your brothers-- did they also come here with you?]

Pedro: "No, ellos ya-staban acá." [No, they were already here.]

Oscar: "¿Cómo llegaste a Estados Unidos, Pedro?" [How did you get to the United states, Pedro?]

Pedro: "No mi-acuerdo." [I don't remember.]

Pedro had a tendency to comfortably slur many of his words together. In translation his speech pattern would resemble a native English speaker using the phrases " I dunno" instead of "I don't know". It was hard to delineate word from word and his vernacular was similar to that of someone with a lower educational social status. When Pedro claimed he did not know how he got to the United States, I noticed that he appeared very uncomfortable. I did not want to make him feel distressed so I quickly changed the subject; still, I took note that what I had observed was a very clear example of the migration stress experienced by FBL children.

Level of English. Pedro arrived in the U.S. with a very low level of English proficiency. He had taken some English lessons back in Guanajuato but said that he could not remember anything from those classes. Still, he believed that he came here with some level of English: when I asked him, *"Pedro, ¿cómo era tu inglés cuando llegaste aquí?"* [Pedro, how was your English when you first got here?], he replied, *"Sabía un poquito"* [I knew a little]. When I initially observed him in the classroom, I noted that he tended to speak in Spanish, even during English-language classes. Most of the time, Pedro was reluctant to speak in English; it was only when participation points were awarded for speaking the language of instruction that he was eager to speak English. This classroom reward system worked very well for encouraging his participation. Mrs. Chela confirmed this observation, remarking, "Truly, if you are holding something out for him, he will grasp and seize it." She continued:

> In the mornings he comes and says good morning in his little voice. This morning he walked in and said, 'My finger hurts.' He said this in English, which totally put a smile on my face right away—not because he was in pain!—but because he said it in English.

This demonstrated that Pedro´s comfort level with English had increased in his six months at FPG, as had his classroom focus. Pedro had many things to learn, but his proficiency in English was unquestionably improving bit by bit.

Parents' levels of English and education. Pedro´s parents reported their highest level of schooling as "some high school" and did not speak any English at all. Mrs. Sandra and Mrs. Chela had visited Pedro´s house and had taken some materials to share with Pedro and his parents so that they would be able to assist him with his homework. Pedro´s father was a very active participant in the school and the community despite his lack of English: during the teachers' visit, he immediately raised a question about a homework assignment, saying, *"No entiendo muy bien qué quiere decir esta instrucción"* [I do not quite understand this instruction]. It turned out that there had been a mistake in the printed instructions, and that Don Pedro had identified the mistake and been comfortable enough to ask for clarification. I could tell that Don Pedro was highly involved in his son's life despite his lack of English; he was not shy and his positive energy was greatly appreciated within the FPG community. Pedro´s mother, Isabel, was much more reserved and not nearly as vocal. She was very shy around the FPG community and allowed Don Pedro to do all the talking whenever they interacted with teachers, parents, or other FPG staff members.

Parents' occupations. For Pedro´s parents, obtaining work had become increasingly difficult over their years of residence in the U.S. They reported that they had enough to live, but that their finances and work prospects were very challenging and only getting worse. During an interview I conducted at Pedro´s house, Isabel brought me a glass of water from the kitchen and discussed their fraught employment history:

> *Conseguir trabajo está mucho más difícil que antes. Porque, mire, cuando nosotros recién llegamos, así cuando nosotros recién llegamos aquí había más trabajo nosotros*

teníamos, bueno no estábamos con hijos y teníamos hasta dos trabajos… trabajamos por la mañana y por la tarde limpiamos oficinas… pero ahora, la mayoría de los trabajos están pidiendo el número de seguro social y pues así es más difícil conseguir empleo.

[Getting a job nowadays is even harder than before. Because, you see, when we first got here, when we first moved here, there were more opportunities--we had no children, or rather, the children weren't around at the time and we each worked two jobs. We would work during the morning and then in the afternoons we would clean offices. But now, most of the jobs require Social Security numbers and—well—it is harder to get a job.]

The lack of a Social Security number was an issue for Don Pedro, forcing him to take more

flexibles [flexible] part-time jobs. At the time of the study, Don Pedro had been working as a

gardener for the previous six months, but before that had held a variety of jobs in restaurants and

construction. *"Rotan mucho"* [They rotate a lot], Isabel added; *"Esos son solo trabajos*

temporales" [Those are just temporary jobs]. Isabel began work every day at eight in the

morning and returned home around two in the afternoon. She emphasized, *"Yo sé que podría*

estar haciendo más dinero pero ahorita es la chamba que tengo" [I know I could be making

more money, but right now it's the job I have]. Isabel explained that she would not mind

working more hours but that it would be easier for her if she had a Social Security number.

Isabel explained that in Mexico they had not been limited by their lack of a Social

Security number but by their level of education: *"Allá en México tampoco era tan sencillo*

porque sòlo acabamos la secundaria" [Over there in Mexico it was also not simple because we

only finished middle school]. She continued, *"Por eso le digo a los chamacos que tienen que*

estudiar mucho para que agarren buena chamba de grandes" [That is why I tell the kids that

they have to study a lot so they can get a good job when they grow up]. It should be noted that

Isabel's choice of words here—*chamacos, agarren and chamba*—mirrored the kind of

vernacular language I had encountered in Pedro's speech as well, and exhibited specific

socioeconomic markers. As Jenkins (2013) notes, "slang appears frequently in the speech of

members of lower social-economic classes" (p. 17). *Chamacos* is a slang term roughly

equivalent to "kiddos" in English, which Isabel used in place of the word *niños.* Likewise,

agarren is slang for "to take," and *chamba* is a very informal way of referring to a job—it would

be similar to a native English speaker referring to a "9-to-5." Now, going back to this specific

family dynamic—how the regrets or disappointments of Pedro's parents were translated into

ambitions for their children's futures—will be discussed further in Chapter 6 and will be

contrasted with the experiences of the other FBL students.

Isabel recounted how she had been in search of good job opportunities all her life: *"Nací*

y crecí en Guanajuato pero luego me fui a la ciudad de México a buscar chamba, luego a

Tijuana y no estuvo tan bueno y luego viví en Tecate, ahí fue donde conocí a Pedro" [I was born

and raised in Guanajuato, but I left for Mexico City to look for jobs, then moved to Tijuana

where it was not that good, and then again later lived in Tecate where I met Pedro]. Isabel added

that, while in Tecate, they had heard of good opportunities available doing construction work in

North Carolina. I asked her, *"¿Medio lejos de Tecate, no?"* [A bit far away from Tecate, right?),

to which she responded, *"Quedaba hasta el otro lado, pero pues el Pedro andaba bien*

entusiasmado con la chamba" [It was across the border and on the other side of the country, but

Pedro was very excited about the job]. That was enough for them to decide to move to North

Carolina, and, having improved their quality of life, they decided to stay.

Technology use at home. Pedro's household shared one laptop computer which was

used predominately by Pedro and his father (see "Acknowledging how FBL families work" in

the Chapter 7 for a discussion of the gendered use of technology). There was no Internet

connection at home, so Pedro waited until arriving at school to use the online educational

software for his homework. Isabel told me that in the evenings Pedro attended an extra group

session at the school where they helped him with his homework. This represented a very useful type of support, since she often felt that no one at home was able to help him. Isabel declared, *"Es bien difícil para mi ayudarle con la tarea porque muchas veces yo no le entiendo como hacerlo"* [It is very hard for me to help him with homework because most of the time I don't understand how to do it myself]. Isabel added that, despite her difficulty in assisting him with his work, Pedro had become a very independent, active, and curious child who had taught himself to use the computer without any help from others.

Pedro reported that he enjoyed using computers all the time, even when the use was homework-related: *"Me gustan mucho las computadoras, me gusta jugar juegos de zombies y me gusta jugar juegos todo el tiempo"* [I really like computers; I like to play zombie games and I like to play games all the time]. I replied, *"¿Qué tal para las tareas en la computadora, te gusta eso?"* [What about homework on the computer? Do you like that?]. Pedro started rocking in his chair and responded, *"Sí, me gusta hacer mi tarea en la computadora y me gusta Kid Biz (software educativo) pero no lo puedo usar en mi casa porque no hay Internet"* [Yes, I like to do my homework on the computer and I like Kid Biz (educational software), but I can't use it in my house because there is no Internet]. This problem of access is taken up again in Chapter 6 in order to further discuss the problems that arise when educational technologies differ between school and home settings.

Traditional media at home. Pedro´s house had two televisions. One was a (<42") flat-screen set up in the living room with a DVD player and connected to a HD antenna; the second was an older and smaller (~12") television located in the kitchen. Isabel reported that she kept the smaller television turned on throughout most of the day, as the sound gave her a feeling of accompaniment while she was alone in the house. Isabel considered the smaller television her

own and mostly kept the channel tuned to Univision 40. The television in the living room was designed to be used in a family setting and was mostly used by Pedro and his siblings to watch cartoons. Isabel told me her children liked to watch cartoons and that the channel for cartoons was UNC Kids (42). The programming on UNC Kids was entirely in English and Isabel told me that she especially liked the educational cartoons that explained words in English because she considered them a part of the education of Pedro and his siblings.

Isabel said that she liked to listen to the radio on La Grande 1000 AM because they played good music, but added that she liked a bit of everything as long as it was in Spanish. She was the only radio user in the family. Don Pedro liked to watch television, on the other hand, and his favorite program was the Sunday *fútbol* [soccer] match—"real football," we joked. He reported enjoying watching *fútbol* with his children on Sundays, even though they did not seem to enjoy the activity as much as he did.

When asked about their method of getting news, Isabel replied that while the television was the main source of information, she also often listened to radio reports as well. She also acknowledged that the most important news for her was not available on either Univision or the radio, and that she had to rely on conversations with her mother to inform her about the important local news from Guanajuato. Isabel reported talking to her mother on the phone (using a prepaid phone card) at least three to five times each week. Pedro's family reported a high usage of traditional media at home; this heavy usage of Spanish media contrasted with Gaby's family.

Performance in the classroom. According to both Mrs. Sandra and Mrs. Chela, Pedro was one of the lowest-performing students in the class, which they attributed to his low levels of English and previous schooling. Pedro had attended a public school in Guanajuato where the ratio of students to teachers, according to his mother, had been around 30 to 1—more than twice

the ratio at FPG. Practically, this had meant little personal attention to individual students and therefore a low level of formal instruction for Pedro, particularly in the subject of mathematics. Mrs. Chela explained, "The Pedro that I see now today has had a very, very interesting transition; he has matured a lot in the past couple of months." Mrs. Sandra and Mrs. Chela noticed that students performing at lower levels, like Pedro, needed an added level of support, and for this reason had begun giving an extra one-on-one lesson for 30 minutes each day before class so that students would be prepared for the lesson. When Pedro began attending these pre-lessons, his teachers agreed, his performance had notably improved. Eventually, he was able to reach a point where his familiarity with the material allowed him to participate more fully in the classroom; these extra lessons not only helped Pedro with his grades but with his agency and self-esteem as a participant in his own education.

III. Pepe

Pepe was a light skinned—brown, tall skinny boy with large ears, small eyes and thick lips and dark wavy hair. He was a very reserved child with a great heart. He barely spoke in class, and when he did it was only to contribute a very quiet word or two; when he was asked a question in front of the other students, he would whisper the answer. He seemed to be more open in his interactions with Pedro, however, and it was amazing to watch him laugh uncontrollably—eyes squinting and head moving back and forth—every time Pedro shared a joke. Pepe was 11 years old and arrived in the U.S. in August of 2013, only a few weeks before I began my fieldwork. His father Renato had moved to the U.S. a year earlier, and had then decided to bring his wife Bertha and their son. As an only child, Pepe had lived alone with his mother and grandmother in Monterrey, Mexico. I asked Pepe, *"Entonces ¿no tienes hermanos ni hermanas?*

Eso es perfecto ¿haces lo que quieres, verdad?" [So you have no brothers and sisters? That's perfect—you get to do whatever you want, right?]; *"No siempre"* [Not always], he responded.

My first interview with Pepe was largely a monologue: he only responded with "yes," "no," or *"no sé"* [I don't know]. No matter how hard I tried to build rapport by sharing jokes and funny anecdotes, Pepe was completely silent. It never seemed like he was uncomfortable; in fact, I interpreted his non-verbal signals as very relaxed. His behavior was puzzling. I tried talking with Pepe about soccer, movies, and food, but it was not until we began talking about video games that he finally opened up. Pepe told me, *"Hay una página de videojuegos que se llama "juegosfree" y ahí me gusta mucho jugar todo el tiempo… hay uno de zombies que está muy bueno y lo juego muy seguido"* [There is a video game website called "*juegosfree*" and I really like to play there all the time. There is this zombie game that is really good and I play it very often]. Pedro—who had first played the game in Mexico—had recommended this game to Pepe, and both of them had become frequent players. For Pepe and Pedro *juegosfree* was a bonding medium that helped to create a relationship that assisted in the migration transition for both.

That was the first time Pepe uttered a complete sentence. At first I did not connect Pepe's initial silence and his sudden burst of "gaming talk" to my research; I was just relieved that he was talking to me. During my classroom observations, I observed that Pepe's familiarity with gaming on his home computer seemed to translate to a facility with new technologies and educational media in class. He would not hesitate to use the translation function on the iPad, for example, and his comfort with the device allowed him to respond to questions in class (see the full description and analysis of the technological activity in Chapter 6).

Level of English. Even though Pepe was the least talkative of my participants, he gave the most striking testimony of all once we had begun discussing his level of English. We were in

a room next to his classroom when I asked him, *"Pepe, ¿cómo es tu nivel de inglès?"* [Pepe, how is your level of English?]; he replied, *"No sé, no es nada bueno"* [I don't know—it's not good at all]. I followed up by asking, *"¿Cuánto te tardará en mejorarlo?"* [How long would it take you to improve it?], and was truly surprised by his answer: *"No sé cuánto tiempo porque el director pasado me dijo que yo ya era muy grande para aprender inglés"* [I don't know how long, because the last principal told me that I was too old to learn English]. Regardless of the meaning that Pepe's former principal had intended, his words had remained in Pepe's head and had seemed to seriously affect his self-esteem.

I was worried for Pepe and during one of my interviews with Mrs. Sandra I addressed the issue. She was shocked: "Who told him that? I am completely sure that it was no one around here!" The principal of FPG at the time of the study was a woman, and so I told Mrs. Sandra that since Pepe had said *director* and not *directora*, he must have been referring to the previous principal. Mrs. Sandra seemed very concerned, but began connecting Pepe's comment with her previous impressions and experiences working with him:

> Now that you're saying it, Pepe did arrive here with a very heavy load. We are trying really hard to develop his self-esteem and we know that we can achieve this in part by increasing his level of English. In a way, Pepe came here completely "frozen" and now he is coming out of his package little by little—it has to be a slow process because he is very introverted.

It was important to help Pepe move past the idea that he was too old to learn English; otherwise, his progress would be much slower than that of the other students. The situation was a bit more complex than I initially thought. However, my investigation revealed that Pepe´s level of English was just one factor among a very complex set of factors that affected his overall performance in the classroom. Other factors included his parents´ comparatively low levels of education and

support, his personal background, and most importantly, his still-recent experience of crossing the border.

Parents' levels of English and education. Pepe's mother Bertha believed that no one would be able to understand her at Pepe's school, despite her acknowledgement that the staff at FPG was largely bilingual. I noticed a similar level of insecurity reflected in Pepe´s behavior. When Bertha told me that her English was not good at all, I asked, *"Y ¿cómo le haces para moverte aquí?"* [So, how do you get around here?]; she replied, *"Bueno, realmente no necesito mucho inglés… aquí en la cuadra hay mucha gente como yo y llevan años ya"* [Well, I don't really need English that much… here on our block, there are a lot of people like me and they have been here for so many years now]. In a separate interview with Pepe, I asked him the same question: *"Pepe, cómo le hacen cuando quieren ir a comerse una hamburguesa si nadie habla inglés?"* [Pepe how do you guys manage when you want to go and get a burger if no one speaks English?] He replied, *"Vamos a la plaza y ahí casi todos hablan español. Otras veces viene una señora con nosotros y ahí nos traduce"* [We go to the Plaza and they all speak Spanish there. Other times a lady comes with us and she translates for us]. In my discussion regarding "Getting to know FBL social spaces" in Chapter 5 I return to this point in order to argue that the enculturation process is heavily influenced by the physical spaces frequented by FBL's. In other words, FBL's with low levels of English proficiency are confined to places where Spanish is spoken (Adams et al., 2006).

In addition to a very limited level of English proficiency, Bertha also had a comparatively low level of formal education. When I asked Bertha about her education, she laughed with embarrassment and insisted, *"Mejor ni hablemos de eso"* [It's better that we don't talk about that]. Bertha was concerned about Pepe's performance at school and admitted that his homework

was mostly beyond her comprehension. She also explained that she had no time to attend school meetings because she was busy all day. (She did not feel comfortable answering when I asked her about her daily activities.) According to Bertha, Renato was similarly busy and the school staff confirmed that they never saw him at school; I never had a chance to talk to him because he was always working out of town.

Parents' occupations. At the time of the interview, Bertha was unemployed and living with a relative; Renato worked as a painter in a city about 45 minutes away.

Bertha: *"El Renato está haciendo buen dinero y pronto vamos a poder rentar nuestro propio lugar."* [Renato is making good money and soon we will be able to rent our own place.]

Oscar: "Y tú Bertha, ¿estás consiguiendo trabajo?" [What about you, Bertha—are you looking for a job?]

Bertha: *"Sí, ya hablé con unas señoras ahí en la plaza y dicen que hay muy buenas oportunidades limpiando casas… muchas de ellas trabajan ahí y dicen que hay buen dinero y no te piden el número de seguro social"* [Yes, I already spoke with some of the women at the Plaza and they say there are a lot of good opportunities cleaning houses… most of them work there and they say it is good money and they do not ask for a Social Security number.]

Even when they struggled to make ends meet, Bertha remained optimistic. She explained that this was not the first time they had started from scratch, and that there would always be some moments that were better than others. It was their first time in the United States and had been an adventure thus far.

Technology use at home. Pepe's parents had gotten him a laptop computer and he was allowed to use the Internet connection available at the relative's home. Bertha explained that Pepe occasionally used the computer at home and that although she thought he might be using it for homework, she could not be sure. She emphasized, *"No sé bien que programa usa, pero en las tardes se pone ahí con la computadora para hacer tareas"* [I don't know what program he uses, but in the afternoons he sets himself up with the computer to do homework]. Pepe received the computer as a birthday present only a month after he arrived in the United States.

> *Oscar: "Pepe, quién te enseñó cómo usar la computadora?"* [Pepe, who taught you how to use the computer?]

> *Pepe: "Allá en Monterrey había un ciber-café y-íbamos ahí y te dejaban usar el Internet por 20 pesos por 20 minutos."* [Back in Monterrey there was a cyber café, and we would go there and they would let you use the Internet for 20 pesos for 20 minutes.]

> *Oscar: "Así que ¿así fue como aprendiste a usar las computadoras?"* [So that's how you learned how to use computers?]

> *Pepe: "Sí, porque me gusta jugar juegos en la computadora."* [Yes, because I like to play games on the computer.]

This was the second interview in which Pepe discussed how much he enjoyed computers and video games. Not only did he like playing games, but his experience of learning how to use computers occurred outside of his home and in the company of other people. This seemed to suggest why he may have felt more at ease during technology-based classroom activities in which he was paired with other students. (See further discussion in the Chapter 6).

Traditional media at home. Pepe shared a room with his mother in the apartment that was their temporary residence. Bertha told me, however, that the media devices at their relative's

apartment were similar to the ones they had had at her mother's house in Apodaca, Monterrey. In both homes, there was a single (~42") flat-screen television connected to an HD air antenna. Bertha reported receiving roughly fifteen channels and that she mostly watched Univision 40. She said she watched *telenovelas* [soap-operas] daily and insisted that even though the available *telenovelas* were already old in Mexico, she still enjoyed watching them. Bertha did not report listening to the radio or being interested in the news at the house, though she added, *"Las noticias las veo en la tele, a veces"* [I watch the news on TV, sometimes]. She did, however, enjoy listening to the radio in the car.

Bertha mentioned that she enjoyed listening to music on the radio during their commute; she did not drive, but rode with Renato whenever he was in town. Bertha said they liked to listen to music in Spanish and that—being from Monterrey—she preferred *"banda and norteñas"* [northern Mexican folk music]. This style of music is popular in the northern region of Mexico, i.e., Monterrey, and can be linked to the working class because of its relationship and story telling characterizes of social experiences (Fox, 2004). She informed me that Pepe rarely listened to the radio or watched television; he would be *"metido en la computadora todo el día"* ["inside" the computer the whole day]. Bertha noted that Pepe was very shy and very quiet, and that he spent most afternoons in the living room or bedroom playing on his computer, so no traditional media use was reported for him.

Performance in the classroom. According to Mrs. Chela, Pepe was "in his silent period." Alvarez-Torres (2013) has theorized five distinct periods during the second language acquisition process: (1) the silent period; (2) the early production period; (3) the speech emergence period; (4) the intermediate production period; and (5) the advanced production period. During the silent period a student is able to understand more than what he or she might

be able to produce. Nevertheless, many factors come into play (e.g., the student's personality, time spent with the new language, level of new language proficiency, etc.) when determining the prospective length of this period (Cummins et al., 2005). Luckily—as will be examined further in the Chapter 6—students exposed to meaningful activities related to their background or their everyday reality can drastically reduce the length of this silent period (Gutiérrez, 1999).

In class, Pepe was notably shy and overwhelmed, though he worked well in small groups because they constituted safe environments. There was one lesson, for example, in which Mrs. Chela questioned the students about geometrical shapes. Suddenly I noticed Pepe and Pedro talking and rapidly moving their heads left and right, as if they were looking for something and running out of time. Finally Pepe found what they were looking for and almost jumped out of his seat, telling Pedro, *"Mira, mira, es esa!"* [Look, look, it's that one!] He pointed to a picture on the wall of an inclined ramp. There was silence in the room and Mrs. Chela said, "Yes, go ahead," to which Pepe finally replied in a whisper: "Ramp?" I felt like standing up and shouting, celebrating Pepe's correct answer and willingness to participate in the larger class setting. It was evident that Pepe worked hard, enjoyed group activities, and was excited to learn as much new vocabulary as he could; still, he seemed especially grateful for individual attention and seemed to need more academic support, especially from his family.

Mrs. Sandra agreed that Pepe would do much better in class if he had more academic support from his family, but unfortunately, the members of his household were able to offer only minimal support at best. Because of his mother's general shyness and her low level of formal education, it was recommended that she bring Pepe to either the morning tutoring or the after-school homework sessions. Sadly, Pepe did not attend either program. Mrs. Sandra insisted that Pepe had never been exposed to grade-appropriate math concepts like basic division and

multiplication; "In a way we're starting from scratch with him," she explained. Pepe's teachers concluded that he needed time and a lot of support, and that with some luck he could be up to a grade-appropriate level in two to three years.

IV. Adi

Adi was a charming and extremely charismatic girl. Small and dark-skinned with high cheekbones, Adi appeared to be a full-blooded Mexican Indian. She had very dark hair and her eyes usually expressed a mischievous look. Adi came to the U.S. from Guanajuato (like Pedro) with one of her grandparents just a few weeks after classes had begun in October 2013. Adi's experience at FPG was very different from those of my other three FBL students; after observing and interviewing Adi for one semester, her teachers decided to move her back to the fourth grade.

It turned out that Adi was younger than the staff at FPG had originally thought: she was only nine years old when she began fifth grade, and celebrated her tenth birthday in late October 2013. Adi's mother Sagrario was confused about the situation but was afraid to attempt clarification with the teachers or the principal. It was not until one day when Mrs. Sandra invited the students to join a club that they learned Adi's real age. Mrs. Sandra explained to the class that in order to become a member of the club, you had to be 11 years old. Adi interrupted the class and said in her small, almost baby-like voice, *"Uy qué malo, pues ya-no me vanin-vitar"* [Oh, too bad, they aren't going to invite me]. Thinking that Adi was misunderstanding the situation, Mrs. Sandra explained to her that she would indeed be invited, but Adi replied, *"Pero acabo de cumplir diez"* [But I just turned ten]. The staff at FPG then understood why Adi had been doing poorly in her classes. I had been told that she was having a hard time in her acculturation and

enculturation processes, but the real issue—beyond her struggle to adapt to a new culture and her migration stress—was that she had been placed a year ahead of her actual grade level.

After hearing about the revelation concerning Adi's age and situation, I initially concluded that I would have to select another FBL student from the class; I quickly realized, however, that Adi's case presented a unique opportunity for my research. I decided to continue following her situation because it afforded a special opportunity to explore a case very different from those of the other students. If this confusion had occurred in Adi's case, I thought, it must surely have happened in the cases of many other FBL students as well. Mrs. Chela's experience confirmed that this was indeed likely:

> Most of the time, these kids come to school without even a birth certificate and it is impossible for the school to verify their name, age, nationality, and so on. That's why we, as teachers, have to be extremely careful with FBL students—because every case is unique and particular.

Adi's experience led me to explore in greater detail why many FBL parents remain silent in school settings. Research suggests that FBL families tend to avoid situations perceived to be perilous, and in some cases the school administration itself can provoke this fear (Haddix & Sealey-Ruiz, 2012). In the Chapter 7, I expand upon this idea and discuss FPG's attempts to help FBL families in a section entitled "Empowering more critical FBL parents."

In my initial round of fieldwork it was very difficult to ascertain any details about Adi's background. Since Adi had only recently arrived in the U.S., the staff at FPG had very little information. The data derived from school records and the anecdotal data derived from my own interviews with Adi were not coalescing into a coherent narrative. Adi arrived at school without any legal documents or birth certificate and Adi's mother Sagrario had not provided any clarity with regard to her daughter's situation. In general, it seemed that Sagrario did not want to have any contact with the school whatsoever. It was not until later in my fieldwork that I was finally

able to get an interview with Adi's family and to visit her home. In that interview, Sagrario confessed that she experienced real discomfort any time she had to visit the school or the hospital (where she had to take Edwin, Adi's brother, for monthly consultations).

Once I was able to interview Sagrario, I was able to create a richer profile for Adi, and the story of her family was surprising not only to me but to her teachers at FPG as well. "In many cases," Mrs. Sandra explained, "Lincoln Center (the local school district) simply sends us very little information regarding the profile of each student." For the most part, she added, the instructors at FPG had to act as both teachers and detectives when it came to assembling the bigger picture behind each of their students. At the beginning, like the FPG staff, I have been shortsighted regarding Adi's scarcity of background information, but the incident led me to be much more cautious in the analysis of FBL student profiles. No one—not me, Adi's teachers, nor the school district staff—had been certain about Adi's ethnic background or household composition. Despite Adi's apparently indigenous features, her mother Sagrario did not report belonging to any Mexican indigenous group. Even more surprisingly, I discovered that Adi was not only adapting to a new culture but to a new family.

It turned out that Adi lived with her mother, Sagrario, her stepfather Ricardo who emmigrated from El Salvador, her grandfather Rafael, and her two half-siblings: three-year-old Julia and two-year-old Edwin.

Oscar: *"¿Juegas con ellos?"* [Do you play with them?]

Adi: *"Si, jugo con ellos pero miaburren y luego al chiquito no me dejan cargarlo cuando bajo las escaleras."* [Yes, I play with them but I get bored, and then the little one... well, I can't carry him when I go down the stairs.]

Adi told me that she was not allowed to play with Edwin often. I asked her mother to clarify this situation for me, and Sagrario explained that Edwin had been born with a disease known as cystic fibrosis that affected his lungs and digestive system, and that for that reason everyone had to be extra careful when playing with him. She told me that Edwin had been born in the U.S. and was therefore eligible to receive Medicare benefits—something that she was very thankful for—but that the experience had been an ongoing trial that had required a vast amount of care, attention, medicine, and money. Edwin—as I observed during my visit to Adi's home—was a very thin boy who played and jumped around the house. Adi's half-sister Julia, on the other hand, was a chubby, smiling girl who without any hesitation showed me all of her toys on my first visit.

Sagrario told me that they had recently moved into a new apartment because their former two-bedroom apartment had been too small for the whole family. In that former apartment Sagrario's father (Adi's grandfather) had lived in one room while Ricardo (Adi's step-father), Sagrario, Adi, Julia, and Edwin all slept in the other. She explained that everything had become much easier with three bedrooms: they had more total space, and so everyone was able to have a little more privacy at home.

Level of language: English and Spanish. I asked Adi about her level of English proficiency and she answered me with a child's directness and honesty: *"No sé nada"* [I don't know anything]. When I asked her if it was hard for her during English-language lessons, she replied that it was not hard at all and that she enjoyed her time at school. Adi was a free spirit, a happy girl who did not seem to care at all about anything going on around her. During class, if she had to go to the restroom, she would simply raise her hand and start jumping and miming gestures that expressed her need to go to the restroom. After a few weeks she had learned that the

English word for *baño* was "restroom," and so she added that to her hand-raising and jumping and miming, saying, *"ress-room, ress-room."*

I noted that Adi had problems conjugating verbs in Spanish as well. She would often mispronounce certain verbs, saying "*jugo*" instead of "*juego*" [I play], or "*sabo*" instead of "*sé*" [I know]. She also tended to join multiple words into a single word as if she were familiar with their spoken but not their written form, saying "*miaburren*" instead of "*me aburren*" [they bore me] or "*yano me vaninvitar*" instead of "*ya no me van a invitar*" [they aren't going to invite me]. Her communication in Spanish was not limited by her vocabulary but by her non-standard conjugation and pronunciation.

Parents' levels of English and education. Adi told me that no one in her house spoke English, and that everything was communicated in Spanish. When I asked what language her family spoke when they went out, she told me, *"Nunca oigo"* [I never listen]. Sagrario confessed that even after six years of living in the U.S. her proficiency in English was severely limited. *"A veces,"* she added, *"entiendo lo que quieren decir pero no sé cómo decirlo, asi como para tener una conversación, no"* [Sometimes I understand what they are trying to say but I don't how to say it myself the way you would say it in order to have a conversation, no]. Sagrario further explained that neither Ricardo nor her father Rafael had any English proficiency and that they all spoke Spanish in the house, both among themselves and with the kids. Sagrario noted, *"Julia es la que dice palabras a veces, lo agarran de la tele"* [Julia is the one who says words (in English) sometimes—they get it from the television].

Sagrario told me that Adi's father had abandoned them when Adi was three years old and that she had consequently decided to move from Guanajuato to North Carolina in search of job opportunities. Neither of Adi's birth parents—nor her stepfather Ricardo—had finished high

school: this low level of formal education proved to impact their overall level of parental support and therefore Adi's performance in the classroom.

Parents' occupations. During my first interview with Adi, she was very quiet and gave me very short answers.

Oscar: "¿Tú mama trabaja?" [Does your mom work?]

Adi: "Sí." [Yes.]

Oscar: "¿En dónde?" [Where?]

Adi: "No sé." [I don't know.]

Sagrario worked at a pizzeria and before that had worked at various restaurants, either cleaning or preparing food. In Mexico she had worked for a restaurant for more than 12 years, which she considered a much better job than her similar position in the U.S. because in Mexico she had had more friends. At the time of the study Adi's stepfather worked at a carwash, though before that he had worked at the restaurant where he met Sagrario. Sagrario explained that even though their jobs were not *buenos* [good], they were sufficient to cover the monthly expenses of the family. Adi's grandfather also worked in a restaurant and contributed to paying the household bills, but the rest of his earnings were being sent back to his family in Mexico.

Technology use at home. Despite the availability of some digital technologies at her house—a computer with a prepaid one-year connection to the Internet, an iPad, and two smartphones—Adi's engagement with computers was non-existent. Another observation I made at the school made this utter lack of familiarity clear. During Adi's second week of classes at FPG, she sat in front of a computer—after Mrs. Sandra had given the students instructions for navigating to a website—for nearly 20 minutes without even turning it on. As a curious and resourceful girl, she asked a native Latina student how to turn it on. The Latina girl explained it

to her and she was able to turn it on for the lesson, but in the next class, when they again used the computers, she again encountered the same problem and was not able to turn it on. Nevertheless, Adi told me that she loved computers: *"Me gustan mucho [las computadoras] porque le pico y mia-parecen juegos y mi-mamá me di-una tableta de cumpliaños"* [I really like them (computers) because you click it and games appear and my-mom gave-me a tablet for my birthday]. In a section called "Defining digital literacy, access, and use" in the Chapter 6, I examine this disconnect more closely: while digital technology has proven to have a profound educational potential for FBL students and their families (Warschauer, 2000), the varying levels of access and use among different demographic groups continue to limit the efficacy of educational media. Despite the fact that Adi had lacked any exposure whatsoever to computers while living at her grandparents' house in Mexico, her computer skills had begun growing rapidly after she had received an iPad as a birthday present and her use of digital technology had become more internally motivated.

Traditional media at home. Adi's apartment had a large (~50") flat-screen television in the living room with an older television sitting next to it on the floor. Sagrario explained that she had recently bought the newer television as a Christmas present for the whole family. She also said that they would not have chosen to pay for cable at home, but that a cable package was included as part of their rent payment. They were intending to sell the older television at a *pulga* [flea market], but in the meantime it was being used as a coffee table. There was a third television in Rafael's room; Sagrario said, *"Cuando llega del trabajo [el abuelo de Adi] nomás se mete ahí a descansar y a ver tele"* [when he (Adi's grandfather) comes back from work, he just goes in there to rest and watch TV]. Sagrario reported that the family members were all heavy television users. There was also a small radio, and Sagrario said that (like Pedro's mother,

Isabel) she enjoyed listening to music on the radio as long as it was in Spanish. According to Sagrario, Adi's stepfather Ricardo was very easygoing and held no particular preferences when it came to media content, whether television, radio, news, or anything else—he would watch whatever everyone else wanted to watch.

Adi and her siblings loved to watch English-language cartoons. During a visit to their home, Adi told me, *"Me gusta ver mucho el Disney Channel y el Disney Jr. y los programas de aprender inglés"* [I really like watching the Disney Channel, Disney Jr., and the shows for learning English]. Throughout my interview with Sagrario, the children watched cartoons at a low volume. I asked Sagrario if she knew about closed captioning, and explained that turning on the captions might—due to the learning reinforcement of reading and listening at the same time—help Adi improve her English-language writing skills. Sagrario said that she might look into that later.

Sagrario reported getting her news on the television and said she would sometimes discuss the news with friends that lived in the same apartment complex; still, the television was primarily used as a source of entertainment (*telenovelas*, cartoons, and Spanish-language movies). She explained that Univision 40 broadcasted movies dubbed into Spanish and that she enjoyed them even when they were very old because she had no other options. Sagrario was reaching for a sense of familiarization through her choice of media and entertainment.

Performance in the classroom. Adi was a charming girl who loved to float around the physical space of the classroom. Her teachers shared this perception of her: "It's not that she doesn't take it seriously, but that she genuinely doesn't care," said Mrs. Chela, laughing. Even though Adi was not able to speak more than a few words in English, there was nothing more entertaining for me than when she acted as the "English cop." For this activity, Mrs. Chela

113

selected three students whose job it was to verify that no one in the classroom was speaking Spanish during an English lesson (conversely, during the Spanish-language version of the activity, these students would be "Spanish cops"). Adi was happiest whenever she received that "honor," because then she would be liberated to spend the rest of the class staring at Gaby, Pedro, and Pepe; as soon as she heard a word spoken in Spanish she would start shouting, "English, English please!"

I noticed that Adi had seemed to have "hot" and "cold" days in her classroom performance. There were days when she was very keen to talk, to blurt things out, and to express her thinking; on other days she was not excited to do so. One day she was given an opportunity to share her thoughts with the class during an activity called "Living in Peru," but only replied abruptly with, *"No sé"* [I don't know]. Mrs. Chela looked at her and urged her to continue— "Adi, you do know. Come on…"—but Adi only returned her look and said, *"Ress-room."* Despite this pattern of hot and cold days, her vocabulary increased little by little. Each week she would mispronounce a different set of words but this development was proof that she was definitively trying and learning. Even though her English-language skills were lower than those of most of the other students, she had no fear of mispronouncing words and was therefore learning more quickly through her mistakes.

Adi was too young to be around older students. Often it seemed that she could barely understand what her teachers were talking about. Mrs. Sandra said, "Sometimes, she would hardly remember how to count from one to ten in Spanish." These kinds of lapses revealed a lot about her family background and emphasized her need for special care at school. These disadvantages notwithstanding, Adi's great strength was her charisma. After her transfer back to the fourth grade, her new teachers reported that she was doing much better and that she was

adjusting very quickly to her new class. "Once she is done with the fourth grade and she comes back to the fifth grade," Mrs. Sandra remarked, "she might remember some of the things she learned during these three months and this will make her feel stronger." In hindsight, I remember thinking during my classroom observations that Adi—with her childish face—looked younger than the other students in the class; in retrospect, her situation made sense.

In the process of creating the profiles for Gaby, Pedro, Pepe, and Adi—throughout the various processes of careful observation, detailed description, and integrative analysis—three major conclusions emerged. First, it became clear that language played a crucial role in the internal perceptions of the FBL students. Internal perception can be understood as a person's self-image, including an assessment of their own agency, self-esteem, and security (Gutiérrez, 2008). By training and strengthening these internal perceptions through the development of their language skills, my FBL students began to more fully believe in themselves and their own potential. True educational empowerment involves a student's critical evaluation of their own potential (Gutiérrez et al., 2008), and both parents and teachers should do what they can to boost this internal perception. Secondly, computers and new technologies were central to the educational development of all four FBL students. Regardless of their socioeconomic or educational background, they all had access to digital technologies and embraced them in their varied possibilities (i.e., as entertainment, as educational, or as a means of expression), and in addition demonstrated an elevated level of intrinsic motivation towards them. Finally, in most of the students' cases there was a notable lack of parental academic support. The academic achievement of each student was tightly correlated with their parents' levels of English proficiency, educational achievement, and occupational prestige. In the next chapters, I proceed to an analysis and discussion of these findings as well as a theorization of the three main

categories driving this study: (1) understanding the dual processes of acculturation and

enculturation, (2) understanding foreign-born Latinos use of digital educational technology, and

(3) understanding foreign-born Latino family dynamics.

CHAPTER 5: UNDERSTANDING ACCULTURATION AND ENCULTURATION

In this chapter, under the heading Understanding Acculturation and Enculturation, I explore and illustrate the two major themes that shape the process of FBL student acculturation within a school setting: "accepting the other," or a willingness to recognize and value cultural difference; and "creating cultural competence," which requires the encouragement of sensitive teachers who have experience working in a diverse and multicultural setting. Next, I discuss the related and complementary themes that determine the process of enculturation within a home setting. Finally, I mention how this dual socialization experience is shaped not only by a student's experiences within the school and home settings, but also by factors deriving from a student's experience in the external community, like their perceptions of systemic racism.

Acculturation is the process of adapting to a new cultural environment (Zayas, 2011); enculturation, by contrast, is the process of becoming a member of your own ethnic group (Knight et al., 1993). These dual processes of acclimation and personal growth work in tandem and each is mutually influenced by the other (Knight, Vargas-Chanes, Losoya, Cota-Robles, Chassin, & Lee, 2009). This study seeks to understand these two processes as they are experienced by FBL students in their two primary socialization spaces: the process of English-language acculturation that takes place largely in school settings, and the process of Spanish-language enculturation that takes place largely in home settings.

Researchers such as Gordon (1996) have argued that an individual who acculturates to a host culture adopts some of the host culture's attributes, behaviors, and values, and

simultaneously discards the parallel attributes, behaviors, and values as they are expressed in their culture of origin. However, Park (2007) contended that Gordon's acculturation-enculturation model is poorly conceptualized as "a zero sum game with a highly acculturated individual completely replacing the old values from their culture of origin with the values from the host culture" (p. 50). Instead, Park (2007) argued that the later acculturation-enculturation model presented by Berry (2006) provided a more all-encompassing perspective, in that it holds out the possibility that a given individual can be acculturated to one culture or the other (assimilation or separation), both cultures (biculturalism), or neither culture (marginalization). In other words, the dual social process of acculturation-enculturation may have four different outcomes: (1) biculturalism, which maintains ties to both the majority and the minority cultures (high acculturation and high enculturation, or integration); (2) assimilation, in which there is an adoption of the mainstream cultural norms and standards and a rejection of those of the minority group (high acculturation and low enculturation); (3) separation, in which an individual associates only with members of the minority culture and rejects the majority culture (low acculturation and high enculturation, or withdrawal); and (4) marginalization, which involves living within the majority culture but never feeling completely accepted by either the majority or minority culture (low acculturation and low enculturation, or alienation; Berry, 2006). According to Knight et al., (2009) the category with which an FBL student identifies most closely is directly correlated to their socialization and adaptation in both school and home. FBL students fall into the categories presented in Table 3.

118

Table 3

Matrix Representing FBL Students' Levels of Acculturation and Enculturation

	High Enculturation	**Low Enculturation**
High Acculturation	Biculturalism [Gaby]	Assimilation
Low Acculturation	Separation [Pedro & Pepe]	Marginalization [Adi]

The boundaries between acculturation and enculturation are blurry and hard to delineate since the two socialization experiences are merged in the individual (Knight et al., 2009). Still, each of my FBL students seemed to belong more or less distinctly to one of the four categories proposed by Berry (2006): Gaby to biculturalism (with her ability to engage with both cultures due to her upper-middle class socioeconomic status and high educational context); Pedro and Pepe to separation (with their shared experience of low acculturation due to a lower socioeconomic status and low educational context, along with a strong experience of enculturation due to highly enculturated parents); and Adi to marginalization (with both a low level of acculturation due to a low socioeconomic status and low educational context, and a low level of enculturation due to her abrupt introduction into a new family with a stepfather [from El Salvador], stepbrother, and stepsister [both born in the United States]). Despite the determinism that this chart might seem to imply, the outcome of acculturation-enculturation for any individual is the sum of different levels at different points in time (Knight et al., 2009). In other words, the students' places along these two axes will evolve over time and will depend upon their social development, both in contexts of enculturation (i.e., house, family, Latino community, etc.) and

of acculturation (i.e., school, mainstream media, shopping mall, etc.). Evidence from previous research indicates that regardless of conditions, biculturalism tends to lead to better life outcomes (Knight et al., 1993). This suggests that individuals who manage to adopt features of the majority culture in the United States while simultaneously preserving their own cultural practices receive both the benefits of acculturation and the protective effects of enculturation.

I. Acculturating to a new reality

Research has shown that Latinos who migrate from their home country to the United States must navigate a challenging dual socialization (acculturation-enculturation) experience (Estrada, 2012; Knight et al., 2009). This experience is frequently accompanied by markers of distress like anxiety, depression, and alcoholism, among many others (Caplan, 2007). Estrada (2012) further acknowledges that,

> Immersion in a new culture can cause fundamental changes in the family system, and some immigrant Hispanic families are managing the double transition of dealing with adolescence and adapting to a new country. Parents are faced with the difficult task of raising their children in an unknown country, with limited language proficiency, while facing barriers such as incompatible cultures, social isolation and limited sources of support. (p. 20)

Most of the FBL families involved in this study faced some or all of the problems presented above. My study goes one step further in incorporating the effects of the outside community by seeking to understand how a perceived sense of systemic racism adds an extra level of stress for FBL families and results in a more difficult acculturation process. Knight et al. (2009) argued that the experience of undergoing a dual socialization involves adaptations that occur through both developmental and socialization processes:

> Much, but not all, ethnic socialization [enculturation] occurs in the family and ethnic community. Much, but not all, mainstream socialization [acculturation] occurs in schools, mainstream community, and media that convey the knowledge, behaviors, attitudes/beliefs, expectations, and values of the mainstream culture. (p. 2)

The results of my research not only validate this formulation but also demonstrate that the impact of the acculturation process upon an individual is highly dependent upon the various continuities and discrepancies among home, school, social, and media spaces. In other words, if the enculturation process at home is similar to the acculturation process at school, the FBL student's adaptation to the new culture will be easier; if, on the other hand, the enculturation process in the home differs sharply from the acculturation process at school or elsewhere, the process of adaptation will be experienced as more challenging (Knight et al., 2009). In the cases of all four of the FBL students involved in my study, Frank Porter Graham (FPG) Elementary School played an absolutely central role in their experiences of acculturation.

Accepting the other. As mentioned in the introduction, out of more than 100 school districts in North Carolina, only seven provided dual-language programs at the time of the study (North Carolina Public Schools, 2013). Due to FPG's popularity and the scarcity of available enrollment, all entrants into the program had to be residents of the Chapel Hill-Durham area and had furthermore to be selected from the larger applicant pool in an annual randomized lottery. FPG's new dual-language program integrated students from two different language groups (English-speaking and Spanish-speaking) for instruction in both languages, providing both groups of students with daily core academic instruction in both languages—half of the subjects in their first language, and the other half in their second language. The language of instruction for individual subjects varied from grade to grade: in fifth grade, for example, the students received the bulk of their reading instruction in English from Mrs. Chela, while their math and science instruction with Mrs. Sandra was conducted in Spanish. According to Mrs. Sandra, the teachers attempted to integrate the content and vocabulary from among the different subjects and instructors:

It is the first time the program is so integrated. Mrs. Chela and I truly developed and looked to integrate as much as possible so that the students can see and can make a strong connection between what they learn in her room and what they learn in my room.

According to the teachers, the program's success involved an overlapping of content in the two languages that allowed students to experience first-hand the contrasts and similarities. The teachers and the teaching assistant all concurred that the best learning reinforcement occurred when a student was able to make connections not just *in* both languages but *across* languages.

The dual-language program allowed the students to develop high levels of proficiency in their native language as well as in a second language. Neither group of students had to forgo educational development in their native language in order to improve their proficiency in a second: the unique dual-language environment provided an opportunity to maintain and develop both oral and written skills in their first language while they simultaneously acquired these skills in another. According to Mrs. Chela, "These kids are very fortunate because the program is tailored to their specific needs. Many other kids in different counties unfortunately have to deal with a less 'tailored' school reality."

English as a Second Language (ESL) students who do not attend a dual-language program in North Carolina do not have the benefits of such a "tailored" program. According to the North Carolina Orange County School District website, an accelerated ESL program is available for students whose primary language is not English. The stated objective of this program is "...to teach English to ESL students… It is not a bilingual program... It is not a tutorial program… It is an acceleration program designed to help the ESL student acquire English as quickly as possible" (Orange County School District). The qualifying ESL student is identified by a placement test which determines the level of English Proficiency. A result of "Entering and Beginning" level on the placement test will guarantee the student two hours of service through the ESL instructor on a weekly basis; students at the "Developing" and

"Expanding" levels will receive 90 minutes of service weekly; students at the "Bridging" level receive 60 minutes of weekly instruction, while students proficient at the "Reaching" level receive instruction only on a consultation basis. Once a student achieves the "Bridging" level of proficiency, they are eligible to exit the ESL program. During the course of the program, the ESL teachers and the classroom teachers work together, using a combination of "pull-out" and "inclusion" models of instruction. The ESL teacher does not teach unique course content, but only reinforces the terminology and vocabulary from the regular instruction (Orange County School District, 2013).

Many Latinos in the "separation" category (i.e., highly enculturated and poorly acculturated) who must attend a non-dual-language program are at great risk of dropping their own language because they see it as a deficiency: viewing their native tongue as a deficiency has been encouraged by the cultural space with which they engage (Knight et al., 2009). This theorization is consistent with the empirical results of longitudinal research (Knight et al., 1993) indicating that FBL students—in their struggle to acculturate and be accepted into mainstream society—prefer losing their own language to the experience of separation. Unfortunately, ESL programs in U.S. public schools emphasize the replacement of students' native languages with English, despite research demonstrating that native-language loss is associated with lower levels of second-language attainment as well as academic underachievement and higher rates of psychosocial disorders (Howard et al., 2007).

In a dual-language program like FPG's, students develop their native language and their second language simultaneously and so are shielded from the negative consequences of subtractive bilingualism (i.e., the replacement of their native language with the mainstream one) and are able to benefit from the positive effects of additive bilingualism (Howard et al., 2007).

The benefits of dual-language education include the promotion of linguistic equity, cultural equity, bilingualism, and multiculturalism. Obtaining these benefits requires both a competence with and an awareness of the needs of culturally diverse students (Howard et al., 2007). In other words, dual-language educational programs must be able to accept the other in order to be effective. When asked whether she thought FPG staff were sensitive to cultural differences and the acculturation process of their FBL students, Mrs. Chela responded,

> I cannot talk for everyone, but yes, I think that for the most part everyone in here realizes what these kids are going through. I always remind myself what it would be like to pack up all of your belongings and go live in a country where the language that is spoken is not your native language; where the cultural expectations can be very different from what you are used to and in some cases, school procedures and expectations within the classroom may be totally different. Nevertheless, as a collective whole, I do not think that our native English-speaking students are aware of that. We are also developing empathetic students.

Mrs. Chela's answer to my question, pointing out the need to develop empathetic students, reveals her own empathy. Effective dual-language programs must have staff who, like Mrs. Chela, demonstrate an awareness of the diverse needs of FBL students (Howard et al., 2007). Despite the high level of sensitivity displayed by the instructors at FPG, Mrs. Chela also acknowledged that the native-English-speaking students in the program might not always have the cultural competence or awareness to fully empathize with the acculturation process faced by their fellow classmates (i.e., they may not be as accepting of the other as their teachers would wish). Mrs. Paty agreed that the school was successful in its sensitivity to the acculturation process but added,

> *Sí, es cierto, tratamos de desarrollar estudiantes más tolerantes, pero hasta cierto punto lo podemos hacer cuando esta tolerancia no se refuerza en casa. Desafortunadamente la comunidad de padres (blancos y Latinos) está muy regada aquí. Hay una gran mezcla de* backgrounds *y ellos no intentan integración alguna. Sería lindo pensar que cuando estos niños de quinto grado lleguen a* high school *recuerden y se comporten como las personas tolerantes que forjamos aquí.*

> [Yes, it is true, we are trying to develop more tolerant students, but there is only so much we can do when that tolerance is not reinforced at home. Unfortunately, the parents'

community (Anglo and Latino) is very scattered here. There is a big mix of backgrounds and they do not attempt any integration at all. It would be lovely to think that when these fifth-graders are in high school they remember and behave like the tolerant people we are forging here.]

Mrs. Paty's perspective suggests that social disparities emerge in the school environment due to the mix of backgrounds and the poor integration among the parents at FPG. The research of Howard et al. (2007) confirmed that social class gaps are often found in dual-language programs,

> with the native English speakers coming from middle-class and educated families, and the English language learners coming from working-class and undereducated (by U.S. standards) families. These differences, if they exist, must be acknowledged and addressed to ensure equal educational opportunities in the classroom for all students. (p. 25)

In school settings Latino adolescents are heavily influenced by their peers and friends (Bacallao & Smokowski, 2009); in the case of my FBL students, however, I did not find this to be the case. I attribute this lack of influence to three main factors: firstly, these young FBL students had not yet acquired the language skills necessary to communicate and socialize with Anglo children; secondly, the students had all only recently moved to the United States, and for this reason their socialization remained in a transitional stage; finally, because of their relatively young age, their dependence on their parents was much more pronounced than it would become in later adolescence.

While I was not able to verify the influence of American peers, I was able to corroborate the influence of native-born Latinos as brokers of moral support. Bacallao and Smokowski (2009) have also described this phenomenon: "Latino peers who became friends, especially bicultural peers, were valuable sources of support. They interpreted in class and explained English instructions when Mexican adolescents did not understand" (p. 444). For instance, in my study, a student named Axel, who was fluent in both English and Spanish, gradually became good friends with Pedro and Pepe. In Mrs. Chela's class he would often translate instructions or

otherwise assist Pedro and Pepe with lessons and activities. Another native-born Latina named Jovanna was mentioned in each of my FBL students' interviews as a "very good friend" because of her assistance during English-language classes. Jovanna told me that she understood the difficulties faced by the FBL students because her older brother had faced the same problems when he had initially arrived in the United States. In a section in the next chapter regarding actors who influence the use of technology, I return to the cases of Jovanna and Axel as classroom brokers.

Whereas Latino peers like Axel and Jovanna seemed to understand the acculturation process and to offer communicational and emotional support, this level of support was less evident among the Latino parents. Gaby's mother Carmen also noted the surprisingly low level of community among the parents at FPG: *"Me gusta mucho el programa. De hecho, investigamos la escuela antes que la casa cuando llegamos aquí. Una cosa que no me gusta es la falta de comunidad"* [I like the program a lot. We actually researched the school prior to finding the house when we first arrived here. One thing that I don't like is the lack of community at the school]. When I asked why she felt this way, she replied: *"A la gente no le importa otra gente, ni siquiera entre Latinos. Son educados, pero nada más"* [People don't care for other people, not even among other Latinos. They are all polite but nothing else]. According to Carmen, FPG failed to provide an open and welcoming environment for parents of all language and cultural groups, even despite its attempts to establish such an atmosphere. Although the school highly valued the educational mission and goals associated with bilingualism and biliteracy, there remained a perceived lack of community and equity among parents. In the next chapter I will address the concept of "racism without racists" in order to shed some light on this puzzling difficulty.

126

In summary, despite the dual-language program's clear emphasis on the concept of acceptance, the lack of cultural competence among the larger school community hindered the realization of a fully accepting environment. By carefully and purposefully merging the program's two cultures, FPG strove to be tolerant of diverse cultural backgrounds, to ease the students' transitions, and to lessen the migration stress faced by the school's FBL students. Understanding the children's experiences and accommodating their changing realities helped to ease the process of acculturation within the school setting. One of the biggest challenges faced by the program, however, was the effective development of cultural competence among all of its members (including both students and parents). The teachers played a crucial part in this development, a role which I discuss further in the next section.

Creating cultural competence: the role of teachers during the acculturation process. Cultural competence refers to the ability to interact effectively with people of different cultures and socioeconomic backgrounds (Padilla & Perez, 2003), and my study demonstrated that the cultural competence of teachers and teacher assistants was of utmost importance to the acculturation process of foreign-born Latino students at FPG.

Mrs. Sandra had 16 years of experience as a bilingual teacher, and her past work in different types of programs had given her valuable insights into the benefits of a dual-language program. When she initially began working in the program at FPG, it had been a "transitional" program, in which three years of Spanish instruction were followed by a transition to English-language instruction for the remaining years of elementary school. Mrs. Sandra recounted that it was not until she had finished her MA that she fully understood the superiority of a dual-language model for working with FBL students. According to Mrs. Sandra:

> Back in the day the purpose was to make the FBL fluent in English at all costs—now, we want them to become fluent in both languages. The other model was creating a visible

marginalization in my classes; it was almost impossible for FBL students to feel welcomed. The program was so paternalistic that even when we as teachers tried to do our best with the kids, it was just not working out.

Mrs. Sandra recognized the intrusive nature of a program that forced FBL students to forgo development within their native language and saw firsthand the pernicious effects of pursuing a subtractive bilingualism rather than encouraging an additive bilingualism. The marginalization that she witnessed in her classroom prior to the implementation of the dual-language program resulted from a self-perception of deficiency among FBL students who struggled to learn a new language while simultaneously navigating the acculturation process.

Mrs. Sandra pointed out that students struggled most when they felt marginalized. She charged, "It is our duty as teachers to make them feel a less dramatic adaptation. Every student is unique and they have very specific needs." Mrs. Sandra recognized that in order to decrease classroom marginalization there needed to be constant integration and balance among all of the students. This integration and balance resulted from Mrs. Sandra's ability to recognize and respond to different learning styles and language proficiency levels.

The goals of classroom instruction in a dual-language program go beyond those of a traditional classroom in that they seek to promote bilingualism and cultural competence over and above the transmission of grade-appropriate knowledge and skills. The success of a program is therefore dependent upon the teachers' understanding of second-language development and ability to foster positive classroom environments. Teachers must have a native or native-like fluency in the language in order to provide and promote high levels of language proficiency (Howard et al., 2007). Just as important are teachers who have had to develop their own acculturation skills and who are able to empathize with the process undergone by their students (Fitts, 2006).

As Fitts (2006) points out, acculturation skills are very useful in teachers working in dual-language programs, and Mrs. Sandra's personal background had thoroughly prepared her for her role at FPG. Mrs. Sandra had learned to speak Spanish after marrying a Latino when she was 21 years old. In their first few years of marriage alone, the couple moved to Guatemala and then to Mexico, Peru, and Puerto Rico, and so Mrs. Sandra learned firsthand how to deal with migration stress. She admitted, "It was so very hard for me, even considering that I had everything I needed [economically and socially]. Now when I see these kids I wonder what *they* must be going through." Mrs. Sandra's experiences adapting to different backgrounds and contexts during her rapid immersion into Latin culture helped her develop a very high cultural competence.

Mrs. Chela's high level of cultural competence made her an ideal teacher in a dual-language setting as well. At the time of the study she had a total of fifteen years' experience teaching at the elementary level: eight years teaching at the fifth-grade level in Pennsylvania followed by four years teaching at the International School in Johannesburg, South Africa, where she experienced an acculturation process of her own. Mrs. Chela was a very assertive teacher, and during my observations of her class the students remained focused throughout the entire period. She encouraged and treated every student with respect. "You need to believe in them!" Mrs. Chela exclaimed. She continued:

> Many teachers have good intentions but I guess when you have actually lived a similar acculturation experience, you can truly be more empathetic. It is a bit of everything with teachers: their background, their studies, their passion, and their personality.

Like Mrs. Sandra, Mrs. Chela had a familiarity with the acculturation process and recognized that teachers must exhibit not only knowledge pertaining to their subject matter, curriculum, and pedagogical strategies, but also a high level of cultural competence. Both Mrs. Chela's personal

and teaching experience allowed her to effectively promote high levels of bilingual proficiency and embrace a multicultural context.

Teachers are undeniably a vital aspect of students' acculturation and a crucial element in determining higher student outcomes (Howard et al., 2007). The successful integration and continuous balancing of two cultural groups can only be managed by highly self-reflective and culturally competent teachers. FBL students constantly navigate between two cultures, and it is the responsibility of their teachers to remain both accessible and culturally dexterous enough to assist with the acculturation process while simultaneously providing an adequate level of instruction. As Mrs. Sandra explained, regardless of where a student is arriving from, the process of settling into a new place can be a challenging and overwhelming experience:

> FBL students deal with situations that most students cannot even imagine. It is very logical to understand that if the student has problems at home, those problems will be reflected in their academic development. We have to remain open and positive because you never know what you will be dealing with tomorrow.

Only teachers who maintain a level of awareness, sensitivity, and flexibility when working with students from multiple cultures can successfully guide the development of students facing such complex challenges.

I conclude this section on acculturation by reiterating the study's main findings with regard to acculturation: that successfully navigating the process of acculturation in the school environment requires both acceptance and culturally competent teachers. The dual-language program at FPG is designed to meet the learning needs of all students while developing proficiency in two languages. The program's teachers seek to facilitate student's development of cognitive skills, academic knowledge, bilingualism, biliteracy, and cultural competence, and yet despite these well-intentioned goals, there still remained the problem of developing a greater sense of acceptance and empathy among the parents and larger community. In the case of my

FBL students, such a school environment—while not the easiest place to find a cultural fit (Rhyne et al., 2005)—was a space in which the acculturation and enculturation processes merged. Culturally competent teachers in the school setting were undeniably the most influential component in the empowerment of my FBL students during their initial acculturation process. In the next section I examine the complementary process of enculturation undergone by the students in the home setting, and focus especially on the role that family plays in their lives.

II. Enculturating at home

      Language and enculturation. A preference for English among Latino children can be correlated with declines in enculturation (Knight et al., 1993); conversely, foreign-born Latinos more attached to their own language show higher levels of enculturation (Knight et al., 1993). By contrast, higher levels of English use and proficiency lead to faster declines in enculturation (Knight et al., 2009). These interrelated findings regarding the role of language in enculturation help explain why FBL children who begin to incorporate mainstream behaviors and attitudes tend to diverge from the behaviors and attitudes of their culture of origin (Perez-Rivera & Dunsmore, 2011).

      During my interviews with the four FBL students, each reported preferring Spanish as their language of choice, but their relationships to the English language varied depending on their relative levels of enculturation. Gaby, for instance, explained, *"Sé que cuando mejore mi inglés voy a tener más amigos. Mi mamá quiere que tenga amigos Americanos para que practique mi inglés"* [I know that once I improve my English I will have more friends. My mom wants me to have American friends so I can practice my English]. Gaby's family had dealt successfully with adaptation to new cultures several times (i.e., in Spain, Mexico, and the U.S.), and therefore as a family had experience with legitimating and preserving their enculturation in

the home. Because of this, Gaby's parents were able to encourage her to acculturate without any fear of her losing her enculturation. Pepe's mother Bertha, on the other hand, was very concerned about Pepe "losing his Spanish" and becoming "*agringado*" [Americanized]. She clarified, *"Yo creo que el programa dual es bueno para él porque imagínate que empieza a perder su español, sus primos en México le van a hacer burla"* [I guess the dual-language program is good for him, because imagine if he starts losing his Spanish—his cousins back in Mexico will make fun of him]. For Bertha, the language spoken in the family represented the central component of an individual's identity and enculturation. Adi's mother Sagrario felt similarly but expressed no fear of Adi losing her Spanish fluency, explaining, "*Pues no creo que lo pierda porque aquí conmigo nomás va a hablar español*" [I don't think she is going to lose it because here with me she will only speak in Spanish]. Because of Sagrario's own limited English proficiency, she believed that Adi would always remain connected to Spanish as the language of her family.

Because language plays an important role in the enculturation and acculturation process (Knight et al., 1993), it can become a source of tension within FBL families. The new realities of my FBL students forced them to speak a language that was not the language spoken in their homes, and this demand had ramifications for their enculturation. The more fluent they became in their new language, the more they seemed to be accepted by their peers (as Gaby put it, "I know that once I improve my English I will have more friends..."), and the positive reinforcement of this acceptance could potentially, over time, enhance the influence of the new culture and diminish the students' connection to their own ethnic group (which was Bertha's fear). Many Latino mothers feel a responsibility to maintain tight bonds with their children in order to preserve their enculturation, and they accomplish this by creating interdependence and strong emotional ties (Perez-Rivera & Dunsmore, 2011; Padilla & Perez, 2003). This maternal

influence slows the process of acculturation while emphasizing enculturation (Ahern, 2009), the impact of which I examine in the next section.

FBL mothers and their children´s emotions. Latino mothers play an important role in an FBL child's enculturation process (Villenas, 2001). Furthermore, according to Perez-Rivera and Dunsmore (2011), mothers who identify very closely with their ethnic group and culture of origin are more likely to consider it their responsibility to emotionally guide their children:

> Mothers with greater Latino enculturation may believe that in order to reduce uncertainty, promote their children's interdependence with them, and socialize their children to maintain group harmony, they should actively guide their children's emotions. This active guidance could be one of many ways that mothers teach their children about the emotion display rules and scripts for their collective culture. (p. 345)

Tensions may arise, however, as children experience the conflict between parental expectations and the majority Anglo culture, the latter of which particularly emphasizes autonomy and independence (Knight et al., 2009). Perhaps the only feature shared among all of my FBL mothers was their shared belief that—in one way or another—they were responsible for their children's emotions.

The FBL mothers in my study seemed to promote interdependence with their children as a strategy for reducing their children's discomfort and uncertainty. As Hofstede (2006) has illustrated, Latino cultures have low tolerance for uncertainty in general, and the level of uncertainty experienced in novel situations affects the ways in which members of a shared culture socialize in order to reduce their sense of uneasiness. The strong cultural emphasis on collectivity, mutual aid, and family ties make the migration process particularly difficult for Latino immigrants, as families are separated and close personal relationships must be left behind (Padilla & Perez, 2003). All these forces are somehow expressed in the microcosm of the relationship between mother and child. Pedro's mother Isabel articulated how these difficulties

manifest in the family context: *"Lo único que puedo hacer por él es estar ahí cada que me necesite. Esto no ha sido fácil para él... somos como extraños para él"* [The only thing I can do for Pedro is to be there for him anytime he needs me. This has not been easy for him—we are like strangers to him.]

As I described in his profile, Pedro had stayed behind in Mexico for several years with his grandmother before being reunited with his mother and father in the U.S. Adi's situation was similar: she had lived for six years with her grandparents in Mexico and had to suddenly leave everything behind and move to the U.S. to be reunited to her mother. Whereas Pedro had come to be reunited with his birth parents, Adi faced the additional challenge of adapting to her "new" family (including a stepfather, half-sister, and half-brother). As individuals like Pedro and Adi lose their sense of belonging and the support they had derived from prior relationships, they often feel isolated and overwhelmed, and the risk of mental health issues like depression and anxiety increases (Rhyne & Yearwood, 2005).

The FBL mothers in my study seemed to feel responsible for relieving the uncertainties that their children faced in their new environment, but the more strongly these children were enculturated, the harder it became for them to acculturate—especially if the mother was highly enculturated with low migration experience (Padilla & Perez, 2003). Isabel in particular seemed to feel a sense of guilt for leaving Pedro behind in Mexico, but both of Pedro's teachers agreed that she had to be careful not to overwhelm Pedro with excessive emotionality because he needed time and space to simultaneously enculturate to his new family and acculturate to his new environment. Highly enculturated families decrease feelings of uncertainty by holding onto traditions and values, and while family collectivity is an important aspect of these values, another

very important tradition for FBL families revolves around food and their native diet (Ahern, 2009).

Food that enculturates. Food is one of the key factors in maintaining high levels of enculturation among Latino families (Ahern, 2009). According to Romero-Gwynn et al. (1993), the food consumption or diet of Latino populations in the U.S. is collectively determined by the "dietary traditions of individual countries, availability of native foods in U.S. food stores, and new dietary practices adopted in the United States" (p. 1).

Food was a central component in the enculturation of all four of my FBL families, and all of the FBL mothers were highly conscious of their children's diets. As Isabel pointed out, *"Tienen que estar bien alimentados con cosas saludables, no con puro McDonalds"* [They have to be well-fed with healthy food, not just McDonalds]. Isabel recognized the consumption of fast food as a prevalent dietary practice in the U.S. but sought to preserve the traditional dietary norms of her native culture. The majority of FBL families, however, shift from the traditional Latin diet of vegetables, meats, and whole grains to the more processed, high-fat, and sugary foods that are popular and readily available in the U.S. (Unger, Reynolds, Shakib, Spruijt-Metz, Sun, & Johnson, 2004). None of the FBL mothers liked to feed their children with fast or processed food, but often struggled to find familiar healthy ingredients. Carmen reported,

> *Esa es la segunda cosa que más extraño, la comida. Aquí hay algunas tiendas Mexicanas pero no sé por qué, pero la comida sabe diferente… Me aseguro de que Gaby tenga una dieta balanceada porque es fácil ser tentado con tanta cosa rica de dulce aquí.*

> [That is the second thing I miss the most, the food. Here there are some Mexican *tiendas* (stores), but I do not know why, but the food tastes different… I make sure that Gaby has a balanced diet because it is easy to be tempted with so many sugary delicacies available here.]

Carmen was well aware of the characteristics particular to the mainstream American diet: palate-pleasing, processed foods that are cheap and readily available. In her opinion, Mexican brands

have been gradually adopting the practice of using modified ingredients in an attempt to please and connect to the mainstream culture, a process known as "tropicalization" (Chávez-Silverman & Aparicio, 1997)

A study conducted by Romero-Gwynn et al. (1997) among 165 Mexican-born women who had migrated to the U.S. as adults concluded that deleterious changes in their diets included "a decline in the consumption of traditional fruit-based beverages in favor of high-sugar drinks such as sodas, and increased consumption of ready-to-eat breakfast cereals, many of which are high in sugars" (p. 7). Worry about similar changes was evident in my conversations with the FBL mothers as well. Bertha clearly felt that Pepe should prefer Mexican condiments to their American counterparts—"*Le digo 'quiuse' salsa en vez de ketchup"* [I tell him to use salsa instead of ketchup]—and offered a concrete example of Pepe being "tempted" by American food:

> *El Pepe salió bien malo para comer desde chiquillo pero eso sí, aquí a todo le quiere poner cátsup… así ha de ver que lo hacen los amigos…yo le digo, ponle mejor salsa o nada pero no, insiste que le quiere poner cátsup a todo.*

> [Pepe was a "bad eater" ever since he was a little boy but yeah, here he wants to eat everything with ketchup… he must be getting it from his friends. I tell him to add some salsa or nothing at all, but no, he insists he wants everything with ketchup.]

It was important to Bertha for the family to maintain their traditional diet as much as possible and she confessed that she did not like American food; of all the FBL mothers, she was the one who expressed the most concern regarding her children's new dietary habits. Unger et al. (2004) noted that that recent young immigrants manifest a preference for activities and foods classified as ''American,'' including sedentary activities like watching television and playing video games and the consumption of fast foods like hamburgers and pizza. Ethnic minority adolescents tend

to become more involved in these activities in an attempt to become more "American" and fit in with their peers (p. 475).

Carmen was similarly attached to Mexican food but was moreover very attached to specific Mexican food brands. Carmen declared, *"Es bueno que tenemos pan Bimbo aquí en las tiendas—es tonto, pero a veces veo el osito (ícono de marca) en la bolsa de plástico y me pongo un poquito nostálgica"* [It's good that we have Bimbo Mexican brand bread here in the stores—it's silly, but sometimes I see the bear (brand icon) on the plastic bag and I get a little nostalgic]. Isabel likewise emphasized that food was the single most important element of a family reunion. Browsing the different Spanish-language groceries at her house, I asked her about a package of corn flour: *"¿En dónde compras la Maseca?"* [Where do you buy the Maseca?]. *"En la plaza Carrboro y en tiendas Mexicanas"* [In Carrboro Plaza and in some Mexican stores], she replied. Adi's mother Sagrario had similarly gravitated towards the stores where she could find the specific foods she needed to prepare traditional meals. Since Sagrario had already lived in the area for six years at the time of the study, she was the most familiar with the Latino stores nearby:

> *Yo compro toda mi comida en el Food Lion o en tiendas hispanas como "La Toledos" y como para allá para la Rosemary, casi para la Franklin está "La Potosina," de verduras lo que más compramos es jitomates para la sopa, cebolla, chile porque, salsa, porque uno sin chile no puede comer… las tortillas uno las hace pero cuando a uno le da flojera pues las compra.*

> [I buy all my food at Food Lion or at Hispanic stores like "La Toledo"; and over there towards Rosemary, almost to Franklin, there is "La Potosina" for vegetables. What we buy the most are tomatoes for the soup, onions, peppers—because salsa, because without salsa one cannot eat. The tortillas you make yourself but when you're tired, well, you buy them.]

For Sagrario as well as for Latino communities in general, Latino *tiendas* [stores] can be understood as ethnic enclaves, or specific physical spaces with a high ethnic concentration

(Waldinger, 1993). In my study, I perceived these ethnic enclaves such as Carrboro Plaza and other Mexican *tiendas* as places that helped prevent my FBL families from losing touch with their trusted Mexican food brands. The examples of Carmen, Isabel, and Sagrario all make clear that the enculturation process at home among FBL newcomers is largely sustained through their loyalty to the familiar foods of their country of origin (Unger et al., 2004).

I concluded that my FBL students seemed to be more impressionable than their mothers when it came to the adoption of American foods. This shift towards the norms of their new culture aided in their acculturation, but at the same time I perceived that the shift subtracted from their identification with their own ethnic group (Gordon, 1996). FBL mothers perceived this dietary shift as dangerous due to their personal attachments to Mexican food and food brands. Despite this clear concern for their children's habits with regard to food, they did not perceive their children's "media diet" to be an issue of the same magnitude. However, Stilling (1997) point out that not just food but cultural products (e.g., media) have a fragmenting effect on the enculturation process.

A "dis-enculturative" media. Elias and Lemish (2008) explain that mass media in the host language are among the most significant forms of assistance to immigrants in their adjustment to new surroundings. In my study, though, I found that media performed an important but double-edge role for FBL families: on the one hand it indeed facilitated their integration into the mainstream culture, but at the same time it permeated the enculturative space of the home with the values of the host culture. Because of their intrusion into the space of the home and family, I describe both traditional and digital media as "dis-enculturative media." By traditional media, I refer to commercial and public television, radio, newspapers, and magazines, which I oppose to digital media like the Internet, CDs, DVDs, cellphones, videogames, and e-

books (Stilling, 1996; Nguyen & Western, 2006). With the exception of Gaby's family, I found

traditional media to be more prevalent than digital media in the homes of my FBL families; that

being said, I found that digital media largely complemented the use of traditional media in the

home. Here I follow Nguyen and Western's (2006) assertion that "no medium can be seen as an

absolute functional alternative to another: each medium has its distinctive features to serve

different human beings in different contexts and thus complements other media in satisfying

their diverse media-related needs" (p. 2).

Cultural products (i.e., films, television shows, news, cartoons, and educational media,

etc.) in Latino homes can fragment the process of enculturation and speed up acculturation

(Walker, 2012). Valdés (1996) notes that values in Latino homes are often different from those

in mainstream middle-class Anglo homes, and these value differences can form the basis of

significant tensions between Latino parents who adhere to traditional values and their children

who are rapidly exposed to the social norms of the majority culture through cultural products.

Also, Caplan (2007) indicates that "groups with the greatest number and severity of stressors

were undocumented immigrants and migrant farmworkers " (p. 96). Increased parenting stress

and low confidence in parenting skills are common among Latino working-class immigrant

parents and this low confidence can manifest in the form of a low level of supervision regarding

their children's media consumption.

The language of media consumption tends to differ between children and their parents as

well. When asked about the influence of media and cultural products on her family, Isabel

affirmed, *"Me gusta ver Univisión, así veo mis noticias porque es en español… A Pedro le gusta*

ver caricaturas en inglés" [I like to watch Univision, which is how I get my news because it is in

Spanish. Pedro likes to watch cartoons in English]. While Isabel preferred media in her native

language, Pedro had manifested a preference for media and entertainment in English—a preference analogous to Pepe's preference for ketchup (mainstream consumption) over salsa (native consumption). Adi displayed a similar predilection for cartoons in English: she explained, *"Ya me está gustando ver más cosas en inglés para poder ver y-escuchar las palabras y-entenderle y-así"* [I am starting to like watching more things in English to be able to see and to listen to the word and to understand it like so]. Gaby's mother Carmen, on the other hand, reported that her family did not watch television at all. According to her, the family only used the television to watch movies, though she admitted that Gaby was the heaviest user and that she liked to watch Disney movies [DVDs] in English. Pepe's mother Bertha reported that she watched *telenovelas* but that Pepe did not watch television at all; he preferred to play video games in English on his computer.

The fragmented enculturation resulting from exposure to cultural products is therefore readily apparent in the divergent viewing habits of the FBL students and their mothers: a split in language preferences for media consumption inhibited the development of a common family culture in the home setting. The fact that the FBL students watched television in English (or, in Pepe's case, played videogames in English) suggested that there was indeed a lack of parental interest in or supervision of their media consumption habits. In addition to the documented effects of stress and low confidence among FBL parents, this lack of awareness is likely a result of a language barrier that affects the FBL parents' ability to understand the content of their children's media products. This language barrier may have given the FBL parents the mistaken impression that their children's media consumption was simply "educating them" in English and may have prevented them from seeing how it in fact distanced the children from their families' cultural norms and values.

Mainstream cultural products discourage enculturation by affecting and strengthening the acculturation process (Walker, 2012). The globalization of electronic and print mass media makes it possible for American culture to be disseminated through media products like films, television series, and music (Stilling, 1997), thus influencing cultural and social norms all over the world. The effect of cultural products on the majority of my FBL families, however, seemed to be the least surprising aspect of the larger acculturation process. This is likely because even in their native countries, FBL families had already been familiarized with the branding and mass media of the U.S. (Organista, Marin, & Chun, 2010) as well as the influence of Hollywood films and international mass media (Stilling, 1997). Organista et al. (2010) proved that even recent immigrants to the United States can easily report familiarity with iconic brands like McDonalds, KFC, Coca-cola, Pepsi, and others.

My FBL families testified to this familiarity to American brands, reporting that it gave them a sensation of something "familiar but at the same time foreign." Bertha, for instance, found fleeting comfort while watching Univision: *"Cuando estoy viendo Univisión y veo las novelas me siento en casa, luego salen anuncios en inglés y recuerdo que no lo estoy"* [When I'm watching soap operas on Univision I feel at home, but then all the commercials are in English and I remember I am not]. During those moments in which Bertha forgot her physical surroundings, the familiarity of Univision's content allowed her to temporarily feel as though she were back in her native environment. Due to the family's previous familiarity with American programming like Univision, the extent of its influence on the enculturation and acculturation processes was minimized. To put it more generally, an FBL student's previous exposure to American cultural products before arriving in the U.S. mitigates the impact of those products on the acculturation process.

The influence of media products on my FBL families was also affected by the pervasive segmentation of the media market. Vargas (2009) argued that the Latino media landscape in the United States is influenced by four different media cultures: the Anglo media culture, which includes Hollywood films and pop culture outlets like MTV; black media culture, which emphasizes the influence of black artists in the mainstream entertainment industry with programming like Black Entertainment Television; the local U.S. Latino media culture, which provides Spanish-language media, bilingual media, and English-language media to the domestic Hispanic market; and the pan-hemispheric media culture, which broadcasts transnationally to the entire Spanish geolinguistic demographic (p. 275). My study found that during their initial adaptation stage (less than a year in the U.S.) my FBL students had already begun engaging with the Anglo media culture in the form of English-language cartoons. Their parents, on the other hand, maintained a strong preference for the local U.S. Latino media culture, specifically the Spanish-language radio and TV programming. More specifically, the FBL mothers (with the exception of Carmen) also reported a strong preference for panhemispheric media products like popular *telenovelas*. Only in Gaby's family was the media consumption predominantly influenced by Anglo media in the form of Sunday movies. My conclusion is that recently arrived FBL families have not yet had time to be influenced by all four segments of the U.S. media market. For instance, I could not report influence of black media. I attributed this to their recent arrival, but also to the low African-American student enrollment (5% of total school population) at FPG, and therefore to a low level of exposure to black culture. I also concluded that highly enculturated mothers with lower levels of acculturation (like Pedro's, Pepe's and Adi's) prefer Spanish-language media, while children rapidly adjust to media in a new language even before they develop a proficiency in it.

To summarize: cultural products weakened the process of enculturation and enhanced acculturation in general but more evident in working-class Latino homes, while FBL parents' stress and low parenting confidence resulted in less supervision of their children's media consumption. Because my FBL students generally preferred their media in English, unfiltered and undetected acculturated influences entered the home space. These acculturated influences created tensions and divergences in the families; however, due to their familiarity with American cultural products prior to arriving in their "new realities," the FBL families experienced the effects of these influences only minimally. I concluded that cultural products did have an influence on my FBL students' acculturation and enculturation processes, a conclusion which supports the accepted view that media play a significant role in the decreased enculturation and increased acculturation of immigrants (Knight et al., 2009).

The enculturation process for my FBL students primarily took place in the home, where "home" is considered not just as a physical but as a *symbolic* space (i.e., a space that means something to and contributes to the identity of a group of individuals [Monnet, 2011]). This space was structured by language, the FBL mothers' desire to manage their childrens' emotions, the attempt to maintain a native diet despite decreased availability, and the presence of a variety of media products. Each of these features affected the dual processes of enculturation and acculturation, sometimes in ways that were surprising or difficult to parse. While the symbolic space of the home unquestionably featured prominently in the development of my FBL students, it was necessary for me to consider the outside community as well and to evaluate its influence on the students' acculturation and enculturation.

III. Getting to know FBL social spaces

Most of my FBL families experienced a lack of physical space to gather as a Latino community. Oldenburg (1997) described the need of a *third place* as the need of a physical location in which the individual finds relief from both work and home demands. Carmen, for instance, expressed a desire for a Latino community pavilion: *"Me gustaría que hubiera aquí una plaza con un kiosco"* [I wish there were a plaza with a *kiosco* (bandstand) around here]. Latino spaces (i.e., stores, churches, associations, etc.) in the U.S. offer an example of the hybridization between enculturation and acculturation (Ahern, 2009), and as I discussed in Chapter 2, Latino spaces do exist in the area. I found, however, that my FBL families were mostly unaware of them. Perhaps they were too new to the area and would discover them with time; another possibility was that the public promotion of these Latino spaces was inadequate to attract the families' attention. I asked Isabel, Pedro's mother, if she knew about the Latino Community Credit Union and the services available there; she had never heard of it, despite its close location in the Carrboro Plaza Mall that she frequented often. Gaby's family was again the exception as the spaces in their orbit were more expansive and were not predominantly Latino.

Gaby's family did not frequent any specifically Latino spaces other than a particular Mexican store; on the contrary, they preferred to explore new places whenever possible. Adams et al. (2006) reported that expanding the home-enculturation process to outdoor-enculturated spaces (Latino spaces) enhances the perceived level of enculturation of Latino families. Gaby's family, in particular, felt the confidence necessary to expand their range without limiting themselves solely to Latino spaces. Carmen explained, *"Intentamos ir a diferentes pueblos alrededor del área, últimamente hemos tomado viajes de fin de semana"* [We try to go to different towns around the area; lately, we've been taking weekend trips]. Adi´s mother Sagrario,

144

on the other hand, reported the opposite sentiment: *"Salimos a veces por aquí para comer pero que viajemos a otros lugares pues no"* [We'll go out around here to eat but not to travel to other places]. Unlike the more restricted orbit of Adi´s family, Gaby´s family's larger range resulted in increased similarities to families within the mainstream culture, which entitled them further to go out and discover new places in a self-reinforcing cycle.

I concluded that my FBL parents lacked an awareness of the resources and communities available to them, and therefore disproportionately felt the lack of a broader Latino community. This perceived lack of community contributed to the confinement of the enculturation process to the space of the home. Despite research that has demonstrated the enriching potential of an outside Latino community for the enculturation process (Adams et al., 2006), my FBL families' differences from the mainstream culture confined them to certain local spaces. To pursue this problem further in the next section, I provide accounts from my FBL families regarding their perceptions of the outside community and the latent racism that most of them have encountered.

Acknowledging a systemic racism: racism without racists. Systemic racism occurs, according to Kleven (2009), when

> political and economic institutions of the society are structured and operate to systematically disadvantage working-class people in general, and ethnic minorities in particular, and to systematically advantage a relatively small and largely white upper elite class, and a rather substantial and predominantly white upper middle class. (p. 207)

In others words, systemic racism is the perpetuation of social and class inequality by means of mechanisms that exclude individuals. Social class can be understood as a relative social rank in terms of income, wealth, education, social status, and power (Kleven, 2009). Classism, according to Smith (2005), is not just a set of prejudiced attitudes but a form of oppression:

> Classism is not used simply to describe prejudiced attitudes that people of one social class might have regarding members of any other social class. Rather, classism, like the other -isms (e.g., racism, sexism, heterosexism), is a form of oppression. Oppression can

145

be understood as prejudice plus power: It is an interlocking system that involves domination and control of social ideology, institutions, and resources, resulting in a condition of privilege for one group relative to the disenfranchisement of another. (p. 688)

Classism results in prejudices against one group of people and an accompanying partisanship towards another particular group. In an environment in which the native English-speakers come predominantly from middle-class, educated families, and the non-native English-speakers come predominantly from working-class, under-educated (by U.S. standards) families, there is a high likelihood that systemic racism and classism will be a problem (Howard et al., 2007). Similarly, the rapidly growing Latino population in the area, combined with the continuing perception of inadequate presence of Latino spaces, contributes to an overall impression of an anti-immigrant attitude among North Carolinians (Watson & Riffe, 2013).

The FBL families in my studies each felt targeted in different ways due to their differences from the majority of the people in their communities. Rhyne et al. (2005) suggested that immigrants who are more distinct from the host culture in ethnicity, religion, and language are more likely to experience social discrimination and prejudice as a result of the factors that identify them as different from the majority. This was indeed the case with Pedro's family; Isabel explained:

> *En México era un racismo más abierto. No me siento así aquí la mayor parte del tiempo, pero sí noto que lo hay, sé que está ahí, puedo sentir la energía de las personas como de que no te quieren ahí cerca de ellos. El otro día llevé a los niños al parque y ahí estaba una señorita Americana con su perro… otros niños jugaron con el perro pero en cuanto mis niños se le acercaron que les empieza a ladrar, yo creo que el perro sintió la mala energía de la señora para con mis niños, no sé.*

> [In Mexico, there was a more open racism. Most of the time I do not feel like that here, but still I know it is there; I can sense people's energy like they do not want you near them. The other day I took the children to the park and there was an American lady with her dog. Some other kids played with the dog but as soon as my kids approached the dog, it started barking—maybe the dog felt the bad energy of the lady towards my kids, I don't know.]

Isabel acknowledged that racism exists everywhere, even within her own ethnic group; however, in her new environment she felt that the racism was less overt than in her native country. In the U.S., in other words, there is a racism without racists. She believed that she and her family were perceived differently than natives and that people's attitudes and "energy" towards them were negatively charged because of their distinctiveness. Accented speech, unfamiliar customs, and differences in skin color are all factors that identify immigrants as outsiders to those in the dominant culture (Dettlaff & Rycraft, 2010). Isabel, who seemed to be a wise and reserved woman, told me that experiences like the one in the park did not surprise her anymore. She explained that she had had to learn how to forgive and forget these kinds of interactions because she had no other recourse and that she advised her family and friends to simply ignore these encounters with racism because there could be nothing positive to learn from them.

While many low-income immigrants have experienced discrimination in their country of origin due to their social class or socioeconomic status, the experience of discrimination and *colorism* from other cultures as a result of ethnicity can add further stress to an already difficult transition (Walker, 2012). Marira and Mitra (2013) used the term "colorism" to refer to the phenomenon of identifying immigrants or others who differ from the dominant culture by the color of their skin. They argued that colorism is a "subtype of racial phenotypicality bias in which skin tone is used as a metric by which to discriminate against those outside or within one's own racioethnic group" (p. 103). According to Wilson and Senices (2008), the key characteristic of colorism is "distinguishing people with lighter-skin hues over darker-skin hue individuals, based on a higher value being placed on lighter-skinned individuals" (p. 177). In general, persons with darker skin have been more likely to experience discrimination (Walker, 2012). With her

147

testimony about the local health care system, Carmen explained in her own words the problem of colorism that has affected so many of her fellow Latinos in the area.

These immigrants experience additional psychological and social stress, as members of the host culture may question their motives and limit their opportunity for involvement (Walker, 2012). The transition to an explicit minority status combined with encountering the anti-immigrant sentiment that exists in the U.S. often results in feelings of social stigmatization for Latino children and families (Knight et al., 2009). Bertha's experience demonstrates how this stigma limited the integration and involvement of her family in the larger community: *"Aquí sólo visitamos ciertos lugares donde hablen español porque luego te ven feo"* [Here we only visit certain places where Spanish is spoken, because otherwise people might frown upon you]. In other words, Bertha felt the need to stick with people of her own ethnicity. Rhyne et al. (2005) indicated that Latino immigrants are aware of the negative connotations associated with their group and believe that non-Latinos hold negative views of them. Gaby noticed this perceived racism but did not connect it to herself. When I asked Gaby, *"¿Qué opinas del racismo en las escuelas?"* [What do you think about racism at school?], she seemed to have a clear understanding of what I meant:

> *Yo creo que todos somos iguales pero algunos niños no quieren salir con otros niños porque sus papás no les gusta gente de otros grupos. Yo nunca he sentido discriminación, pero a veces, me siento mal por los otros niños cuando no los invitan a fiestas…*

> [I think we are all equal but some kids do not want to go out with other kids because their parents do not like people from other groups. I have never felt discrimination, but sometimes I feel bad for other kids when they aren't invited to parties.]

Gaby observed the strong influence that parents have on their children's attitudes and beliefs and how those influences, in this case, promoted racist and classist views; she also demonstrated her maturity by acknowledging a feeling of empathy towards those affected. One can infer that

Gaby's personal unfamiliarity with discrimination was due in large part to her high level of integration into the host culture: according to the classifications offered by Berry (2006), Gaby would be most clearly affiliated with the category of biculturalism, the group that demonstrates the highest level of similarity to the mainstream culture.

Carmen held a similar opinion to her daughter on the topic of racism, which in turn suggests her influence on Gaby's understanding of the subject. She explained that before coming to the U.S. she had been introduced to the idea of racism in the context of the American South. She confided, *"Antes de llegar acá había escuchado historias de terror sobre el racismo pero para decirte la verdad no lo he sentido"* [Before coming here I had heard horror stories about racism, but to tell you the truth, I have not really felt it]. Again, this was unsurprising since of the four FBL families in the study, Carmen´s family was the one most similar to a mainstream, middle-class family. Carmen recounted the story of how she first observed the social gap between Latino and Anglo students at the school:

> *El otro día una niña "blanca" invitó a Gaby a una fiesta de cumpleaños. Gaby estaba tan contenta porque había sido la única Latina invitada. Yo no sabía esto y me sentí súper mal cuando le pregunté a otra mamá Latina que a qué hora iba a recoger a su hijo de la fiesta. Me dijo que a su hijo no había sido invitado.*

> [The other day, a white girl invited Gaby to a birthday party. Gaby was so happy because she knew that she was the only Latina invited. I didn't know this and I felt terrible when I asked another Latina mother when she was going to pick up her son from the party. She told me that her son was not invited.]

In her attempt to reach out to another Latina mother, Carmen had to confront the evident division between the Anglo and Latino children at the school. It was then that she realized that Gaby was an "honorary Anglo," that is, the unique position of being Latina *and* accepted by her Anglo peers. That realization made her feel guilty and empathetic towards the other FBL children and parents at the school. Carmen was aware of her family's privileged position in comparison with

the other Latino families, but felt that the latter's disadvantages stemmed just as much from a

lack of empowerment as from racism:

> Carmen: *"Es triste, pero no entiendo porque algunas familias Latinas no quieren hacer*
>
> *algo para mejorar su situación."* [It is sad, but I don't understand why some Latino
>
> families do not want to do something to better their situation.]
>
> Oscar: *"¿Qué podrían hacer?"* [What could they do?]
>
> Carmen: *"No sé, leer, conocer sus derechos, aprender inglés básico para que puedan*
>
> *alzar la voz cuando tengas que hacerlo. Sé que no es fácil."* [I don't know—read, know
>
> their rights, learn basic English so they can raise their voice when they have to. I know it
>
> is not easy.]

Carmen's attitude suggested that she wanted to see Latino families find their voices and feel

entitled to equal opportunities.

Gaby also discussed the same party-incident during one of our interviews: *"Sí, me*

invitaron y estaba muy contenta. La fiesta no estuvo buena, pero bueno, divertida" [Yes, they

invited me and I was very happy. The party was not that good, but, well, I guess it was fun]. I

asked Gaby, *"¿Sabes si Pedro, Pepe o Adi han sido invitados a alguna fiesta de los niños*

Americanos?" [Do you know if Pedro, Pepe or Adi have ever been invited to any party with

American kids?]. She answered, *"No, nunca. Yo creo que es porque no hablan inglés"* [No,

never, I think maybe it is because they do not speak English].

Of the four FBL families in my study, Gaby's was the only one to report feeling

completely accepted in their new lives. Gaby, like her mother, recognized that she had managed

to form relationships with the native students while her FBL counterparts could not: she had had

positive experiences with members of a different group, which promoted further identification

with that group. This can be attributed to her family's social class: Gaby's father José was European, while her mother belonged to the Mexican upper-middle class; both held degrees from prestigious universities; moreover, because José was a scholar, I assumed that Gaby's family had moved to the U.S. for job-related reasons rather than migrating due to a *lack* of job opportunities. Carmen observed that the Anglo community was less accepting of Latinos with limited resources and education, which support Watson and Riffe's (2013) conclusion that North Carolinians have a low tolerance for immigrants in general and illegal immigrants in particular. The awareness of this systemic prejudice can lead to feelings of powerlessness and low self-esteem, as immigrants realize that they are judged according to assumptions about their ethnicity rather than according to their abilities (Rhyne et al., 2005).

Pedro, Pepe, and Adi experienced a cultural transition much different than Gaby's, one much more clearly marked by racism and discrimination. They also more closely represented the situation of the average FBL student in the U.S.: their families migrated for job opportunities or to get a better *chamba* [job]; they were highly enculturated to their ethnic group and struggled to be accepted within their new cultural environment; and because of these factors they experienced separation from the mainstream culture (Berry, 2006) and could not identify, or even communicate, with the majority group. This separation resulted in a much higher level of discrimination, a phenomenon to which Adi´s mother Sagrario could attest. She explained that Edwin, her younger child, suffered from cystic fibrosis and that even though he had been born in the U.S. and received medical insurance from the U.S. government, the experience of caring for him had been very expensive and stressful. Sagrario shared with me that she did not like to visit the hospital because she could not always understand what was going on and she had to use a translator. In order for Sagrario to communicate and exchange medical information with the

doctors and nurses, the staff would have to page a translator: *"La señorita que traduce* [en el hospital] *luego como que se molesta mucho cuando le digo que me repita pero es que siento que no me dice todo lo que dice el doctor"* [The lady that translates (at the hospital) seems to get upset when I ask her to repeat things, but I feel like she is not telling me everything the doctor says]. Sagrario had to rely on the translator to give her accurate information regarding the wellbeing and care of her son, and she explained that she was afraid that she received incomplete or inaccurate information but had no way of knowing for certain. Unfortunately the hospital was the place where she felt most helpless and most discriminated against; she was clearly separated from mainstream society and was therefore vulnerable to systemic racism, classism, and oppression.

In part in an attempt to relieve some of the migration stress experienced by many FBL's, Gaby's mother Carmen started her own business; she provided traditional Chinese medicine as an alternative for Latino clients who did not want to deal with the cost and discrimination they would receive at local hospitals. She validated Adi's mother concern regarding discrimination experienced in medical facilities:

> *Mis pacientes latinos me han dicho del gran problema de racismo en instalaciones médicas. Por eso decidí abrir mi propia oficina para proveer de servicio a la comunidad Latina. Pero no es mucho lo que puedo hacer con medicina tradicional China. A veces [los pacientes latinos], necesitan más de eso.*

> [My Latino patients have told me about the big problem of racism at medical facilities. That is why I decided to open my own office, to provide service to the Latino community. But there is only so much I can do with traditional Chinese medicine. Sometimes they (her Latino patients) need more than that.]

When Carmen was not able to provide her clients with appropriate treatment they would have to seek medical expertise at local emergency departments. Carmen explained that her Latino clients

152

complained a lot about the health system in her new town and that they perceived it as a problem of racism. She expanded upon the point:

> *Mis clientes me han dicho que la mayor parte del tiempo, cuando ellos van al doctor, no hay ni una persona ahí para traducirles y no se sienten muy bienvenidos. ¿Pero qué crees? Después de ir al hospital, mis pobres clientes Latinos seguro les llega un* cuentononón *por nada y eso sí me molesta.*

> [My clients have told me that most of the time when they go to the doctor there is no one there to translate for them and they do not feel very welcome. But guess what? After going to the hospital, my poor Latino clients sure get a humongous bill for nothing, and that really pisses me off.]

Carmen felt frustration for her clients who reported that their negative experiences at healthcare facilities resulted from discrimination against their ethnicity. In such an environment their distinctively limited and accented speech, along with the "color" or "darkness" of their skin, identified them as outsiders or immigrants.

For Latino immigrants, the awareness of skin color and the racism that often accompanies it contributes to the stress of acculturation and enculturation, and it influences the ways in which they respond to the majority culture (Caplan, 2007). I did not ask my FBL students if they knew what colorism was, but they nevertheless seemed to be influenced by its social effects. I noticed this in the adjectives they used when I asked my FBL students to tell me about their skin color. To the question, *"¿Cómo describirías el color de tu piel?"* [How would you describe the color of your skin?], one student answered, *"un poquito morena; no tan blanquita; como moreno; moreno"* [a little brown-skinned; not that white, like brown-skinned; brown skinned]. I concluded that the students used the modifying adjectives in order to diminish or downplay the natural brownness of their skin color, a strategy that could be attributed to an internalized and inherited colorism (Marira and Mitra, 2013).

For undocumented immigrants, colorism is just only one of the many issues to be faced upon entering the U.S. The effects of migration and acculturative stress, combined with a constant fear of deportation, have been well-documented in the literature: anxiety, depression, alcoholism, drug use, and juvenile delinquency, to name a few (Rhyne et al., 2005; Caplan, 2007; Perez-Rivera & Dunsmore, 2011; Knight et al., 2009). To avoid discomfort and stress among my participants, I did not ask them anything regarding their legal status. Based on their stories, background situations, and reasons for migrating to the United States, however, one might fairly assume that their legal situations at the time of the study were somewhat tenuous.

FBL immigrants arrive in a new environment where they suddenly become the minority, where systemic racism, classism, oppression, and colorism hinder their ability and confidence to find opportunities for involvement and integration. The more distinct they are from the host culture (in language, religion, and ethnicity), the more likely they are to experience inequality. My interviews revealed a form of racism within both the attitudes of the native culture and the institutions and systems of the dominant culture.

In summary, in this chapter, I confirm that the majority of socialization adjustments among my FBL students and their families occur in school and home settings. The school and its dual-language program played a large part in my FBL students' acculturation, as did the cultural competence of the teachers. In the home, the enculturation of my FBL students was heavily influenced by their mothers' use of language, their emotional influence, and their attempts to maintain a native diet. This complex dual socialization experience went beyond school and home settings. That is, the outside community and a subtle but pervasive racism that exists in North Carolina also heavily influenced the acculturation-enculturation process.

Following Estrada (2012), who emphasizes the challenging initial stage that immigrants face. I would like to close this section by highlighting, as well, the arduous transition that FBL students and their families go through during their initial adaptation to a new culture. My FBL students like many other FBL students in the United States, faced and continue to face this difficult, dual adaptation process into both a foreign culture (acculturation) and their family and ethnic society (enculturation). My study confirms that the traditions of the home and family play a crucial role in enculturation to the zero sum or slight detriment of acculturation, but at the same time provides evidence that a more balanced socialization experience is possible and should be further explored. While there has been abundant research on how youth acculturation impacts performance in classroom (Fitts, 2006; Mundy et al., 2012; Kahn & Kellner, 2005; Knight et al., 1993, 2009), less research is available on how places, spaces, actors, and objects affect youth technological educational empowerment. In the next chapter, I explore FBL use of digital educational technology as a social experience.

CHAPTER 6: UNDERSTANDING FOREIGN-BORN LATINOS' USE OF DIGITAL EDUCATIONAL TECHNOLOGY

Next, I offer a discussion and analysis of the five major themes to emerge from my research regarding the second main category, "understanding foreign-born Latinos use of digital educational technology." These themes are as follows: (1) Defining digital literacy, access and use; (2) Mapping FPG: relationships among place, space, objects, and actors; (3) Being digital natives; (4) Classroom approaches to technology for FBL students as digital natives; and (5) Using educational technologies at home: the real challenge.

In Chapter 5, I provided thick descriptions of my four FBL students' experiences of their dual processes of socialization (i.e., acculturation and enculturation). As these descriptions show, the majority of socialization adjustments among this group of students occurred in either the home or the school setting. In this chapter, in order to establish the relationship between this group and their use of technology, I begin by highlighting the concepts of *access* and *use* in the context of digital technologies. Next, I map the technologies available at FPG—both at the school and the classroom level—in an effort to understand not just how the availability of technology affects educational outcomes for FBL students, but also how technology is lived as part of social experience. Actors, objects, and spaces affect this experience and either enable or constrain its empowering potential.

I. Defining digital literacy, access, and use

Digital technology has a profound educational potential for FBL students and their families (Warschauer, 2000). Educational technologies in general and digital technologies in particular present opportunities for more personalized learning (Gutiérrez, 2008), which makes them especially useful for FBL students. Unfortunately, current educational practices often fall short of that potential (Warschauer, 2004). My field research, combined with the findings presented in the literature review, suggested that when working with FBL students, an understanding of students' digital literacy must come prior to the simple adoption of technologies (Mundy et al., 2012).

"Digital literacy" has been defined by Gilster (1997) as "the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers" (p. 1). "Access" has been defined by Warschauer et al. (2010) as "the physical availability of Internet-connected computers… both in the home and school environments" (p. 182). Finally, "use" has been defined by Warschauer et al. (2010) as "what youth do online, both out-of-school and in-school practices" (p. 191). In my study I use the word "experience" as a term denoting the result of a high or low level of involvement and exposure to both access and use.

My new study corroborated other research, which strongly suggests that ignoring the digital literacies or technological contexts of FBL students only widens the academic gap. Such gap is increased because FBL students represent the demographic with the lowest level of technology adoption (Warschauer, 2000). While the teachers at FPG acknowledged this point, they also admitted to falling short of achieving the goal of understanding each and every unique background.

Not only it is important to understand the different digital backgrounds but there is a need to further explore the various and particular uses of digital technologies while better taking into consideration the digital literacy of their users, the students. To acknowledge this need is also to acknowledge that the same educational technologies cannot be used effectively by all students. We cannot longer assume that each student who uses a particular device uses it in the same way or for the same purposes. Let us take the Internet as an example: while there is enough data regarding Internet usage and technology ownership within Latino populations, we still know very little about the perceptions that different families hold about Internet, the types of devices they have, or the ways that different families or different family members use these devices (e.g., for work, personal use, entertainment, etc.; August et al., 2013). Furthermore, media-based educational programs and interventions may not succeed if their designers fail to have a firm understanding of how families perceive various technologies or of families' relative levels of access and use (Warschauer, 2000).

Consider Gaby's home access to computers: she had an iPad and her mother and father each had a personal computer. Both parents were experienced users and had the digital literacy to assist Gaby if she encountered questions or problems. Gaby had high levels of access and use, and proved herself to be an experienced user. Pedro, by contrast, had one only one laptop computer at home. He and his family did not have an Internet connection and for this reason his access to technology was limited; nevertheless, Pedro´s father was very committed to his son´s academic achievement and would take Pedro to the after-school program where he could complete his homework and use the technology available there. Pedro lacked technological access but possessed his father's support. Pepe, on the other hand, had a laptop computer with Internet access (in the house where he was temporarily living) but did not have much experience

(other than gaming) or parental support. There was no one in the house who could help or instruct him in the use of new technologies, and as a result, he was less experienced as a user than either Gaby or Pedro. Adi's first exposure to using a computer occurred in the classroom; her access and use were completely limited to the school setting. In Mexico, where she had lived with her grandparents, Adi had no contact at all with digital technologies; her level of experience started to increase incrementally, however, since her mother had bought her an iPad as a birthday present. Sagrario also explained that even though Adi had little experience with computers, an Internet connection had been useful in her digital migration. She added that the Internet would only be available for one year since it had been included in the purchase of a computer device, and so I asked, *"¿Qué va a pasar cuando se les acabe el año?"* [What's going to happen when the year is over?]. She answered, *"Pues ya no va-a-haber Internet"* [Well, there won't be more Internet]. I asked Sagrario if she did not consider an Internet connection to be something necessary, especially after having used it for a year, but she concluded that it was not very important and that they would talk about it when the moment came.

It is important to appreciate that access and use can vary among FBL students and families. Regarding this point, Warschauer et al. (2010) reported:

> There is a widespread belief that the falling cost of computers and Internet access is rapidly narrowing a digital divide in the U.S. society. However, as this review shows, gaps in home access to digital media are still substantial, and inequalities in technology usage and outcomes are even greater. (p. 219)

I discovered that educational technologies should be implemented alongside a consideration of the access and usage of FBL students; implementations should be tailored according to the unique characteristics of the group. For this reason, in my research and in order to fully asses the relationship between FBL students and the use of educational technologies in school settings, I

needed to map out other components of the school environment: places, spaces, objects, and other involved actors.

II. Mapping FPG: relationships among places, spaces, objects, and actors

Gustavson and Cytrynbaum (2003) argued that "the ways in which ethnographers understand social relations in ethnographic research is not only about validity but also about the politics of representation" (p. 252). According to the authors, relational spaces—assuming that the space is composed of relations among objects and actors—should be considered during all phases of the study. Some geographers use the term "place" to refer to the intersection of social relationships, however in my study I use the term according to De Certeau (2011). The author described a *place* as a physical location (i.e., a school, house, or car) defined by a stable location, whereas a *space* exists when one takes into consideration different dynamics or relationships of mobile elements. In other words, a *space* is the way in which a place is used, or the meaning that is attributed to that location. For example, as a critical educational ethnographer, for me a classroom is a *place* when it is empty—without people. The classroom becomes a *space* when it is filled with people because at that moment the place is filled with meanings, objectives, goals, etc. My research does not only investigate the relationships in a given space but questions asymmetrical power relations in that space as well. I observed that the successful creation of third or empowering spaces in the classroom was affected by the relationship among the places (the school and classroom), the actors involved (the teachers and students), and objects (educational technologies).

Soja (1996) argued that a physical place affects human interactions. Thus, in this next section I begin by describing the physical location of the school and classroom, and more specifically the physical locations of the digital educational technologies. Once the *digital*

160

technological educational place has been depicted, I turn to a description of the relationships among actors and objects that structure the *digital technological educational space*.

My four FBL students entered the space (e.g., school, classroom) with a limited English proficiency and also with particular levels of *access* and *use* with regard to digital technologies. Regardless of their levels of technological experience, they had the inherent advantage of being familiar with digital technologies; even when their experience had been constrained by access or use, as digital natives the four FBL students shared a similar level of adaptability to new digital technologies as most children their age.

Technological educational place: the school.
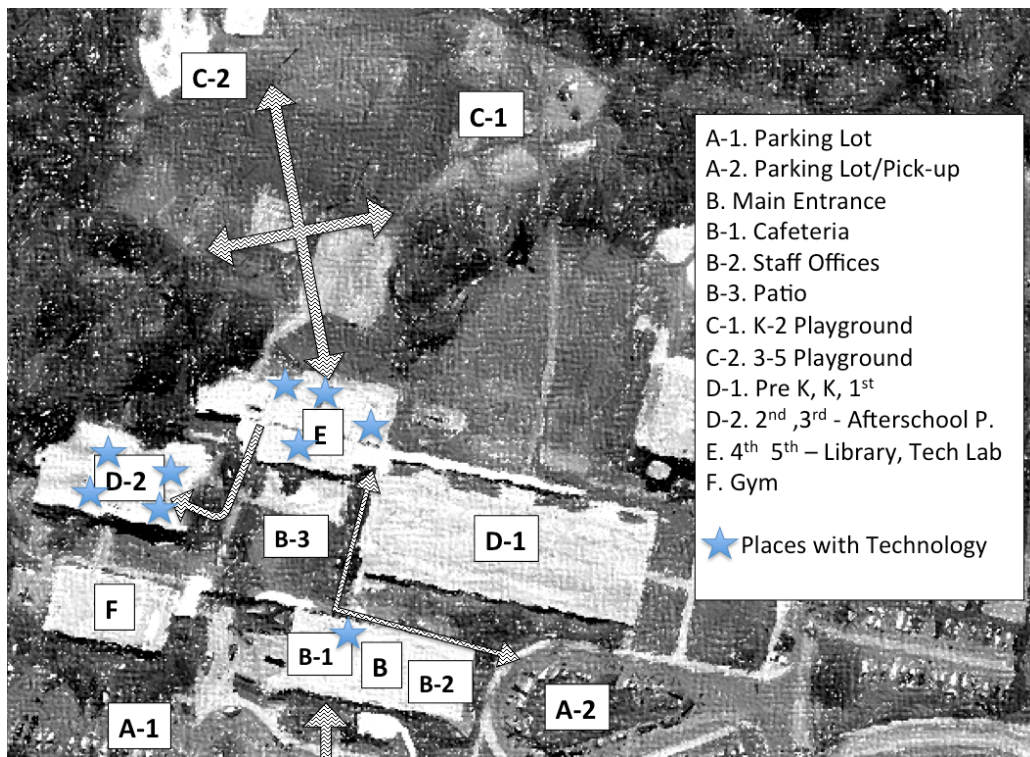
Illustration 1. Map of Frank Porter Graham Elementary School: building and technology distribution.

Visitors arriving from the parking lot (A-2) entered through the main entrance (B). In order to enter, you had to push the intercom and once the secretary Linda saw you, she would grant you access. The main entrance was connected on the left to the cafeteria, a small place

where groups of students took turns eating lunch. Next to the entrance to the cafeteria was a small table with three old desktop (PC) computers with Internet access. The computers were outdated, with limited capabilities (i.e., not enough disk space and memory). These three computers were available at any time for parents who needed to use a computer or an Internet connection, for as long as they needed. During my fieldwork I never saw anyone—parent or otherwise—use them. The computers were placed out in the open, an area insufficient for parental use in that it offered no possibility of confidentiality or discreetness. According to Flores and Pachon (2008), new Latino immigrants who use public computers like those offered in public libraries—or, in this case, at their child's school—tend to do so to find "information on food and housing, medical services, jobs, transportation, or legal matters" (p. 5). A parent who needed to use a public computer for such reasons would understandably want to do so with a degree of privacy, and the main entrance was indeed a busy place with little privacy.

The FPG staff offices (B-2) were located opposite the cafeteria and the three desktop computers. The staff maintained open office hours for parents and visitors. The main entrance was decorated with flags from many countries welcoming different nationalities. Linda, the Puerto Rican secretary, fluent both in English and Spanish, was the first gatekeeper you would encounter as a visitor. Linda was always in the best mood: with a charming smile, she would always be sure to greet you and ask about your day. Still, regardless of the flags and the welcoming environment, the main entrance remained a high-traffic space which could afford insufficient privacy for computer use.

During my initial visits, Linda would take a picture of me and gave me a sticker with my name and a "smart-key" to enter the different buildings in the school. After a month, we became good friends and she would only request my car keys as collateral for the smart key. With this

162

smart key, I was able to go from one building to another. Upon crossing the main entrance, in front of you and to your right you would encountered the first building (D-1), which housed pre-kindergarten, kindergarten, and first-grade classrooms. To the far left, you would find building F, which housed the gymnasium. It was a large, dated auditorium with a basketball court and a small stage used both for assemblies and for theatrical performances. If you continued walking straight, to your left was the main patio (B-3), a patio that was used to cross from building to building. Standing in the middle of the patio you could take in a 360-degree view of the school grounds. FPG was a pleasant place surrounded by trees. The buildings were not new but very well maintained and the campus was very clean.
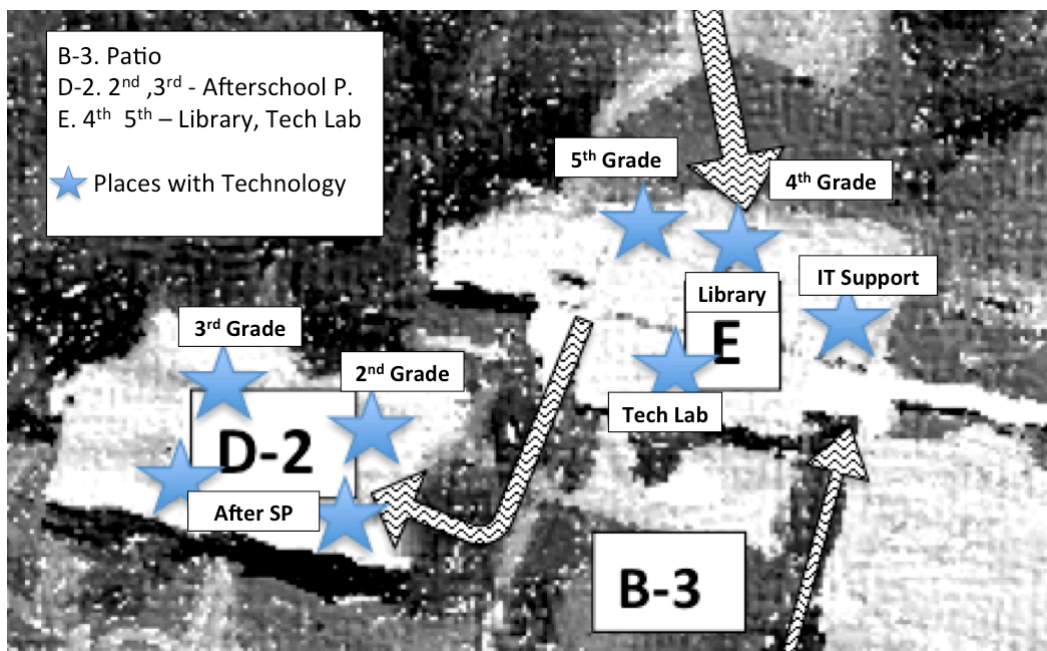
Illustration 2. Map of Frank Porter Graham Elementary School: buildings D-2, E, and area B-3, with technology distribution.

Illustration 2 shows the area immediately surrounding the patio. Building D-2, which housed classrooms for the second and fourth grades, was located to your left from the middle of the patio. Building D-2 also held the classrooms designated for the "Bilingual Believers and Beyond" or *B3* afterschool program. All classrooms contained tables and chairs (for up to 30

students), and were equipped with a blackboard, smart board, and Wi-Fi accessibility. Exiting building D-2 and continuing straight took you to building E. The basement of building E was used for the fourth- and fifth-grade classrooms where I conducted most of my observations. Each classroom had the same digital capabilities as those in building D-2, but they were designed with both front and back doors, which opened to the building, the grade K-2 playground area (C-1), and the larger green area for grades 3-5 (C-2).

The first level of building E was designated for the library and the technology lab. The library was a large and very well-lit room with specific areas demarcated for reading and study. The information technologies department, located in the same room as the library, was headed up by Al, an Anglo male in his mid-forties. Al managed all of the technological equipment and maintenance. His office and the neighboring office were a jungle of computers, filled with piles of desktop computers, monitors, laptops, and cables. These rooms had a very particular smell of welding and old metal. In front of the library was the technology lab. Compared to the rest of the buildings, this room appeared very old and damaged, even abandoned. The lighting was dim and there were 30 desktop computers—some old iMacs, some old PCs, and some other assorted monitors hooked up to old Mac mini servers. The place reminded me a lot of the "jungle" next to Al's office. All of the computers had Internet access and—before the school had acquired mobile computer carts—the room had been used for classes. The computer carts had diminished the need to transport students to the tech lab, a change that—according to Adelman et al. (2002)— teachers prefer. FPG teachers preferred using technology in the classroom to the computer lab because of the scheduling difficulties and logistical problem of transporting students. With technology now available in the classroom, the tech lab had become an empty place. Al confirmed this, and I attributed the room's poor upkeep to its relative disuse.

Illustration 3. Representation of a "computer cart."

Buildings D-2 and E shared five "computer carts" (see Illustration 3), with three housed in the former and two in the latter. Each computer cart was a metallic cart in which 20-30 laptop computers and 10-15 iPads could be safeguarded and charged for use, to be ready whenever a class needed to use educational technology. Fifth-grade students were assigned one computer for each student. Third- and fourth-grade students, by contrast, shared the computers in the cart. Students in grades K-2 (building D-1) did not use the computers at all.

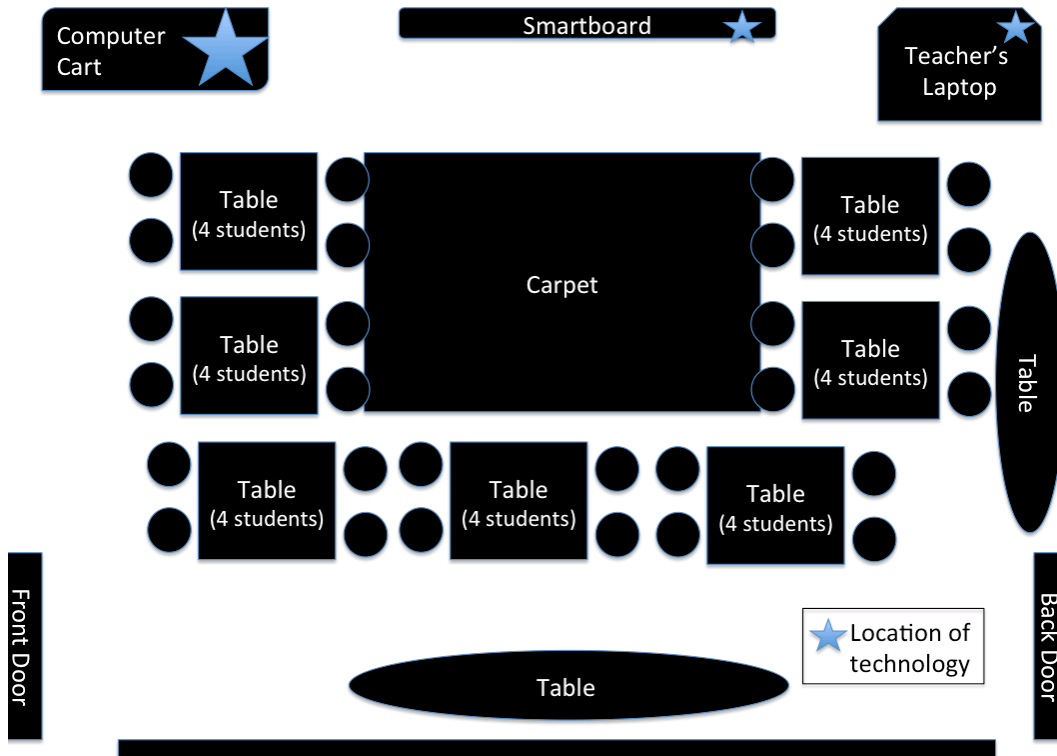**Technological educational place: the classroom.**

Figure 8. Classroom configuration and technology placement.

Mrs. Sandra's and Mrs. Chela's classrooms were next to each other and shared a very similar configuration. Figure 8 depicts the fifth-grade classroom layout at FPG. Entering through the front door and looking to the left you could see seven tables, each paired with four individual chairs. At the center of the classroom was a big blue carpet that was used by the students whenever the teacher was giving instruction or lecturing with the aid of the smart board. During all other times the students remained at their assigned tables. The teacher had her own desk in the far corner of the classroom, though she rarely stayed static at her workstation: the majority of the time she walked around the classroom, changing directions and helping students according to their needs. Two other oval-shaped tables in room were designed for working one-on-one with students; these tables were used primarily by the teaching assistant and myself whenever I took

notes during my observations. A back door allowed students to exit to recess and had a splendid view of the big playground and the hills in the distance.

Since my study took place among fifth-grade students, the children had access to the computer cart at all times. Their computer cart held 30 Macbook computers and 10-15 iPads (though at times other classes would borrow some of the iPads). The computer cart was not the only educational technology hardware used in the classroom; there was also a state-of-the-art S.M.A.R.T. Board. The S.M.A.R.T. Board, or white board, consisted of an interactive projection display that enabled teachers and students to combine a variety of learning tools—like websites, images, and videos—into compelling lessons. FPG was equipped with S.M.A.R.T. Boards in every single classroom and the teachers seemed to appreciate it as an educational tool. However, new technology like the S.M.A.R.T. Boards can often be difficult to operate, and require training and teacher's work, because as Ellis (2010) writes,

> If the teacher or person using the technology is not familiar with or does not have an understanding of the technology being used, it can become more of a distraction than it is a stimulant. It is important that if a teacher would choose to implement the S.M.A.R.T. Board in the classroom, the teacher familiarizes themselves with the technology and creates a confidence in using the technology before going in front of a class. One of the largest pieces of keeping a student stimulated is to keep that student engaged in the material. The moment we lose student engagement, is the moment we lose the value of the technology in classroom. (p. 34-35)

For example, Mrs. Sandra noted that despite her appreciation of the S.M.A.R.T. Board, a glitch on the display "drove her crazy" and distracted her while she taught: "I've noticed the glitch since the beginning of the year and no one has been able to fix it," she told me. I told her I thought the problem derived from the video cable that transferred the image from the computer to the projector. It was a minor glitch that did not distract me or seem to distract any of the students. She said that she had reported the problem to Al, but that even when it disappeared for a few days, it would come back. She concluded that she had gotten used to ignoring the glitch

and felt like she had successfully learned how to operate the S.M.A.R.T. Board. She demonstrated a gain in confidence and technical proficiency with the S.M.A.R.T. Board throughout my observations, and the students seemed to remain engaged with the interaction.

When the academic year began in September 2013, the time allotted for computer use in the classroom was once a week, with each session lasting roughly one hour. Sometimes, Mrs. Sandra or Mrs. Chela would be kind enough to reorganize their lessons in order for me to observe the classroom activities that made use of this technology. At the beginning of the semester the technological educational spaces were not going as well as everyone had expected. Despite the availability of the laptops and iPads, the allocated time for computer use was limited. At FPG, it would sometimes take 25 minutes of class time to pass out the computers and have the students sit down and log in. According to the Florida Education Association, which is one of the largest statewide federation of teacher and education workers' labor unions in the United States (Florida Education Association, 2014), uneven transitions between activities and inefficient classroom management procedures disrupt learning flow and cause students to lose interest during the allocated timeframe. At the beginning of the year, I noted that most of the students, regardless of ethnicity or gender, struggled with the log-in process and were easily distracted. Al, the IT manager, said that teachers consistently reported having difficultly beginning each technological session because of the log-in process. He explained that each student had a unique username and a password, but that since this procedure had only just been implemented for the first time this year, both teachers and students were still adapting. He implied that this slow process was common (and expected) at the beginning of each academic year.

Thirty-five minutes had passed by the time the students had logged in and navigated to the website; the time actually spent with the educational software was therefore very much reduced. Some students also had technical issues in using the computers. Adi represents perhaps the most extreme case of this: as I described in her profile, she sat in front of a turned-off computer for over 20 minutes without asking for help.

The teachers and the assistants in both classes tried to provide one-on-one attention while also trying to solve personal technological problems but in some instances they forgot to lead the class as a whole. Nevertheless, this problem lasted for only three weeks at the start of the school year; after that, the time spent logging in and entering the site dropped drastically to roughly ten minutes, and they all seemed to adapt quickly to the new use of the digital technology. To me, this represented the specific moment in which the classroom transformed from a *place* into a *space* for critical educational technologies. Once the technological educational space had been established, the relationships among the actors became more visible.

Technological educational space: classroom actors. The dynamics of the technological educational space at FPG were structured by tangible elements like the technology's availability, the placement of the technology and the students, and the students' time of usage. Still, this analysis must be further problematized by the inclusion of intangible elements such as the relationships among the actors that together constituted the space. In Chapter 5, I justified the role of the teachers and the importance of their cultural competence when working with foreign-born students and the acceptance of the "other" in school settings. Teachers were not the only actors affecting the classroom dynamics, however. Classroom peers also played a very significant and complex role within the FBL students' experience. Cappella, Kim, Neal, and Jackson (2013) stress the importance on the "peer social structures that facilitate behavioral

engagement in urban schools" (p. 376). They further justify the importance of peer resources within classrooms since it builds deeper understanding of classroom processes but also because it can predict student engagement. Bacallao and Smokowski (2009) expand:

> Few studies have explored the role that peer networks play in acculturation processes, even though peer influence is critical in facilitating or hindering cultural adaptation. In the families we interviewed, interactions with peers were arguably the most complex part of living between two cultures. Although it was clear to the adolescents that their family homes and churches represented their Mexican culture and that school and work represented U.S. culture, interactions with peers were more ambiguous. (p. 443)

My study adds to Bacallao and Smokowski's work on understanding educational technological spaces in school settings by contributing the further observation that FBL students rely more heavily on highly acculturated peers than on their teachers when it comes to digital educational activities. Kahn and Kellner (2005) indicate that students are often ahead of their teachers in a variety of technological literacies and technical skills. In other words, the teacher, being a "digital immigrant"—as Mrs. Chela described herself— is "forced" to share the power and authority when providing these new interactive and digital environments. I noted that technologies, in general, provided power to those students who know how to use them, such as Jovanna.

She was a ten-year-old, native-born Latina who lived with her parents and a 13-year-old brother—all four of them Mexican. She was a very tall and skinny girl who looked older than her age. When I first saw her during my initial classroom observation, I thought that she was a very young teaching assistant. Only when Mrs. Chela said, *"Jovanna, vuelve a tu silla"* [Jovanna, go back to your chair], did I realize that she was a student. Jovanna was fluent in both Spanish and English. She told me, "…*mi papá y yo hablamos en español e inglés todo el tiempo pero con mi mamá siempre tiene que ser en español. Con mi hermano es más en inglés y en español igual* [My dad and I speak Spanish and English all the time but with my mom it has to be in Spanish.

With my brother it is in equal parts English and Spanish]. Jovanna acknowledged that her brother—a foreign-born Latino—had dealt with language issues just like those of my FBL students. Jovanna had helped her brother with the language when he arrived in the United States. Morales and Hanson (2005) argued that bilingualism refers to the ability to learn, understand, and speak two or more languages. However, *language brokering* deals with "translating and interpreting for survival" (p. 473). Perhaps Jovanna's experiences with her older brother's language difficulties can explain why she was so kind and so helpful in her interactions with Gaby, Pedro, Pepe, and Adi. She was also very optimistic that they would improve their English in a very short time, maybe because of her brother's example.

According to Morales and Hanson (2005), "once children [like Jovanna] become familiar with the English language, they often serve as translators and interpreters for their non-fluent parents and extended family" (p. 471). As I observed, this role may also be played in the classroom. On some occasions, however, I noticed that Jovanna was going beyond the role of the language broker to that of a "technology broker" for my FBL students. For instance, during the third week of classes, the entire class was struggling with the log-in issue, and Jovanna went from one end of the classroom to the other to help Gaby. Jovanna had been one of the first students to successfully log in and enter the educational software website, and when she noticed that others were struggling she had particularly chosen to help Gaby. It was interesting to note that she chose to help an FBL student even when some of the other native-born students struggled with their computers as well. I imagined that she empathized with them because of her familiarity with her brother's experience. Not only was Jovanna helping out, she was earning a respected and admired position in all of the FBL students', but especially in Gaby's esteem. Gaby and her mother Carmen corroborated my assumption, saying that Jovanna was becoming a

very dear and helpful friend to Gaby. This was an additional reason behind Gaby's feelings of

guilt and discomfort when Latino students like Jovanna were not invited to the "Anglo party."

Illustration 4. Representation of Jovanna assisting Gaby. The illustration shows the girls going through the computer log-in process during the second week of classes.

Authority was being given to Jovanna not only by the FBL students that she helped but

also by the teacher. During the next weeks's computer sessions, Mrs. Sandra often asked

Jovanna to help other students with the log-in process. Jovanna seemed to enjoy her position and

continued helping the struggling students. On a different occasion she helped Pedro and Pepe

enter the website *Kid Biz* and begin an online quiz. Kid Biz was an online program that provided

differentiated instruction for Math and reading. KidBiz allowed children in the class to read and

learn about the same topic everyone else was reviewing but at their own level and pace.

However, even when the software was "user-friendly," at the beginning of that class, Pedro and

Pepe had been able to log in but struggled with opening the browser and typing the Kid Biz'

URL until Jovanna assisted them. It took her about three minutes with each of them to resolve their problems. After a couple of weeks, my FBL students had come to rely on Jovanna as a very dependable source of support.

Axel was another highly acculturated Latino peer in the classroom who contributed to a lesser extent to the FBL student's development. Axel was a chubby ten-year-old native-born Latino. His parents were from Los Angeles, California and had moved to North Carolina three years ago in search of job opportunities. Axel's level of Spanish was not as high as Jovanna´s; I noticed that he had difficulty translating some words into Spanish (i.e., *cellphone* or *security guard*). However, his Spanish was good enough to enable him to serve as a language broker for Pedro and Pepe. I noticed that Pedro followed Axel's lead—and that Pepe, in turn, would follow Pedro—on many occasions, specifically when they were able to use technology and sit on the carpet in small groups. Axel was very helpful to them, particularly during the English lesson with Mrs. Chela.

One morning Mrs. Chela told the students to use the iPads to look for words in an online dictionary in order to complete a reading activity. Pedro, Pepe, and Axel were sitting together at the time. While Mrs. Chela gave instructions, Pedro would quietly stare at Axel and would raise his eyebrows, signaling Axel to translate. Pedro and Pepe did not seem to have any functional problems when using the iPads—even though neither of them had tablets at their house. Their primary deficit was not in the use of technology but in receiving and understanding the instructions for the activity to be completed with the tablet. They became good friends with Axel, who would occasionally help them with translations.

The support of non-Latino peers was less evident—as language brokers, technology facilitators, or supporters of any kind. The demographics of one fifth-grade class—of which my

FBL students were members—was exactly half Latino and half Anglo. The other fifth-grade class was similar but also contained one African-American boy. Throughout my months of observation, I noticed very little contact between my FBL students and Anglo students. Bacallao and Smokowski (2009) suggested an explanation for this lack of interaction among non-Latino peers:

> Interactions with non-Latino American peers were often marked by racial discrimination against Mexican immigrants and hampered by language differences. In all of the ecological systems—family, churches, workplaces, schools—American peers were the most discriminatory, rejecting Mexicans and devaluing biculturalism. Non-Latino American peers had different customs, language, and behaviors that made Mexican adolescents feel like they did not belong with this group. (p. 445)

The study of Bacallao and Smokowski (2009) was conducted with adolescents—that is, students aged fifteen and older—and therefore their findings were not completely corroborated by my study. According to Mrs. Paty, racial discrimination seemed less evident among younger students. She remarked that, in her experience, it is not until puberty that children begin imitating the racial discrimination learned, primarily, in their homes. In my study, the racial discrimination among non-Latino peers was less evident because I did not observe much interaction at all. Gaby was the only FBL student who was relatively willing to go and talk to other classmates in English. Nevertheless, even when the racial discrimination was not evident in the classroom, as Mrs. Paty had predicted, this discrimination was starting to surface among the non-Latino parents. We only have to consider the party to which only Gaby—of all the Latino children—was invited. Gaby felt honored to be the only Latina at the party, but felt bad for the other Latino students. With regard to Pedro, Pepe, and Adi, she naively assumed that they were not invited because they did not speak English. All things considered, non-Latino peers did not seem to affect (for better or worse) the relationship between FBL students and educational technologies in the classroom—if only because there was no contact at all. Nevertheless, as Mrs. Paty

174

explained, the lack of contact between the two groups at this early age should be noted and addressed accordingly, as it often anticipates relationships of low tolerance among ethnic groups at later stages of development.

Latino peers represented valuable sources of support and that they influenced the relationship between my FBL students and educational technologies in the classroom. Moreover, highly acculturated Latino peers represented, in many cases, more approachable figures of support than the teacher due to their familiarity (in language, ethnicity, and age) and their availability during class activities (when the teacher would be too busy helping other students). Finally, during technological educational activities, the Latino peer support was more evident when the FBL student needed help translating the instructions rather than when using the educational technology itself.

I have demonstrated that my four FBL students came to the *space* of the classroom with a limited sociolinguistic tool kit that put them at a disadvantage compared to the rest of the native students. I observed how FBL students looked for help among highly acculturated Latino peers in order to balance their language uncertainty and alleviate this disadvantage. Despite their low levels of English proficiency and, in most cases, low access and use of digital technologies, their primary advantage was their adaptability to new digital technologies (both hardware and software). In the era of digital conversion, even though FBL students may be sociolinguistic immigrants, they can still be considered digital natives just like the students of any other background.

III. Being digital natives

Students today are positively predisposed to new technologies (Fitts, 2006). My FBL students had different levels of access to and use of technology, but despite differences in race,

nationality, and class, they shared one thing in common among themselves and with all of the other students: they were digital natives. Prensky (2001) first coined the term "digital natives" as a label for younger generations that grew up with technology integrated into their everyday lifestyles. He writes, "Our students today are all 'native speakers' of the digital language of computers, video games and the Internet" (p. 2). During my interviews with the teachers at FPG, they agreed that the label "digital natives" fit the school's FBL students. The teachers argued that when working with digital natives, two factors necessitate the use of technology in the classroom: firstly, it triggers motivation; secondly, educational technology has a unique power to "reassure the knowledge," a phenomenon that I explain below. The firsthand experience of the teachers confirmed that using educational technology is a highly effective pedagogical strategy when engaging students with low English proficiency. For example, Mrs. Chela noted that teaching today is very different than it was even ten years ago. When she first started teaching, she saw herself as a digital immigrant. She explained:

> As adults and teachers we are learning to use technology. On the contrary, these kids have grown up with it and have always known it... As their teacher I have to adapt myself to what they like and what they use and if they like and use online zombie games, well I will have to try and incorporate a way to use that experience into a learning process.

Mrs. Chela's strategy of following her students' lead in finding the most effective ways to integrate technology into the classroom corresponds to Prensky's (2001) assessment:

> Smart adult immigrants accept that they don't know about their new world and take advantage of their kids to help them learn and integrate. Not-so-smart (or not-so-flexible) immigrants spend most of their time grousing about how good things were in the "old country." (p. 4)

In Prensky's terminology, Mrs. Chela was a smart digital immigrant since she pointed out that she herself benefitted both from the use of technology and from her digital native students: "Most of the times I tell them to teach me how they are using the program."Mrs. Chela drew

from her own experiences to empathize with her students. As a teacher she had discovered that learning happens best when unfamiliar information is connected to something familiar across multiple platforms (i.e., computer, blackboard, conversations). Also, this is the same reason that the most successful programs are those that connect people to the information that is useful to them (Fitts, 2006). Even FBL students like Adi, who had never touched a computer before, naturally cultivated a "digital acculturation" (Fitts, 2006; Knight et al., 2009). The very best pedagogical examples of Latino empowerment that I witnessed were the lessons in which technology was not simply incorporated but also connected to the student's own experiences—in other words, when their funds of prior knowledge were promoted with the aid of educational technology.

In Mrs. Chela's class, for example, she arranged the students in smaller groups for a vocabulary lesson utilizing the classroom laptops. During one of my observation sessions Mrs. Chela spoke a word, and the students used the computers to look up the meaning of the word; once the word was found, the student raised their hand and showed it to the rest of the group. Presenting the lesson by way of the computers activated the students' internal motivation in the service of the learning experience. When using the computer to define the word, they seemed to have had a sense of reassurance that they were going to be correct. I noticed this assurance mainly by the increase in their number of smiles and a change in their physical position—from being slouched and laid back to sitting more upright with an attentive posture. Even if a student could not pronounce a word, they could show a picture of the word to their teacher. It was apparent from observing Pedro and Pepe that they really enjoyed these lessons and learned from them effectively: they found the words on their own, discussed their findings with each other, and then Pedro would raise his hand to provide the right answer. Pedro and Pepe in particular

benefited from the class configuration when working in smaller groups combined with the aid of new technology.

IV. Classroom approaches of technology for FBL as digital natives

I noticed two different types of classroom configurations in the implementation of classroom technologies. In the next section, I describe these two configurations as the one-to-one approach and the organic approach. As discussed above, the placement of objects and actors in a given place can indeed reconfigure a space's dynamics, and in my analysis of the relative effectiveness of these two classroom configurations I hope to demonstrate the positive potential of educational technologies when implemented in a way that empowers the student.

The one-to-one approach. According to Pennuel (2006), over the past ten years in the United States, there has been widespread interest and investment in initiatives designed to provide each student with a computer—a one-to-one configuration—to support academic learning. Some of the more visible initiatives have been sponsored by Microsoft—specifically, with their "Anytime, Anywhere Learning" campaign—and, in the past five years, Apple has also become a strong supporter (Pennuel, 2006). FPG benefitted from Apple´s partnership with the school district by acquiring three "computer carts" equipped with Macbooks and iPads (the other two computer carts were equipped with IBM Laptops and iPads). According to Pennuel, three core features are common to the one-to-one approaches to computing in the classroom:

> (1) Providing students with use of portable laptop computers loaded with contemporary productivity software (e.g., word processing tools, spreadsheet tools, etc.), (2) enabling students to access the Internet through schools' wireless networks, and (3) a focus on using laptops to help complete academic tasks such as homework assignments, tests, and presentations. (p. 331)

Common to many of these initiatives is the idea that all students should have individualized access to computers at all times, but schools have implemented their programs

according to different policies. FPG students, for instance, are not allowed to borrow a computer to take home; however, students are welcome to use them during class time or in the afterschool program. Instead of starting a never-ending discussion on school policies and whether or not the school district should grant students permission to take the computers home, I decided to take a more practical stance towards the subject and analyzed, assessed, and offered feedback regarding the strengths and weaknesses of the one-to-one technological approach with the available technology and current FPG school policies.

I noticed—as Figg (2000) also observed—that regardless of the district or school policies, the main component affecting the approach to classroom technology at FPG was the teachers' attitudes and beliefs about technology's role in the curriculum. Both Mrs. Sandra and Mrs. Chela used the one-to-one approach on several occasions. Figure 9 depicts the layout of the one-to-one approach as manifested during one of Mrs. Sandra's classes.
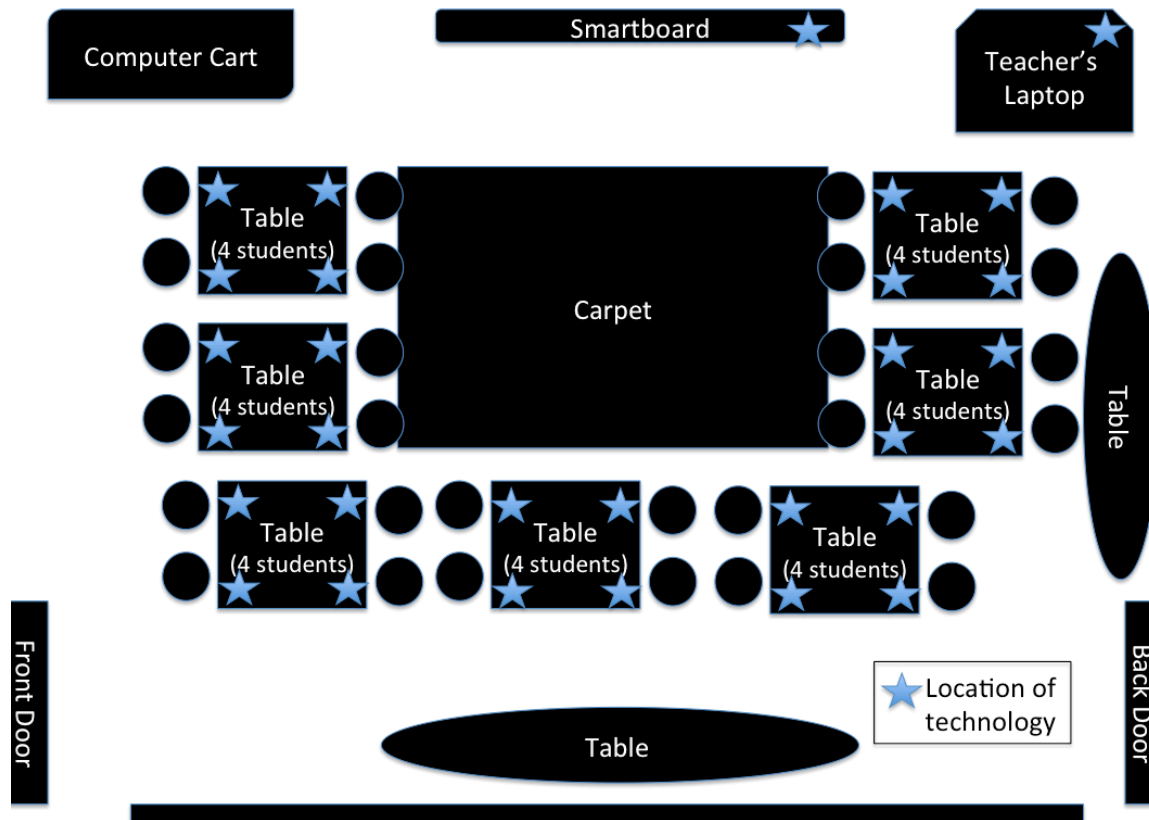
Figure 9. One-to-one technological approach in Mrs. Sandra's classroom.

With this approach, each student was given a laptop computer with Internet access through Wi-Fi. Three weeks into the school year, the students had learned to quickly log in and start working on the educational website "Kid-biz" for their Math lesson. The computers were initially used only one hour per week, but after my conversations with the two teachers they agreed to use the technology at least two days each week. For me, this decision represented the moment at which I knew I had gained their trust.

During one class activity undertaken with a one-to-one approach, Mrs. Sandra instructed the students (in Spanish) to resolve a series of mathematical problem on the Kid Biz software. Once she confirmed that all students were on the same website, she started by solving the first problem on the S.M.A.R.T. Board. She plugged her laptop computer into the S.M.A.R.T. Board and demonstrated how to do it so that the students could do it on their own. I noticed that many

of the students were distracted while she was giving the instructions. She did not notice this, however, and assumed that the instructions were fully understood. She then gave them 20 minutes to finish one of the online lessons and assisted students who needed her help.

This approach offered a few advantages. Each student had the opportunity to engage with the technology without intermediaries. The student was also able to learn at his or her own pace. Furthermore, if they finished one lesson, they could move on to the next one without waiting for the rest of the class. The students who did not need much supervision allowed Mrs. Sandra to focus on those students who needed more. Mrs. Sandra confirmed that after the first three weeks' "log-in madness," these classroom moments gave her more time to focus on students who needed extra help because, in a way, she was able to "delegate" teacher responsibilities to the software program.

On the other hand, I noticed that these ten-year-old students were easily distracted, and that this approach exacerbated the problem. Despite the interactive nature of the Kid Biz software, I noticed that at least half of the class had their eyes on something besides the computer screen. I also observed that for more complex subjects like Math, the educational software became very limited in its teaching potential if there were no previous explanation of the problem. In sum, a lack of attention or motivation made it difficult for students to approach new material on the site and it therefore failed to be useful unless the student was only reinforcing previous knowledge. Mrs. Chela acknowledged this as well and told me that she made sure that any homework assigned with the educational software only reviewed content that had already been covered in class.

Illustration 5. Representation of Mrs. Sandra giving assistance during the one-to-one technology approach.

The one-to-one approach seemed to be more challenging for my FBL students. Let us consider a hypothetical case as a metaphor for their situation in the one-to-one technological approach. Imagine that you need to go from point A to the faraway point Z in City X. You have two means of transportation available to you—walking or driving. The fastest way would be to drive the car to point Z; however, even assuming you know how to drive a car, City X is a large and unfamiliar city with very heavy traffic. You fear that you might get lost in such a big place, and so you decide that maybe it would be better to ask a friend to show you around and teach you the ways of the city. Only once you have learned your way around the city is it possible to drive yourself or to walk to your destination. In this hypothetical scenario, traveling from point A to point Z represents the academic goal or task, and the car represents the educational technology

available. City X represents unfamiliar material like a Math lesson. Driving around alone in the car to discover a new city represents an analogue to the one-to-one technological approach for learning new subjects. Relying on a friend represents a more collaborative technological approach you might need to resolve your problem and reach your goal of arriving at point Z.

Since teacher's preference seemed to be the deciding factor as to which technological approach is implemented in the classroom, I spoke with them personally to share some of my analysis. I noticed that through the months, I gained a trusted position as a digital educational adviser. I corroborated this on one occasion when I shared with Mrs. Chela a journal article that discussed a more organic and bottom-up approach to technology in the classroom. I did this in order to follow the advice of Hung et al. (2012) regarding "walking the journey" with the teachers when conducting classroom digital educational research (p. 36). After discussions with the teachers, they seem to trust my insight and we agreed that the one-to-one approach—with its functional similarity to the top-down approach of the Diffusion of Innovations Model—was not the most effective method of empowering my FBL students, especially during their initial learning experiences in the United States.

Before successfully managing a more individualistic one-to-one technological approach, my four FBL students would first need to strengthen their repertoire of "agency tools," or those skills that reinforce their self-esteem and their sense of control during classroom activities. My research suggested that such tools could include language proficiency, their technological experience in classroom, and their "formal" knowledge in the different curriculum subjects such as Math and Reading in English.

The organic approach. I requested Mrs. Chela to read an article called "Sustaining research innovations in educational technology through communities of practice" by Hung et al.,

(2012) and we gave it a try to incorporate some of the organic technologies principles described in the text. Organic technologies should be understood as technologies that are adopted from within the community or classroom context and that are determined by the users rather than by an external provider. Hung et al. (2012) extended this definition of organic educational technologies: "When an innovation is mature, attempts are usually made to translate that product into use benefitting the masses. Such an approach adopts a linear upstream to downstream flow of innovation diffusion. We argue for an alternative and non-linear conception of the diffusion of educational technology by adopting a more ecological metaphor to this issue" (p. 33). Just as Freire (2000) had argued, an ecological perspective on educational technology should begin at the school, with the students, rather than in a laboratory. The fifth-grade teachers at FPG adopted this organic approach and the FBL students there were effectively challenging the traditional/linear power dynamics of the classroom. Figure 10 illustrates this organic principle in practice, and shows the placement of technology during a classroom activity organized according to the organic technological approach.
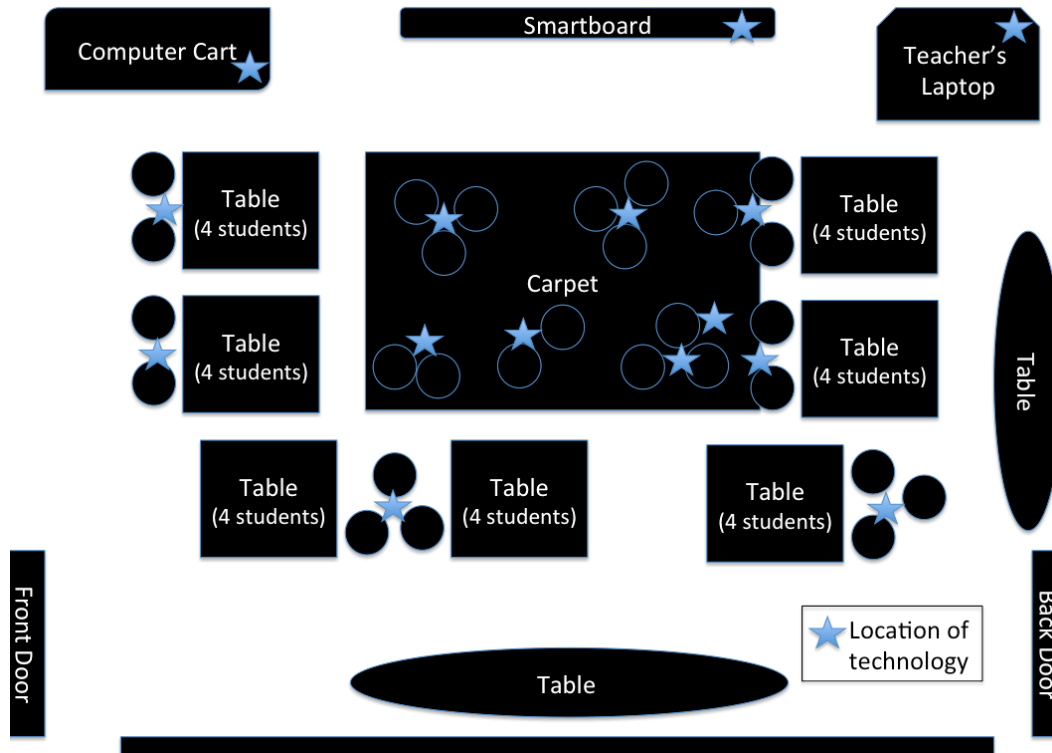
Figure 10. Organic technological approach in Mrs. Chela's classroom.

In this approach, students were allowed to decide to use a computer on their own or to share it with either one or two other classmates. All of them decided to share the computer with at least one other classmate. This approach was first implemented after the initial period of log-in difficulties, but I believe that by adopting this organic method earlier, the teachers could have avoided the bulk of the problems. This is because of the learning curve, the collaborative support built into this approach but also because fewer students need to log in when computers are shared: the log-in process took around seven minutes with the organic approach, three minutes faster than with the one-to-one approach. It is crucial to note that Figure 10 also shows unused computers left in the "computer cart"; this observation shows that under the organic approach the same amount of resources can be redistributed to reach more students.

Just as in one-to-one approach, the teacher plugged her computer into the S.M.A.R.T. Board and showed the students the instructions for the activity. In retrospect, I realize that the

185

potential of the S.M.A.R.T. Board was under-utilized in these activities and that neither I nor the teachers thought about incorporating it in a more collaborative way. Due to its large screen size, for instance, the S.M.A.R.T. Board could have been used as a more collaborative technological tool, in which groups of four or five students could have worked together using the interactive touch screen to enhance the learning experience.

Although the teachers and I did not fully develop the S.M.A.R.T. Board's potential, we did prove that the organic technological approach was more effective in many ways. I noticed far fewer distracted students than during the activity implementing a one-to-one approach. This could be attributed to the fact that in each pair or threesome of students, there was always at least one other student monitoring the activity. The inability to learn complex topics because of the one-to-one approach's individualistic premise was also ameliorated by the organic approach. In consonance with Mundy et al., (2012), I noticed that the organic approach in the classroom allowed students to engage in a more critical mode of thinking, and learning through praxis with the aid of digital educational technologies; indeed transformed them into active participants. The main advantage was the overall redistribution of power dynamics in the classroom, which took the form of active dialogue, critical thinking, and students teaching other students.

Among the disadvantages I observed was the fact that the personalities of the more authoritative students tended to dominate those who were naturally more passive. I confirmed the observation of Moje et al. (2004) that English-speaking students were accustomed to being "central members" no matter which language they were speaking or which classroom they were in (p. 57). For instance, during digital organic activities, Mrs. Chela did not assign the groups and the students were able to choose whom they wanted to work with, but in some groups it was evident that a single student (mainly English-speaking) monopolized the attention of the small

group. Mrs. Chela and I noticed this and, in some instances, she would cheerfully say: "Okay, you two: switch groups!" I thought that this strategic rotation was a very smart way of managing the micro-dynamics of a group that was overshadowed by a single member. The second and more challenging disadvantage was that, due to the flexibility of each student in choosing their own partners, the majority of students chose to work with peers who shared their cultural background: Latino students chose to work with Latino peers, and Anglo students chose to work with Anglo peers. Consequently, I was unable to analyze the relationships between FBL students and Anglo students. Nevertheless, any restriction of the partner selection process would have destroyed the overall goal of a natural and organic self-organization among the students.

Let us return to the "City X" metaphor. It was evident from the discussion of the one-to-one approach that Gaby, Pedro, Pepe, and Adi needed "a friend to show them the city" (or a more collaborative approach to technology use in the classroom). Once they had already learned how to drive around certain parts of the city, their academic self-esteem began to increase and therefore to empower them to explore further locations. This was corroborated by Mrs. Chela and reflected in a slow but steady improvement in their classroom performance. It seemed that the organic approach provided a more "pleasant journey" for them, because in a city like City X good friends were necessary to get by. To visually represent this metaphor, Illustration 6 represents the idea of an empowering third space moment in a classroom activity with an organic technological approach.

Illustration 6. Representation of students using educational technology with an organic approach in Mrs. Chela's classroom.

Pedro and Pepe were in English class and they were using a computer to reinforce the lesson taught by Mrs. Chela. They were supposed to complete the lesson independently, but on this occasion Mrs. Chela allowed them to complete the activity together. Pedro and Pepe huddled over the computer while watching a video. They paused the video to listen to an explanation of some of the content. Once they had finished watching the lesson, they recorded their own math lesson. The rest of the students typed away in groups of two or three, composing narratives about how to solve sample word problems they had developed themselves. I watched as Pedro coached Pepe in very basic arithmetic. Once Pedro had finished, it was Pepe's turn to re-teach the lesson to Pedro, and after some initial trouble with a few of the words in English he was able to do so.

I observed the students teaching each other while Mrs. Chela monitored them and told them when to switch. This style of instruction was new to me. I thought Mrs. Chela should have

been more involved. What if Pedro had taught Pepe something completely wrong? I voiced my

concerns to the teaching assistant and Mrs. Paty responded,

> *Sabes, Oscar, lo que Pedro le está enseñando a Pepe puede que no sea completamente correcto, pero te puedo asegurar que el proceso de aprendizaje en que están participando es más poderoso que si Pepe sólo estuviera recibiendo la información correcta.*

> [You know, Oscar, what Pedro is teaching Pepe might not be completely correct but I can assure you that the learning process they are engaging in is more powerful than if Pepe was just getting the correct information.]

I found myself very confused by Mrs. Paty's explanation but she continued:

> *Déjame te cuento un cuentito. Yo crecí en las montañas, en un pueblito cerca de Lima, Perú. Cuando era una niñita, tenía una nana que se encargaba de mí. Era una mujer indígena con muy poca educación formal pero con un enorme corazón. Un día le dije a mi mamá, "pásame el 'chillo,'" y me estaba refiriendo a la palabra cuchillo en español. Mi nana me dijo, no bebita no se dice "chillo", se dice "cochillo." Ella también estaba diciendo mal la palabra. Mi mamá después me explicó que la palabra correcta era "cuchillo" pero gente de otros contextos y otras educaciones pueden pronunciarla de maneras diferentes y también eso es válido. Aprendí no solo a pronunciar la palabra sino que abrí los ojos a un nuevo mundo, uno que era diferente al mío.*

> [Let me tell you a little story. I grew up in the mountains in a small town near Lima, Peru. When I was a little girl I had a nanny who would take care of me. She was an indigenous woman with very little formal education but with a big heart. One day I told my mom, "pass me the 'chillo'" and I was referring to the word knife or *cuchillo* in Spanish. My nanny told me, "No baby-girl, it isn't pronounced 'chillo' but 'cochillo.'" She was also mispronouncing the word. My mom then explained to me that the right word was "cuchillo" but that people from other contexts and other educations might pronounce it in different ways and that those are also valid. I learned not only to pronounce the word but it also opened my eyes to a new world, one that was different than mine.]

Mrs. Paty was not just learning about words, but worlds: she began to understand that there were

cultures other than her own. She concluded, *"Yo creo que si Pedro da una explicación errónea,*

podemos usar ese error como una oportunidad de aprendizaje" [I think that if Pedro errs in his

explanation, we can use that mistake as a learning opportunity]. What Mrs. Paty explained in her

own words was the principle of a bottom-up technological approach.

189

Zhao and Frank (2003) argued that a bottom-up technological approach—understood as innovation driven in an organic and natural way by a community of users instead of being pushed by a small group of people towards a broader adoption—fosters active dialogue (Freire, 2000). By reconfiguring the power dynamics in the classroom, as Darder (2012) suggests, students—especially FBL students—were empowered. They used technology as a tool to help them achieve the goal of the lesson, but more importantly, they were boosting their agency and self-esteem. These types of critical educational activities had the added benefit of freeing the teacher for more one-on-one coaching time, and along the way, Mrs. Chela empowered them with the ultimate tool: the ability to teach themselves and others.

Critical educational technological activities with an organic approach allow activities that focus on skills like goal-setting, progress-tracking, and checking for mastery (Cummins et al., 2005). All these skills were practiced by the teachers during digital activities. After rotating among different topics and different groups, the class was debriefed as they reflected on what they had learned and what could they do better next time—*checking for mastery*. This was a brilliant idea: permitting the students to teach one another—*progress-tracking*—fostered an environment in which the organic growth of technology takes place in the classroom, determined by the students' interests and needs—*goal-setting*— rather than by the instructor. My study indicates that the organic approach to digital educational technology implemented at FPG has the potential to create empowering educational third spaces for FBL students. However, the real challenge for the school is trying to reinforce these "third spaces" (or empowering spaces) at home. This inability to foster the third space at home is a result of FBL family dynamics (e.g., the lack of home access to technology), but more importantly by FBL parenting styles. This style

differed from the one expected by the school: the Anglo parent as the adjunct teacher, as I will explain in the next chapter.

V. Using educational technologies at home: the real challenge

Thus far, I have discussed the potential of critical educational technologies in the classroom, but what happens when one tries to understand and foster technological educational third spaces at home? This is the real challenge for educators, policymakers, and schools. Most working-class Latino parents, and FBL parents particularly, do not feel equipped or empowered to make choices about children's use of media [including digital technologies] at home, especially when it comes to help with homework (Valdés, 2005). Pedro's mother Isabel addressed this directly: *"En verdad me gustaría ayudar a Pedro con su tarea pero hay muchas cosas que yo no sé, es mejor para él que vaya a su programa después de la escuela"* [I would really like to help Pedro with his homework but there are many things that I don't know; it's better for him to go to the after-school program]. Pepe's mother Bertha expressed a similar lack of empowerment to intervene in her child's technological activity: *"Yo no le sé muy bien [cómo usar la computadora], Pepe es el único que usa la compu y a veces su papá"* [I am not sure (how to use the computer); Pepe is the only one who uses the computer, and sometimes his father]. In Adi's case, I confirmed that she had never used a computer while living in Mexico (during her first classes, she was unable even to turn it on or log in); however, ever since her mother bought her an iPad upon first arriving in the United States, her digital literacy had flourished. Adi had rapidly adapted to a new house with more technological devices, while her mother Sagrario confessed to being completely *despistada* [clueless] when it came to digital technology. Perhaps Sagrario reported that Adi did not learn from educational media only because she herself lacked knowledge about these technologies and their potential.

The Cooney Center is an independent research and innovation lab that focuses on the challenges of educating children in a rapidly changing media landscape. In their latest report, *Learning at Home: Families' Educational Media Use in America* (Rideout, 2014), the Center analyzed survey results from over 1,500 parents of children from ages two to ten (including 290 African-American parents and 682 Latino parents) to gain further insights into the use of educational media in the home. This report represented the first nationwide study attempting to quantify what percentage of children's media time was devoted to educational content by age. Unsurprisingly, despite the fact that 80% of the children were heavy educational technology users, Latino parents were the least likely to report that their children had learned from educational media. The quantitative study highlighted the need for more qualitative research in order to understand why Latino parents exhibited the lowest numbers. Shelley Pasnik (as cited in Granger, 2014), the Director of the Center for Children and Technology at the Education Development Center, advised:

> I think it's important to look across different demographic groups. It makes me hungry to dive in and really get some portraits of what families are doing in their individual homes. We can make all sorts of assumptions about media use but when it gets really fascinating is when you get into the details of families' relationships with one another, not just with the technology. That would be really exciting to see as a next step. (p. 1)

In the next chapter I take up Pasnik's invitation and attempt to provide insight regarding how FBL families work and their relationship to digital educational technologies in home settings. Specifically, I explore the dynamics that structure the traditional family. I make the argument that the fostering of empowering educational spaces at home is often impossible both because of a lack of access and because of a parenting style particular to many working-class Latino families. If measured against the parental expectations typically associated with Anglo

families, this Latino parenting style can be seen as less effective in the enabling of transformative digital educational technologies.

CHAPTER 7: UNDERSTANDING FOREIGN-BORN LATINO FAMILY DYNAMICS

As I concluded in Chapter 5, the ease or difficulty of the acculturation process for FBL students is correlated with the degree of similarity or difference between the socialization processes that occur in the school and home settings. In Chapter 6, I argued that FPG has the potential to provide empowering digital educational third spaces for FBL students by using an organic approach. Even these "third spaces" (or empowering spaces) that are constructed within the school setting, however, are influenced and affected by other environments, especially the home environment. This takes us back to Bhabha's (1994) argument regarding the reach of spaces. For Bhabha, the *third space* is a hybrid space that may or may not have a physical location. According to the author, when the individual student realizes that his or her first space, the home, is different from their second space, school, there is a rupture or fragmentation. I argue that the impossibility to foster the second space within the first space is a moment of struggle that can limit the resulting third or transformative space.

Educational third spaces go beyond the classroom walls and merge with other places (like the home), other actors (like parents), and other practices (like family traditions and behaviors). Gustavson and Cytrynbaum (2003) advance this argument in their distinction between place and *space*:

> Space is not limited or contained by place. On the contrary, we create spaces through the use of our imaginary, extending our reach beyond the here and now to pull from memory other people, places, and things not located in the present place. Through the recontextualization of these people, places, and things within this new moment in time, we fashion productive and creative spaces. However, like the embedded quality of the

individual within the social, space and place are interrelated as well. One needs a place, a
location, to generate space. (p. 256)

My study indicates that for FBL students, the *educational space* goes beyond the institutional

place of *the classroom* and becomes entangled as well with its immediate familial counterpart *the*

house. Due to the intrinsic differences between these two places (actors, objects, and dynamics),

however, it is challenging for working-class Latino families to foster the empowering third

spaces that are created within the classroom. My study suggested that these two places or settings

differ in two significant respects: first, FBL students' homes lack the technological

infrastructure; second, at home FBL students lack the requisite parental support. Working-class

FBL families, unable to foster educational empowering spaces at home, cannot contribute to the

recontextualization of the productive and creative spaces that get constructed in school settings.

It becomes especially challenging for FBL families to reach the school's academic goals

when these expectations are based on Anglo, middle-class parenting standards that position the

parent as an adjunct teacher. In this chapter, I address the following themes: (1) Acknowledging

how FBL families work; (2) Explaining that FBL parents are not adjunct teachers; and (3)

Empowering critical FBL parents: FPG's attempts to support Latino parents.

I. Acknowledging how FBL families work

Traditionally the Latino family has been organized under an authoritative father figure

and a "submissive" mother figure who tacitly agree on a patriarchal order within the home

(Comaz-Diaz, 1987). In this sense, traditional Latino cultures are marked by clearly delineated

gender roles (Leaper, Anderson, & Sanders, 1998). Children growing up in Latino families in the

United States tend to experience gender socialization marked by these traditional expectations

(Raffaelli & Ontai, 2004). According to Comaz-Diaz (1987):

> Boys and girls are taught early on two very different codes of sexual behavior. Traditional
> Hispanic women are expected to be sentimental, gentle, intuitive, impulsive, docile,

submissive, dependent and timid; while men are expected to be cold, intellectual, rational, profound, strong, authoritarian, independent and brave. This rigid demarcation of sex roles encourages a double moral standard of the sexes. (p. 43)

In short, the idealized image of traditional Latina femininity is submissive, chaste, and dependent, whereas idealized Latino masculinity is dominant, virile, and independent. Although these stereotypes were not always fully realized, I still observed the influence of these traditional norms and characteristics in the gender roles exhibited among my FBL families.

In particular, my study of FBL family dynamics highlighted a continued emphasis on traditional gender roles, male dominance, the importance of being a *buen niño* [good kid], and gendered definitions of success and support. In this sense, the FBL families in this study can be classified as "traditional" Mexican families. In most traditional Mexican families, the roles are well defined: the father is the financial provider and the mother is responsible for the home life and family; older children teach the younger children by setting a good example; and the elders are the wisest, most respected, and often the most loved members of the family (Valdés, 1997).

My FBL families presented a recognizably traditional gendering of family roles in which an authoritarian father figure set the standard for male dominance withing the family sphere. Pedro's mother Isabel, for example, proclaimed, "*Don Pedro se encarga de todo en la escuela*" [Don Pedro is in charge of everything school-related]. It is important to note that Isabel habitually used the title *Don* merely to differentiate between Pedro Jr. and Pedro Sr., and that this usage did not seem to involve any connotations of subordination in their relationship. The traditional role of the Latino father also emphasizes the cultivation of the intellect (Comaz-Diaz, 1987), and in my study FBL fathers were indeed the members of family with the highest level of English proficiency. Pepe's mother Bertha described their relationship while in public: "*Renato habla más o menos, yo casi nada*" [Renato speaks more or less—me, almost nothing]. Isabel and

Carmen, too, played similar roles in their own relationships. Sagrario was the exception, and although her proficiency was very low, she was the member of her family who took the most responsibility for communicating in English. Male intellectuality was also expressed through the use of technology: in my FBL families it was the men who either knew the most about technology already or who worked to achieve a higher technological competency. In Bertha's words, *"Su papa y él [Pepe] son los que le pican ahí a la compu"* [His father and he (Pepe) are the ones who click the computer].

By contrast, it was the FBL mothers who took care of the rest of the responsibilities in the home: they cooked, cared for the children and supervised their development, took on most of the household chores. Sagrario explained, *"Aquí la que hace de comer pues soy yo, a veces Adi me ayuda con la sopa"* [In here, I am the one who makes the food; sometimes Adi helps me with the soup]. FBL mothers were also responsible for helping with the homework. This proved to be one of their more challenging tasks, however. Isabel, Bertha, and Sagrario all confessed that their low levels of education made it very difficult for them to help with their children's homework, especially in Math. Don Pedro acknowledged this academic deficiency as well, but explained that he counteracted this by encouraging Pedro to attend the afterschool program where he could get the help he needed. Even though their children received extra help in the afterschool program, Bertha and Sagrario still found their academic inexperience to be a problem for their parenting. I confirmed that Pepe and Adi were not attending the afterschool program regularly.

Only in Gaby's family were the roles less traditionally defined: José did the grocery shopping, for example, and also helped with dinner preparation. Both parents helped Gaby with her homework. Carmen reported that—even though she found Math to be the most challenging subject—she used online tutorials to teach herself enough to provide Gaby with the right support.

197

This difference could be attributed either to the higher levels of education achieved by Gaby's parents or to the comparatively higher level of authority that Gaby's mother held in the household, but it seems primarily correlated with their higher economic and class status.

Once I had begun to understand the division of labors between the parents in my FBL families, I turned to the relationships between parents and children, and specifically to the expectations that the parents held for their children's futures. Getting *una buena chamba* [a good job] was the first and most important expectation for my FBL families. My FBL parents tended to see education primarily as a means of assuring a better *chamba* in their children's future. Even Carmen shared the notion that the goal of a child's schooling was ultimately to ensure a better job: *"Queremos que Gaby estudie tanto como pueda para que pueda tener un gran trabajo en el futuro, ya sea aquí o en México"* [We want Gaby to study as much as she can so that she can get a great job in the future, whether here or in Mexico]. Adi's mother Sagrario also expressed a similar sentiment: *"Tiene que estudiar mucho para asegurar un buen trabajo"* [She has to study a lot in order to secure a good job]. For all of the FBL parents in my study, the idea of formal education mattered far less than the idea of future economic security. Still, although their main concern was future employment, the idea of *una buena educación* [a good education] remained an explicit and important shorter-term goal.

For all four FBL families, a good education meant a good moral education, and primarily meant the cultivation of a *respetuoso* [respectful] attitude. A respectful child ought *"ser obediente, mantenerse calladito con sus mayores, tener a su familia cerca, ser agradecido y retribuir los sacrificios hechos por sus papás"* [to be obedient, to not raise their voice to their elders, to keep family close all their life, and to be grateful and repay their parents' sacrifices]. I found that moral education in my FBL families manifested in complex and subtle ways, and in

this my findings support Villenas's (as cited in Wortham et al., 2002) position that "monolithic views of Latino family education need to be replaced by an understanding of the complexity and creativity involved in the expressions, definitions, and practices of *una buena educación*" (p. 23). The primary mode of achieving these educational goals in FBL families is imparting and repetition of *consejos y dichos* [advice and sayings] (Valdés, 1996).

For FBL children, being *respetuoso* also means not surpassing or circumventing parental authority (Villenas, 2001), though this general rule becomes more complex in its practical manifestation. Since most FBL children become more proficient in English than their parents, they tend to become language brokers, and the powerful nature of this role often begins to erode parental authority (Morales & Hanson, 2004). My FBL mothers, especially Carmen, expressed this concern. Carmen told me,

> *La Gaby a veces me saca "canas verdes" cuando vamos al súper y no le entiendo al cajero y ella comienza a hablar y de repente me dice, ya está, vámonos… y yo le digo, no chiquilla, explícame qué me quería decir.*
>
> [Sometimes Gaby gets on my nerves when we go to the grocery store and I don't understand what the cashier is trying to tell me, and she starts talking to him and all of a sudden she tells me, 'Ready, let's go…' I tell her, 'No kiddo, explain to me what he wanted to tell me.']

Carmen insisted that Gaby not exceed her role and was very sensitive to her daughter's attempts to undermine her parental authority. Gaby, on the other hand, was aware of her power as a language broker and had already begun using her growing comfort with the English language to contest her mother's authority. As an FBL family, navigating the process of acculturation means that relationships between parents and children evolve continuously and that the role of *respeto* in Latino family life must be renegotiated.

Family dynamics played a central role in my FBL students' lives. They influenced how the children established personal priorities, how they perceived success, and how they

understood their role in their family and their society. "Traditional" Mexican families have highly gendered and well-defined roles for both women and men (Comaz-Diaz, 1987), and my FBL families largely followed this pattern, though in a somewhat modified form. FBL families structure the relationship between generations, with an emphasis on a *buena educación moral* [good moral education] that is based on *respeto*. Both of these traditional family structures had a direct bearing on the educational and social development of the FBL students in the study; in the next section I look more directly at the academic support that FBL parents provide and the way that it differs from the support offered by middle-class Anglo parents.

II. Explaining that FBL parents are not adjunct teachers

Valdés (2005) cautions against attempts to change the behavior of Latino families by importing the parenting strategies used by Anglo parents. In August et al., (2013), Valdés discussed the role of Latino parents in their children's schooling:

> A common model for American parents is to serve as an "adjunct school teacher"—for example, parents work on ABCs with their children to ready them for school, and teachers send home suggestions of things parents should do to supplement their children's learning. Conversely, Latina mothers tend to focus more on developing pro-social behaviors in their children, seeing their maternal role more as "good people makers." (p. 14)

It can be argued that middle-class American parents better understand the requirements of schooling in the U.S. because they have been through the same educational process themselves, and that they therefore aim to supplement their children's learning experience in specific and targeted ways. Latina mothers act less as adjunct teachers and focus instead on the more social process of educating "good people." Villenas (2001) explains, "To have *una buena educación* [a good educational base] meant having the social skills of etiquette, loyalty to family and kin, and most important, respect" (p. 13). This theory is supported by the difference in usage between the two languages: in English, being "well-educated" means having a high level of formal education;

as Villenas (as cited in Wortham et al., 2002) has shown, the equivalent term in Spanish, *bien-educado,* means something closer to "well-mannered," or polite. Bacallao and Smokowski (2009) offer a different explanation for the difference in attitudes towards parental academic support: "Latino parents felt a sense of frustration with an American system that they did not understand and may have sought more control over what they did understand—the family system" (p. 435). Valdés (2005) draws the necessary and appropriate conclusion from these differences: namely, that although the Latino parenting style (emphasis on family values) differs from the Anglo parenting style (competitive values), both styles must be seen as strong and valid positions on the role of parents in their children's lives.

While middle-class Anglo parents understand their role as that of an adjunct teacher (Valdés, 2005), a variety of economic and cultural factors prevent Latino parents from playing a similar part in their children's lives. This, of course, does not mean that FBL parents are indifferent to the academic success of their children; they simply maintain a different orientation towards parenting. Many things contribute to this dynamic difference but the factors that emerge most clearly from my study were the difference in educational background, the problem of the language barrier, and the lack of experience and access. Of the four FBL students in the study, Gaby was the only child whose mother had dedicated herself to supporting the academic career of her child *and* who was educated enough to effectively help her. I interviewed Carmen about Gaby's schooling while Gaby participated in African Dance Lessons:

> *Oscar: Carmen, ¿qué es lo más importante para el éxito académico de Gaby?* [Carmen, what is the most important thing for Gaby´s academic success?]
>
> *Carmen: Lo más importante es la autoestima del niño. Si Gaby cree en ella, será capaz de lograr lo que quiera. Su autoestima está retada por una nueva cultura pero si lo*

logra, la recompensa al final será al doble también. Mi rol como mamá es estar tan cerca de Gaby como pueda. [The most important thing is the child´s self-esteem. If Gaby believes in herself, she will be able to achieve everything she wants. Her self-esteem is being challenged by a new culture, but if she makes it then the reward will be twice what it would have been. My role as a mother is to be as close to Gaby as I can.]

For Carmen, therefore, the top parenting priorities were remaining close to Gaby and boosting her self-esteem. She added that in Mexico Gaby had been a good student with little effort, and that it had not been until they arrived in the U.S. that she realized Gaby would need all of her parents' attention to succeed in school. Carmen explained, *"No es que el nivel de aquí sea superior o más demandante que el que tenía en México, pero Gaby está lidiando con su nueva realidad encima de eso"* [It's not that the level here is higher or more demanding than the one in Mexico, but that Gaby is dealing with her new reality on top of that]. She also related that becoming Gaby´s personal tutor (adjunct teacher) had been challenging for her: *"No tenía idea cómo dividir de cuatro maneras diferentes para ayudar a Gaby con su tarea. Es muy demandante para mí pero parece que es la única manera… parece que también me están enseñando a mi"* [I had to learn how to divide in four different ways in order to help Gaby with her homework. It is very demanding for me but it seems to be the only way—it seems that they are also teaching me].

Carmen adapted to the new educational environment and the school's expectations in an effort to help Gaby achieve academic success, but her circumstances were very different from those of the other families. Unlike my other FBL parents, Carmen had received a high level formal education, and because of her advantageous economic situation she had the time and availability to serve as an adjunct teacher. This is not to underemphasize the high priority that

Carmen gave to her daughter's education: *"Lo más importante es el apoyo que les das a tus niños y al mismo tiempo el ejemplo. Necesitas enseñar a tus niños con ejemplos, es la única manera en la que pueden aprender"* [The most important thing is the support you give to your kids and at the same time the example you set. You need to teach your kids by example; it's the only way they are able to learn]. I asked Carmen, *"¿Qué pasa con los niños que no tienen a los papas ahí?"* [What about the kids whose parents are not there for them?], to which she responded without hesitation:

> *Bueno, cada niño es diferente, y sí, hay algunos casos en donde el niño es muy listo y necesita poca ayuda de sus papás pero la mayoría de las veces, los niños que no cuentan con el apoyo de los papás batallan el doble, es una lástima para ellos, a veces se van por la dirección equivocada y terminan metiéndose en problemas. Pero también si ese proceso de aprendizaje está bien manejado puede ser una gran experiencia de madurez para ellos.*

> [Well, every kid is different, and yes, there are some cases in which the kid is very smart and needs little help from his or her parents, but most of the time kids who can't count on their parents' support have to struggle twice as much. It's a shame for them—sometimes they will go the wrong direction and end up getting in trouble—but at the same time, if that personal learning process is handled well it can be a great maturing experience for them.]

Estrada (2012) corroborated the central theme of Carmen's point, writing that leaving marginalized children largely unattended "[negatively] impacts family functioning. Parents then give up on monitoring or become more restrictive with their parenting, leading youth to deviant peers and substance use" (p. 21). Unlike Estrada, Carmen optimistically held out the possibility that children with little parental supervision could eventually learn to develop a resilience of their own and become more mature in the process.

"Resilience," as defined by Kuperminc, Wilkins, Roche, and Alvarez-Jimenez (2009), "is best viewed as a dynamic and multidimensional process through which individuals experience positive outcomes despite exposure to significant adversity" (p. 214). Of the FBL students in the

study, Adi was perhaps the student with the most challenging personal background. Her mother Sagrario reported that Adi's father had abandoned them when Adi was three years old and that she had subsequently moved to the U.S. seeking employment, so most of Adi's childhood was spent living in a very low-income community with neither her mother nor her father. It was not until October 2013 that Adi was reunited with her mother after six years apart. In addition to coping with this family history, Adi also struggled in her time at FPG due to her very low level of English proficiency and the fact that she had mistakenly been placed in a class above her grade-level. Adi did not seem to be overly burdened by these adversities, however; on the contrary, she often explained to me with a smile on her face how much she liked everyone in her life—her family, friends, and teachers, both here and in Mexico. She demonstrated a very high level of resilience, and—as her teachers and I all noted—was a very happy and positive girl, but she had good and bad days.

Don Pedro and Isabel, Pedro's parents, had a story much more common among FBL families, and faced many challenges in providing an appropriate level of academic support to their child. They wanted Pedro to succeed in school, but knew that there was only so much they were able offer in terms of assistance. Don Pedro told me, *"Nosotros tratamos de apoyarlo con lo que se puede, pero pues el resto depende de él"* [We try to be there for him however we can, but the rest is up to him]. Isabel was very shy and did not attempt to speak any English at all. On the other hand, as I mentioned in the profile, Don Pedro was a very optimistic person and even though his English was very limited he was never afraid to speak up and attempt to communicate his thoughts. Don Pedro explained that he and Isabel had needed to turn over the responsibility for academic support to the staff at FPG:

204

Mira, el Pedro anda encantado en sus clases de la tarde, ahí le ayudan con sus tareas porque nosotros no podemos. Pero me dice la maestra que sus calificaciones han subido desde que comenzó a ir al programa… aparte se ve que le gusta ir ahí.

[Look, Pedro is having a blast in his afterschool program; they help him with his homework because we cannot do it. His teacher tells me that his grades are getting better since he started attending the program—plus, he loves to go there.]

Don Pedro and Isabel lacked the educational experience (knowledge) and the time (access) to act as adjunct teachers for Pedro, but they were making the best to rely on an afterschool program to improve Pedro's chances for academic success.

Pepe's mother Bertha seemed in every respect to be the ideal attentive mother, but she confessed that she did not know how to help Pepe with his schoolwork. I interviewed Bertha in the room that she shared with Pepe in a house where they were only living temporarily. She told me, *"El Pepe es bien callado, salió al papa… le encanta andar ahí picándole a su computadora y jugando jueguitos… yo lo ayudo a veces con sus tareas"* [Pepe is very shy, just like his dad... He loves to use his computer and play video games… Sometimes I help him with his homework]. Bertha's answers differed completely from what I had been told by Pepe and Pepe's teachers regarding her level of involvement in her son's schoolwork. Even though she had been informed on several occasions that I was an independent researcher, Bertha thought that I was employed somehow by FPG and seemed to fear that she was being tested somehow during our interview. Despite my efforts to reassure her, her answers remained very short and her body language suggested that—whether because of fear or embarrassment or a mixture of the two— she was not being entirely truthful in her responses. What was especially notable during our interview, however, was the expression on Bertha's face whenever she would speak freely about Pepe. In ethnographic research, body language can be just as important and just as revealing as spoken words (Murchison, 2010), and in Bertha's case it was clear from her face that she wanted

the best for Pepe even when she did not know what that might be. The only comment that alluded to her ability to support Pepe was her remark that, *"A veces el Pepe se siente bien solo y no sé cómo ayudarlo"* [Sometimes Pepe feels very lonely and I do not know how to help him]. The whole interview emphasized that FBL parents struggle not just with the language barrier but also—as in the case of Sagrario and her visits to the hospital with Edwin—with the fear that they might be scrutinized or punished by institutions that they rely upon but do not fully understand. In Bertha's case, her (presumed) inability to support Pepe academically was not a matter of principle or indifference but of lacking the means.

The FBL parents in the study acknowledged parental support as the most important factor in a child's academic success, but, despite this understanding, found it nearly impossible (with the exception of Gaby's family) to provide an adequate level of assistance. The FBL parents supported the use of new technologies and digital media as educational tools, perhaps to help compensate for their inability to intervene meaningfully in the educational process. Still, although the ability of FBL families to fill the role of adjunct teacher is limited, it is important for the parents of FBL students to remain empowered and able to advocate for their children's education. The after-school program at FPG represented one possible avenue for using school resources to empower and support Latino families in the efforts to improve their children's development at school.

III. Empowering critical FBL parents: FPG's attempts to support Latino parents

After-school program. The after-school program is an example of a *community of practice* as defined by Hung et al. (2012). Communities of practice are understood as groups of people with shared interests and/or professions with the purpose to encourage dialogue among students, teachers, principals, and policy makers throughout the school system (p. 35). When

FPG became the first dual-language magnet school in the district they decided to adapt the after-school program to better address the needs of the new student demographic.

Mrs. Pina, the FPG staff-member in charge of the implementation and supervision of the program, explained that the previous program had hired external staff to teach the students in the afternoons, but that the administration decided it would be more effective to staff the new program with the school's own instructors and volunteers from a local university. The name of the new after-school program was "B3," which stood for "Bilingual Believers and Beyond," and consisted of an extra hour of instruction after class each day from Monday to Thursday. The purpose of the program was to help students with their homework and with the assignments given during normal instruction hours. Mrs. Pina also noted that a central goal of the after-school program was to add another level of support for Latino parents and their children, and that roughly 85% of the students who attended the program were Latino. The B3 program was intended to aid students whose parents could not provide academic support, regardless of the reason.

Teachers, teaching assistants, and parents agreed that the after-school program had proven to be of great help. As the academic year developed, teachers suggested students that could benefit from this program. I noticed that there were smaller groups in the program and that a lot of one-on-one attention was provided. I also noticed that the student demographic in the program when I visited was entirely made up of Latino students. Mrs. Sandra, the 5th grade Spanish teacher, corroborated this observation and explained that—in the year of the study, at least—all of the students that she had selected for her class were Latinos. I asked Mrs. Sandra,

Oscar: Do you think it is helping Latino students?

Mrs. Sandra: I think it has been of great help, especially to Latino students.

> *Oscar:* How do you measure the results?

> *Mrs. Sandra:* It is not easy to measure the program in an exhaustive way, but tests scores seem to improve whenever the students in need attend the program.

Mrs. Sandra's experiences had given her a positive perspective on the program. I then asked about my FBL students and whether they attended the program. Mrs. Sandra explained that besides Gaby, who did not need the extra instruction, each of the other three students (including Adi before she was transferred back to the fourth grade) had indeed been selected for the program at the beginning of the academic year; Pedro attended regularly, but Pepe and Adi had only attended sporadically. Mrs. Sandra said that she had noticed some academic improvement in the classroom, but admitted that even the extra help was not enough for them.

According to Mrs. Pina and the teachers, FBL students who begin the dual-language program later in their elementary school careers present more difficulties than FBL students who begin the program in earlier grades. Mrs. Pina commented, "It isn't the same as if you start in the kindergarten program (90% Spanish, 10% English), where you are in the same boat as everybody, starting with a blank slate." My four FBL students all began attending the program when it was 50% Spanish and 50% English, making the transition much more difficult for them. Not only had they been launched into a new culture and environment, but they also started the program with a language deficit and the disadvantage of having fully half of their classes taught in a foreign language. Despite the benefits of the after-school program, it could not make up for five years of academic instruction in one extra hour each day—and even adding a single hour to an already exhausting learning schedule was sometimes too much for the students. Mrs. Sandra empathized with the students: "I understand them, they already have enough with classes by that time, they are tired, they need to rest too." Even though the program was an especially

empowering environment for the Latino students, she acknowledged that the hour was not very convenient.

Because of the logistical difficulty of keeping the students an extra hour in the afternoon, Mrs. Sandra and Mrs. Chela decided to start another, shorter morning program. The aim of this 20 minute mini-program was to give the students a "heads-up" on what the day's lessons would cover, a strategy that the teachers hoped would help build self-esteem and boost the student's assurance in the classroom. Mrs. Sandra told me that the morning program helped somewhat but was limited by the students' inconsistent attendance. Mrs. Sandra added, "We can have all sorts of programs, but if the parents decide not to send them, we cannot do much." Taking up this idea, we then discussed the different ways in which FPG communicated with FBL parents. Both Mrs. Sandra and Mrs. Pina seemed to share a sense of frustration: they did not know what else to do to make the FBL parents feel more welcome at the school. "They know that we can always arrange a meeting to talk and discuss whatever they feel their child needs," Mrs. Sandra explained. This attitude seemed to presuppose the kind of parental involvement more typical of middle-class Anglo middle-class parents than of working-class Latino parents, and so I shared with Mrs. Pina and Mrs. Sandra some of my findings regarding the role of the Latino working-class parents and the need to move beyond the model of parents as adjunct teachers. We concluded that FPG's approach was effective for working with Anglo parents but fell short when trying to empower Latino parents, especially those from low-income and low-education backgrounds.

It is important to develop strategies for making FBL families feel welcome and empowered in their children's school environment. Most parents of ethnically and linguistically diverse groups want the best outcomes possible from their children's academic performance and

would like to be involved in promoting this academic success (Adkins-Bowling, Brown, & Mitchell, 2001). Furthermore, parents involved in their children's schooling develop a greater sense of efficacy as parents; this attitude gets communicated in turn to the children and results in better academic outcomes, especially for language-minority children (Howard et al., 2007). Unfortunately, Lindholm-Lehary (2005) found that low-education parents whose children attended schools with a high level of minority enrollment, perceived lower levels of support at the district level, despite giving school staff higher marks for promoting diversity than did college-educated parents at schools serving more middle-class students. This finding is consistent with the reports of my FBL families (with the exception of Gaby's), who informed that they did not feel welcome at school.

Even when FPG attempted to empower Latino students and parents in the form of after-school programs, FBL families tended not to take full advantage of them, and reasons for this lack of engagement were not fully clear to the teachers or staff. I concluded that the disconnect was not for lack of trying on the school's part, but that perhaps it was necessary for the FBL parents to take a role in helping shape the programs that were meant to benefit them. I had observed that, for most of my FBL parents, the school environment was considered a site of uncontestable authority, ruled by experts who knew more than them. Perhaps FBL parents who were able to take a more critical stance would be better equipped to make their needs understood and their voices heard.

The need for critical FBL parents. To better understand the role of FBL parents in their children's academic lives I interviewed Dr. Juan Carillo, a Professor in the School of Education at the University of North Carolina at Chapel Hill, and Mr. Alberto Ruiz, who used to teach the second grade in the dual-language teacher at FPG.

Before becoming a professor at the collegiate level, Dr. Carrillo taught high school students in Phoenix, Arizona and Austin, Texas, as well as elementary and middle school students in Florida. Throughout his career he has had the experience of teaching minority students in urban areas and closely interacting with their parents. Dr. Carillo and I met at a coffee shop and discussed the topic of FBL students and FBL parents in the United States. Dr. Carillo suggested that many Latino parents make faulty assumptions about the school system in the U.S. He said that after working in many different school systems he had become aware of a certain pervasive mentality among educators of which FBL parents are likely not aware. In short, this mentality assumes that the norm for the academic performance of foreign-born Latinos is less than average (Haddix & Sealy-Ruiz, 2012). Accordingly, both foreign- and native-born Latinos tend to be over-represented in special education programs in the majority of U.S. schools. Dr. Carillo, himself the son of working-class immigrants, explained:

> A lot of immigrant parents are like, *mijo* (my-son), you better do well in school and be a good boy, do not cause any trouble!' Latino parents make the assumption that school is a neutral space, that if you just work hard you can do whatever you want to do and be whoever you want to be. And what I've taught my kids' parents is that school isn't a contested [challenged] space. School is a place where your children are constantly being made as deficient; school is a place where your kids have historically and still are constantly being labeled as disabled.

Dr. Carillo believed that Latino parents should be heavily involved in their child's academic career, and insisted that Latino parents should not assume that schools are always working in the best interest of their children. Carillo (2013) argued, "Unfortunately, there are many working-class Latin@ intellectual and cultural border-crossers who are marginalized by current definitions of achievement, cultural notions of intelligence, and deficit discourses germane to the Latin@ community" (p. 70). In response, he challenged Latino parents to refuse a posture of submissiveness towards the education system and to find ways to be involved: "You have to be

211

an advocate and you have to have that constant dialogue with your kids about how they are being labeled." Dr. Carillo emphasized the importance of FBL parents' awareness and enlightenment regarding the events and influences that affect their children.

Next we discussed the differences between the typical parenting styles adopted by Latino parents and middle-class Anglo parents. Dr. Carillo told me,

> I read an article a long time ago. It says that white, middle-class parents have a customer-client relationship with schools, as opposed to the gratitude relationship typical among Latino families. The research that I am doing now regarding Southern identity and Latinos corroborates that typically, among FBL families in North Carolina, there is a narrative of gratitude.

Dr. Carillo recognized a distinct difference between Anglo and Latino attitudes towards the education system. He was not the only one who shared this realization. Mrs. Chela, who has worked with both Latino and Anglo parents for more than fifteen years, agreed with Dr. Carillo's assessment. She specified:

> Especially wealthy white parents, they have a very strong sense of entitlement. Latino parents in many cases appreciate a little more. I can see this during conferences. FBL parents show a lot of respect. The wealthy parent goes straight to demanding a change while the Latino parent, especially the FBL parent, is very courteous and thankful.

Mrs. Chela witnessed a strategic difference in the approach of these two groups of parents. While the Anglo parents pursued an agenda of intervening and controlling their child's educational opportunities, Latino parents tended to be more passive. When asked about the difference between native-born Latino parents and foreign-born Latino parents, Mrs. Chela added, "there is a big difference in the way that they relate to you. For instance, native-born Latino parents can easily switch into the demanding "Anglo" style, whereas FBL parents remain more thankful." I attributed this difference to the parents' varying levels of English proficiency; one first needs to speak in order to demand.

Among Latino parents, Dr. Carillo discerned two different types: those who feel underappreciated and migrate to more Latino-oriented cities (like Houston, Los Angeles, or New York), and those who stay and try to implement change within their community. Pedro's father, Don Pedro, was a good example of the latter type, but his lack of English made this ambition difficult to achieve.

> Oscar: *"¿Qué le gustaría hacer por su comunidad?"* [What would you like to do for your community?]
>
> Don Pedro: *"Me gustaría hablar bien inglés para ayudarle a la gente que no habla inglés."* [I would like to be fluent in English so I can help people who cannot speak English.]
>
> Oscar: *"¿Cómo podría hacer esto, Don Pedro?"* [How could you do this, Don Pedro?]
>
> Don Pedro (laughing): *"Bueno, primero tengo que aprender inglés, ¿cierto?"* [Well, I first need to learn English, right?]

Don Pedro wanted to help implement change in his community, to assist others through the struggle that he himself was enduring. I realized that with his natural leadership skills, charisma, and desire to become fluent in English, Don Pedro could easily become an advocate for his community. The FBL community in my study could have benefited from the legitimation that comes with this type of empowerment.

I interviewed Alberto Ruiz in order to learn from his experience attempting to empower FBL parents to take a more critical role in their children's educations. Ruiz was one of the first teachers hired in 2008 when the dual-language program at FPG began, and was a pioneer in providing assistance to Latino students and families in need. Mr. Ruiz was originally from Spain and had worked as a bilingual teacher for fifteen years. In the dual-language program he had

taught in kindergarten for one year and then in the second grade for four years. Mr. Ruiz acknowledged that there was an urgent need to empower Latino parents, even in a highly integrated school such as FPG.

Mr. Ruiz confirmed that there was a lack of Latino parent participation in general: *"Mi asistente y yo notamos que los padres Latinos no aprovechaban el after-school program que la escuela ofrecía o notábamos que no iban a talleres o conferencias"* [My assistant and I noticed that Latino parents were not taking advantage of the after-school program that the school offered and we noticed that they did not attend workshops or conferences]. He pointed out that during his five years teaching at FPG he had rarely received any help from Latino parents whenever volunteers were required for school activities. He added, *"Como que les atemorizaba el ser partícipes, había una tremenda timidez y miedo, seguro porque muchos están ilegales ahí"* [It seemed that it frightened them (FBL parents) to participate. There was a tremendous shyness and fear, surely because many are here (in the U.S.) illegally]. Mr. Ruiz recognized that the citizenship status of FBL families and the problematic legality of their presence in the community hindered their willingness to participate, a problem that was repeatedly acknowledged and validated in my research.

The fear of legal trouble and deportation is a very real difficulty for both FBL students and FBL parents (Cohn, 2012), and I observed the negative effects of this fear throughout my fieldwork. During my interviews, I witnessed this fear manifest itself in one student who seemed to repeat a script that he had memorized: the student would only respond with very short answers and would repeat the same phrase several times, *"Llegué aquí en avión"* [I came here on a plane]. Like this student, many FBL students and their family members avoid situations in which

214

they perceive a potential threat, and in some cases the school administration itself can provoke this fear (Haddix & Sealey-Ruiz, 2012).

Mr. Ruiz told me that in order to mitigate this fear and to achieve a higher level of FBL parent participation, he and his assistant had begun holding a series of information sessions with Latino mothers to get them involved while also disseminating valuable information about things like student health, financial services, and tutoring. They thought that perhaps the involvement of native Spanish speakers would relieve some of the stress caused by the language barrier. Despite their hopes for a broader engagement, however, the participation remained very low. They concluded that Latino parents saw the school as *"un centro administrativo, algo del estado y les da un poquito de miedo integrarse con ese tipo de situaciones"* [an administrative center, something from the State, and there is a fear of integrating with these kinds of situations]. Despite their efforts to establish an open and safe environment, the FBL parents' fear outweighed the potential benefits of the sessions. Bacallao and Smokowoski (2009) corroborate the idea that FBL families tend to fear situations that involve interfacing with government institutions: "Mexican parents did not understand the U.S. school system and were generally too intimidated to go into their child's school" (p. 434). Adi´s mother Sagrario affirmed that the school and the hospital were the two places where she felt least welcome. Like the hospital, schools were understood as spaces pervaded by systemic racism and that FBL parents would do more harm than good by exposing themselves to scrutiny there.

Mr. Ruiz insisted that academic support was not the only reason for empowering FBL parents, and that truly empowering the FBL community required a greater availability of educational resources about a wide variety of issues like domestic violence, sexual education, and alcoholism. He said that very few cases of domestic violence or physical abuse among the

Latino families in the school community were ever reported, and that most of the time problems in the home were compounded by many other issues:*"Los padres de alumnos de niveles socioeconómicos más bajos son los que tienen más problemas de todo tipo, por ejemplo de alcoholismo, drogas, depresión, estrés y demás"* [The parents with a lower socioeconomic status are the ones with problems of all kinds. For example: alcoholism, drugs, depression, stress etc.]. This correlation has also been corroborated by the literature (Caplan, 2007; Rhyne et al., 2005), but in my study I was unable to gain any information regarding incidents associated with domestic violence, alcoholism, drugs, or depression. I approached the subject delicately with my FBL mothers but they all responded with a very firm "no," and no signs of hesitation or non-verbal communication to suggest otherwise.

Lastly, Mr. Ruiz explained that for the school staff and teachers at FPG it was difficult to empower parents who were busy with other activities: *"Desafortunadamente lo que menos les interesa es una plática informativa, están mucho más atareados con los problemas del día a día"* [Unfortunately, the last thing they care about is an informative session—they are much more worried about day-to-day problems]. The example of Isabel seemed to validate his observation; she told me, *"Cuidar la chamba es lo número uno ya que uno sabe que los chamacos están bien comidos y en la escuela… hay que chambear duro porque también hay que apoyar a la familia en México"* [Taking care of my job is number one and knowing that the kids are well-fed and in school. We also have to support the family in Mexico]. Bertha likewise noted, *"Ya me urge conseguir el trabajo, a ver si para la próxima semana"* [I really need to get a job, if possible next week]. In general, FBL mothers were too busy dealing with other activities—like obtaining or maintaining a job, providing the necessary money for daily

expenses, and often, sending remittances to their home countries to help the rest of their family—to spend time meeting with teachers.

In summary, FPG staff and teachers provided support to Latino parents through the programs they offered for improving the academic progress of struggling students. They encouraged parental empowerment in the form of offering informative sessions, teachers' home visits, and by maintaining a very open posture that encouraged honest communication without fear of repercussions. I concluded, however, that FBL parents from lower socioeconomic and educational backgrounds tend not to participate, and attribute this to two main factors. First and foremost, these parents do not feel the sense of entitlement necessary to make demands or even to simply participate in a community beyond that of their own family boundaries. They perceive school as a government institution and, thus, as uncontestable and untrustworthy. Secondly, even when different approaches to increase their participation are implemented, they are unable to take an active interest because their priorities required them to focus on basic survival at the expense of their children's academic needs.

FBL family dynamics greatly influence students' perceptions and understanding of academic success. The generally low socioeconomic status and educational background of FBL families inhibit their ability to act as adjunct teachers and provide their children with the same kind of academic support as Anglo families. They do provide support in the form of *sacrificios* [sacrifices] like leaving the family, leaving the country, facing discrimination, working extra hours, and so on. These sacrifices result in a new reality, new hardships, and new fears that simultaneously limit their experience (knowledge) and access (time), and therefore make their ability to act as an adjunct teacher for their child impracticable. FBL parents work hard and care a lot about their children's well-being; they are committed to their kids, but most of them fail to

217

take a critical attitude towards the school—which is perceived as infallible or out of reach—and instead, tend to blame themselves or the children (Haddix & Sealey-Ruiz, 2012). There is an urgent need for them to engage in structural critique of the school system and of their place in society. This kind of critique (i.e., acknowledging that FBL families differ from those of the mainstream culture and legitimating these differences as valuable) needs to be continuously evoked and repeated among FBL parents and their children.

My findings suggested that three out of the four FBL parents in the study lacked technological access and use—translated as experience. If schools persist in adopting educational technologies without taking into account their students' demographics, backgrounds, and family contexts, the use of these technological tools will only continue to increase the educational achievement gap experienced by FBL students.

School systems tend to standardize content and determine what is "good" and what is "bad" (Haddix & Sealey-Ruiz, 2012). Unfortunately, FBL families have little to contribute to a system in which the goals are set according to the standards of the privileged white class (Valdés, 1997). There is an important debate in the sphere of educational technology about what is best when addressing the inequalities of traditional educational models: there are those who feel that children's media professionals should disrupt traditional education (along with the standardized math and reading tests that are the indicators of student achievement), and there are those willing to work within the system but use new technologies to push children towards accepted measures of success (August et al., 2013). Nevertheless, there is one point in common: the urgent need for research and plans of action to address educational inequality.

Helping FBL students and their families in the United States goes beyond granting them access to digital media (Warschauer, 2000); they must be provided with training and experiences

that will enhance their media fluency and literacy (Gutiérrez et al., 2008). The ultimate goal should be the empowerment of these communities on their own terms (Darder, 2012), but it is important to understand Latino students' and their families' use of digital media at home in order to design educational programs that respond to these needs (Fitts, 2006). Finally, these programs should connect to their socioeconomic reality and should embrace and champion their funds of knowledge (Gutiérrez, 1999). Warschauer's (2000) study documents an important instance of using critical empowerment technologies as potential third spaces: the "Fresa" project followed third- and fifth-grade students from farm-working families at Mar Vista Elementary School in California who—with the aid of educational technology (creation of a website)—explored their social reality by critically examining their parents' work in the surrounding strawberry fields. The "Fresa" project is a good example of an activity that champions FBL students' and their families' social realities and funds of knowledge. Other than a few classroom activities thematically related to student nationality, I was unable to document any activities of this kind in the slightly more rigid curriculum of FPG. In the next and final chapter I recapitulate the insight gained from each chapter. Then, I re-take my research question and discuss future research. Lastly, I finalize the dissertation with some concluding remarks.

CHAPTER 8: CONCLUSION

I. The study

This dissertation examined how four foreign-born Latino (FBL) students from Mexico adapted to a new social reality in North Carolina and how this process enabled or restrained their approach to digital educational technology. I described the individual situations and contexts of each of the four FBL student and their families, including their level of English, the levels of English proficiency and education of their parents, their parents' occupations, the level of technology use in the home, the level of traditional media present in the home, and the student's performance in the classroom. I concluded that regardless of their socioeconomic or educational background, all of the students had access to digital technologies and embraced them, demonstrating a high level of intrinsic motivation towards them. Despite the potential benefits of the educational technology, however, most of the students experienced a notable lack of parental academic support. Overall, the academic achievement of each student was tightly correlated with their parents' levels of English proficiency, educational achievement, and occupational prestige.

With their varied backgrounds and different levels of support, my FBL students each seemed to fit into one of the four categories proposed by Berry (2006). Gaby represented an example of biculturalism (with her ability to engage with both cultures because of her upper-middle-class socioeconomic status and high educational context); Pedro and Pepe represented the experience of separation (with their low acculturation due in part to a lower socioeconomic status and low educational context, combined with a strong experience of enculturation deriving

from highly enculturated parents); while Adi represented a case of marginalization (with both a low level of acculturation caused by a low socioeconomic status and low educational context, and a low level of enculturation due to her abrupt introduction into a new family with divergent cultural backgrounds). I concluded that the ease or difficulty of the acculturation process for FBL students is correlated with the degree of similarity or difference between the socialization processes that occur in the school and home settings.

In Chapter 5, I offered a discussion of the acculturation-enculturation process that newcomer Latinos face, and I confirmed that the majority of socialization adjustments among my FBL students occur in either the school or home setting. The FPG School and its dual-language program significantly impacted my FBL students' acculturation process, and this impact was further modulated by the cultural competence of the teachers and the school's attempts to cultivate an environment of acceptance. In the home, the enculturation of my students was heavily influenced by their mothers' use of language, their emotional influence, and their attempts to maintain a native diet. I discovered, however, that this dual socialization experience went beyond the limits of the school and home settings: the social experience of the FBL families was also heavily influenced by the outside community and by a subtle but pervasive racism that exists in North Carolina.

After establishing their profiles and detailing the students' dual-socialization experience, I returned to the school setting in order to focus more explicitly on the relationships among the places, spaces, actors, and digital technologies in the classroom. I discussed the technological experience that FBL students bring to the setting, and concluded that FPG provides a welcoming technological environment for them, with a high level of access to digital educational hardware and software. I observed that the students were adopting one of two approaches when using

digital technology for classroom activities: the one-to-one approach and the organic approach. The first approach allowed students significant autonomy, but often lacked sufficient direction and therefore sometimes led to frustration; the organic approach proved to be the more appropriate one, as it relied more heavily on peer collaboration and intrinsically redistributed the power in the classroom, by allowing the teacher to share her authority with other students and with the technology itself. I documented instances in which Latino peers provided substantial support for my FBL students, in the course of their educational activities.

In general, FPG did successfully construct educational third spaces with the aid of digital technology, and the students seemed more motivated when engaged in such activities. The teachers were flexible enough to let me be part of the classroom and re-invent their pedagogy and to experiment with the two different configurations. As I have mentioned before, when I became the "digital technology expert" we were able to try different configurations or approaches. We agreed that for newcomer FBL students the collaborative possibilities of the organic approach made it the better option. We concluded that the one-to-one approach would be most useful once the students had already begun to improve their sociolinguistic tools and their formal knowledge of the different subjects. Despite their successful development in the classroom setting, I observed that these third spaces suffered a fragmentation and dissolution when they were fostered in a home setting.

In the final chapter, I offered a discussion of some salient FBL family dynamics in order to offer points of comparison with the dynamics that manifested at school. I noted that the primary difficulty for fostering transformational third spaces in the home lay in the incompatibility of actors. In other words, even when the students' home had some form of access

to digital technology, the level of experience of the actors in the home setting (the parents) could not match the level of experience and support offered by the actors at the school setting (the teachers and classroom peers). The FBL parents tended to lack, for example, a sufficient level of formal education, a solid proficiency in the English language, free time, and the sense of entitlement to ask for help or for an answer. The school implicitly expected the FBL parents to act in the role of an adjunct teacher, but because of their social and economic reality the working-class families were unable to meet this expectation. Instead, they understood their support of their children in terms of *sacrificios* [sacrifices].

To help empower the Latino families in the learning process, FPG offers an after-school program to help students with their homework. Unfortunately, my FBL students did not regularly attend. The teachers decided to offer another support program before morning classes, but the attendance proved to be similarly inconsistent. Some of the FPG staff sought to provide Latino parents with support and assistance in the form of workshops and informative sessions, but the Latino participation always remained very low. I attributed this lack of participation to two causes: first, FBL parents considered the school a government institution and therefore considered it to be simultaneously untrustworthy and uncontestable. Secondly, the FBL parents were largely unable to take an active interest in school events because their priorities required them to focus on basic survival rather than the finer points of their children's educational needs.

In general, with the proper approach, digital educational technologies can be critically empowering learning tools. Unfortunately, other environments (the home) and actors (unsupportive parents) can challenge the success of these educational third spaces. Schools and teachers must therefore consider and seek to understand the background and the experiences of FBL students; without an understanding of their access to and use of technology, educational

tools will simply increase the already wide educational attainment gap. Digital educational technologies should not be considered as a goal in themselves. The main goal behind the educational practice should be the promotion of critical thinking and the empowerment of students. It may even be important for students to be able to acknowledge the fragmentation of digital educational spaces within the home setting; perhaps such an acknowledgement would encourage critical thinking and self-awareness about the role of educational technology in their lives.

II. Future research

My study sought to refine, extend, and challenge the current understanding of FBL students and their engagement with digital educational technology. Further research should keep expanding a detailed exploration of families' relationships with one another, not just with the technology. I believe that future critical and qualitative studies of this kind can help researchers, educators, policymakers, and schools appreciate the varied realities that exist within a group often labeled as one: Latino.

Technology should serve thinking, and in particular, critical thinking (Gutiérrez, 1999). Technology can be critically used in many ways: it could be used, for example, as a way to archive the funds of knowledge of these FBL students. Qualitative research on the Latino experience would be greatly enriched if more Latino stories, told in the first person, were digitally available (August et al., 2013). Digital educational technologies in the classroom could easily foster these types of critical technological activities (Fitts, 2006). As it was evident in my fieldwork, there are many interesting developments going on in the Latino community in North Carolina. Unfortunately, knowledge of these developments are poorly communicated and no one knows about them (Haddix & Sealey-Ruiz, 2012). Elias and Lemish (2008) note that "in the era

of globalization, new communication technologies enable immigrant communities dispersed throughout the world to maintain ongoing contact with their country of origin and with their co-ethnics abroad" (p. 22). What would happen if Gaby had been able to create her own YouTube channel journaling her experience of what it was like to come to the United States? It would be a valuable documentation of her acculturation and enculturation process. Other FBL students could reflect on her stories and anecdotes and understand that they are not alone facing their situation. Technology has the potential to archive and disseminate these narratives. What is going on with Latinos in Smithfield? How are they connected and related with Latinos in Asheville or Hendersonville? Technology offers a way to share this information without having to physically move from one location to another. After being in the area for three years, I can tell that as a non-traditional Latino state, North Carolina has a disconnected Latino community (as compared to when I lived in San Antonio, Texas), but it also therefore has the potential for reinvention and new technologies can facilitate this. Future research should consider the use of critical digital educational technological activities as a tool for bringing young people together to share a common narrative: coming of age as a Latino in North Carolina.

III. Recommendations for educators

From my study, I have formulated three primary recommendations for effectively working with newcomer FBL fifth graders and technology. Firstly, critical educational technologies, in general, allow students significant autonomy, but they often lack sufficient direction and therefore sometimes lead to frustrations; the organic approach is the more appropriate one, as it relies more heavily on peer collaboration and intrinsically redistributes the power in the classroom, thus allowing the teacher to share her or his authority with students and with the technology itself. For newcomer FBL students, the collaborative possibilities of the

organic approach make it the better option —at least, during the first educational year. To implement and utilize critical educational technologies in the classroom using an organic approach, I recommend that schools, but more specifically teachers, re-invent their pedagogy and engage in an active dialogue with their students. Teachers should remain open to new digital educational possibilities and at the same time learn from the digital natives, their students. In other words, the power dynamics should be redistributed to transform FBL students' discourse into something meaningful.

Secondly, when working with newcomer FBL students, it is necessary to understand their family context. My study determined that the ease or difficulty of the acculturation process for FBL students is correlated with the degree of similarity or difference between the socialization processes that occur in the school and home settings. Because of teachers with high cultural competence and technological skills, FPG provided beneficial educational technological third spaces for FBL students. Despite their successful development in the classroom setting, I observed that these third spaces suffered a fragmentation and dissolution in the home setting. It was hard to foster educational third spaces in home settings due to the difference between actors (parents), and practices (family traditions and behaviors). Furthermore, it became especially challenging for FBL families to reach the school's academic goals when these expectations were based on Anglo, middle-class parenting standards that position the parent as an adjunct teacher. This recommendation is targeted to schools, teachers, principals and policymakers, but my intention is to make it an invitation to the public in general. The understanding of the "other" is a requirement that goes beyond the field of education with Latinos. It is a chance for any researcher or practitioner to develop a sense that surpasses tolerance and embraces and celebrates a multicultural context.

Lastly, it is crucial for FPG and schools working with Latino populations to reinforce the afterschool program. In my research, the after-school program proved to be a very useful resource for students such as Pedro. However, there were many components that were not taken into account when developing these programs. For instance, FBL parents tended to focus on basic survival rather than the finer points of their children's educational needs. In addition, working class FBL families—such as Adi's and Pepe's—feared going to the school, even a highly-Latino place like FPG, because it was seen as a government facility. Having the afterschool program in a more "neutral" location or providing a program of volunteers that meet the FBL students in their own houses could alleviate this barrier. I suggest that programs such as FPG work to build a sense of Latino community to also decrease fear and feelings of low entitlement. As mentioned, North Carolina in general has a growing but still disconnected Latino community, thus the empowerment of young generations of Latinos becomes more important everyday.

Critical educational technologies represent only a gear in the big machinery of Latino empowerment. That is, if every participant encircling the developing FBL child—parents, teachers, teaching assistants, peers, educational technology companies, researchers, policymakers and so on—can commit to understanding his or her role in influencing the new educational technological development, FBL students will have a better chance of realizing the potentials, rather than the pitfalls of educational digital technologies.

IV. Concluding remarks

There is an urgent need to engage in a structural critique of the American public school system and of its place in society. The problem of empowering FBL students and their families was beyond the scope of the individual teachers or even of the individual school. It was evident

that even in an environment like FPG—a highly tolerant, bicultural environment—Latino families still struggled. What must it be like in less "Latino-friendly" schools?

My hope is that this study of a school like FPG can begin to help researchers, principals, teachers, and policymakers to appreciate the varied and diverse realities of today's classrooms. It represents an invitation to other schools with high Latino enrollment to reconsider their pedagogy and reconfigure their teaching dynamics. FPG proves that empowering spaces—not just for FBL students but for students in general—are possible and should be encouraged. Unfortunately, I believe that the existing inequalities of Latino educational empowerment surpasses even a school like FPG's reach.

The responsibility for empowering Latino communities should not fall exclusively upon the school system, but should be taken up by Latino families as well. The Latino community has to empower itself. As a community we must develop—in Freirean terms—our own sense of *conscientizacao*; no one will do it for us if we do not do it for ourselves. Rosaldo (1994) has offered such a call for equity in terms of *cultural citizenship*:

> Cultural citizenship refers to the right to be different and to belong in a participatory democratic sense. It claims that, in a democracy, social justice calls for equity among all citizens, even when such differences as race, religion, class, gender, or sexual orientation potentially could be used to make certain people less equal or inferior to others. The notion of belonging means full membership in a group and the ability to influence one's destiny by having a significant voice in basic decisions. (p. 402)

Cultural citizenship, as both a theoretical perspective and a methodological approach, examines the socio-cultural identity, the political will, and the cultural creation of Latino populations in the United States. Theoretically, it encompasses the necessity of cultural resiliency, the acknowledgement of social inequality, and a call to further empower ethnic communities. Methodologically, cultural citizenship invites researchers to approach their studies from the subordinate group's point of view in order to understand their goals and purposes. Our values as

a Latino community, according to cultural citizenship, should be based on *igualdad, respeto y dignidad* [equality, respect, and dignity].

Even if we were to make changes in schools and within the larger Latino community, however, we would still require change at the national level. Inequality is a societal problem that must be addressed at a macro-level in order for any change to take root at a large scale. To fully address the threefold challenge presented by Rosaldo (1994), there must also be changes in legislation and a transformation in the way Latinos are presented in mainstream media.

It has been nearly a year since Senate bill S.744 (Border Security, Economic Opportunity, and Immigration Modernization Act), if it had passed, would have granted amnesty to more than 12 million illegal aliens. Despite the bill's passing in the Senate, it was never brought to a vote in the House of Representatives and so was never signed into law. In the national immigration debate, one side holds that if immigrants were able to obtain citizenship, they would be able to come out of the shadows and contribute positively to both the economy and the community. The other side holds that amnesty is unfair to those immigrants who came to the United States legally, or that amnesty would increase unemployment rate for U.S. citizens. In battles of over legislation like bill S.744, public opinion is the only force strong enough to break partisan deadlock. Mass media are a hugely influential force in the shaping of public opinion, however, and for this reason, the positive and accurate portrayal of Latinos in mainstream media should be a goal of utmost importance.

The most recent high-profile portrayal of Latinos in mainstream media came in the movie *César Chávez* (2014)*,* a documentary-style film depicting the life of the civil-rights activist and labor organizer César Chávez. Despite the controversy surrounding the movie (regarding whether or not the real Chávez supported undocumented immigrants or not), a valuable

229

discussion has been brought to the table in terms of a debate over immigration reform. The movie not only educates the Latino community about the history of their own struggle in the United States, it educates mainstream American culture about a reality that is radically foreign to their own: media have the power to make the "other" more visible. There is an urgent need for more Latino heroes to look up to: who will be Gaby's, Pedro's, Pepe's, and Adi's heroes? How can they help strengthen their own Latino communities if they have not heard of other immigrants like them? The Latino must shed the image of the archetypal "worker."

Since the Bracero Program, which brought more than 4 million Mexican farm laborers to the U.S. during the 1940s and 1950s, the Latino immigrant has been seen as the arm who works—the program's name comes from the Spanish word *bracero*, or one who works with his arms (Schvaneveldt & Behnke, 2012, p. 172). It is essential for the Latino immigrant to stop being seen as the arm that works and to be recognized but as a fellow human. As Freire (2000) wrote, humanization should be the people's vocation, and it is imperative for Latino communities in the United States to regain their humanity.

As a researcher, this study has helped me realize that my goal should be to engage continuously in a three-step process of dialectical self-reflection. I should seek to understand first, to act second, and finally to assess my praxis in order to start the cycle all over again on a higher plane of activity. In presenting the cases of my four FBL students and their families I sought not only to understand their use of digital technology in classroom, but to explore the implications and intrinsic empowering potential of digital educational technologies. In this era of digital dominance, let digital nativity be the key to Latino youth becoming the producers of their own future.

Acculturation and Enculturation

Acknowledging a systemic racism: racism without racists
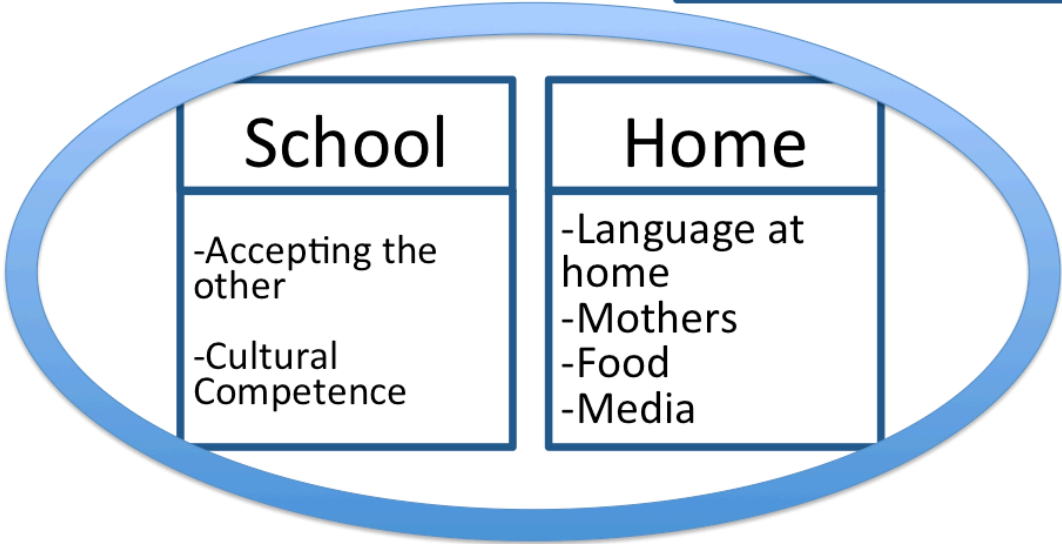
School	Home
-Accepting the other -Cultural Competence	-Language at home -Mothers -Food -Media

Getting to know FBL social spaces

Understanding Foreign-Born Latinos Use of Technology
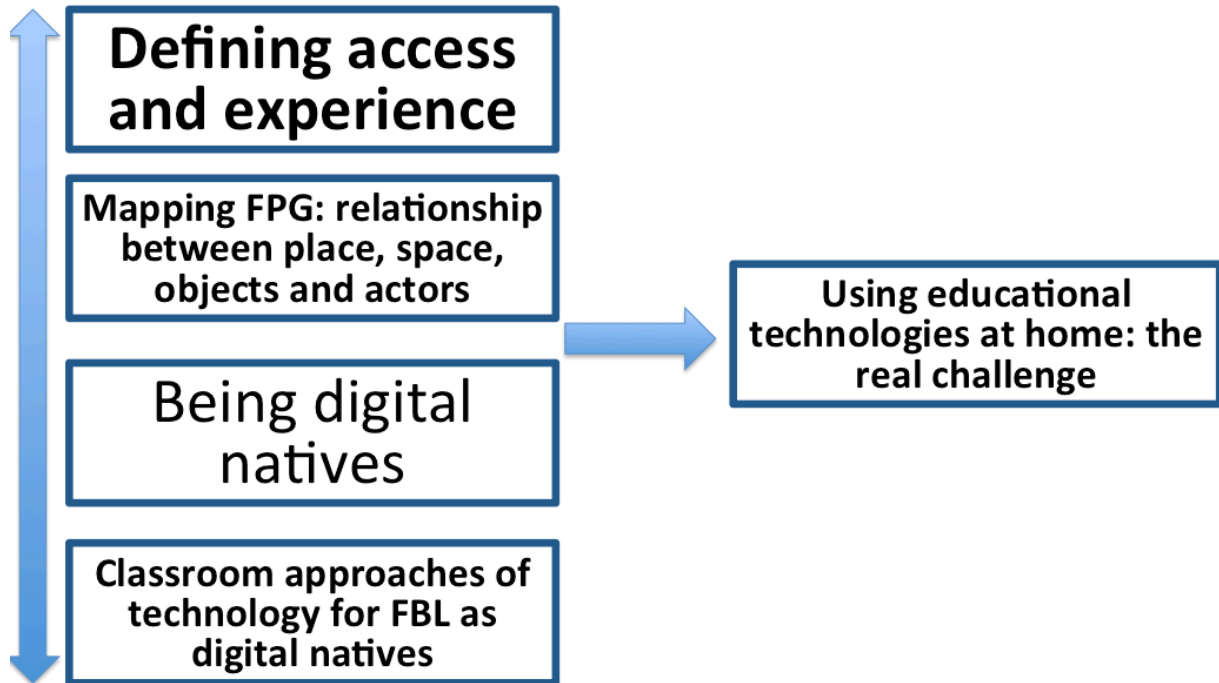
Defining access and experience

Mapping FPG: relationship between place, space, objects and actors

Being digital natives

Classroom approaches of technology for FBL as digital natives

Using educational technologies at home: the real challenge
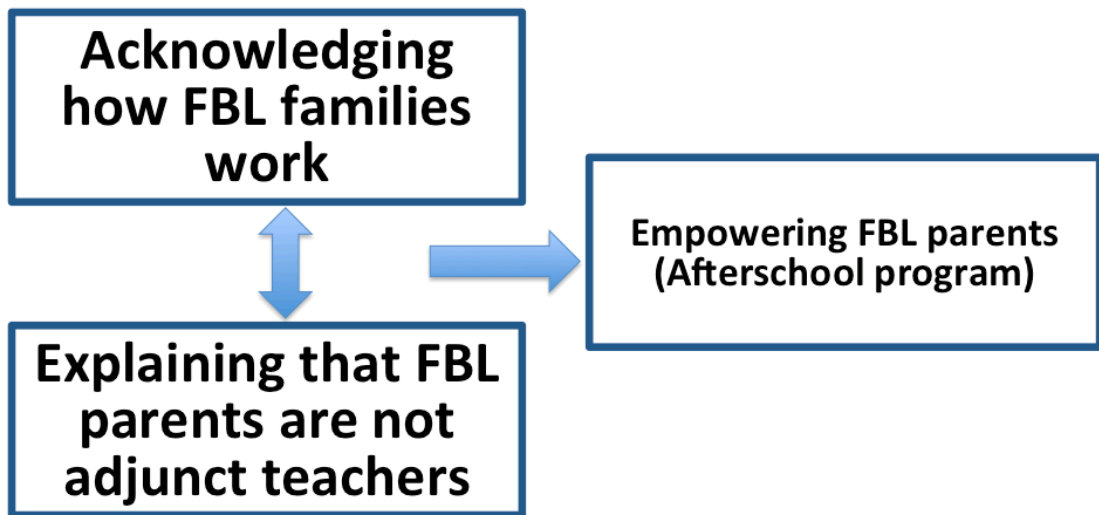
Understanding FBL Family Dynamics
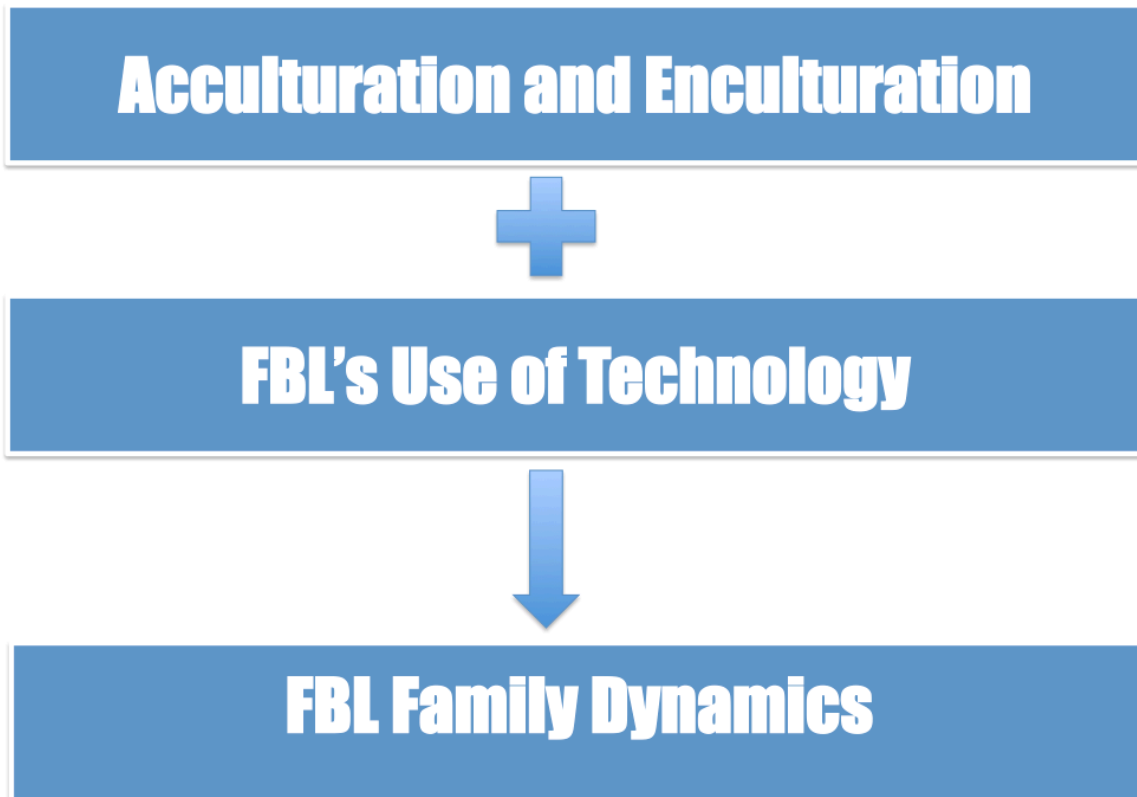
APPENDIX 5: NEW SETTLEMENT COUNTIES

County	State	Total		Hispanics		Hispanic Change	
		1990	2000	1990	2000	(#)	(%)
Jefferson	AL	651,525	662,047	2,745	10,284	7,539	275
Benton	AR	97,499	153,406	1,359	13,469	12,110	891
Washington	AR	113,409	157,715	1,526	12,932	11,406	747
Cherokee	GA	90,204	141,903	1,059	7,695	6,636	627
Clayton	GA	182,052	236,517	3,746	17,728	13,982	373
Cobb	GA	447,745	607,751	9,403	46,964	37,561	399
DeKalb	GA	545,837	665,865	15,619	52,542	36,923	236
Fulton	GA	648,951	816,006	13,373	48,056	34,683	259
Gordon	GA	35,072	44,104	200	3,268	3,068	1,534
Gwinnett	GA	352,910	588,448	8,470	64,137	55,667	657
Hall	GA	95,428	139,277	4,558	27,242	22,684	498
Murray	GA	26,147	36,506	136	2,006	1,870	1,375
Whitfield	GA	72,462	83,525	2,321	18,419	16,098	694
DeSoto	MS	67,910	107,199	306	2,516	2,210	722
Alamance	NC	108,213	130,800	736	8,835	8,099	1,100
Cabarrus	NC	98,935	131,063	483	6,620	6,137	1,271
Catawba	NC	118,412	141,685	921	7,886	6,965	756
Davidson	NC	126,677	147,246	602	4,765	4,163	692
Duplin	NC	39,995	49,063	1,015	7,426	6,411	632
Durham	NC	181,835	223,314	2,054	17,039	14,985	730
Forsyth	NC	265,878	306,067	2,102	19,577	17,475	831
Franklin	NC	36,414	47,260	290	2,100	1,810	624
Gaston	NC	175,093	190,365	864	5,719	4,855	562
Guilford	NC	347,420	421,048	2,887	15,985	13,098	454
Johnston	NC	81,306	121,965	1,262	9,440	8,178	648
Lincoln	NC	50,319	63,780	570	3,656	3,086	541
Mecklenburg	NC	511,433	695,454	6,693	44,871	38,178	570
Randolph	NC	106,546	130,454	734	8,646	7,912	1,078
Robeson	NC	105,179	123,339	704	5,994	5,290	751
Rowan	NC	110,605	130,340	651	5,369	4,718	725
Sampson	NC	47,297	60,161	727	6,477	5,750	791
Union	NC	84,211	123,677	675	7,637	6,962	1,031
Wake	NC	423,380	627,846	5,396	33,985	28,589	530
Greenville	SC	320,167	379,616	3,028	14,283	11,255	372
Davidson	TN	510,784	569,891	4,775	26,091	21,316	446
Shelby	TN	826,330	897,472	7,091	23,364	16,273	229
Total		8,103,580	10,152,175	109,081	613,023	503,942	462

APPENDIX 6: DEDOOSE INTERFACE SCREEN CAPTURES

APPENDIX 7: INTERVIEW GUIDE FOR INITIAL QUESTIONS (1ST INTERVIEW)

I. General questions for students
I. Questions about your experience with computers, tablets, and mobile phones.
- What kind of gadgets do you use regularly?
- What kind of technology skills are you good at?
- What is the coolest use of technology you have seen in class?
- Do you think the time you spent using computers in class is enough?
- What about outside class?
- What websites do you use to do your homework?
- What do you do when you do not understand a word?

II. Questions for teachers and social workers.
- Is the technology in class being used regularly?
- Is the technology allowing the students to do old things in new ways?
- Is the technology engaging new learning experience?
- What is the difference between classes with use of technology than a class with no use of technology?
- When using these technologies, do you perceive any differences in your students?
- Among your group how do you differentiate technological savvy students?
- Would you say language is a barrier when using the computers?
- Are there enough computers at school?
- What kind of educational software does the school use?
- Describe activities that involve use of technologies.

III. Questions for parents
- What kind of technologies do you use?
- What kind of technologies do you allow your kid to use?
- How many hours a day is your kid on Internet?
- Do you control the websites they visit? How?
- How often do they ask for help?
- How confident do you feel when using new technologies?
- Do you think that your kid has learned these technology skills at school?

Above attached consent forms
- Adults (English and Spanish)
- Parental Consent (English and Spanish)
- Page numbers are not shown in consent forms due to this preview.

APPENDIX 8: CONSENT FORM

Standard Consent Form for Adult Participants
University of North Carolina-Chapel Hill
Consent to Participate in a Research Study
Adult Participants **[If using more than one adult form, identify adult group.]**
Social Behavioral Form

_____
IRB Study #_____ **(Leave blank if new submission.)**
Consent Form Version Date: _____ **(Enter or update for all submissions.)**
Title of Study: Empowerment Through Online Educational Technologies: A Case Study of the
Applications and Practices in the Latino Community in Chapel Hill, North Carolina
Principal Investigator: Oscar Guerra
UNC-Chapel Hill Department: Journalism and Mass Communication
UNC-Chapel Hill Phone number: 919.962.2366
Email Address: Optional oguerra@live.unc.edu
Faculty Advisor: Dr. Lucila Vargas
Funding Source and/or Sponsor:
Study Contact telephone number: 919.962.2366
Study Contact email: lcvargas@email.unc.edu

_____
What are some general things you should know about research studies?
You are being asked to take part in a research study**.** To join the study is voluntary.
You may refuse to join, or you may withdraw your consent to be in the study, for any reason,
without penalty.
Research studies are designed to obtain new knowledge. This new information may help people
in the future. You may not receive any direct benefit from being in the research study. There
also may be risks to being in research studies.
Details about this study are discussed below. It is important that you understand this
information so that you can make an informed choice about being in this research study.
You will be given a copy of this consent form. You should ask the researchers named above, or
staff members who may assist them, any questions you have about this study at any time.

What is the purpose of this study?
    The ultimate goal of this study is to examine and understand the relationship between Latino
    educational technology practices, more specifically those that are available online and hence
    potentially accessible through mobile devices, and the learning impact on 8 to 12 year old
    Latino students.
If you decide to be in this study, you will be one of approximately 50 people in this research
study.
How long will your part in this study last?
5-months

What will happen if you take part in the study?
In 3 different interviews (30 to 60 minutes) during a 5 month period, the participant will answer
questions regarding Latino students' use of technology. The participant will talk about how the

Latino students use computers, tablets, and mobile phones to search new and relevant information for their classes.

The participant is being selected because his or her student/kid is part of a dual language program at school.

These interviews will be recorded for transcription and analysis. After the research is completed, the audio files will be deleted.

What are the possible benefits from being in this study?

Research is designed to benefit society by gaining new knowledge.

The potential benefit for the students is the translation of these conversations into better academic and personal achievement

What are the possible risks or discomforts involved from being in this study?

There may be uncommon or previously unknown risks. You should report any problems to the researcher.

How will your privacy be protected?

During the interviews with Latino students and parents there will not be any questions regarding sexuality, religion and residency status to reduce the sensibility of the interview. This research is strictly focused on the use and practice of technologies such as computers, tablets, and mobile phones as educational tools. Also, the study will use pseudonyms when mentioning examples. Participants **will not** be identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies for purposes such as quality control or safety.

Data will remain confidential at all times. The transcribed interviews will be kept in a computer in a locked, private office. This audio files will be password protected and this password will only be accessible to my advisor and myself. As for my field notes I will keep them in a secured and private location. As soon as the field notes and the audio files are transcribed and password protected, the original footage and field notes will be stored in a flash drive and the physical field notes will be kept in a private container.

Once the study is finished and there is no need for more information, the audio files will be deleted and the field notes will be shredded and disposed of.

Check the line that best matches your choice:

_____ OK to record me during the study

_____ Not OK to record me during the study

· For studies that involve an interpreter:

The researcher is a native Spanish speaker so he will be the interpreter if needed.

You can withdraw from this study at any time, without penalty. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

Will you receive anything for being in this study?
You will not receive any payment for taking part in this study.

Will it cost you anything to be in this study?
There will be no costs for being in the study

What if you have questions about this study?
You have the right to ask, and have answered, any questions you may have about this research. If you have questions, complaints, concerns, or if a research-related injury occurs, you should contact the researchers listed on the first page of this form.

What if you have questions about your rights as a research participant?
All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.
- -
Title of Study: Empowerment Through Online Educational Technologies: A Case Study of the Applications and Practices in the Latino Community in Chapel Hill, North Carolina

Principal Investigator: Oscar Guerra
Participant's Agreement:

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

_____ _____

Signature of Research Participant Date

_____

Printed Name of Research Participant
Only include the following section if consent obtained in-person.

_____ _____

Signature of Research Team Member Obtaining Consent Date

_____

Printed Name of Research Team Member Obtaining Consent

APPENDIX 9: SPANISH-LANGUAGE CONSENT FORM

University of North Carolina-Chapel Hill
Consentimiento para participar en un estudio de investigación
Participantes adultos Formulario de conducta social

Nº de estudio del IRB _____
Fecha de la versión del formulario de consentimiento: _____
Título del estudio: Empoderamiento mediante tecnologías educativas en línea: Un caso de estudio de las aplicaciones y prácticas en la comunidad Latina en Chapel Hill, Carolina del Norte.
Investigador principal: Oscar Guerra
Departamento de la UNC-Chapel Hill: Periodismo y Comunicación Masiva
Número telefónico de la UNC-Chapel Hill: 919.962.2366
Dirección de correo electrónico: oguerra@live.unc.edu
Asesor facultativo: Dra. Lucila Vargas
Origen del financiamiento: Privado
Número telefónico del contacto del estudio: 919 923 3384
Correo electrónico del contacto del estudio: oguerra@live.unc.edu

¿Cuáles son algunas de las cuestiones generales que usted debe saber sobre los estudios de investigación?
Se le solicita que participe en un estudio de investigación. La participación en este estudio es voluntaria.
Puede negarse a participar, o puede retirar su consentimiento para participar en el estudio, por cualquier motivo, sin sufrir sanciones.
Los estudios de investigación están diseñados para obtener nueva información. Es posible que esta nueva información ayude a las personas en el futuro. Es posible que no reciba ningún beneficio directo por participar en este estudio de investigación. También pueden existir riesgos asociados con la participación en estudios de investigación.
Los detalles sobre este estudio se analizan a continuación. Es importante que entienda esta información de modo que pueda decidir en forma fundamentada acerca de la participación en este estudio de investigación.
Se le entregará una copia de este formulario de consentimiento. Debe preguntar a los investigadores mencionados anteriormente, o a los miembros del personal que los asisten, cualquier consulta que tenga acerca de este estudio en cualquier momento.
¿Cuál es el objetivo de este estudio?
El objetivo de este estudio de investigación es obtener información sobre la relación entre las prácticas educativas de Latinos, específicamente en línea y accesibles mediante dispositivos móviles y el impacto de aprendizaje sobre alumnos Latinos de 8 a 12 años.
Se le pide su participación ya que se hijo pertenece a un programa bilingüe en los Estados Unidos.
¿Cuántas personas participarán en este estudio?

Si decide participar en este estudio, será uno de entre aproximadamente 50 personas en este estudio de investigación.

¿Cuánto tiempo participará en este estudio?

Durante 5 meses. Habrá 3 entrevistas a profundidad de 20 a 30 minutos. Durante el periodo habrán de 5 a 7 obervaciones en el salón.

¿Qué ocurrirá si participa en este estudio?

Usted participará en 3 entrevistas en donde contestará preguntas referentes al uso que su hijo tiene referente al tema de tecnología fuera y dentro del salón de clases. Durante las entrevistas no habrá ninguna pregunta relacionada con sexualidad, religión,y residencia con el fin de reducir la sensibilidad de la entrevista. La investigación esta estrictamente enfocada al uso de tecnologías educativas como computadoras, tablets y teléfonos móviles.

¿Cuáles son los posibles beneficios por participar en este estudio?

La investigación está diseñada para beneficiar a la sociedad mediante la obtención de nuevos conocimientos. Es posible que su hijo no se beneficie personalmente por su participación en este estudio de investigación.

La investigación está diseñada para beneficiar a la sociedad mediante la obtención de nuevos conocimientos. Puede esperar además que su hijo se beneficie por su participación en este estudio mediante la oportunidad de platicar sobre sus metas y objetivos academicos y personales.

¿Cuáles son los posibles riesgos o molestias que implica la participación en este estudio?

Es posible que existan riesgos poco frecuentes o desconocidos previamente. Debe comunicar al investigador cualquier problema que se presente.

¿De qué manera se protegerá su privacidad?

Los participantes no serán identificados en informes o publicaciones sobre este estudio. Aunque se realizarán todos los esfuerzos por conservar los registros de investigación en forma privada, podrá ocurrir que la ley federal o estatal exija que tales registros, incluida la información personal, sean revelados. Esto es muy poco probable, pero si alguna vez se pide que sean revelados, la UNC-Chapel Hill tomará las medidas permitidas por ley para proteger la privacidad de la información personal. En algunos casos, su información reunida en este estudio de investigación podría ser examinada por representantes de la Universidad, patrocinadores de la investigación u organismos gubernamentales con fines tales como el control de calidad o la seguridad.

Las entrevistas serán audio-grabadas y la información estará reguardada en todo momento. Las entrevistas una vez transcritas permanecerán en una computadora en una oficina privada bajo llave. Los audios estarán protegidos con contraseña la cual solo será accesible para el investigador principal y el asesor. Las notas de campo llevarán un proceso similar pues serán salvaguaradads en la misma locación bajo llave. Una vez que el estudio conlcuya los materiales serán destruidos y las notas desechadas.

Los participantes no serán identificados en informes o publicaciones sobre este estudio. Aunque se realizarán todos los esfuerzos por conservar los registros de investigación en forma privada, podrá ocurrir que la ley federal o estatal exija que tales registros, incluida la información personal, sean revelados. Esto es muy poco probable, pero si alguna vez se pide que sean revelados, UNC-Chapel Hill tomará las medidas permitidas por ley para proteger la privacidad de la información personal. En algunos casos, su información reunida en este estudio de investigación podría ser examinada por representantes de la Universidad, patrocinadores de la investigación u organismos gubernamentales con fines tales como el control de calidad o la seguridad.

El investigador es bilingüe de modo que en caso de necesitar un interprete, él mismo podrá asistir. La confidencialidad es asegurada de esta manera.

¿Recibirá algo por participar en este estudio?

Usted no recibirá compensación economica por participar en este estudio.

¿Le costará algo la participación en este estudio?

No existirá ningún costo por participar en este estudio.

¿Qué sucede si desea formular preguntas sobre este estudio?

Tiene el derecho de preguntar, y que le respondan, cualquier duda que tenga acerca de esta investigación. Si tienen preguntas o inquietudes, deben ponerse en contacto con los investigadores mencionados en la primera página de este formulario.

¿Qué sucede si usted desea formular preguntas sobre sus derechos como participante de una investigación?

Toda investigación realizada con voluntarios humanos es examinada por un comité que trabaja para proteger sus derechos y su bienestar. Si tiene preguntas o inquietudes acerca de sus derechos como sujeto de una investigación, puede ponerse en contacto, de manera anónima si lo desea, con el Institutional Review Board (Comité de revisión institucional, IRB por sus siglas en inglés) al 919-966-3113 o por correo electrónico a IRB_subjects@unc.edu.

- -

Acuerdo del participante:

He leído la información proporcionada más arriba. He realizado todas las preguntas que tengo en este momento. Acepto voluntariamente participar en este estudio de investigación.

_____   _____
Firma del participante de la investigación   Fecha

_____
Nombre del participante de la investigación en imprenta

_____   _____
Firma de la persona que obtiene el consentimiento   Fecha

_____
Nombre de la persona que obtiene el consentimiento en imprenta

APPENDIX 10: PARENTAL PERMISSION FORM FOR MINORS

Parental Permission Form for Minors
University of North Carolina-Chapel Hill
Parental Permission for a Minor Child to Participate in a Research Study
Social Behavioral Form

_____

IRB Study #_____ **(Leave blank if new submission.)**
Consent Form Version Date: _____ **(Enter or update for all submissions.)**
Title of Study: Empowerment Through Online Educational Technologies: A Case Study of the
Applications and Practices in the Latino Community in Chapel Hill, North Carolina
Principal Investigator: Oscar Guerra
UNC-Chapel Hill Department: Journalism and Mass Communication
UNC-Chapel Hill Phone number: 919.962.2366
Email Address: Optional oguerra@live.unc.edu
Faculty Advisor: Dr. Lucila Vargas
Funding Source and/or Sponsor: Private
Study Contact telephone number: 919.962.2366
Study Contact email: lcvargas@email.unc.edu

_____

What are some general things you should know about research studies?
You are being asked to allow your child to take part in a research study**.** To join the study is
voluntary. You may refuse to give permission, or you may withdraw your permission for your
child to be in the study, for any reason. Even if you give your permission, your child can decide
not to be in the study or to leave the study early. Delete last sentence if not applicable**.**
Research studies are designed to obtain new knowledge. This new information may help people
in the future. Your child may not receive any direct benefit from being in the research study.
There also may be risks to being in research studies.
Details about this study are discussed below. It is important that you understand this
information so that you and your child can make an informed choice about being in this research
study.
You will be given a copy of this permission form. You and your child should ask the researchers
named above, or staff members who may assist them, any questions you have about this study
at any time.
What is the purpose of this study?
> The ultimate goal of this study is to examine and understand the relationship between Latino
> educational technology practices, more specifically those that are available online and hence
> potentially accessible through mobile devices, and the learning impact on 8 to 12 year old
> Latino students.
How many people will take part in this study?
If your child is in this study, your child will be one of approximately 50 people in this
research study.
How long will your child's part in this study last?
5 months

What will happen if your child takes part in the study?
In 3 different interviews (20 to 40 minutes) during a 5-month period The student will answer questions regarding his or her use of technology. The student will talk about how he or she uses computers, tablets, and mobile phones to search new and relevant information for their classes. During the interviews with Latino students and parents there will not be any questions regarding sexuality, religion and residency status to reduce the sensibility of the interview. This research is strictly focused on the use and practice of technologies such as computers, tablets, and mobile phones as educational tools.
Students will be assigned by chance.
The participant is being selected because he or she is part of a dual language program at school.

What are the possible benefits from being in this study?
Research is designed to benefit society by gaining new knowledge.
The potential benefit is the translation of these conversations into better academic and personal achievement
There may be uncommon or previously unknown risks. You should report any problems to the researcher.

What are the possible risks or discomforts involved from being in this study?
There may be uncommon or previously unknown risks. You should report any problems to the researcher.

How will your child's privacy be protected?
During the interviews with Latino students and parents there will not be any questions regarding sexuality, religion and residency status to reduce the sensibility of the interview. This research is strictly focused on the use and practice of technologies such as computers, tablets, and mobile phones as educational tools. Also, the study will use pseudonyms when mentioning examples. Participants **will not** be identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety.
· For studies having a federal Certificate of Confidentiality:

· For studies that involve video or audio recording:
Data will remain confidential at all times. The transcribed interviews will be kept in a computer in a locked, private office. This audio files will be password protected and this password will only be accessible to the advisor and the researcher. As for my field notes, the researcher will keep them in a secured and private location. As soon as the field notes and the audio files are transcribed and password protected, the original footage and field notes will be stored in a flash drive and the physical field notes will be kept in a private container.
Once the study is finished and there is no need for more information, the audio files will be deleted and the field notes will be shredded and disposed of.
Check the line that best matches your choice:
_____ OK to record me during the study
_____ Not OK to record me during the study
· For studies that involve group interviews or focus groups

· For studies that involve an interpreter:
The researcher is a native Spanish speaker so he will be the interpreter if needed.

Will your child receive anything for being in this study?
Your child will not receive any payment for taking part in this study.

There will be no costs for being in the study

What if you or your child has questions about your child's rights as a research participant?
All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you or your child has questions or concerns about your child's rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.
- -
Title of Study: Empowerment Through Online Educational Technologies: A Case Study of the Applications and Practices in the Latino Community in Chapel Hill, North Carolina

Principal Investigator: Oscar Guerra
Parent's Agreement:
I have read the information provided above. I have asked all the questions I have at this time. I voluntarily give permission to allow my child to participate in this research study.

_____
Printed Name of Research Participant (Child)

_____ _____
Signature of Parent Date

_____
Printed Name of Parent
Only include the following section if permission obtained in-person.

_____ _____
Signature of Research Team Member Obtaining Permission Date

_____
Printed Name of Research Team Member Obtaining Permission

APPENDIX 11: SPANISH-LANGUAGE PARENTAL PERMISSION FORM
FOR MINORS

University of North Carolina-Chapel Hill
Consentimiento para participar en un estudio de investigación
Participantes adultos Formulario de conducta social

Nº de estudio del IRB _____
Fecha de la versión del formulario de consentimiento: _____
Título del estudio: Empoderamiento mediante tecnologías educativas en línea: Un caso de estudio de las aplicaciones y prácticas en la comunidad Latina en Chapel Hill, Carolina del Norte.
Investigador principal: Oscar Guerra
Departamento de la UNC-Chapel Hill: Periodismo y Comunicación Masiva
Número telefónico de la UNC-Chapel Hill: 919.962.2366
Dirección de correo electrónico: oguerra@live.unc.edu
Asesor facultativo: Dra. Lucila Vargas
Origen del financiamiento: Privado
Número telefónico del contacto del estudio: 919 923 3384
Correo electrónico del contacto del estudio: oguerra@live.unc.edu

¿Cuáles son algunas de las cuestiones generales que usted debe saber sobre los estudios de investigación?
Se le pide que permita participar a su hijo en un estudio de investigación. La participación en este estudio es voluntaria. Puede negarse a dar su autorización, o puede retirar su autorización para que su hijo participe en el estudio, por cualquier motivo. Incluso si usted otorga su autorización, su hijo puede decidir no participar en el estudio o abandonarlo de manera anticipada.
Los estudios de investigación tienen como objetivo obtener nueva información. Es posible que esta nueva información ayude a las personas en el futuro. Es posible que su hijo no reciba ningún beneficio directo por participar en este estudio de investigación. También pueden existir riesgos asociados con la participación en estudios de investigación.
Los detalles sobre este estudio se analizan a continuación. Es importante que entienda esta información de modo que usted y su hijo puedan decidir en forma fundamentada acerca de la participación en este estudio de investigación.
Se le entregará una copia de este formulario de autorización. Usted y su hijo deben preguntar a los investigadores mencionados anteriormente, o a los miembros del personal que los asisten, cualquier consulta que tengan acerca de este estudio en cualquier momento.

¿Cuál es el objetivo de este estudio?
El objetivo de este estudio de investigación es obtener información sobre la relación entre las prácticas educativas de Latinos, específicamente en línea y accesibles mediante dispositivos móviles y el impacto de aprendizaje sobre alumnos Latinos de 8 a 12 años.

Se le pide a su hijo que participe en este estudio porque es parte de un programa bilingüe en una escuela americana.

¿Cuántas personas participarán en este estudio?

Si su hijo participa en este estudio, será uno de entre aproximadamente 50 personas en este estudio de investigación.

¿Cuánto tiempo participará su hijo en este estudio?

Durante 5 meses. Habrá 3 entrevistas a profundidad de 20 a 30 minutos. Durante el periodo habrán de 5 a 7 obervaciones en el salón.

¿Qué ocurrirá si su hijo participa en el estudio?

Su hijo participará en 3 entrevistas en donde contestará preguntas referentes al uso de tecnología fuera y dentro del salón de clases. Durante las entrevistas no habrá ninguna pregunta relacionada con sexualidad, religión,y residencia con el fin de reducir la sensibilidad de la entrevista. La investigación esta estrictamente enfocada al uso de tecnologías educativas como computadoras, tablets y teléfonos móviles.

¿Cuáles son los posibles beneficios por participar en este estudio?

La investigación está diseñada para beneficiar a la sociedad mediante la obtención de nuevos conocimientos. Es posible que su hijo no se beneficie personalmente por su participación en este estudio de investigación.

La investigación está diseñada para beneficiar a la sociedad mediante la obtención de nuevos conocimientos. Puede esperar además que su hijo se beneficie por su participación en este estudio mediante la oportunidad de platicar sobre sus metas y objetivos academicos y personales.

¿Cuáles son los posibles riesgos o molestias que implica la participación en este estudio?

Es posible que existan riesgos poco frecuentes o desconocidos previamente. Debe comunicar al investigador cualquier problema que se presente.

¿Cómo se protegerá la privacidad de su hijo?

Los participantes no serán identificados en informes o publicaciones sobre este estudio. Aunque se realizarán todos los esfuerzos por conservar los registros de investigación en forma privada, podrá ocurrir que la ley federal o estatal exija que tales registros, incluida la información personal, sean revelados. Esto es muy poco probable, pero si alguna vez se pide que sean revelados, la UNC-Chapel Hill tomará las medidas permitidas por ley para proteger la privacidad de la información personal. En algunos casos, su información reunida en este estudio de investigación podría ser examinada por representantes de la Universidad, patrocinadores de la investigación u organismos gubernamentales con fines tales como el control de calidad o la seguridad.

Las entrevistas serán audio-grabadas y la información estará reguardada en todo momento. Las entrevistas una vez transcritas permanecerán en una computadora en una oficina privada bajo llave. Los audios estarán protegidos con contraseña la cual solo será accesible para el investigador principal y el asesor. Las notas de campo llevarán un proceso similar pues serán salvaguaradads en la misma locación bajo llave. Una vez que el estudio conlcuya los materiales serán destruidos y las notas desechadas. *El investigador es bilingüe de modo que en caso de necesitar un interprete, él mismo podrá asistir. La confidencialidad es asegurada de esta manera.*

¿Recibirá algo su hijo por participar en este estudio?

Su hijo no recibirá compensación economica por participar en este estudio.

¿Le costará algo que su hijo participe en este estudio?

No existirá ningún costo por participar en este estudio.

¿Qué sucede si usted o su hijo desean formular preguntas sobre este estudio?

Usted y su hijo tienen el derecho de preguntar, y que le respondan, cualquier duda que tengan acerca de esta investigación. Si tienen preguntas o inquietudes, deben ponerse en contacto con los investigadores mencionados en la primera página de este formulario.

¿Qué sucede si usted o su hijo desean formular preguntas sobre los derechos de su hijo como participante de una investigación?

Toda investigación realizada con voluntarios humanos es examinada por un comité que trabaja para proteger los derechos y el bienestar de su hijo. Si usted o su hijo tienen preguntas o inquietudes acerca de los derechos de su hijo como sujeto de una investigación, pueden ponerse en contacto, de manera anónima si lo desean, con el Institutional Review Board (Comité de revisión institucional, IRB por sus siglas en inglés) al 919-966-3113 o por correo electrónico a IRB_subjects@unc.edu.

- -

Acuerdo de los padres:

He leído la información proporcionada más arriba. He realizado todas las preguntas que tengo en este momento. Otorgo mi autorización voluntariamente para permitir que mi hijo participe en este estudio de investigación.

_____

Nombre del participante de la investigación en imprenta (niño)

_____   _____

Firma del padre o de la madre   Fecha

_____

Nombre del padre o de la madre en imprenta

_____   _____

Firma de la persona que obtiene la autorización   Fecha

_____

Nombre de la persona que obtiene la autorización en imprenta

APPENDIX 12: OBSERVATION PROTOCOL

Observation Protocol
I.D: _____ Date:_____
Time: _____ Place: _____

Students' interactions	
Students' participation	
Students reflect on their ideas	
Perceived motivation	
Perceived concentration	
Notable non-verbal behavior	
Notable differences by gender	

REFERENCES

Adams, L., Baskerville, K., Lee, D., Spruiell, M., & Wolf, R. (2006). The Hispanic Community and Outdoor Recreation. *Outdoor Foundation*. Retrieved from http://www.outdoorfoundation.org/research.hispanic.html

Adelman, N., Donnelly, M. B., Dove, T., Tiffany-Morales, J., Wayne, A., & Zucker, A. A. (2002). *The integrated studies of educational technology: Professional development and teachers' use of technology*. Menlo Park, CA: SRI International.

Adkins-Bowling, T., Brown, S., & Mitchell, T. L. (2001). *The utilization of instructional technology and cooperative learning to effectively enhance the academic success of students with English-as-a-second-language*. Ipswich, MA: *ERIC*, EBSCO*host*.

Ahern, D. A. (2009). A longitudinal exploration of factors that influence acculturation and enculturation patterns of first-generation Mexican immigrant women. *Graduate Theses and Dissertations, 473*.

Alvarez-Torres, J. T. (2013). The use of authentic material to help twelfth graders build up vocabulary at "Ciudad de Girón" high school. Retrieved from http://dspace.ucuenca.edu.ec:8080/handle/123456789/4364

Armer, J. M., & Katsillis, J. (2001). Modernization Theory. In E. F. Borgatta & R. J. V. Montgomery (Eds.), *Encyclopedia of Sociology* (Vol. 3, pp. 1883–1888). New York, NY: Macmillan Reference USA.

August, D., Betancourt, J., Constantakis, P., Dann-Messier, B., Espinosa, L. M., Katz, V., … Valdés, G. (2013). Aprendiendo juntos (Learning together): Synthesis of a cross-sectorial convening on Hispanic-Latino families and digital technologies. *Aprendiendo Juntos, 68*.

Bacallao, M. L., & Smokowski, P. R. (2009). Entre dos mundos/between two worlds: Bicultural development in context. *The Journal of Primary Prevention*, *30*(3-4), 421–451. doi:10.1007/s10935-009-0176-x

Bao, H. (2006). Computer means/changes my life: ESL students and computer-mediated technology. *Electronic Magazine of Multicultural Education*, *8*(1), 1–9.

Berry, J. W. (2006). Stress perspectives on acculturation. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 43–57). New York, NY, US: Cambridge University Press.

Bhabha, H. (1994). *The location of culture*. London: Routledge.

Caplan, S. (2007). Latinos, acculturation, and acculturative stress: A dimensional concept analysis. *Policy, Politics, & Nursing Practice*, *8*(2), 93–106. doi:10.1177/1527154407301751

252

Cappella, E., Kim, H. Y., Neal, J. W., & Jackson, D. R. (2013). Classroom Peer Relationships and Behavioral Engagement in Elementary School: The Role of Social Network Equity. *American Journal of Community Psychology*, *52*(3-4), 367–379. doi:10.1007/s10464-013-9603-5

Cardoso, F. H. (1979). *The new authoritarianism in Latin America*. New Jersey: Princeton University Press.

Carrillo, J. F. (2013). I always knew I was gifted: Latino males and the Mestiz@ Theory of Intelligences (MTI). *Berkeley Review of Education*, *4*(1). Retrieved from http://escholarship.org/uc/item/9xt2n97p#page-2

Casanova, J. (1983). Modernization and democratization: Reflections on Spain's transition to democracy. *Social Research*, 929–973.

Chapel Hill-Carrboro City Schools. (n.d.). Homepage. Retrieved from http://www.chccs.k12.nc.us/

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Newbury Park, CA: Pine Forge Press.

Chávez-Silverman, S., & Aparicio, F. R. (1997). *Tropicalizations : Transcultural Representations of Latinidad*. Hanover, NH: Dartmouth College, University Press of New England.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education*. London: Routledge.

Cohn, D. (2012). Unauthorized immigrants: 11.1 Million in 2011. *Pew Hispanic Center*. Retrieved from http://www.pewhispanic.org/2012/12/06/unauthorized-immigrants-11-1-million-in-2011/

Comaz-Diaz, L. (1987). Feminist therapy with Hispanic/Latina women: Myth or reality? *Women & Therapy*, *6*, 39–61.

Creswell, J. W., Hanson, W. E., Plano, V. L. C., & Morales, A. (2007). Qualitative research designs selection and implementation. *The Counseling Psychologist*, *35*(2), 236–264.

Cummins, J., Bismilla, V., Cohen, S., Giampapa, F., & Leoni, L. (2005). Rethinking literacy instruction in multilingual classrooms. *Orbit*, *36*(1), 22–26.

Darder, A. (2012). *Culture and power in the classroom*. Boulder, CO: Paradigm Pub.

De Certeau, M. (2011). *Practice of Everyday Life* (3rd ed.). Berkeley: University of California Press.

Dettlaff, A. J., & Rycraft, J. R. (2010). Adapting systems of care for child welfare practice with immigrant Latino children and families. *Evaluation and Program Planning*, *33*(3), 303–310.

Docherty, S., & Sandelowski, M. (1999). Focus on qualitative methods: Interviewing children. *Research in Nursing & Health*, *22*(2), 177–185. doi:10.1002/(SICI)1098-240X(199904)22:2<177::AID-NUR9>3.0.CO;2-H

Dooley, K. E. (1999). Towards a holistic model for the diffusion of educational technologies: An integrative review of educational innovation studies. *Educational Technology & Society*, *2*(4), 35–45.

El Centro Hispano. (n.d.). Retrieved from http://www.elcentronc.org/

Elias, N., & Lemish, D. (2008). Media uses in immigrant families torn between "inward" and "outward" paths of integration. *International Communication Gazette*, *70*(1), 21–40. doi:10.1177/1748048507084576

Ellis, J. (2010). Interactive S.M.A.R.T. Board Techology: Does it Promote Individual Student Academic Achievement? *Education and Human Development Master's Theses*. Retrieved from http://digitalcommons.brockport.edu/ehd_theses/10

Estrada, Y. (2012). *Parental acculturation, family functioning, and preventive intervention outcome among Hispanic youth and their families* (Ph.D.). Madison: The University of Wisconsin. Retrieved from http://search.proquest.com.libproxy.lib.unc.edu/docview /1017883220/abstract?accountid=14244

Federation for American Immigration Reform. (2013). "Poll reveals North Carolinians strongly opposed to senate immigration bill." Retrieved from http://www.fairus.org/news /poll-reveals-north-carolinians-strongly-opposed-to-senate-immigration-bill

Figg, C. B. (2000). *Relationships between selected elementary teachers' beliefs and educational technology use* (Ph.D.). Austin: The University of Texas. Retrieved from http://search.proquest.com.libproxy.lib.unc.edu/docview/251729693/abstract?accountid=14244

Fitts, S. (2006). Reconstructing the status quo: Linguistic interaction in a dual-language school. *Bilingual Research Journal*, *30*(2), 337–365.

Fitts, S. (2009). Exploring Third Space in a dual-language setting: Opportunities and challenges. *Journal of Latinos and Education*, *8*(2), 87–104. doi:10.1080/15348430902750668

Flores, E., & Pachon, H. (2008). *Latinos and Public Library Perceptions*. Dublin, Ohio: Tomas Rivera Policy Institute.

Florida Education Association. (n.d.). Time-on-task: A teaching strategy that accelerates learning. *Educational*. Retrieved from http://feaweb.org/time-on-task-a-teaching-strategy-that-accelerates-learning

Fox, A. A. (2004). *Real country: music and language in working-class culture*. Durham, NC: Duke University Press.

Fraser, C., & Restrepo-Estrada, S. (1998). *Communicating for development: Human change for survival*. London: I.B. Tauris.

Freire, P. (2000). *Pedagogy of the oppressed*. New York, NY: Continuum.

Freire, P., Freire, A. M. A., & Macedo, D. P. (1998). *The Paulo Freire reader*. New York, NY: Continuum.

Friedmann, J. (1996). Rethinking poverty: Empowerment and citizen rights. *International Social Science Journal*, *48*(148), 161–172.

Fry, R. (2012). Hispanic public school enrollments. *Pew Hispanic Center*. Retrieved from http://www.pewhispanic.org/2012/08/20/ii-hispanic-public-school-enrollments/

Gee, J. P. (1989). What Is literacy? *Journal of Education*, *171*(1), 18–25.

Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2005). English language learners in US schools: An overview of research findings. *Journal of Education for Students Placed at Risk*, *10*(4), 363–385.

Giddens, A. (1984). *The constitution of society: Outline of the Theory of Structuration*. Berkeley: University of California Press.

Gilster, P. (1997). *Digital literacy*. New York, NY: Wiley Computer.

Glaser, B. G. (1978). *Theoretical sensitivity: Advances in the methodology of grounded theory*. Mill Valley, CA: Sociology Press.

Glaser, B. G., & Strauss, A. L. (2009). *The discovery of grounded theory: Strategies for qualitative research*. New Brunswick, N.J.: Transaction Publishers.

Gobo, G. (2008). *Doing Ethnography*. London: SAGE Publications Ltd. Retrieved from http://srmo.sagepub.com/view/doing-ethnography/SAGE.xml

Goddard, J. T. (2010). Collective Case Study. In *Encyclopedia of Case Study Research*. Thousand Oaks, CA: SAGE Publications, Inc. Retrieved from http://knowledge.sagepub.com/view/casestudy/SAGE.xml

Goo, S. (2013, December 23). Immigration: Key data points from Pew Research. *Pew Research Center*. Retrieved from http://www.pewresearch.org/key-data-points/immigration-tip-sheet-on-u-s-public-opinion/

Gordon, E. M. (1996). *Locus of control, acculturation, and emotional functioning: A study of Filipino Americans* (Unpublished doctoral dissertation). Pasadena, CA: Fuller Theological Seminary.

Granger, A. (2014, January 7). How are kids using educational media at home? *EdSurge*. Retrieved from https://www.edsurge.com/n/2014-01-27-how-are-kids-using-educational-media-at-home

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of Qualitative Research*, *2*, 163–194.

Gustavson, L. C., & Cytrynbaum, J. D. (2003). Illuminating Spaces: Relational Spaces, Complicity, and Multisited Ethnography. *Field Methods*, *15*(3), 252–270. doi:10.1177/1525822X03254903

Gutiérrez, D. G. (1999). Migration, emergent ethnicity, and the" third space": The shifting politics of nationalism in Greater Mexico. *The Journal of American History*, *86*(2), 481–517.

Gutiérrez, K. D. (2008). Developing a sociocritical literacy in the Third Space. *Reading Research Quarterly*, *43*(2), 148–164.

Gutiérrez, K. D., Baquedano-López, P., & Tejeda, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the Third Space. *Mind, Culture, and Activity*, *6*(4), 286–303. doi:10.1080/10749039909524733

Haddix, M., & Sealey-Ruiz, Y. (2012). Cultivating digital and popular literacies as empowering and emancipatory acts among urban youth. *Journal of Adolescent & Adult Literacy*, *56*(3), 189–192. doi:10.1002/JAAL.00126

Halliday-Wynes, S., & Beddie, F. (2009). *Informal learning at a glance*. Adelaide, SA, Australia: National Centre for Vocational Education Research (NCVER).

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, *2*(1), 8.

Howard, E. R., Lindholm-Leary, K. J., Sugarman, J., Christian, D., & Rogers, D. (2007). *Guiding principles for dual-language education* (2nd ed.). Washington, DC: Center for Applied Linguistics. Retrieved from http://www.cal.org/twi/guiding_principles.pdf

Huda, A. (2012). Education: The process of acculturation through formal education. *EDUCATION*. Retrieved from http://itahuda.blogspot.com/2012/09/the-process-of-acculturation-through.html

Hung, D., Lee, S.-S., & Lim, K. Y. T. (2012). Sustaining research innovations in educational technology through communities of practice. *Educational Technology*, *52*(4), 33–37.

Jenkins, K. (2013). *Talk to Me in Spanish: Interpreting Slang* (M.A.). Washington, DC: Howard University. Retrieved from http://search.proquest.com.libproxy.lib.unc.edu/docview/1433075184/abstract?accountid=14244

Jucker, R. (2002). *Our common illiteracy: Education as if the earth and people mattered*. Germany: Peter Lang.

Kahn, R., & Kellner, D. (2005). Reconstructing technoliteracy: A multiple literacies approach. *E-Learning and Digital Media*, *2*(3), 238–251.

Kahn, R., & Kellner, D. (2007). Paulo Freire and Ivan Illich: Technology, politics and the reconstruction of education. *Policy Futures in Education*, *5*(4), 431–448.

Kleven, T. (2009). Systemic classism, systemic racism: Are social and racial justice achievable in the United States? *Connecticut Public Interest Law Journal*, *8*, 207.

Knight, G. P., Bernal, M. E., Garza, C. A., Cota, M. K., & Ocampo, K. A. (1993). Family socialization and the ethnic identity of Mexican-American children. *Journal of Cross-Cultural Psychology*, *24*(1), 99–114.

Knight, G. P., Vargas-Chanes, D., Losoya, S. H., Cota-Robles, S., Chassin, L., & Lee, J. M. (2009). Acculturation and enculturation trajectories among Mexican-American adolescent offenders. *Journal of Research on Adolescence : The Official Journal of the Society for Research on Adolescence*, *19*(4), 625–653. doi:10.1111/j.1532-7795.2009.00614.x

Kuperminc, G., Wilkins, N., Roche, C., & Alvarez-Jimenez, A. (2009). Risk, resilience, and positive development among Latino youth. *Handbook of US Latino Psychology: Developmental and Community-Based Perspectives*, 213–233.

Lala, A. P., & Kinsella, E. A. (2011). Embodiment in Research Practices. In J. Higgs, A. Titchen, D. Horsfall, & D. Bridges (Eds.), *Creative Spaces for Qualitative Researching* (pp. 77–86). Boston, MA: SensePublishers.

Latijam. (n.d.). Retrieved from University of North Carolina, Latino Journalism & Media website: http://latijam.jomc.unc.edu/latijam/

Latino Community Credit Union. (n.d.). Retrieved from http://latinoccu.org/

Leaper, C., Anderson, K. J., & Sanders, P. (1998). Moderators of gender effects on parents' talk to their children: A meta-analysis. *Developmental Psychology*, *34*(1), 3–27. doi:10.1037/0012-1649.34.1.3

Lindholm-Leary, K. J. (2005). The rich promise of two-way immersion. *Educational Leadership*, *62*(4), 56–59.

Livingston, G. (2010). The Latino digital divide: The native born versus the foreign born. *Pew Hispanic Center*. Retrieved from http://www.pewhispanic.org/2010/07/28/the-latino-digital-divide-the-native-born-versus-the-foreign-born/

Lopez, M. H. (2013, August 29). II. Ranking Latino Populations in the States. *Pew Research Center's Hispanic Trends Project*. Retrieved from http://www.pewhispanic.org/2013/08/29/ii-ranking-latino-populations-in-the-states/

Lopez, M. H. (2014, April 29). Hispanic Nativity Shift. *Pew Research Center's Hispanic Trends Project*. Retrieved from http://www.pewhispanic.org/2014/04/29/hispanic-nativity-shift/

Lopez, M. H., Gonzalez-Barrera, A., & Patten, E. (2013). Computer ownership. *Pew Hispanic Center*. Retrieved November 21, 2013, from http://www.pewhispanic.org/2013/03/07/v-computer-ownership/

Luna, D. (Director). (2014). *Cesar Chavez* [Motion Picture]. USA: Canana Films.

Marira, T. D., & Mitra, P. (2013). Colorism: Ubiquitous yet understudied. *Industrial & Organizational Psychology*, *6*(1), 103–107. doi:10.1111/iops.12018

Mazzer Barroso, M. (2002). Reading Freire's words: Are Freire's ideas applicable to Southern NGOs? Presented at the Center for Civil Society international working papers, London: Center for Civil Society. Retrieved from http://www.lse.ac.uk/collections/CCS/publications/

McAnany, E. G. (1984). The diffusion of innovation: Why does it endure? *Critical Studies in Mass Communication*, *1*(4), 439–442. doi:10.1080/15295038409360053

Melkote, S. R. (1991). *Communication for Development in the Third World: Theory and Practice*. New Delhi: SAGE Publications.

Melkote, S. R., & Steeves, H. L. (2001). *Communication for Development in the Third World: Theory and Practice for Empowerment*. New Delhi: SAGE Publications.

Moje, E. B., Ciechanowski, K. M., Kramer, K., Ellis, L., Carrillo, R., & Collazo, T. (2004). Working toward Third Space in content area literacy: An examination of everyday funds of knowledge and discourse. *Reading Research Quarterly*, *39*(1), 38–70.

Monnet, J. (2011). The symbolism of place: A geography of relationships between space, power and identity. *Cybergeo : European Journal of Geography*. doi:10.4000/cybergeo.24747

Morales, A., & Hanson, W. E. (2005). Language brokering: An integrative review of the literature. *Hispanic Journal of Behavioral Sciences*, *27*(4), 471–503. doi:10.1177/0739986305281333

Mundy, M.-A., Kupczynski, L., & Kee, R. (2012). Teacher's perceptions of technology use in the schools. *SAGE Open*. doi:10.1177/2158244012440813

Murchison, J. (2010). *Ethnography essentials: Designing, conducting, and presenting your research*. Hoboken, NJ: John Wiley & Sons.

Nguyen, A., & Western, M. (2006). The complementary relationship between the Internet and traditional mass media: The case of online news and information. *Information Research*, *11*(3). Retrieved from http://espace.library.uq.edu.au/view/UQ:8188

The National Center for Education Statistics. (2014). *The Condition of Education - Participation in Education - Elementary/Secondary Enrollment - Racial/Ethnic Enrollment in Public Schools - Indicator April*. Retrieved from https://nces.ed.gov/programs /coe/indicator_cge.asp

North Carolina Public Schools. (2011). Retrieved from http://legislative.ncpublicschools.gov /20110318-fastfacts.pdf

North Carolina Public Schools. (2012). NC Receives NCLB waiver approval. Retrieved from http://www.dpi.state.nc.us/newsroom/news/2011-12/20120530-01

North Carolina Public Schools. (2013). Retrieved from http://www.ncpublicschools.org /fbs/accounting/calendar/

O'Reilly, K. (2009). Visual Ethnography. In *Key Concepts in Ethnography*. London: : SAGE Publications Ltd. Retrieved from http://knowledge.sagepub.com/view/key-concepts-in-ethnography/SAGE.xml

Oldenburg, R. (1997). Our vanishing third places. *Planning Commissioners Journal*, *25*, 8–10.

Orange County Schools. (n.d.). Retrieved from http://www.orange.k12.nc.us /academic_dept_pages/esl.html

Organista, P. B., Marín, G., & Chun, K. M. (2010). *The psychology of ethnic groups in the United States*. Thousand Oaks, CA: Sage.

Padilla, A. M., & Perez, W. (2003). Acculturation, social identity, and social cognition: A new perspective. *Hispanic Journal of Behavioral Sciences*, *25*(1), 35–55. doi:10.1177/0739986303251694

Pahl, K., & Kelly, S. (2005). Family literacy as a third space between home and school: some case studies of practice. *Literacy*, *39*(2), 91–96.

Park, S. (2007). *The effects of acculturation and education upon intelligence test performances in Korean Americans*. ProQuest.

Parry, K. W. (2004). Constant comparison. In *Encyclopedia of Social Science Research Methods Encyclopedia of social science research methods* (pp. 181–182). Thousand Oaks, CA: SAGE Publications, Inc.

Pask, G. (1975). *The cybernetics of human learning and performance: A guide to theory and research*. London: Hutchinson Educational.

Passel, J. S., & Cohn, D. (2009). A portrait of unauthorized immigrants in the United States. Washington DC: Pew Hispanic Center. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.183.488

Penuel, W. R. (2006). Implementation and Effects Of One-to-One Computing Initiatives: A Research Synthesis. *Journal of Research on Technology in Education (International Society for Technology in Education)*, *38*(3), 329.

Perez-Rivera, M. B., & Dunsmore, J. C. (2011). Mothers' acculturation and beliefs about emotions, mother–child emotion discourse, and children's emotion understanding in Latino families. *Early Education and Development*, *22*(2), 324–354. doi:10.1080/10409281003702000

Pew Hispanic Center. (2007). Changing faiths: Latinos and the transformation of American religion. Retrieved from http://www.pewhispanic.org/2007/04/25/changing-faiths-latinos-and-the-transformation-of-american-religion/

Pew Hispanic Center. (2011). Pew Research Center's Hispanic Trends Project. Retrieved from http://www.pewhispanic.org/states/

Pew Hispanic Center. (2013). A nation of immigrants. Retrieved from http://www.pewhispanic.org/2013/01/29/a-nation-of-immigrants/

Phompun, C., Thongthew, S., & Zeichner, K. M. (2013). The use of the hybridity theory and the third space concept to develop a teaching identities enhancement program for student teachers. *Silpakorn University Journal of Social Sciences, Humanities, and Arts*, *13*(1), 197–214.

Prensky, M. (2001). Digital natives, digital immigrants: Part 1. *On the Horizon*, *9*(5), 1–6. doi:10.1108/10748120110424816

Quarry, W., & Ramirez, R. (2009). *Communication for another development: Listening before telling*. London: Palgrave Macmillan.

Raffaelli, M., & Ontai, L. l. (2004). Gender socialization in Latino/a families: Results from two retrospective studies. *Sex Roles*, *50*(5/6), 287–299.

Rhyne, A., Yearwood, D. L. (2005). The nature and scope of Hispanic/Latino gangs in North Carolina. Raleigh, NC: North Carolina Criminal Justice Analysis Center.

Richey, R. (2008). Reflections on the 2008 AECT definitions of the field. *TechTrends*, *52*(1), 24–25. doi:10.1007/s11528-008-0108-2

Rideout, V. (2014). Learning at home. Retrieved from http://pequelia.es/files /2014/01/estudio_tablets.pdf

Rogers, E. M. (1983). *Diffusion of innovations*. New York: Free Press.

Romero-Gwynn, E., Gwynn, D., Grivetti, L., McDonald, R., Stanford, G., Turner, B., … Williamson, E. (1993). Dietary acculturation among Latinos of Mexican descent. *Nutrition Today*, *28*(4), 6–12.

Rosaldo, R. (1994). Cultural citizenship, inequality, and multiculturalism. *Latino Cultural Citizenship: Claiming Identity, Space, and Rights*, *37*.

Schofield, J. W., & Davidson, A. L. (2002). *Bringing the Internet to school: Lessons from an urban district*. San Francisco: Jossey-Bass.

Schvaneveldt, P. L., & Behnke, A. O. (2012). Family Life Education with Latino Immigrant Families. In *Family Life Education with Diverse Populations Family life education with diverse populations* (pp. 165–186). Thousand Oaks, CA: SAGE Publications, Inc. Retrieved from http://knowledge.sagepub.com/view/family-life-education-with-diverse-populations/n8.xml

Sharples, M. (2005). Learning as conversation: Transforming education in the mobile age. In *Proceedings of Conference on Seeing, Understanding, Learning in the Mobile Age* (pp. 28–30). Budapest: Learning in the Mobile Age.

Skerrett, A. (2010). Lolita, Facebook, and the third space of literacy teacher education. *Educational Studies*, *46*(1), 67–84.

Smith, L. (2005). Psychotherapy, classism, and the poor: Conspicuous by their absence. *American Psychologist*, *60*(7), 687–696. doi:10.1037/0003-066X.60.7.687

Soja, E. (1996). *Thirdspace: Journeys to Los Angeles and other real-and-imagined places*. Cambridge, MA: Blackwell.

Stake, R. E. (1995). The art of case study research. *SAGE*. Retrieved from
 http://www.sagepub.com/textbooks/Book4954?prodId=Book4954

Stilling, E. A. (1997). The electronic melting pot hypothesis: The cultivation of acculturation
 among Hispanics through television viewing. *Howard Journal of Communications*, *8*(1),
 77–100. doi:10.1080/10646179709361744

Taylor, P. V. (1993). *The texts of Paulo Freire*. Buckingham: Open University Press.

Unger, J., Reynolds, K., Shakib, S., Spruijt-Metz, D., Sun, P., & Johnson, C. (2004).
 Acculturation, physical activity, and fast-food consumption among Asian-American and
 Hispanic adolescents. *Journal of Community Health*, *29*(6), 467–481.

Urrieta, L. (2004). Dis-connections in "American" citizenship and the post/neo-colonial: People
 of Mexican descent and whitestream pedagogy and curriculum. *Theory & Research in
 Social Education*, *32*(4), 433–458. doi:10.1080/00933104.2004.10473264

U.S. Census Bureau. (2010). *2010 Census*. Retrieved from http://www.census.gov/2010census/

U.S. Census Bureau. (2014). *North Carolina QuickFacts from the US Census Bureau*. Retrieved
 from http://quickfacts.census.gov/qfd/states/37000.html

Valdés, G. (1996). *Con respeto: Bridging the distances between culturally diverse families and
 schools : An ethnographic portrait*. New York, NY: Teachers College Press.

Valdés, G. (1997). The teaching of Spanish to bilingual Spanish-speaking students: Outstanding
 issues and unanswered questions. *La Enseñanza Del Español a Hispanohablantes. Praxis
 Y Teoría*, 8–44.

Valdés, G. (2001). *Learning and not learning English : Latino students in American schools*.
 New York, NY: Teachers College Press.

Valdés, G. (2004). Between support and marginalization: The development of academic
 language in linguistic minority children. *International Journal of Bilingual Education
 and Bilingualism*, *7*(2-3), 102–132.

Valdés, G. (2005). Bilingualism, heritage language learners, and SLA research: Opportunities
 lost or seized? *The Modern Language Journal*, *89*(3), 410–426.

Vargas, L. (2006). Transnational media literacy analytic reflections on a program with Latina
 teens. *Hispanic Journal of Behavioral Sciences*, *28*(2), 267–285.
 doi:10.1177/0739986305285823

Vargas, L. (2009). *Latina teens, migration, and popular culture*. New York, NY: Peter Lang.

Villenas, S. (2001). Latina Mothers and small-town racisms: Creating narratives of dignity and moral education in North Carolina. *Anthropology & Education Quarterly*, *32*(1), 3–28. doi:10.1525/aeq.2001.32.1.3

Waldinger, R. (1993). The ethnic enclave debate revisited. *International Journal of Urban and Regional Research*, *17*(3), 444–452.

Walker, K. P. (2012). *Racial identity development and psychological adjustment in biracial individuals of minority/minority racial group descent*. USA: ProQuest.

Warschauer, M. (2000). Language, identity, and the Internet. *Race in Cyberspace*, 151–170.

Warschauer, M. (2004). A teacher's place in the digital divide. *Yearbook of the National Society for the Study of Education*, *106*(2), 147–166. doi:10.1111/j.1744-7984.2007.00118.x

Warschauer, M., Matuchniak, T., Pinkard, N., & Gadsden, V. (2010). New technology and digital worlds: Analyzing evidence of equity in access, use, and outcomes. *Review of Research in Education*, *34*, 179–225.

Watson, B. R., & Riffe, D. (2013). Perceived threat, immigration policy support, and media coverage: Hostile media and presumed influence. *International Journal of Public Opinion Research*, *25*(4), 459–479. doi:10.1093/ijpor/eds032

Whatley, M., & Batalova, J. (2013, August). Indian Immigrants in the United States. *The Migration Information Source*. Retrieved from http://www.migrationinformation.org/USfocus/display.cfm?ID=962

Wilson, K. B., & Senices, J. (2008). Skin color and Latinos with disabilities: Expanding what we know about colorism in the United States. In R. E. Hall (Ed.), *Racism in the 21st Century* (pp. 171–191). New York, NY: Springer. Retrieved from http://link.springer.com.libproxy.lib.unc.edu/chapter/10.1007/978-0-387-79098-5_10

Wortham, S. E. F., Murillo, E. G., & Hamann, E. T. (2002). *Education in the new Latino diaspora policy and the politics of identity*. Westport, CT: Ablex Pub.

Zayas, L. H. (2011). *Latinas attempting suicide: When cultures, families, and daughters collide*. New York, NY: Oxford University Press.

Zhao, Y., & Frank, K. A. (2003). Factors affecting technology uses in schools: An ecological perspective. *American Educational Research Journal*, *40*(4), 807–840.