

ABSTRACT

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EXPLORING FUNDS OF KNOWLEDGE
AND CAPITAL: CASE STUDIES OF
LATINO IMMIGRANT FAMILIES
SUPPORTING THEIR CHILDREN'S
EDUCATION, WITH A FOCUS ON
MATHEMATICS.

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Latino students are frequently positioned by widespread achievement gap discourse at the bottom of the attainment spectrum. Both students and families are portrayed as inadequate and deficient, and are blamed for their lack of success in mathematics. One recommendation to improve Latino students' educational performance is to increase parental involvement in mathematics among Latinos. However, life conditions of Latino immigrant families include factors that often make it difficult for parents to get involved in the education of their children in the ways that schools expect.

This study explores the knowledge and resources two Latino immigrant families have acquired through their experiences and how they use them to support their children's education and mathematics education. In order to analyze families' resources, a theoretical framework composed by the concepts of educability, capital, and funds of knowledge and community cultural wealth was developed. The construct of educability, which analyzes the tensions between the limitations that poverty and other life conditions impose on families and the possibilities for students to succeed in school, provides the overarching structure of the framework. Bourdieu's theory of cultural capital and the cycle of reproduction of capital describe why social groups with more capital (middle and upper classes) acquire capital easily, whereas social groups with less capital (low socioeconomic working classes) have fewer opportunities to acquire capital. This piece of the framework explains why it is so difficult for students living in hard conditions to overcome them and succeed academically. The funds of knowledge and community cultural wealth perspectives made it possible to identify the resources and knowledge families have acquired through their experiences and understand their actions and hopes in connection to their life histories. In particular, the study analyzes how families use their resources along three dimensions that affect children's conditions of educability. First, the study looks at how parents influence students' dispositions towards education; second, how parents develop relationships with schools; and third, how parents influence what students do in their leisure time.

The researcher's journey as a white middle-class highly educated woman working with Latino working-class families is also analyzed as part of the study.

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STUDIES OF LATINO IMMIGRANT FAMILIES SUPPORTING THEIR
CHILDREN'S EDUCATION, WITH A FOCUS ON MATHEMATICS.

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Preface: Researcher's Positionality

Since I started working in mathematics education, theory and practice have always been interrelated in a very dynamic way. While teaching mathematics, I looked into theory for insights to questions that arose from the practice, and the ideas I gathered from theory informed my practice and generated new questions. At the same time, my own practice gave me context and background to make sense of the theoretical constructs and research results. For many years now I have been detached from classroom teaching, and for over three years I have been working as a Spanish-English interpreter and as a parent liaison in the school district where I live. My questions and reflections arise, once again, from my practice, this time working with Latino¹ immigrant families in the context of schools.

As a parent liaison, I was the person in charge of facilitating the communication between parents and the schools, as well as engaging parents in school activities and their children's education in general. In my interactions with parents, in particular with Latino parents, I had the opportunity to listen to their concerns about many issues, but what really caught my attention were the difficulties they encountered in helping their children with school work. This issue was the seed for my study.

¹ Some publications use the terms Latinos whereas some other use Hispanic. In this dissertation, I will use both terms interchangeably as they appear in the citations.

This study not only is rooted in my practice as a liaison between Latino immigrant parents and schools, but it deeply relates to who I am as an immigrant, as an English learner, as a mathematics teacher, as a parent, as a white Latina in the U.S., as a middle class professional, and as part of the school system. It is not by chance that I have chosen to work with Latino immigrant parents on issues related to their participation in schools and involvement in their children's mathematics education. All these aspects of my life influence what I do as a researcher. The way I approach my research, including the way I develop rapport with Latino parents, interact with them and engage them in my study, the way I see my role as a researcher, the way I envision the purpose of my study, and the way I will look at and analyze the data are all part of my study and are permeated by my experiences.

Anthropologists have argued for the importance of including the researcher's stance towards issues being studied as part of the study, that is, the researcher's positionality. Thorne explains,

Positionality is the practice of a writer or theorist delineating his or her own position in relation to the study, with the implication that this position may influence aspects of the study, such as the types of information collected, or the way in which it is interpreted (Thorne, website).

In effect, "when researchers are not mindful of the enormous role of their own and others' racialized positionality and cultural ways of knowing, the results can be dangerous to communities and individuals of color" (Milner, 2007, p. 388). Milner warns us of dangers seen, unseen, and unforeseen when doing research without

carefully examining our positionality and potential biases when working with underserved groups and People of Color. He offers us, researchers, a framework to “guide [us] in a process of racial and cultural consciousness as [we] conduct education research” (p. 388). This framework consists of a series of racially and culturally grounded questions we must ask ourselves every time we embark on doing research with people that have been historically disenfranchised. I am going to try to answer some of the questions as a way to get started in this process of self-reflection and awareness that will be important throughout my study, which aims at understanding Latino immigrant families’ experiences, resources, and obstacles in their efforts to support their children success in education in general and in mathematics in particular.

My own process of racial and cultural consciousness started relatively recently, so I believe my journey through this process will be a crucial part of this study. As a student at the University of Maryland I had to observe in several schools in the community and engage myself in reading about, observing, discussing, and reflecting upon the racialized experiences of students of color in schools. For me, as a newcomer to the U.S., it was a completely new way of looking at the reality of schools. At first, I was somehow lost in those discussions about race, and I kept wondering why race mattered so much for people here in the US. In a second stage, I started to see the tracking and segregation in schools and to understand that race matters because People of Color have very different experiences in schools, and in life in general, from white people. With this new framework I began to be able to

observe and realize things that I could only see at and hear before, but could not really identify and process in the way I started to do with this new “set of eyes.” Then I came to the realization that *here* in the U.S. race matters. I naively thought that I did not understand race before because here it is different from where I come from. But soon after I started to shift my thinking from race as the color of your skin to the implications of the racialized experiences of people of color, it was clear to me that there is race and racism in every place I have lived. But as a white middle class person, particularly in my own country, I just never experienced it. Looking back, I started to wonder how other people may have experienced the same reality differently and to try to listen to and learn about other people’s racialized experiences.

This study is one more step in that direction. It is a project that deeply relates to who I am. I have purposefully chosen to work with immigrant families because I can relate to them through the experience of being an immigrant, being “the other,” as well as being a parent. However, the families I have chosen to work with, immigrants from Latin America with lower levels of education than I have, sometimes without legal status in this country, have very different experiences than mine in many ways. My interest in working with immigrants developed from my work with them as an interpreter and parent liaison for the school system. In that capacity I realized that, on the one hand, I could develop good rapport with them through our shared experiences, but also, because of our different experiences, I could be a source of information and, hopefully, empowerment for them. As an immigrant parent and an English learner myself, I feel I can relate to parents, to their experiences of being

immigrants, to their plight, in ways that people who have never been in the position of being an immigrant can. I believe I have gone through some similar struggles that many of the parents with whom I usually work go through, trying to overcome the language barrier and learning how to navigate many aspects of our lives here, especially in the schools. As a mother of school children in the same school district I work, I have learned (and I am still learning) how to navigate and participate in schools as an immigrant mother. Despite being an immigrant, however, as a white, middle-class, professional woman, I know I have had privileges and resources that I have drawn upon, that may not be directly available to many Latino immigrant parents. These advantages have helped me through the struggle of being an immigrant in many ways. Education has been the key. My educated middle class background and privileges connect me to the school personnel in a different way than often working class parents do. Moreover, I am a teacher myself (although not working currently as a teacher) and an employee of the school system, and I can relate to teachers and administrators as an insider in some ways. Also, the educational credentials I already had when I arrived to the U.S. have opened many doors for me, the most important one being the scholarship to pursue graduate studies in education. This was not only an opportunity to get a degree, but to also build a social network by getting to know and engaging with people that already know “how things work” here. I have been studying, observing, reading, and talking about education and the educational system in the US for years now, which gives me valuable knowledge about how educational institutions work. Certainly, it has not

been an easy process. It has taken me a long time and a great deal of effort to get where I am now. But having a professional husband who could make enough money to support the family has given me the opportunity to invest time and effort to continue studying and developing relationships that help me move forward socially and professionally, as well as to spend time in my children's school and in the community to learn how the local educational system works.

Given my background and experiences, I feel I can understand the points of view of both, parents and schools, in ways that many times they do not understand each other's standpoint. Through my work I have often seen difficulties in communication between schools and Latino immigrant parents; I have listened to parents' concerns and struggles to navigate the school system; and I have sat with parents who come for help to understand what it is that their children are learning at school and are asked to do for homework. These are just some examples of areas in which I see there is work to be done to improve parent-school relationships and in which I feel I can contribute. The area that I am particularly interested in working on is improving parent involvement in their children's (mathematics) education.

This kind of situations between Latino parents and the schools are not new. However, one of the biggest problems when tackling these issues is that many proposed "solutions" come from analysis and assessment of the situation done by researchers and school administrators. That is, they come from middle or upper class, highly educated people in positions of power who do not necessarily understand the resources and needs of the people they are trying to "help," but are focused on what

they consider would be beneficial for these families, based on their own rather than on the parents' experiences. I strongly believe that Latino immigrant parents have valuable resources to support their children's education, but often schools do not recognize them as assets. This dilemma, between looking at Latino parents as "lacking" mathematical knowledge and in "need of help;" and recognizing them as a culturally wealthy community rich in funds of knowledge, calls for a statement on where I stand with respect to this quandary.

My positionality in talking with parents about mathematics and mathematics education, resources and needs, has important implications. The fact that I am a middle class white woman with a higher than average knowledge of mathematics and that participating parents are non-white Latinos, likely with lower levels of education than I have, is not to be overlooked. Being a white middle-class, highly educated researcher, it has long been, a struggle for me to negotiate this desire "to help" and the fear of imposing on Latino parents what *I* see as their needs, from *my* middle class point of view. This fear has often paralyzed me, because "helping with math" is precisely an area in which my experiences and my participants' experiences differ substantially, and therefore I cannot relate to my participants in the same way as in other areas (i.e. being an English learner). Having a stronger background in mathematics and mathematics education than the parents with whom I work, it would be very easy for me to see what many Latino parents do not know, and therefore take a deficit perspective. However, it is much more difficult to see the resources they do have in order to work with parents, building on them. At the same time, it is

particularly in this area, in which my experiences and those of my participants differ substantially, where I feel I can contribute the most. I believe the knowledge I have about the school system, both as a scholar and as a parent, and my background in mathematics and mathematics education are also important resources in thinking about interacting with parents around involvement in mathematics education. Sharing the knowledge and experiences I have, that are different from the knowledge and experiences of the majority of Latino parents with whom I work, can be, I believe, a source of new opportunities and empowerment for them. This is, precisely, the source of my interest and enthusiasm in issues of Latino parent involvement in mathematics education. In this regard, the words of Tedesco (Porter, 2006) compel me to keep in mind that it is important to push the boundaries of people's experiences and the universe of what they think is possible for themselves. He explains,

Apparently, we could think that the authoritarian culture [that gives everyone the same education] is substituted by a more democratic one [that gives each one what they ask for]. However, [...] if there are more possibilities and the [educational] offer is complex, demand-driven models are not necessarily more democratic. This is because *the ability to demand is unevenly distributed*. Distributing only in response to the ability to request implies giving only what it is asked for. To make good choices it is necessary to have criteria, know how to pick out between what is worth

and what is not, what satisfies my needs or the market needs. To ask for will be the expression of our ability to see, our values, and our culture.² (Emphasis added)

And I would add that ‘our ability to see, our values, and our culture’ are mediated by our experiences. If we don’t have certain experiences, there are certain things we won’t be able to see, in the same way I could not ‘see race’ when I came to the U.S.

Given my background and the important push for STEM³ education in the last few years, I have a particular interest in parents’ involvement in mathematics education. Moreover, my practice leads me to assert that working on mathematics with Latino parents can contribute to their own, and eventually their children’s, empowerment.

The goal of this study is then to generate conversations with Latino immigrant parents to better understand, first, the circumstances in which they live in relation to their life histories; second, how their life experiences shape *their* particular interests, concerns, needs and resources in relation to education and mathematics; and third, based on their ideas, needs and resources, what they do to support their children’s academic success. Understanding all this information about parents and families is crucial in informing the design of programs that meet Latino families’ needs, and

² Translated from Spanish by Carolina Napp-Avelli

³ Science, Technology, Engineering and Mathematics

build on their experiences and knowledge to expand the realm of opportunities for their involvement in their children's (mathematics) education.

What is extremely important for me is to be monitoring the way I interpret what parents think and do, so I don't judge them from my own perspective, but rather understand them from theirs. It is in this point, I believe, that most of the proposed "solutions" fail. As a researcher, it is my responsibility to interpret and represent the people and communities I work with in ways that honor them and maintain their integrity (Milner, 2007). For example, in case parents don't think mathematics education is important for them or their children in the same way I think it is for me, I want to understand *their* rationale in the context of *their* experiences, yet try to figure out ways to create contexts in which studying mathematics would make sense *for them*. Walking the fine line between "helping vs. imposing" or "give what they ask vs. offer new opportunities" will certainly be challenging.

I bring to this project my experiences, my biases, my hopes, and my fears. I do not intend to be objective, but to describe the reality the way I see it, and be as clear as I can in defining my positionality. Indeed, as part of this study I will be "pursuing deeper racial and cultural knowledge about [myself] and the community or people [with whom I will work]" (Milner, 2007, p. 388).

Dedication

To my participants, Abraham, Anahí, Sandra, and Beatriz, and to their wonderful children. I can't wait to celebrate with you your children's successes and educational accomplishments in the years to come.

And to my children, Ana and Sebi. I hope you follow your heart and your dreams and dedicate your life to something you are really passionate about.

To my father, who left too soon.

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This has been a long and very difficult journey and I would have not got to where I am today without the help, support and love of so many people along the way.

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for listening as I was trying to figure out what I was doing and always giving me sound advice and a critical perspective. I cannot wait to work with you in the thousand projects we have imagined together and to continue learning from you. Judith, thanks for being there in the hardest moments, when I felt it was the end. Ann, thanks for sticking with me, even from far away, when you had to adjust to a new job and do a million things, you still made time to read my work and serve in my committee. To the many CfME graduate students with whom I had the privilege to interact over the years and who have made my experience not only enjoyable, but enriching. Christy, Toni, Rick, Eden, Mike, Geoff, Farhaana, Jill, Nancy, and Emily, I have certainly enjoyed working with you and learning from you, and I hope to continue to do so in some way. To my one credit seminar mates: Hollie, Tom, Senfeng, Angela, Sam, and Sherwin, for your feedback and support during the last months of my dissertation writing. And to present and past faculty and other graduate students from the CfME who have cheered me on and shared with me this important accomplishment. Thanks to you all!

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Table of Contents

Preface: Researcher’s Positionality	ii
Dedication	xii
Acknowledgements.....	xiii
Table of Contents.....	xvi
List of Tables.....	xx
List of Figures.....	xxi
Chapter 1: Problematic Situation to Be Investigated and Relevance	1
Introduction	1
The Problem	3
Parental involvement and factors that affect participation of Latino immigrant families	6
Latinos and Mathematics Achievement	18
A Critical Look at the Traditional Views of Latino Students and Parents.....	22
Chapter 2: Theoretical Framework.....	27
Introduction	27
Educability.....	36
Bourdieu’s Theory of Cultural and Social Capital	41
Critical theories.....	48
Community Cultural Wealth and Funds of knowledge. A Critical analysis of Bourdieuan cultural capital	51
Dilemmas, Paradoxes, and the Power of Complementary Perspectives.....	56
Mathematics at the Intersection of Funds of Knowledge and Cultural Capital	63
Research Questions.....	69
Chapter 3: Literature review.....	71
Importance of parental involvement in education	71
Parental involvement and equity	74

Latino parent involvement in their children’s education and participation in schools	79
Parental Involvement in mathematics	86
Chapter 4: Methodology	96
Introduction	96
Critical ethnography.....	98
Theory and Method in Ethnographic Work	100
Establishing Rapport.....	102
Ethnography and Change	104
Sample.....	105
Recruiting criteria	108
Recruiting process.....	108
Representativeness of the sample	109
Tasks and Data Collection Procedures	111
Participant Observation: Informal Interactions with the Community	111
First Informal Conversation: Questionnaire and Consent Form	112
Interviews	113
Informal Conversations and Interactions with Participants	116
Mathematics Workshops.....	117
Data analysis.....	118
Memos.....	119
Thematic coding	121
Creation of the Cases	122
Chapter 5: Abraham and Anahí.....	127
Organization of the case.....	127
Part 1. Introduction	127
Part 2. Abraham and Anahí’s Funds of Knowledge to Support their Children’s Education in General and in Particular in Mathematics	139
Objective and Economic Capital	140
Experience of Being Immigrant and Immigration Status	146
Embodied capital and conditions of educability.....	155
Parenting.....	161
Education.....	172
Mathematics	186
Part 3. Parental Involvement: How Anahí and Abraham create positive conditions of educability for their children	201

In what ways do Abraham and Anahí seek to influence their children's dispositions towards education and mathematics?	202
In what ways do Abraham and Anahí seek to participate in their children's schools?	206
In what ways do Abraham and Anahí seek to influence what her children do in their time outside of school?.....	212
Chapter 6: Sandra and Beatriz.....	220
Organization of the case.....	220
Part 1. Introduction	221
Part 2: Sandra and Beatriz's Funds of Knowledge to Support Sandra's Children's Education in General and in Particular in Mathematics.....	231
Objective and Economic Capital	233
Embodied Capital: Flexibility and Problem Solving.....	236
Parenting: Transmitting values and preparing her children for life.....	248
Education.....	251
Mathematics	270
Part 3. Parental Involvement: How Sandra and Beatriz create positive conditions of educability for Sandra's children	280
In what ways does Sandra seek to influence her children's dispositions towards education and mathematics?.....	281
In what ways does Sandra seek to participate in her children's schools?.....	285
In what ways does Sandra seek to influence what her children do in their time outside of school?	292
Chapter 7: Discussion and Implications.....	309
Integrated View of Conditions of Educability	310
Interconnectedness of the Three Dimensions of the Educability Framework	310
Creating Opportunities to Learn Mathematics	312
Influence of Children's age in the Conditions of Educability	313
Discussion of the Sample in Terms of Funds of Knowledge and Capital	315
Beyond Aspirational Capital	317
Cycle of reproduction of capital	324
What have I learned? Back to Positionality	325
Appendices	335
Appendix A: Parent Information Sheet (English and Spanish).....	335

Appendix B: Potential Questions for First Interview (English and Spanish) ...	339
Appendix C: Potential Questions for Second Interview (Sandra)	343
Appendix D: Interview after Finishing the Mathematics Workshops	345
Appendix E: Mathematics Workshops Chart	352
Appendix F: Initial List of Codes	354
Bibliography	356

List of Tables

Table 1: Educational Attainment, by Race and Ethnicity: percent of 2009 resident population ages 25 and older. Pew Hispanic Center, 2011, table 22.	11
Table 2: Percentage of students at different achievement-levels in NAEP mathematics for fourth- and eighth-grade Latino public school students nationwide in 2009, 2011 and 2013.....	20
Table 3: Summary of participants	107
Table 4: Summary of Interviews	114

List of Figures

Figure 1: Theoretical Framework and Research Questions.....	69
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Chapter 1: Problematic Situation to Be Investigated and Relevance

Introduction

The general discourse regarding mathematics education of Latinos, dominated by the achievement gap rhetoric, focuses on the underachievement of Latino students and on ways of “helping” Latinos “catch up” (Martin, 2009; Montero-Sieburth, 2005). Of the many avenues that have been suggested to help improve students’ achievement, one that has shown great results is to increase parental involvement in children’s education (i.e. Tinkler, 2002, Hernandez, 2010; Lopez & Donovan, 2009; Van Voorhis, 2011). However, there is a general sense that minority parents, and in particular Latinos, do not get actively involved in their children’s school activities (Tinkler, 2002; also Floyd, 1998). Different groups of people have different explanations for why this is the case. On the one hand, teachers and school personnel tend to interpret the scarce presence of Latino parents in schools as lack of concern and involvement in their children’s education. Moreover, due to these perceptions, Latino parents are often blamed for their children’s academic failure (Montero-Sieburth, 2005; Yosso, 2005). On the other hand, many critical scholars who have worked with and within the Latino community disagree with this perspective and argue that it (mis)judges Latino parents by looking at the issue from a very narrow and limited point of view (Delgado-Gaitán, 2004; Yosso, 2005; Civil and Bernier, 2006; Hernandez, 2010; Ramirez, 2003). According to them, the discourse that

equates participation in school activities with involvement in the children's education is typical of the white middle-class vision, and may not take into account the reality, experiences, and viewpoints of many Latino parents. There are many factors in the lives of Latinos that need to be included in the parent involvement equation. When we take these into account and view Latino student achievement and parental involvement critically, we see a different reality: students' low academic achievement in math is not inherent; and their parents do care about their daughters' and sons' education and future (Flores A., 2007; Hernandez, 2010; Ramirez, 2003).

In fact, many studies reveal that Latinos deeply care about the education of their children, and when their culture and their experiences are taken into account, they show great interest in learning about the schools and do get highly involved (Delgado-Gaitán, 2004; Hernandez, 2010; Montero-Sieburth, 2005; Ramirez, 2003). However, efforts to engage Latino parents in schools are still rare and isolated. Most parent involvement initiatives do not specifically reach out to the Latino community and therefore do not succeed in transforming patterns of parental engagement because "changes in education without the recipients of reform being center stage will remain ineffectual" (Montero-Sieburth, 2005, p. 142). In particular, in mathematics education, Latino students are underrepresented in high level mathematics courses, and overrepresented in the lower levels of math and science courses and special education (Montero-Sieburth, 2005; Flores A., 2007). In order to change this status quo, it is imperative that we make Latinos the center of any reform efforts because

“Latinos know what they need and understand the complexities of their own community” (Montero-Sieburth, 2005, p. 144).

In the spirit of better understanding how Latino parents value education and care about their children’s academic success, in particular in the area of mathematics, I met with a small group of Latino parents to discuss general educational issues, do math, and talk about ways in which they support and can better support their children’s mathematics education. As a researcher in mathematics education trying to understand Latino parents’ experiences supporting their children in mathematics and in education, in this dissertation I present an analysis of information I have collected in the interactions with these parents, using a theoretical framework that takes into account their perspectives and experiences in order to understand their reality in regards to both the hurdles they face and the resources they use to support their children’s mathematics education despite the odds. It is my hope to contribute to the growing body of literature that aims at showing a different view of Latino parents, and Latinos in general as resourceful, determined, and resilient. With this vision in the schools, environments may be created that are welcoming for Latino parents and that support their involvement in their children’s education, building on their strengths.

The Problem

There is an important problem of schooling at the heart of this dissertation: the relationships between schools and Latino immigrant parents around the mathematics education of their children. To describe this problem, I will outline it in three parts.

First, I will review several factors that disproportionately affect Latino immigrants' life conditions. Second, I will present some data on Latino students' achievement in mathematics, highlighting the implications of looking at this kind of data and the importance of looking at Latino parent involvement, particularly in mathematics. Finally, I will discuss how the data has been used to create deficit views of Latino students and parents, and I will present an alternative, critical view of the same situation. Together, these three aspects of the relationships between schools and Latino immigrant parents around the mathematics education of their children will set the stage for the next chapter in which I describe the theoretical framework that I use to analyze this problem of schooling.

The factors I present which disproportionately affect Latino immigrants' life conditions, and which have been discussed in the literature as impacting Latino parental involvement in schools, are (not exclusively): English proficiency, education level, socioeconomic status and employment, and issues related to being immigrants, including immigration status. The area of mathematics is of particular interest for parental involvement because of the increasing demand for qualified workers in areas of technology, engineering, and sciences, and the new push for STEM⁴ education. However, school achievement data situates Latino students at the bottom of the achievement scale, denying them access to the knowledge and skills necessary for the highly-skilled high paying jobs of this century. When working with Latino

⁴ Science, Technology, Engineering and Mathematics.

immigrant parents, it is important to take into account both the factors that impact parent participation, as well as the way students as a group are described in relationship to mathematics achievement for two reasons: first, because they affect Latino families' lives in general and their relationships with schools in the U.S.; second, and even more important, because too often they are taken as the unique features that characterize the Latino community, portraying Latinos as deficient, unable, and inadequate. These views of Latinos are extremely problematic, first of all because they are biased and do not represent the full reality, and also, because they block the possibilities of working with the community to increase parent involvement and eventually student achievement in mathematics. In order for Latinos as a community to progress academically, it is imperative to analyze these views in order to deconstruct them. Taking a critical view, in this study I will present descriptions of my participants that situate them in the context in which they actually live and highlights the ways in which they are involved in their children's education. Such a perspective is meant to contribute to a more nuanced understanding of Latino immigrant parents and their involvement in their children's (mathematics) education, in order to inform programs and policies that build on the resources and strengths of the community and better address their needs.

Parental involvement and factors that affect participation of Latino immigrant families

One area of research that has proven effective in increasing student engagement with academics and eventually raising student achievement for all groups of students is parental involvement (i.e. Epstein, 2005; LaRocque, Kleiman and Darling, 2011). Many studies have shown that when parents are involved and actively support their children's education, students not only do better academically, but also the attendance rates increase and dropout rates decrease "regardless of economic, racial, or cultural background of the family" (Tinkler, 2002, p. 3; also Hernandez, 2010; Lopez & Donovan, 2009; Van Voorhis, 2011). Tinkler (2002), Hernandez (2010), and Lopez and Donovan (2009) conducted literature reviews on Latino parent involvement. In all cases, studies reviewed point to challenges that researchers have found when working with Latino parents, namely, language and cultural barriers, low levels of parental education, psychological aspects, logistical issues, and school environment. Many of these hurdles to Latino parents' involvement are, not surprisingly, associated with the conditions in which they live. Latino families' experiences of being immigrants have high likelihood of including high poverty rates, difficulty to communicate in English, and lack of academic support for struggling students, among other issues. All of these aspects are interrelated, and affect in one way or another students' and their families' experiences in the schools.

In fact, Tinkler (2002), in her review of literature on Latino parent involvement, mentions that studies have found that white parents are increasingly participating in their children's school, whereas low-income minority parents' involvement in schools is decreasing. This is certainly problematic, because it may be an indication that schools work in a way that favor white middle-class families and marginalize low-income minoritized families. Having worked as a liaison between families and the schools, I know it is critical that we understand the circumstances in which disadvantaged families live to be able to create more inclusive programs and policies in the schools that will encourage minoritized families to participate in school within "their paradigms." In that sense it is important to have a broader conception of what is usually considered parent involvement (Jackson & Remillard, 2005). Using a "parentcentric" conception of parent involvement makes it possible to recognize informal practices that parents use at home to support their children's mathematics education⁵ (Jackson & Remillard, 2005). If we want to consider parents as partners in children's education (Lopez & Donovan, 2009), we need to find out what their strengths are and what resources they can bring to their children's education, as well as to a more broadly conceived partnership with the school.

In the following sections I will give an overview of particularly important factors to take into account when working with Latino families, namely, English

⁵ This is precisely the idea behind the Funds of Knowledge approach, that I will develop in the next chapter as part of my theoretical framework.

proficiency, education level, socioeconomic status and employment, and being immigrant and immigration status. These are factors I consider significant in the analysis of the life conditions of my participants.

English proficiency

Language is the first factor that comes up as a barrier between Latino immigrant parents and schools. As indicated by the Pew Hispanic Center (2011) 72% of the foreign born Latinos 18 years old and older reported to speak English “less than very well.” In terms of country of origin, 82% of children of immigrants from Mexico had in 2005-06 at least one parent that was not proficient in English, and for Central American immigrants, that number was 68% (Fortuny, Capps, Simms, & Chaudry, 2009). Moreover, in 2006, more than 25% of children of immigrants lived in linguistically isolated homes, that is, “where no person 14 or older spoke English very well” (Fortuny, Capps, Simms, & Chaudry, 2009, p. 7). “Large numbers of linguistically isolated children and lack of interpretation and translation resources in states with limited experience settling newcomers can make it challenging for agencies to provide services to these families” (p. 7) and for these families to become integrated in American society.

Unfortunately, many schools with high percentages of Latinos often do not have bilingual office staff to communicate with parents, let alone bilingual teachers, or teachers prepared to work with immigrant families; and sometimes they do not provide interpreters for parent-teacher conferences or school events (Tinkler, 2002).

Jacobson, Huffman, Rositas and de Corredor (1997) reported that in the school they studied, “lack of translation at the PTA⁶ meetings and other [events] were identified as hindrances to parental involvement” (p. 1). “The Stanton-Salazar research indicated...[that] recent immigrants expressed the strongest feelings of isolation and due to lack of English proficiency and poor literacy skills they were inhibited from actively engage school personnel” (Hernandez, 2010, p. 21). On the contrary, “parents were able to gain empowerment, communication, and advocacy skills by being allowed to speak about their children’s education in their native language and in a peer-group environment” (Jacobson, Huffman, Rositas, & de Corredor, 1997, p. 1) and “this made them realize the power and influence they can have in the education of their children” (p. 12).

Despite most of the reviewed studies report Latino parents’ limited English proficiency as an obstacle to parent involvement, Hernandez (2010) found that parents who were engaged and participated in the school found ways to circumvent the language barriers, whereas parents who were not involved did not. She did not explain, however, whether parents who find ways to communicate can participate more or the other way around, that is, parents who want to participate find ways to communicate with school personnel.

⁶ Parent-Teacher Association

Education level

Latino immigrant parents are likely to have low levels of education (Pew Hispanic Center, 2011). Hispanics are the least educated group in the U.S. As Table 1 illustrates, 34.6% of foreign born Latinos, have less than 9th grade completed, compared to 6.3% for all categories together; and less than 10% of them have college degrees, compared to 27.9 % overall. Unfortunately, this does not come as a surprise, given that Hispanic immigrants come from countries in many of which compulsory education is less than 9 years. This legal obligation, however, has not been enough for all school-age children to have access to education and be able to complete the years of schooling provided by law in each country. People from low income households usually have 8 years of schooling or less⁷ (UNESCO, 2007, p. 29). Although Hispanics in the U.S. are increasing in educational achievement, they are not doing so as fast as other groups (Excelencia in Education, 2008). In particular, 47% of immigrants from Mexico did not have a high school diploma in 2005-06, and only 7% had finished four years of college or more. For immigrants from Central America the situation is better, but still not ideal, since 31% did not have a high school diploma and 50% had a high school diploma, but not a college degree or more (Fortuny, Capps, Simms, & Chaudry, 2009).

Hernandez (2010) reported, “Hill and Stafford (1985) found that college-educated mothers devoted significantly more time to children than mothers with only

⁷ Translation from Spanish by Carolina Napp-Avelli

a high school education or less did” (p. 16). Then, in her examination of Latino parent involvement, Hernandez (2010) found that, in her sample, parents who were more active in the school had higher levels of education. Although the difference was less than 2 years of education, she suggests “it could be possible that parents with higher education, even if it is 1.7 years more than the average non-involved parent’s education, understood what it is to be more involved” (p. 51).

EDUCATION	Less than 9th grade (%)	9th to 12th grade (%)	High school graduate (%)	Some college (%)	College graduate (%)	Total %
Hispanic	23.5	15.5	26.0	22.2	12.7	100.0
Native born	8.9	13.5	29.2	31.9	16.6	100.0
Foreign born	34.6	17.1	23.7	14.9	9.7	100.0
White alone, not Hispanic	3.0	6.6	29.3	30.0	31.1	100.0
Black alone, not Hispanic	5.4	13.0	31.6	32.3	17.7	100.0
Asian alone, not Hispanic	8.6	6.0	16.0	19.6	49.9	100.0
Other, not Hispanic	5.0	9.6	27.6	35.3	22.6	100.0
All	6.3	8.5	28.5	28.9	27.9	100.0

Table 1: Educational Attainment, by Race and Ethnicity: percent of 2009 resident population ages 25 and older. Pew Hispanic Center, 2011, table 22.

It is often very difficult for Latino parents with low levels of formal education and limited English to understand what their children are learning in school, in order to be able to supervise homework and assist with academic difficulties. Even parents with some formal education may find it difficult to understand the way their children are learning in this era of reform-based education. According to Abreu and Cline

(2005), it is important to identify the cognitive and technical demands that new educational initiatives impose on parents and other stakeholders. If schools do not actively seek to support parents in helping their children with school work, this expectation seems unrealistic and can psychologically affect parents by provoking feelings of poor self-worth, inadequacy, and helplessness (Lopez & Donovan, 2009; Tinkler, 2002).

Socioeconomic status and employment

Latinos are not only the fastest growing group of students, but they are “the fastest-growing population of *poor* children” (Martínez Alemán, 2006, p. 25, emphasis added). In 2006, 27% of Latino families with children under 18 lived in poverty (Excelencia in Education, 2008). As a consequence, these children are likely “to live in communities where housing, transportation, and employment opportunities are compromised [and they are also] likely to attend high-poverty schools in which positive peer influence is lacking” (Orfield and Lee, 2005; as cited in Martínez Alemán, 2006, p. 26).

In 1970, the percentage of immigrant children and children of immigrants in low-income families was about the same as for non-Hispanic whites and much lower than for African Americans. By 2002, with a shift in immigration from Europe and Canada to immigration from Central and South America and Asia, immigrant children are only a little less likely than African Americans to live in low-income

families. In particular, among children of immigrants who are also English learners, 60% live below the poverty level (Fix & Capps, 2005).

“In 2006, Hispanics represented 14% of the U.S. labor force, 15% of the unemployed, 12% of the long-term unemployed, 22% of those working part-time for economic reasons, and 13% of marginally attached workers” (Excelencia in Education, 2008, p. 39). Of the Hispanics 16 and over who were employed, 24% were in service occupations, followed by 21% in sales and office occupations, and 19% in natural resources, construction, and maintenance occupations (Excelencia in Education, 2008). That is, 64% of Hispanics have jobs that do not require high qualifications and therefore are very likely to be associated with low salaries. This means that although “Latinos are participating at higher levels than ever before in the workforce [...], without education, they will continue to work at the lower echelons of society, providing much of the needed public and social services but not moving up into better paying positions” (Montero-Sieburth, 2005, p. 102). With access to better education, unemployment rates generally decline. “In 2006, the unemployment rate for Hispanic college graduates was 2%, while the rate for Hispanics with less than a high school diploma was 6%” (Excelencia in Education, 2008, p. 39). With education, Hispanics will not only fight unemployment, but also have access to better employment opportunities with higher salaries. According to the Condition of Latinos in Education 2008 report, “education pays for Hispanics”. The median weekly pay for Latinos high school dropouts in 2006 was \$396, whereas for college graduates it was \$860 (Excelencia in Education, 2008, p. 39).

There are many logistical aspects associated with low socioeconomic families that affect their participation in schools. Latino parents often work multiple jobs, having difficult schedules and little time to attend school events. Child care is also a problem when it comes to assisting teachers during instructional time, since Latino families usually cannot afford to pay for child care for younger siblings. Transportation can be a logistic obstacle as well, when the family has only one car, and it is usually used by the person who goes to work (Tinkler, 2002).

Because low socioeconomic status is highly correlated with low levels of education, often working class parents do not feel adequate to participate in the school and to make suggestions for improvements. On the contrary, they are “afraid of doing anything incorrect in school-related matters [and] they tend to be much more respectful of educators than middle-class parents” (Hernandez, 2010, p. 19).

Being Immigrant and Immigration Status

The condition of being immigrant carries great significance for relationships with new institutions. Immigrants do not have the experience of growing up in the new country and do not have familiarity with norms and expectations of institutions like schools in the new culture. For Latinos, and for immigrants in general, it takes time to understand “how things work” in the U.S. and to develop a social network of support that will help them navigate the new system. Jacobson, Huffman, Rositas, and de Corredor (1997) found that parents in their study “initially had an attitude of low self-esteem... [and] sometimes they felt helpless or frustrated because of the

poor social support system they have in this country” (p. 13). Even Latino parents who had spent some time in the U.S. and were more comfortable than recent immigrants were still not actively engaged in the schools because they “lacked knowledge of how the system worked and how to become informed in order to make academic learning better for their students” (Stanton-Salazar as cited in Hernandez, 2010, p. 21).

Difficulties in communication between parents and schools go beyond learning the language (Lopez & Donovan, 2009). Latino immigrant parents and school teachers often have different ideas of what it means to be involved in the education of their children, and this is actually a big part of the problem in parent-teacher (mis)communication and parent involvement (Tinkler, 2002). Often teachers misinterpret Latino parents’ reserve and non-presence in the school, as a sign of lack of concern with and involvement in their children’ education (Tinkler, 2002). However, a variety of studies on Latino parents’ perceptions of their responsibility for their kids’ education have shown that Latino parents value education very highly (Bridgeland, Dilulio, Streeter & Mason, 2008; Ryan, Casas, Kelly-Vance & Ryalls, 2010) and are willing to get involved in their children’s education (Lopez & Donovan, 2009; Tinkler, 2002;). Latino parents interviewed by Hernandez (2010) “left no doubt that they value education, even if this seldom translated into being actively engaged in schooling” (p. 21). The fact is that in the Latino culture the work of teachers is greatly respected, and any intervention from parents in the children’s instruction would be considered disrespectful to the teacher (Trumbull et. al., 2001, as

cited in Tinkler, 2002). This cultural norm contrasts with American schools' expectations of parental involvement in the education of their children by showing up in the school, following closely what students do academically, and helping in the classroom (Valencia & Black, 2002). Participation for Hispanic parents usually means supporting students at home, providing food, shelter, school supplies, and teaching good manners and values. "Parents show support through their personal style of storytelling and *consejos*, giving advice ... 'framed in the context of family's oral history [as] one way parents attempt to instill and reinforce educational values and to motivate their children to persist in their schooling'" (Hernandez, 2010, p. 22; also López & Vázquez, 2006; Valencia & Black, 2002).

Standardized testing, so ingrained in U.S. education, and the ways it is used to evaluate and classify students are usually foreign practices for immigrant parents. Assessment practices and policies in general are "rarely understood by Latino parents, because their knowledge of the way that schools are organized or the curriculum functions is not accessible to them" (Montero-Sieburth, 2005, p. 136).

Jacobson et al (1997), in their work with parents of minoritized groups, noted certain differences between their group of Hispanic parents and their English-speaking mothers. "It ... was determined that Hispanic parents needed more time for their meetings, since they socialized at each meeting. They talked more and in a more familiar way than the English-speaking parents" (p. 8). They also noticed that Hispanic parents had a difference sense of time, and being late is not impolite or rude

for them. So being flexible with punctuality is one of their recommendations for working with Hispanic parents that may help bridge the cultural gap (p.17).

Although a large number of Latino students are U.S.-born children of immigrants (Center on Instruction, 2006), and therefore citizens, in many cases their parents are undocumented. In 2006, while 86% of children of immigrants were U.S. citizens, 31% of them lived in mixed families, that is, where the children have citizenship, but their parents do not (Fortuny, Capps, Simms, & Chaudry, 2009; Pew Research Center, 2009). Being undocumented further worsens the condition of being immigrant and affects many aspects of school participation and engagement among Latino students and families. Undocumented parents often try to go unnoticed when interacting with institutions, which can interfere in their willingness to get involved in school meetings and public activities as well as to advocate for their children in the school. Fear of interaction with government agencies may even prevent them from coming forward to request services for which their American children may be eligible. Limited access to services for themselves, including health care and job opportunities, are important consequences of lack of legal status (Fortuny, Capps, Simms, & Chaudry, 2009).

Like Hernandez (2010), I have not found recent studies of how immigration status particularly affects parent participation in schools. Like her, I have also noticed, in my interactions with parents and students, that those who are undocumented immigrants tend to be more fearful in general. For example, they would not share

certain information until *confianza* (trust) is built and they know you will support them and help them.

A serious problem which affects the relationship between schools and immigrant families is that “most educators lack training in [cross cultural] parent-teacher relations and overlook opportunities to get Latino parents involved” (Tinkler, 2002, p. 1). Moreover, they do not appreciate Latino parents’ efforts to support their children in their education because they have a different and rigid idea of what parent involvement entails and they do not understand the many reasons parents have for not being present in schools. It will take a great deal of effort and determination on the part of school administrators to educate teachers and staff, so that schools become a welcoming place for everybody.

Latinos and Mathematics Achievement

In the last decade, the push for better mathematics education has become one of the priorities in U.S. education. “President Obama has articulated a clear priority for STEM education, challenging American students to move from the middle to the top of the pack in science and math. [However, important] improvements in STEM education will happen only if Hispanics, African-Americans, and other underrepresented groups in the STEM fields—including women, people with disabilities, and first-generation Americans—participate” (U.S. Department of Education, 2013a). In fact, “despite an annual federal investment of almost \$3 billion, too many American students are unprepared in

math and science, particularly students from underrepresented groups, and the nation's STEM workforce needs are not being met" (U.S. Department of Education, 2013b). The need for Latinos, as well as other underrepresented groups, to improve their performance in STEM areas and be prepared to contribute to the U.S. economy is imperative. Specifically, in the next decade the U.S. government is planning to add 100,000 excellent STEM teachers to the workforce and prepare an additional one million students with majors in STEM fields. Therefore, mathematics literacy has become the passport for participation, employment, and success in the global economy. For this reason, it is of crucial importance that parents understand that mathematics education is not optional anymore for their children's future success. Parental involvement in mathematics education can be a key component in the push for higher student achievement in mathematics, in particular for groups of students who have been historically characterized by low achievement in mathematics, as is the case of Latinos.

Given the substantial population increase of Latinos as a group and the low achievement in mathematics as measured by the statistics in the last decades, the education of Latinos in mathematics and in STEM fields in general is of critical value for the U.S. economy. Of K-12 student population nationwide, Hispanic representation has grown from 6% in 1972, to 11% in 1986, to 20% in 2006 (Excelencia in Education, 2008) to 24% in 2013 (National Center for Education Statistics [NCES], 2013), and it is expected to continue to grow, but mathematics achievement among Hispanic students has improved very little. The

2009, 2011, and 2013 reports from the National Assessment of Educational Progress (NAEP) on mathematics present interesting information about mathematics achievement at 4th and 8th grade level by race/ethnicity (NCES, 2009, 2011, 2013). Table 2 summarizes the data concerning Hispanic students:

Hispanic	Below Basic			Basic			Proficient			Advanced		
	2009	2011	2013	2009	2011	2013	2009	2011	2013	2009	2011	2013
4 th grade	30	28	27	49	48	47	20	22	24	1	2	3 ⁸
8 th grade	44	39	38	39	40	41	15	18	18	2	3	3

Table 2: Percentage of students at different achievement-levels in NAEP mathematics for fourth- and eighth-grade Latino public school students nationwide in 2009, 2011 and 2013.

As shown in Table 2, the situation for Hispanic students is critical. Although the table shows some improvement from 2009 to 2013, more than 3 out of 4 students in both 4th and 8th grades did not reach the level of proficiency necessary at each grade level since 2009, except 4th graders in 2013, for which 74% of students were below the proficiency level. Moreover, in 2013, the best of the three years, 27% of 4th graders and 38% of 8th graders did not reach even the basic level.

The No Child Left Behind Act (NCLB, 2001), by requiring schools and school districts to report disaggregated data by race/ethnicity, revealed large differences in achievement between African American and Latino students on one hand, and White and Asian students on the other. These differences constitute what in the general discourse has been called “the achievement gap.” According to the

⁸ Percentages do not add to 100% due to rounding

National Assessment of Educational Progress 2013 Report on mathematics achievement (NCES, 2013) the score gap between White and Latino students in fourth grade has persisted at least since 1990. In 8th grade, Hispanic students are the only group that has significantly improved since 2009, and the score gap in 2013 has reduced significantly with respect to 2009, but not significantly with respect to 2011 or the gap in 1990 (NCES, 2009, 2011, 2013). Although the achievement gap that has been most largely discussed is the achievement gap between Black or Hispanic students and Asian or White students, there are also important achievement gaps between poor students and more affluent ones, and between English learners and students who are native speakers of English. Given that poverty affects Hispanic families disproportionately, especially immigrant families, and that often times Latino students with immigrant parents are also ELLs⁹, even when they are U.S.-born, the likelihood of Latinos to be at the bottom of the achievement scale is very high. This is very problematic in several regards. These statistics raise serious questions about how schools are serving groups of students like Black and Hispanic, and how they represent them in relation to White and Asian students. Next, I present a critical look at this type of data and how they portrait Latino (and other groups of) students with respect to mathematical ability.

⁹ English Language Learners

A Critical Look at the Traditional Views of Latino Students and Parents

In the last decade the achievement gap between Black/Latino and White/Asian students, as well as other achievement gaps, have been the center of educational discussions among educators, policy makers, politicians, and the general public. In the area of mathematics education, these discussions have heavily focused on the development of measures to close the achievement gap. Students have been portrayed and classified by race in a kind of mathematical hierarchy with White and Asian students at the top, and African American, Latinos, and Native Americans at the bottom, reinforcing prejudices and stereotypes of these students as incapable of high achievement in math (Martin, 2009; Flores A., 2007). This is not new. For almost a century now, Latino students have been described as deficient, incapable, illiterate, having limited English proficiency (LEP), and even being “uneducable” because of their culture and language (Montero-Sieburth, 2005; Martin, 2009). To address their low achievement, reformers have proposed numerous efforts to *compensate* for Latino students’ *deficiencies* by providing all sorts of *remedial* education. But despite these efforts, Latinos continue to experience “high numbers of dropouts, ineffectual education, [and] overrepresentation [...] in lower level math and science classes” (Montero-Sieburth, 2005, p. 142). As a consequence, their low academic performance is conceptualized as the result of their linguistic and cultural deprivation (Flores B., 2005). From this perspective, then, the achievement gap would just be a consequence of students’ characteristics. That

is, African American, Latino, and Native American students would be inherently deficient, whereas White and Asian students would not.

These views of Latinos, which permeate schools and are assimilated by school personnel as “normal,” do not go unnoticed by Latino parents. Researchers that have interviewed Latino parents report that these parents often feel that schools have negative attitudes toward them and their children, are not sensitive to their cultures and life conditions, do not listen to them when they have questions or any other issues, and have low expectations for their children. Indeed, Yosso (2005) calls deficit thinking “one of the most prevalent forms of racism in U.S. schools” (p. 75). According to her,

Deficit thinking takes the position that minority students and families are at fault for poor academic performance because: (a) students enter school without the normative cultural knowledge and skills; and (b) parents neither value, nor support their child’s education (p. 75)

To deconstruct these pervasive deficit views, critical scholars have looked at these same issues from a very different perspective. For instance, Alfinio Flores (2007) proposes that Latinos’ low achievement is not actually the problem, but only a symptom of a more important underlying issue, namely the unequal distribution of opportunities to learn mathematics. According to him, compared with White students, “Latino [and other minoritized] students are less likely to have access to qualified and experienced teachers, are more likely to face low expectations, and are less likely to receive equitable per student funding” (p. 29). Along the same lines,

Dixon and Rousseau (2005) report that Latino students' experiences in schools often include "low expectations on the part of teachers, a school-wide focus on discipline, and a lack of academic rigor in the curriculum, even for college-bound students" (p. 11). It is noteworthy that, in the same way as parents, researchers report low expectations on the part of teachers in both descriptions of students of color's experiences. In fact, according to Principles and Standards for School Mathematics (National Council of Teachers of Mathematics [NCTM], 2000)

students who live in poverty, students who are not native speakers of English, students with disabilities, females, and many non-white students have traditionally been far more likely than their counterparts in other demographic groups to be the victims of low expectations (p. 12).

Consequences of low expectations can be devastating for students and parents. Hernandez (2010) has found that "many Latino families have chosen not to participate in education because institutions have insinuated that their parenting is insufficient" (p. 28). For instance, one mother shared: "The schools make me feel stupid because I have trouble with English, and all I want is for my children to do well in the school" (p. 102), and another father felt that "schools are 'undermining the growth of students' because of the lower expectation teachers and schools have for Latino students... 'especially for those of us who cannot speak English well'" (p. 101). Parents perceive that schools not only do not respect them, but they marginalize them, and thus they have little motivation to participate in school-parent

activities (Hernandez, 2010). Also, Latino parents in Ramirez's study "felt that the teacher believed that they, as parents, did not care about their children" (Ramirez, 2003, p. 101). Even when trying to get involved, immigrant parents found "that their beliefs and actions have less power than those of other school actors" (p. 23). By not recognizing Latino parents' interest and efforts to get involved in their children's education, schools are missing important opportunities to engage Latino families in working collaboratively with teachers to improve Latino students learning experiences and achievement.

In this scenario statistics condemn Latino students to the lower levels of mathematics achievement, and U.S. schools complain about low Latino parent engagement, but neither provide equitable mathematics education for Latino students, nor find ways to support Latino parent involvement. Still there are Latino parents who defy the statistics and odds illustrating ways in which they value education and acting upon those values to create conditions for their children to succeed academically. In fact, in this project I present the voices of a small group of Latino parents and caregivers who committed to meet with me to discuss educational issues and work in mathematics in order to be better prepared to support their children's mathematics education. In their narratives, many of the issues I have discussed in this chapter come up often and in different ways, but they do not impede these parents' actions in support of their children's education. Indeed, the participants in this study also shared with me what resources they use and how they use them to create

conditions for their children's success. Their voices and experiences, I believe, are invaluable for two reasons. On the one hand, they offer a counternarrative to the deficit views of Latino parents as uncaring and uninvolved in their children's education. On the other hand, their testimony can be used to inform the development of programs in schools that better support Latino parent involvement in mathematics.

Chapter 2: Theoretical Framework

Introduction

To counteract the widespread deficit views of Latino students and parents, and in the spirit of understanding *their* racialized experiences from *their* point of view, the goals of this project are to hear participants' life histories, contextualize the knowledge and resources they possess, and understand how they use these to support their children's educational success in general, and particularly in mathematics. Three main pieces of theory provide different and complementary approaches for viewing Latino parents' knowledges and resources, as well as how they use them: the Funds of Knowledge (Moll, Amanti, Neff, Gonzalez, 1992) and Community Cultural Wealth (Yosso, 2005) frameworks, Bourdieu's theory of cultural capital (Bourdieu and Passeron, 1977), and the educability framework (Bonal., Constans, Kliczkowski, Tarabini, and Valiente, 2010). I will briefly explain how these three theories complement each other to create my complete framework, that is, how I will use these three pieces of theory in combination to analyze the data I collected.

As discussed in chapter one, school personnel often complain that Latinos and other marginalized families do not value education because they don't participate in school activities and events as schools would expect. Yet, critical scholars' research reveals, on the one hand, that the inequities that permeate the educational system including deficit views, marginalize disenfranchised students and families and

exclude them from participation in schools, and on the other hand, that school expectations are based on white middle-class cultural norms and take into account neither the culture of the families, nor the circumstances in which they live. Since the intention of this study is to stay away from deficit views and to learn from of Latino families themselves about their cultural knowledge and the resources they use to support their children in (mathematics) education, the most important piece of my theoretical framework is comprised by the ideas of Funds of Knowledge and Community Cultural Wealth, within the Critical Theories framework. These theories allow me to “see” the knowledge and resources of Latino families and propose ways in which schools can change to recognize families’ funds of knowledge and to embrace diversity. At the same time, it is important to understand the ideas behind deficit views and mainstream thinking. For that reason, I include Bourdieu’s theory of cultural capital, which describes how society usually works, and explains why Latinos and other non-dominant groups are seen as deficient with respect to the dominant culture. According to Bourdieu, cultural norms that are valued in our society are those of the middle class, and other groups of people whose cultural norms do not abide by the dominant ones are considered deficient. Later Bourdieu proposes that, in order to empower disenfranchised groups, it is necessary to teach them the dominant norms. These two frameworks afford me two ways to look at families: one way that helps me see their cultural wealth, their resources and what they do to support their children in school; and another way that shows me what they do not have or are not doing, but that might be helpful for them to learn. For me, the

tension between these two frameworks is complex. However, it is critical in that a balance between these two views can eventually become an important tool to create programs aimed at empowering Latinos and other communities, capitalizing on their cultural knowledge and strengths and equipping them with important tools that may not be part of their cultural wealth.

A third piece of the theoretical framework, the educability framework¹⁰, is used as an organizing tool for analysis. The concept of educability refers to the minimal set of conditions for children to succeed in education. The conditions are many and diverse. According to this framework, there is no unique variable that determines the success or failure of children's educational future. Both schools and families can create better or worse conditions of educability for students. In a way, this framework looks at the reality from both points of view: what schools value and do, and what families value and do; and the key aspect is the alignment between schools' and families' values and actions. That is, the more aligned the school and the family values and actions are the better are the conditions of educability for the children. For example, when working with students living in poverty (or difficult life conditions), schools that explicitly consider the poverty factor and design instruction taking into account the conditions in which families live, including reaching out to families to get them involved in the school, offer students in poverty better conditions

¹⁰ All references and quotes that refer to the educability framework have been translated from Spanish by Carolina Napp-Avelli

of educability than schools that follow a traditional curriculum, have a very hierarchical organization, and blame families and students for student academic failure. At the same time, schools are not the only factor that plays into educability conditions of children. Families that, despite living in poverty, convey to children the value of getting an education, participate in schools, and organize students' time outside of school in structured activities, also create better conditions of educability for their children. Although analyzing schools' approaches goes beyond the scope of this study, the dimensions associated with ways families create conditions of educability for their children will guide my analysis of how families use their funds of knowledge and cultural wealth to support their children's educational success.

I will briefly introduce each of the frameworks here and develop them in more detail later in the chapter. The educability framework provides the overarching structure for the analysis. From my point of view, the tension between the Funds of Knowledge and Community Cultural Wealth approach, and Bourdieu's theory of cultural capital, that is, the tension between looking at families as knowledgeable and resourceful but affected by social conditions vs. recognizing the dominant capital they do not possess, is at the heart of the concept of conditions of educability.

The concept of educability is concerned with the idea of equity, in particular with respect to the relationship between poverty and education. Education has historically been conceived as the privileged tool to fight poverty and therefore generate more equity. However, there are numerous examples showing that important investments in education do not necessarily translate into better

employment opportunities and better life conditions for all children (Bonal et al., 2010). Then, the question arises, why not? In order to explore this issue, the concept of educability reverses the question between equity and education. Instead of asking what education can do to increase equity, the question asked is, how much equity is necessary for educational practices to be successful? In other words, what are the minimal conditions for a child to be able to profit from his/her educational opportunities?

On the one hand, the conditions of educability refer to the behavior of the main economic and social variables. From that point of view, the concept allows us to appreciate the stringent limits that educational initiatives have to overcome situations of poverty and exclusion. However, on the other hand, knowledge of the students' conditions of educability affords us the development of successful strategies (Bonal et al., 2010, p. 11).

The idea of educability as a condition indicates a situation that has certain potential, and therefore it is a dynamic disposition, rather than a fixed determination. Educability is not related to an individual's capacity and abilities, but to the necessary conditions that make education possible. In this way,

although everybody is potentially educable, the social, familiar, and school contexts play a key role in the development or impediment of this potentiality, to the extent that they influence the possibility of acquiring the set of resources, aptitudes, and predispositions that are

necessary for the development of educational practices (Bonal et al., 2010, p. 27).

Conceptualized in this way, a person's conditions of educability, or potential to be able to benefit from educational opportunities, is "an effect of the relationship between the subjective characteristics and the set of objective mechanisms that contribute to produce such subjectivity" (p. 28). In particular, Bonal et al. carried out their analysis "through the systematization of the effects of poverty on three big areas: the family, students' leisure time, and students' dispositions toward schooling" (2010, p. 41). These three areas: the conditions in which families live, what students do in their leisure time and how students see education as a way out of poverty, or not, influence children's conditions of educability. That is, although all children in the study lived in extreme poverty, some succeeded in education while others did not. The researchers analyzed the interrelations between family life conditions, students' use of their time outside of school, and students' dispositions towards schooling, as well as the type of school students attended, to characterize different scenarios of educability or uneducability that explain the success or failure of students in benefiting from educational offers.

Because my unit of analysis is the parents, rather than the students as in Bonal et al.'s study, my interest shifts from the description of the conditions of educability to how Latino immigrant parents can influence the conditions of educability of their children. The family variable is, then, the core of my analysis, that is, how economic and sociocultural variables, as well as deficit views of my participants' communities

impact families' lives and resources. Then, I will shift the focus from looking at the students' dispositions towards education, to how parents influence students' dispositions towards education, and in the same way, I will analyze how parents influence what students do in the time they spend outside of school. A third area I will analyze is parents' participation in their children's schools, which in Bonal et al.'s work is not explicitly addressed, but it is in some ways embedded in the analysis of the types of schools students attend. This aspect is crucial in looking at parental involvement in students' education, especially when looking at the alignment between homes and schools, and is closely related to participants' resources and cultural values.

The second piece, Bourdieu's theory of cultural and social capital, will assist in identifying certain kinds of resources and knowledge, or capital, that participants have acquired (or not) through their life experiences. Furthermore, the theory will show how society positions my participants, depending on the quantity and quality of their capital. According to Bourdieu, society works such that those groups who have more capital use their capital to acquire even more capital easily; whereas for the groups who have less capital, acquiring capital is much harder, resulting in slim possibilities for these groups to progress socially. Bourdieu's framework points out the lack of necessary capital for students from underrepresented groups to succeed academically, and therefore explains their failure as a result of their lack of capital. From the educability point of view, "school results are fundamentally associated to the cultural capital and the conditions of the family" (Bonal et al., 2010, p. 14). The

idea of educability recognizes how the society works (as described by Bourdieu); namely, the more capital families have, the better are the conditions of educability of their children. However, at the same time, it highlights the importance of conditions or social forces, external to the families, that make it difficult for them to acquire that capital.

The third and last piece of my theoretical framework is related to the ideas of Funds of Knowledge and the Community Cultural Wealth, within the umbrella of critical theories. Critical theories will provide an important lens for my analysis in several ways. On the one hand, they illustrate how racism and other forms of oppression work in the society to create inequity, and portray People of Color as deficient, based on their lack of certain capital. The focus on deficit views and how they affect disenfranchised groups like Latino immigrants, sheds light on how an external variable like racism impacts the ways parents influence students' dispositions toward schooling or interact with schools, which in turn influence the conditions of educability of the children. Deficit views of students and families can deeply harm students' images of themselves as (mathematics) learners, and therefore their dispositions toward schooling and mathematics, producing low achievers. These "effects of the relationship between the subjective characteristics and the set of objective mechanisms that contribute to produce such subjectivity" (Bonal et al., 2010, p. 28) affect a person's conditions of educability.

On the other hand, critical scholars claim the need to develop new ways to see and analyze reality, new epistemologies, that bring to the forefront the points of view,

values, and cultural norms of historically marginalized groups, in order to contest racism and inequity. Rejecting the determinism of Bourdieu's theory, by which society would always reproduce the relations of power, critical theorists call for a change such that the cultural norms of marginalized groups are highly valued, thus changing the rules of power. Within the critical theories framework, I particularly focus on the concepts of Funds of Knowledge (FoK) and Community Cultural Wealth (CCW). The Funds of Knowledge framework is based on a simple, yet very profound premise: people have knowledge that they have acquired through their experiences, and these are their funds of knowledge. This approach views Latino parents as knowledgeable people and researchers avoid deficit perspectives from the outset. The idea of Community Cultural Wealth, in the same way as FoK, is based on the premise that historically disenfranchised groups have knowledge or cultural wealth, but it goes even further. It specifically criticizes how Bourdieu's theory has been used to generate deficit perspectives of People of Color. These two frameworks, FoK and CCW, create a lens through which we can see the resources and strengths of historically marginalized communities, like Latino immigrants, which are undervalued in society, but represent powerful tools which my participants utilize to support their children's education. This idea is at the core of this dissertation because I believe it can provide invaluable information in understanding Latino immigrant parents' experiences with schools, and therefore can inform future work with school personnel, as well as design of educational policies that improve the conditions of educability for children from historically disenfranchised groups.

Below, I develop in more detail each of the theories introduced above, and elaborate on how each piece of my theoretical framework helps me view and analyze the data.

Educability

The concept of educability was historically used in special education to describe the biological and genetic factors associated, in classic and evolutionary psychology, with the notions of normality and abnormality (Castañeda, 2002, as cited in López and Tedesco, 2002). In this circle, a person with a mild mental delay is deemed “educable”, whereas a person with a severe mental delay would be considered only “trainable.” Conceived in this way, the idea of educability is independent of the context and only associated with biological and genetic factors.

However, López and Tedesco (2002) reframe the notion of educability as “a social construction that goes beyond the subject and his/her family,” (p. 9) to include the context and circumstances in which children grow up and develop. Educability is a socio-cultural variable that describes the minimum set of conditions for a child to be able to succeed in the school.

The concept of educability aims at identifying what is the set of resources, aptitudes, or predispositions that makes possible that a child or adolescent be able to successfully attend school; at the same time that it invites us to analyze what are the social conditions that make possible that all children and adolescents access those resources (p. 7).

The concept of educability is at the heart of the tension between the potential of education as a tool for disenfranchised children to overcome their life situations, and the challenges to successfully educate children who are affected by social conditions in such a way that hinders their possibilities to benefit from education. The impact of life conditions (which I described previously in the “Factors that Affect Participation of Latino Immigrant Families,” and “Deficit Views of Latinos”) have on children’s cognitive development should not be underestimated. From this point of view, the analysis of the conditions of educability goes beyond the idea that “it is possible to obtain positive education results without modifying the structural conditions that generate poverty and exclusion” (Bonal et al., 2010, p. 12). From a CRT point of view, in order to obtain positive education results it is imperative to change the rules of power that generate racism and marginalization. At the same time, getting over naïve ideas about the power of education does not mean denying the potential that educational strategies have, when they are based on knowledge of the conditions of educability and on commitment to overcome them.

Bonal et al., in their study “Being poor in the school” (2010) carried out with Brazilian children living in extreme poverty, use the concept of educability to describe different living conditions that may or may not support students’ success in school. Although all students in their study are poor, some succeeded in school, whereas some did not. To account for those differences they looked at the effects of poverty on three important dimensions: families, students’ dispositions towards schooling, and students’ leisure time (or lack thereof). Different combinations of

ways poverty affects these three dimensions, as well as the kind of school students attended create different scenarios or living conditions that make a child educable or uneducable. Particularly important were the views that schools had of the families and the relationships its personnel established with the communities they served. The different scenarios produced by a variety of situations along those three dimensions account for the diversity of results in students' educational success. For this reason, though poverty (and I will claim other variables as well) directly affect students' chances of success in school, it does not determine their failure.

For example, students who believed that education could help them out of poverty, and therefore had better dispositions towards education, had better educability conditions. Students who spent their leisure time in institutionalized environments doing structured activities aligned with schooling, like music, sports, or even going to church, also had more positive conditions of educability. In addition, students who attended schools that made a commitment to work with families in poverty by getting involved with the community and helping families participate in the school and support their children's education had a higher probability to stay in school and succeed. Therefore, this framework, like critical theories (Yosso, 2005), takes into account the power of individual agency (of the students, or the families, or the schools) to overcome unfavorable conditions of educability, defying the determination predicated by Bourdieu's cycle of reproduction of capital.

According to Bonal et al. (2010), children's educational success is not the sole responsibility of either the family, or the schools, but to a great extent depends on the

relationship between the two¹¹. The more aligned the school and families' "philosophies" are, the better the children's conditions of educability are. That is, the more families understand school rules and expectations, which are the dominant norms, and the more schools value families' funds of knowledge and the cultural wealth of the community, and work in ways that take into account the challenges families face, the higher are the chances for students to succeed in schools. This delineates the limits of what families or schools can do on their own, but at the same time opens up the possibility of working on family and school variables to influence the relationship between them and create better conditions of educability for marginalized students. Because the scope of my analysis only includes looking at parents, not schools, I will use the educability framework to examine how parents use their funds of knowledge to support their children's educational success. This does not mean that schools do not have a critical role in co-creating the conditions of educability for the children, along with the parents. That is, if schools do not understand the conditions in which families live and do not recognize and value their culture and their funds of knowledge, they will not be able to capitalize on parents' efforts to help their children succeed in school. It is important to keep in mind that creating good conditions of educability is a two-way process between families and schools, and that there is a great deal of work that needs to be done in and by the

¹¹ Of course it also depends on policies, at the national level, aimed at addressing issues of equity, like housing, health, etc., but those are certainly beyond the scope of this work.

schools, (as well as beyond the school, in a much larger scale) to improve the conditions of educability for many disenfranchised children.

As I mentioned in the introduction, the ideas associated with the concept of educability will situate my work and provide structure for my analysis. However, I will adapt the framework to the particular situation I am studying. For instance, although poverty is a factor that affects my participants' lives, it is not the only one, and it is not the specific focus of the study. The families with whom I worked in my study can be considered poor by school standards (i.e. children are on free or reduced lunch), but they do not live in the extreme poverty of the families studied by Bonal et al. (2010). However, as Latinos and immigrants in the U.S., there are other external factors that affect life conditions as much as poverty such as racial discrimination or immigration status. Critical theories shed light on how these factors affect students' conditions of educability; for example, how schools' deficit views of families affect parent participation in schools. Also, because I am not analyzing different conditions of educability for students, but how parents can influence their children's conditions of educability, the variables I will be looking at are slightly different. The family variable is at the center of this study: I will analyze the conditions in which families live and the funds of knowledge and capital they possess. Then, in order to operationalize how parents influence their children's educability conditions, I will analyze in what ways parents' use their funds of knowledge and capital to generate (or not) positive dispositions towards schooling in their children, influence what their

children do in their time outside of school; and how they participate in their children's schools.

Bourdieu's Theory of Cultural and Social Capital

The concept of capital was first associated with the Marxist idea of “accumulated labor [...] which, when appropriated [...] by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labor” (Bourdieu, 2007, p. 83). This translates into economic advantage and power. Therefore, capital is anything that can be exchanged, transformed, or in some way can result in economic advantage for the bearer. Capital, then, is a broad concept, including valuable material objects like a house, a car, books, or a piano, but also symbolic things like status, authority, or prestige. The central idea of Bourdieu's theory of capital is that of *cultural capital* (Bourdieu and Passeron, 1977). Bourdieu and Passeron developed this idea to explain why and how particular types of knowledge, behaviors, and “ways of being” entitles the people who possess them with certain power that can be thought of as capital, in the sense that it can be traded in the economic market. According to Bourdieu and Passeron (1977), the cultural norms that are socially valued, and therefore considered as capital, are those of the middle and upper social classes. Thus, cultural capital comprises knowledge, values, and behaviors of upper and middle class groups. That is, someone has cultural capital if s/he speaks, dresses, eats, and behaves in the way upper middle classes do.

Later, Bourdieu (2007) distinguishes three states of cultural capital: embodied, objectified, and institutionalized. The embodied cultural capital consists of

dispositions and learned behaviors that are acquired over time, usually unconsciously, through participation in and assimilation of cultural practices. This capital “cannot be accumulated beyond the appropriating capacity of an individual” (p. 86) and stays within the person, because it is embodied. The objectified cultural capital consists of material things that have cultural value, like books, instruments, tools, machines, etc., which can be bought using economic capital and can be transferred in the form of materials or objects from one person to another. What can be transferred, though, is the “legal ownership” of the object, but the “precondition for specific appropriation, namely, the possession of the means of ‘consuming’ a painting or using a machine” (p. 87) are directly associated with the *embodied* cultural capital of the individual (i.e. know how to read, play an instrument, appreciate an antique, operate a machine, etc.). In its institutionalized state cultural capital is sanctioned in the form of academic credentials which are objective, “legally guaranteed qualifications, formally independent of the person of their bearer” (p. 87). These educational credentials have exchange value in the society by the establishment of conversion rates between cultural capital and economic capital, and their value is directly related to the scarcity of those credentials.

Bourdieu and Passeron (1977) argue that despite the fact that any culture is arbitrary, in the society there is always a dominant culture that is presented as “natural,” and therefore, legitimate, and the other cultures that differ from the dominant culture are seen as illegitimate. The groups or classes whose cultural capital is aligned with the dominant culture are the dominant groups or classes, which

for Bourdieu and Passeron are the upper and middle classes, and the groups whose culture is not aligned with the dominant culture are the marginalized groups, which are the low socioeconomic classes. This state of affairs is very difficult to change because “the most powerful principle of the symbolic efficacy of cultural capital no doubt lies in the logic of its transmission” (Bourdieu, 2007, p. 86). First, a person’s possibility of acquiring objectified capital depends on the amount of embodied capital of his/her family, because it is within the family that people first get socialized and start acquiring embodied capital. Second, as it was pointed out above, the possibility of appropriation of objectified capital depends on the individual’s embodied capital. Because the more cultural capital an individual has the faster and easier it is for that person to acquire more cultural capital, it follows that dominant groups, who have more embodied cultural capital at the outset, will always have advantage in acquiring more and more cultural capital than marginalized groups.

Another form of capital that Bourdieu describes (2007) is social capital. He defines it as

the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition –or in other words, to membership in a group-- which provides each of its members with the backing of the collectivity-owned capital, a ‘credential’ which entitles them to credit, in the various senses of the word. (p. 88)

The amount of social capital is directly related, then, to the number of connections and relationships that an individual may have, and to the amount of capital that people connected to the individual possess. Also, according to Bourdieu, if a person's cultural capital is low, it is likely that the people with whom she/he connects will have similar levels of cultural capital, rather than being economically powerful people in decision making positions. This is precisely the nature of the process of transmission of capital: those with less capital, of any sort, have fewer opportunities to acquire capital.

With respect to education, Bourdieu claims that schools have an important role in the process of reproduction of capital, because "the educational systems of industrialized societies function in such a way as to legitimate class inequalities" (Sullivan, 2002, p. 144). Our society and school systems work in a way such that the values and norms that are transmitted through schooling are those of the dominant classes, and teachers assume that students come to school with the cultural capital of those groups of people. However, students in non-dominant groups do not behave and speak according to the dominant cultural norms, and therefore fail in school because school "speaks a language" they don't understand and they are not able to meet school expectations. Students in upper-middle classes succeed because of embodied capital which enables them to fulfill school expectations succeed, while students in non-dominant groups founder, feeding the cycle of reproduction of social classes. But the most problematic aspect of the cycle of reproduction is that school norms, which reflect dominant groups' norms, are presented by schools as "natural,"

instilling in students the idea that their success or failure is the result of merits. Thus, students in non-dominant groups internalize the idea that they are not smart enough or good enough in school, and they develop a negative disposition towards school that affect their school persistence and success (Yanisko, n.d.), and therefore their conditions of educability.

Although Bourdieu's theory has been very useful in describing social processes, it has been widely criticized for being too deterministic. To address this critique, Bourdieu (Bourdieu & Passeron, 1994) later suggests that in order to mitigate the effects of the cycle of reproduction of social classes, teachers need to know what capital their students bring to school and they need to make school expectations and the reasons for them explicit, as well as the requirements for success (Yanisko, n.d.). Doing so, he says, "reduces the disadvantages suffered by the most disfavored groups without favoring any other group in particular" (Bourdieu and Passeron, 1994, p. 22, as cited in Yanisko, n.d.). In fact, Bonal et al. (2010), show in their work that schools that understand the life conditions of students living in poverty, and therefore do not expect students to come to school with certain capital they do not possess, were able to create much better conditions of educability for their students than schools whose personnel blamed families for students' lack of preparedness for school. In effect, the majority of students who succeed in school despite a lack of support at home attend schools that are explicitly committed to work with students in poverty to help them overcome their life situations. On the contrary, all cases of students who fall in the category of "uneducability due to stigma" attend

schools that make no specific effort to take into consideration the life conditions of their population (Bonal & Tarabini, 2010), and therefore do not contribute to produce positive conditions of educability for their poor students.

In present western society, low socioeconomic classes tend to be less educated and have less economic power than high socioeconomic classes. Therefore, in the Bourdieuean sense, they have lower cultural capital, which means that their customs and background are less valued than the way of life of high socioeconomic classes. If we look at Latinos as a group, especially those who are immigrants, through the lens of cultural capital, their situation is critical. Like other low socioeconomic classes they have fewer material possessions and less education credentials than the dominant classes; that is, they lack objectified and institutionalized forms of cultural capital. Like other low socioeconomic classes, compared with dominant classes, they possess less embodied cultural capital, but even more critically, since they lack the experience of being American, so don't even possess the embodied cultural capital that is given for other disenfranchised groups in the U.S. They do not have the experience of growing up in the U.S.; they do not have familiarity with American institutions, customs and values; and many times they do not even speak the language fluently, which is a crucial piece of cultural capital. The process of appropriation of objectified and institutionalized capital starts for Latino immigrants much later than for other groups, even other marginalized groups; and often finishes much earlier, since the length of time that an individual can prolong his/her process of acquisition of embodied capital depends on the length of time that his/her family can provide

him/her with time that is free from economic necessity (Bourdieu, 2007). Unfortunately, many Latino families cannot afford to free their children from contributing to the family's economy for a long time, as it is usually the case of middle class children. For many Latino students, schooling is almost the only way to access the dominant culture, and therefore schools have an important responsibility for educating Latino children for success. In fact, according to Tedesco (Bonal et al., 2010), "a democratic school cannot adapt to family inequalities. On the contrary, it has to break that inequality, and that rupture should not be conceived as a conflict with the family, but rather as a strategy to 'provide what [the family] does not have'" (p. 14).

From an exclusively Bourdieuean cultural capital point of view, Latino immigrant families could be seen as lacking the necessary cultural and social capital to support their children in education because it is not easy for Latino parents to understand how the education system works in the U.S. and the expectations schools have for them and the students; let alone help their children with homework, get involved in school activities like the PTA, and advocate for their children. Despite the potentiality to present Latino families from a deficit perspective, I find Bourdieu's theory of cultural and social capital useful in my analysis because it describes how society mainly works. That is, it describes what kind of capital has higher exchange value in society and how disenfranchised groups are "measured" by the lack of those types of capitals. It clearly describes the realities that these families face on a daily basis, and, what is particularly important for me, this theory exposes the kind of

perceptions I need to confront as a white middle-class, highly educated researcher working with them.

Critical theories

Critical theories present an important counterargument to Bourdieu's theory and a line of inquiry that is most important for me. In this section I describe significant ideas associated with critical theories that guide my work, and delineate how I use them in my analysis.

Critical theories constitute a scholarly undertaking that attempts "to understand the oppressive aspects of society in order to generate a social and individual transformation" (Tierney, 1993, as cited in Solorzano and Delgado Bernal, 2001, p. 311). A great deal of "understanding the oppressive aspects of society" occurs in recognizing how power is inequitably distributed among different groups of people. Under the umbrella of critical theories, critical race scholars, in particular, look at how power plays out along racial groups, and as part of critical race theory (CRT), Latino Critical Theory (LatCrit theory) looks at similar issues. However, it also "addresses issues often ignored by critical race theorists such as language, immigration, ethnicity, culture, identity, phenotype, and sexuality" (Solorzano and Delgado Bernal, 2001, p. 311), some of which directly affect my participants' lives.

Both critical theories and Bourdieu's theory of cultural capital look at how different social groups have different power in society, that is, both theories have the same goal of "understanding the oppressive aspects of society." Although Bourdieu looks at social groups from a socioeconomic point of view while critical race scholars

look at racial groups, in the current U.S. society, those classifications overlap to a great extent. Namely, Blacks and Latinos, who tend to be the oppressed racial groups, also overwhelmingly comprise the low socioeconomic class, which is the dominated group from a Bourdieuan point of view. In the same way, upper and middle classes are mostly made up of White people. Both theories, then, state that dominated classes (generally Black and Latinos working class) have less power in society than dominant classes (generally White upper-middle class)¹². However, while Bourdieu's theory tends to be more deterministic with regard to the reproduction of the relations of power, critical theorists look for new ways of explaining how relations of power are created and work in our society, in order to contest them. Bourdieu's theory does not explain why dominant group norms are socially legitimated, while dominated group norms are not. Critical theorists, on the contrary, claim that the privilege White dominant classes enjoy, because their cultural practices are deemed "the norm," is largely a consequence of the pervasive racism in our society, and they put a great deal of emphasis on the second part of the definition, that is, to "generate social and individual transformation."

This transformation requires an understanding of how the dominant norms function in society, and particularly in the schools. Lisa Delpit, in her book *Other*

¹² These characterizations of dominated and dominant classes are oversimplified for the sake of clarity of the argument. I am certainly not claiming that all Blacks and Latinos are poor and oppressed as I am not claiming all Whites are wealthy and powerful oppressors.

People's Children, defines school norms, which in general reflect only white middle-class norms, as “the culture of power” (1988). In describing how People of Color get silenced in the “dialogue” with White people, she proposes five aspects of power present in interactions between White people and People of Color in general, but particularly in the classroom:

1. Issues of power are enacted in classrooms
2. There are codes or rules for participating in power, that is, there is a ‘culture of power.’
3. The rules of the culture of power are a reflection of the rules of the culture of those who have power.
4. If you are not already a participant in the culture of power, being told explicitly the rules of that culture makes acquiring power easier.
5. Those with power are frequently least aware of –or least willing to acknowledge- its existence. Those with less power are often most aware of its existence. (p.24)

The first three aspects of the culture of power cover what has been discussed so far: power, or capital, is unequally distributed in society; there are particular cultural norms that are socially valued over others; and the cultural norms that are valued are those of the dominant groups (mostly White, middle and upper classes). The fourth point highlights the need to make the rules of power explicit and available for those who do not have access to them naturally, like Latino immigrant parents who may come from cultures that are very different

from the U.S. dominant culture. For instance, at the school participation level, making the expectations clear and accessible can make an important difference for parental involvement. This is also what Bourdieu proposes in order to break the cycle of reproduction, to make the expectations as clear as possible for those who come from backgrounds different from the dominant culture. The fifth aspect of power is particularly important. Indeed, for White middle class people, who were born in the culture of power, these norms have been naturalized and therefore rendered invisible because they naturally and unconsciously have always behaved in accordance to them. The culture of power is, in fact, their embodied capital.

Understanding that there are rules of power and making them explicit is critically important, but it is not enough. Other critical scholars go much further, calling for a societal change resulting in cultural norms of marginalized groups being highly valued (Yosso, 2005). They assert that it is not just a matter of teaching disenfranchised groups the skills and knowledge “they are lacking,” so they can participate in the dominant culture, but to value the culture and capital they *already have*, that is, there is a need to change the rules of power.

Community Cultural Wealth and Funds of knowledge. A Critical analysis of Bourdieuean cultural capital

In an analysis of Bourdieu’s theory of cultural and social capital from a critical race theory point of view, Yosso (2005) claims that “while Bourdieu’s work

sought to provide a structural critique of social and cultural reproduction, his theory of cultural capital has been used to assert that some communities are culturally wealthy while others are culturally poor” (p. 76). As a result of this interpretation of Bourdieu’s theory, Communities of Color have been portrayed as places full of “cultural poverty disadvantages” (p. 69), because they are described and “measured” by the dominant group’s standards in terms of the cultural capital “they lack,” downplaying their resilience, agency, and other aspects of the cultural capital they do possess.

Tara Yosso (2005) urges scholars to shift away from deficit views of marginalized groups and to recognize the “community cultural wealth” of Communities of Color. She proposes to “[focus on and learn] from the array of cultural knowledge, skills, abilities, and contacts, possessed by socially marginalized groups” (p. 69). This is not a new idea, since it was the seed for the work that Carlos Vélez-Ibáñez and James Greenberg carried out in the Tucson Project, which started more than two decades ago. This project set the theoretical and methodological foundations for what was termed “Funds of Knowledge” (Civil, 1994, 2007; Civil & Andrade, 2002; González, Moll, Amanti, 2005; Moll, Amanti, Neff, and Gonzalez, 1992). “The concept of funds of knowledge [...] is based on a simple premise: People are competent, they have knowledge, and their life experiences have given them that knowledge” (González, Moll, Amanti, 2005 p. ix-x). Both the ideas of funds of knowledge and community cultural wealth contradict the general conception that socially marginalized groups lack cultural capital; both claim that People of

Color possess a wealth of knowledge, abilities, and skills, which have been acquired through their experiences.

However, schools function according to the rules of power, which reflect the dominant culture, and therefore, do not value the cultural wealth of their students of color. For students who are not born within the dominant classes there are aspects of the dominant capital (one example could be academic reading and writing, or abstract mathematics) that they mostly access through formal schooling, a process that takes a great deal of time and effort, putting them at a great disadvantage with respect to upper and middle classes. The fact that knowledge and culture of People of Color are not considered capital in the same way as the culture of dominant classes is often equated with the idea that “People of Color ‘lack’ the social and cultural capital required for social mobility” (Yosso, 2005, p.70). Moreover,

“as a result, schools most often work from this assumption in structuring ways to help ‘disadvantaged’ students whose race and class background has left them lacking necessary knowledge, social skills, abilities and cultural capital” (p. 70)

Yosso (2005), as well as Gonzalez, Moll, and Amanti (2005), challenges the idea that students of Color arrive at school with cultural deficiencies. Gonzalez et al. (2005), in their work with Latino working class families, claim that households have funds of knowledge [that] are generated through the social and labor history of families and communicated to others through the activities that constitute household life, including through the formation of social networks that are central to any household’s functioning within its particular environments (p. 18).

Many of these aspects of funds of knowledge are built into the six forms of capital that comprise the cultural wealth of Communities of Color, which usually go unacknowledged and unrecognized in our hierarchical society. Yosso (2005) describes the six forms of community cultural wealth as follows:

1. *Aspirational capital* refers to the ability to maintain hopes and dreams for the future, even in the face of real and perceived barriers. [...]
2. *Linguistic capital* includes the intellectual and social skills attained through communication experiences in more than one language and/or style. [...] Linguistic capital also refers to the ability to communicate via visual art, music or poetry. [...]
3. *Familial capital* refers to those cultural knowledges nurtured among *familia* (kin) that carry a sense of community history, memory and cultural intuition. [...] This form of cultural wealth engages a commitment to community well-being and expands the concept of family to include a more broad understanding of kinship. [...]
4. *Social capital* can be understood as networks of people and community resources [that] provide both instrumental and emotional support to navigate through society's institutions. [...]
5. *Navigational capital* refers to skills of maneuvering through social institutions [especially those] not created with Communities of

Color in mind. [...] Navigational capital thus acknowledges individual agency within institutional constraints, but it also connects to social networks that facilitate community navigation through places and spaces including schools, the job market, and the health care and judicial systems.

6. *Resistant capital* refers to those knowledges and skills fostered through oppositional behavior that challenges inequality [...] and it is grounded in the legacy of resistance to subordination exhibited by Communities of Color (Deloria, 1969). For example, [...] Sofia Villenas and Melissa Monreno (2001) discuss the contradictions Latina mothers face as they try to teach their daughters to *valerse por sí misma* (values themselves and be self-reliant) within structures of inequality such as racism, capitalism, and patriarchy. In [this] research study, Parents of Color are consciously instructing their children to engage in behaviors and maintain attitudes that challenge the status quo [...] in the face of race, gender and class inequality. [...] Resistance may include different forms of oppositional behavior, such as self-defeating or conformist strategies that feed back into the system of subordination. However, when informed by a Freirean critical consciousness (1970), or recognition of the structural nature of oppression and the motivation to work toward social and racial

justice, resistance takes on a transformative form. [...]

Transformative resistant capital includes cultural knowledge of structures of racism and motivation to transform such oppressive structures. (p. 77-81)

The general idea of funds of knowledge and these six forms of community cultural wealth generate a lens through which to look at Latino immigrant parents and ‘see’ the kinds of strengths and resources their communities have. According to Yosso (2005), the six “forms of capital draw on the knowledges Students of Color bring with them from their homes and communities into the classrooms” (p. 82). If we work with schools to transform them in a way that these knowledges are recognized and valued, historically disenfranchised students’ conditions of educability will necessarily improve. Moreover, the analysis of conditions of educability points out that it is not possible “to achieve good educational results without modifying the structural conditions that generate poverty and exclusion” (p. 12). From a critical point of view, this means that there is a need to “restructure US social institutions around those knowledges, skills, abilities, and networks –the community cultural wealth-- possessed and utilized by people of color” (p. 82).

Dilemmas, Paradoxes, and the Power of Complementary Perspectives

Taking a funds of knowledge approach to working with the community has incredible potential for increasing equity in schools by recognizing the culture and resources of many families that are often marginalized in schools. Therefore, the idea of restructuring social institutions around the funds of knowledge of historically

marginalized groups is, no doubt, a powerful one. How to materialize this idea, however, raises some questions. What does it mean, in practice, to restructure social institutions, in particular schools, around the community cultural wealth possessed and utilized by people of color? Does it mean that schools should disregard knowledges and skills that are considered “middle class” and *replace* them with the knowledges and skills of traditionally marginalized groups? Does it mean that schools should *incorporate* the community cultural wealth of People of Color into the curriculum? Does it mean something else? Also, what does it mean in terms of home-school collaboration? It seems clear at least, that schools should recognize families’ knowledge, expertise, and ways of learning, but does that mean schools do not need to equip families with middle-class capital? Does it mean schools should not teach parents how to support from home their children’s learning of school mathematics?

Although the scope of this work does not include schools, as a person who has worked in schools with Latino immigrant working-class families, and other underrepresented groups, I cannot help conceptualizing this study as a way to better understand how to improve home-school collaboration and potentially increase marginalized students’ learning opportunities, particularly in mathematics. The questions above characterize an important dilemma that may not seem directly related to the problem of Latino immigrant parents creating conditions of educability for their children to support their (mathematics) education; but that speaks directly to the way I approach my work with Latino parents. Although my main goal is to learn from them about the knowledge and practices they use to support their children’s

mathematics education, it is crucial for me to keep in mind what knowledge and skills, in particular mathematical knowledge and skills, schools can offer these families to support and empower them in helping their children succeed in mathematics. For this reason, I want to discuss the dilemmas I experience regarding what the schools' approach should be regarding what is good education for underserved students, because that also speaks to how schools see students' families and communities, which in turn is directly related to the goal of this study.

As much as I wholeheartedly agree that we need to learn from families and acknowledge the community cultural wealth and the funds of knowledge of their communities when we work with marginalized groups (this is precisely the goal of this study), I do also believe that there are norms and knowledges that have high exchange value in this society which we cannot disregard despite unfortunately, they are often not part of the funds of knowledge of marginalized communities. Denying these norms and capital is to deny the way the rules of power work. In this regard, the words of Lisa Delpit (1995) strongly resonate with my sentiments and dilemmas about what is "good" education for marginalized groups. In "Skills and Other Dilemmas of a Progressive Black Educator" she presents a discussion about the dangers of not equipping marginalized students with the necessary skills that will open for them the doors of higher education. In the case she presents, on literacy education, she reflects on how progressive educators' emphasis on "fluency" actually results in a disservice for Black students because they are already fluent, as attested by the rap songs they write as part of their community cultural wealth. She then

presents a compelling argument by a fellow Black teacher that worked in the community, who stated that “what [our kids] need are the skills that will get them into college [because] they don’t get [them] at home” (p. 16). This example represents the dilemma I also experience when looking at Latino immigrant parents through the lens of funds of knowledge¹³, which I presented in the opening of this study as part of my positionality piece.

On the one hand, it is imperative that we recognize who the people we work with are, what their experiences and their knowledges are, what cultural and social resources they possess, and what their needs are. We need to strive to create an educational system that is responsive to and values the funds of knowledge of Latinos, in this case, and any other marginalized groups. On the other hand, however, it is important to empower these groups of people with the kinds of knowledges and skills that are prized and have high exchange value in the present society and job market and that are often not part of their funds of knowledge, as for example, advanced mathematics. If we do not empower marginalized groups with the knowledges and skills that are deemed valuable in the world we live in, these groups will never get to positions of power that will allow them to start changing the rules of power, and the process of social reproduction will simply persist. Social and

¹³ I will use the term funds of knowledge, as previously defined, as a very broad idea that includes knowledges, practices, values, and “ways of being” of traditionally disenfranchised communities. Community Cultural Wealth would be then included as part of funds of knowledge.

educational change is a long process and we can't deny People of Color the knowledge that is valued in *this* society, *now and here*. Although it may not reflect the values of their communities, this cultural capital in Bourdieu's sense, will afford them access to better jobs and higher socioeconomic status; and, what is even more important, has the potential to be the tool for social change.

In fact, funds of knowledge and Bourdieuan capital concepts complement each other in many ways, and speak to the tension mentioned before, at the heart of the idea of educability. That is, the tension between the impossibility of educational progress of marginalized groups without changing the social structures that lead to their marginalization, and the potential of the school to recognize underrepresented families' strengths in the conditions in which they live and work with them to overcome those unfavorable conditions. It is important to look at educational issues from both points of view (Rios-Aguilar, Marquez Kiyama, Gravitt, and Moll, 2011) and work from both ends at the same time. On the one hand, "one of the greatest strengths of the framework of funds of knowledge is that it highlights and values the resources embedded in students, families, and communities, thus countering deficit perspectives" (p. 170), and offering "possibilities for changes in classroom practice" (p. 171) that have a great potential to improve students' conditions of educability. On the other hand, it is important, as I have pointed out before, to recognize that "all types of knowledge (derived from school and out-of-school settings) are not neutral with respect to power" (Nasir et al., 2008, as cited in Rios-Aguilar et al., p. 171) and funds of knowledge do not necessarily have the same exchange value as traditional

school knowledge. For example, Yosso, (2005) claims that community cultural wealth is “possessed and utilized by Communities of Color to survive and resist macro and micro-forms of oppression” (p. 77). There is no doubt that surviving and resisting oppression are essential for underrepresented communities, but I argue that it is not enough. More than survival and resistant is needed to alter the rules of power and transform the social order into an equitable, truly democratic society. Of the six forms of capital that nurture cultural wealth, the only one that speaks about social transformation is resistant capital, and only in the case of transformative resistant capital. For example, regarding aspirational capital, Yosso (2005) cites Patricia Gándara and others

who have shown that Chicanas/os experience the lowest educational outcomes compared to every other group in the US, but maintain consistently high expectations for their children’s future (Delgado Gaitán, 1992, 1994; Solórzano, 1992; Auerbach, 2001). These stories nurture a culture of possibility as they represent ‘the creation of a history that would break the links between parents’ current occupational status and their children’s future academic attainment’ (Gándara, 1995, p. 55) (p. 78).

Aspirational capital is a very powerful tool for parents to break the cycle of reproduction by making it possible for their children to get an education they did not get. What seems important for me to point out here is that, after all, the goal is for the next generation of Latinos to graduate from college with a degree, that is, to acquire the institutionalized capital described by Bourdieu. A positive attitude towards education is, actually, a major component of the dominant culture according to

Bourdieu (Sullivan, 2002), and at the same time it is the most powerful tool for potentially liberating communities of Color. For these reasons it is also one of the dimensions that impact conditions of educability.

Likewise, forms of capital that are associated with social networking and community resources, like familial and social, are powerful in themselves, but they are much more powerful when there are people in the community that are in a position of power or have access to resources like important information that can be shared with others. This is also the way Bourdieu describes social capital.

Rios-Aguilar et al. (2011) believe that “combining the construct of capital and funds of knowledge is critical for enriching research that strives to understand the factors that influence the educational access and success of under-represented students” (p. 175). Hence, it is essential to keep these two approaches in mind when working with families, especially from underserved groups, like Latino immigrants. For this study, for example, in which I will look at how Latino immigrant families create conditions of educability for their children, and in particular, how they support their children’s mathematics education, I need to conceptualize mathematics from both points of view, that is, as part of the funds of knowledge of the families, and also as a highly specialized type of capital that is not readily accessible to all social groups. In the next section I will discuss how I look at mathematics from both points of view.

Mathematics at the Intersection of Funds of Knowledge and Cultural Capital

On the one hand, informal mathematical knowledge is used by many people to perform activities like construction, cooking, trading, and others that are part of the everyday life of communities. On the other hand, formal mathematics is used to solve a great variety of more or less complex problems by very few mathematics literate people. The dichotomy between the funds of knowledge of the community and the academic knowledge is particularly unique in the case of mathematics, due to its very nature. In this section I discuss the relationship between these “two kinds of mathematics” and how I see their role in the mathematics education of Latinos.

It is not uncommon to hear people say that they don't understand mathematics and that mathematics is abstract and detached from people's lives. However, people use mathematical knowledge in their daily activities in various informal ways. Moreover, they use mathematics in their everyday activities in a way that makes sense for them (see e. g. Carraher, Carraher, Schliemann, 1985; Lave, 1988). In this sense, everyday mathematics is certainly powerful and points to the importance of taking into account people's funds of knowledge when teaching mathematics. In reflecting about the funds of knowledge approach to curriculum, however, González, Andrade, Civil and Moll (2005) noticed that “while [they] had affirmed that a funds of knowledge perspective could affect content areas such as language arts and social studies, the areas of mathematics and science were more problematic” (p. 257). There are certainly many connections we can make with everyday activities and how people use mathematics, especially at the elementary level, but at some level, the

“real” mathematics, the kind of mathematical knowledge that is considered highly valued capital, starts with algebra: the use of variables, multiple representations, and the algebraic manipulation of terms that, in the best case scenario, represent physical magnitudes. And it goes beyond, to the deductive and inductive reasoning, the proofs, and the axiomatic systems that rule how we can operate within a particular mathematical space. According to Lemke (1990, as cited in González, Andrade, Civil and Moll, 2005)

The knowledge of mathematics consists of two parts: a practical knowledge of how to perform various manipulations of quantitative and logical relationships, and a theoretical knowledge of how those relationships fit together to form an overall system within which the manipulation makes sense (p. 269)

The kind of mathematics associated with the second part of mathematical knowledge that Lemke talks about is hard to find in everyday life. In fact, González, Andrade, Civil and Moll (2005) stumbled upon the fact that

although teacher-researchers found [...] reservoirs of knowledge in households, the underlying mathematical principles were not always evident to household members. For instance, construction workers could explain their methods for tile setting and framing a house, but on deeper questioning could not elucidate why these methods worked. Similarly, seamstresses could produce wonderfully complex designs and patterns, but often was a matter of trial and error, rather than a logical progression (p. 259).

The kind of mathematical knowledge described in the funds of knowledge of these communities, although important, is not the kind of mathematical capital highly valued in society in the sense that the informal mathematical knowledge found in everyday activities does not have the high exchange value in the job market that formal mathematics have (Martin, 2006, 2009; Moses, 2001). Mathematically literate people enjoy status and respect from others because mathematics has developed as an “elitist” knowledge, and, as Bourdieu (2007) points out, the value of institutionalized capital, mathematics in this case, is directly related to its scarcity.

The importance of Latinos having access to formal mathematics cannot be overlooked. As mentioned in chapter one, the need for a mathematically and scientifically literate workforce is so urgent that it has become President Obama’s personal mission. Robert Moses (2001) has even equated the quest for mathematics literacy now with the civil rights movement back in the 60’s. He says that “what is central now is the need for economic access; the political process has been opened [...] but economic access, taking advantage of new technologies and economic opportunity, demands as much effort as political struggle required in the 1960s” (p. 6). For him, “a great technological shift has occurred that places the need for math literacy front and center” (p. 6). He argues that people who are technologically literate will secure their jobs and receive significantly higher salaries than those who do not manage technology. Historically, industrial schools educated an elite group to run the society, while the rest were just trained for repetitive factory work. Now, “new technology demands a new literacy –higher math skills for everyone” (p.11).

Confirming Moses predictions, in the recent documentary “Waiting for Superman,” Director Davis Guggenheim states that even in the recent economic crisis with high rates of unemployment, companies could not find people with the ability to do technical and technological work (Guggenheim, 2010). Bob Moses (2001) points out that

Math illiteracy is not unique to Blacks in the way the denial of the right to vote in Mississippi was. But it affects Blacks and other minorities much, much more intensely, making them the designated serfs of the information age just as the people that we worked with in the 1960s on the plantations were Mississippi’s serfs then (p.11)

If we, as researchers, as middle class people in certain positions of power, who know the ‘rules of power,’ do not open up the space for marginalized communities and even ‘push’ them to go beyond the mathematics people use on a daily basis to access the cultural capital that is valued in the society, and that most of the time is not part of their funds of knowledge, we will do a disservice to these communities. As Delpit (1995) suggested, it is important to make the rules of power explicit, and mathematics literacy can easily translate into power. Mathematical capital can play a crucial role in Latinos’ future opportunities for social and economic access, as well as for them to develop as critical citizens that can fully participate in society. However, studying formal mathematics may be something they may not even think about doing if not offered the opportunity, in many cases because of the messages they receive about Latinos being incapable in mathematics. What is

crucial, however, in order to do this work successfully, is to consider the mathematical funds of knowledge of the communities we work with as a starting point for important mathematical work.

Summarizing, my argument is that we need to acknowledge and utilize the community cultural wealth in every way possible when working with Latino immigrants or other marginalized communities, but we need to acknowledge that “the mere recognition of funds of knowledge has not translated into better educational and labor market outcomes for under-represented students” (Rios-Aguilar et al. p. 178), therefore it is not enough. We should not neglect the differential exchange value in society of various types of capital (like formal mathematics) and funds of knowledge (like informal mathematics). Cultural and social capital as described by Bourdieu, in combination with a funds of knowledge approach, can be important tools to work towards improving the educability conditions of children that have been historically marginalized.

I have created this theoretical framework, comprised by funds of knowledge and community cultural wealth concepts, Bourdieu’s theory of social and cultural capital, and the educability framework, in order to better understand Latino immigrants’ parent involvement in their children’s (mathematics) education and potentially generate recommendations to improve home-school collaborations. In

particular this framework will allow me first to contextualize participants' involvement in their children's education within the constraints of the conditions in which they live and to identify three areas in which their involvement may contribute to better conditions of educability and therefore higher likelihood of school success for their children. Secondly, the framework will facilitate the identification of knowledge, practices and resources my participants use in the three areas associated with the conditions of educability to support their children in schools, particularly in mathematics, highlighting their strengths and understanding their actions from their values, and therefore, moving away from deficit perspectives. Third, it allows me to analyze the kinds of capital, in a Bourdieuean sense my participants possess (or not) and how they use this capital to support their children's educational success; and furthermore, to identify what knowledge and skills may potentially empower my participants in supporting their children's education beyond what they are already doing.

Research Questions

1. Context: What are participants' past and current living conditions, including factors like English proficiency, education level, socioeconomic status and employment, and immigration status that may affect their involvement in their children's education?
2. Funds of Knowledge and Capital: What funds of knowledge and capital, in all its forms, do the participants in this study draw upon to support their children's (mathematics) education?
 - 2.1. What values and principles do the participants in this study seek to instill in their children as part of parenting? (That is, creating their children's embodied capital)
 - 2.2. What experiences/funds of knowledge have shaped participants' ideas about education and mathematics? In what ways do the participants in this study value students' education in general and mathematics education in particular?
3. Parent Involvement: In what ways do the participants in this study get involved in their children's education in general and mathematics education in particular?
 - 3.1. In what ways do the participants in this study seek to influence students' dispositions toward education and mathematics?
 - 3.2. In what ways do the participants in this study describe their relationships with their children's school and seek to participate in school activities?
 - 3.3. In what ways do the participants in this study seek to influence what students do in their time outside of school?

Theoretical framework

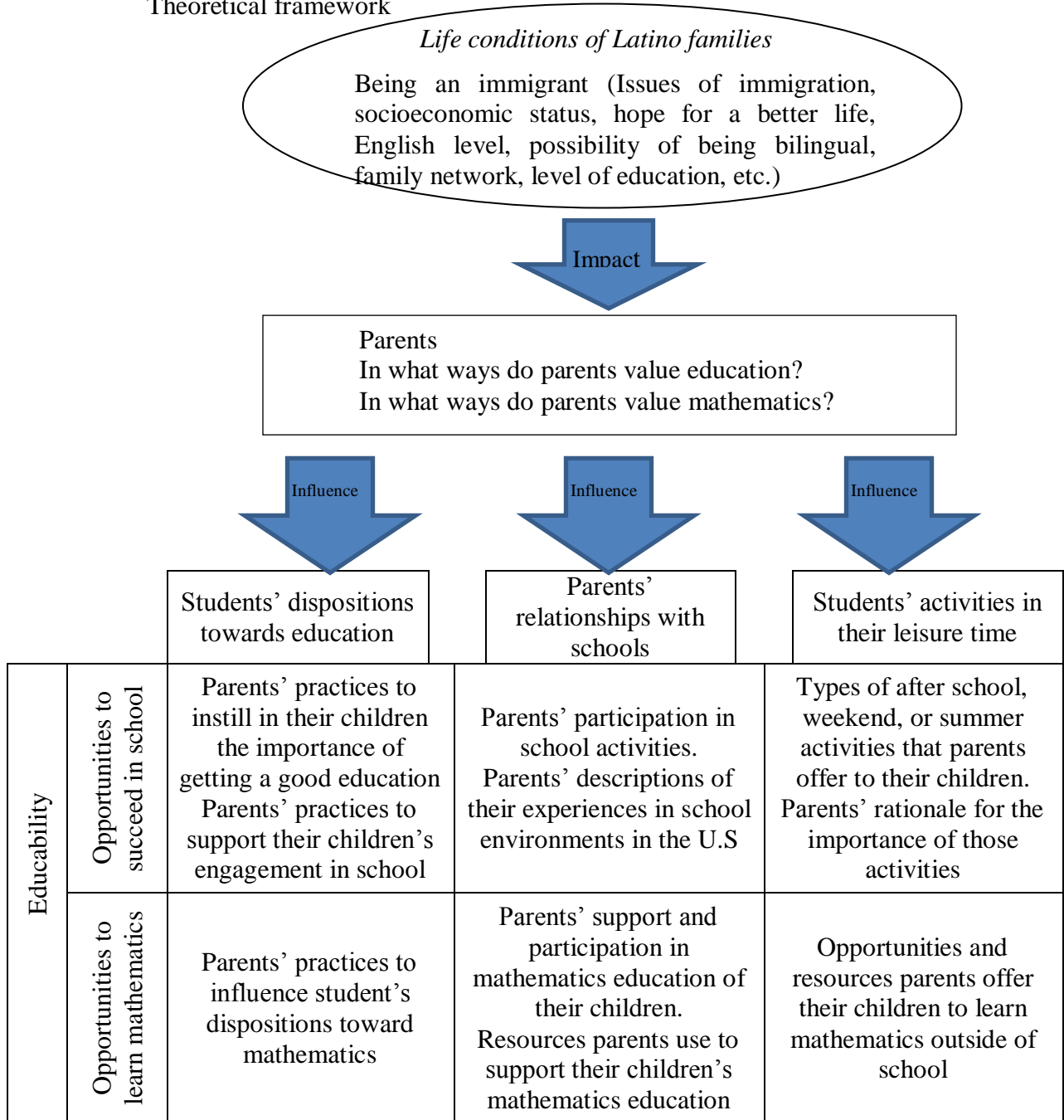


Figure 1: Theoretical Framework and Research Questions

Chapter 3: Literature review

This review of relevant literature is organized in four parts. First, I present results that establish the importance of parental involvement, as evidenced by different measures of student performance in schools. Second, I delve into the issue of parental involvement and equity, presenting studies that explore questions related to differential participation of parents of diverse groups and reasons researchers offer for these differences. Third, among the different groups of parents, I pay particular attention to research studies conducted with Latino families and the aspects of participation that specially affect them as a group. Finally, I examine studies of parental participation with a focus on mathematics, conducted with parents from diverse groups.

Importance of parental involvement in education

The educational benefits of parent involvement have been established for decades. In fact, the importance of parent participation in the education of their children is so vital to student academic well-being that the No Child Left Behind (NCLB) education law includes a specific section dedicated to parental involvement. According to Epstein (2005), NCLB requirements represent important improvements with respect to old legislation in that they call for the development of programs that involve all families in their children's education, rather than only a few parent representatives. "NCLB identifies parental involvement as an essential component of school improvement, linked to the curriculum, instruction, assessment, and other

aspects of school management” (p. 180) stressing the importance of involving “all families, even those who are not currently involved, [and] not just the easiest to reach” (p. 180).

The benefits of parent involvement in education are multiple and include gains in academic achievement, student motivation, and attendance, among others. Epstein (2005) presents some examples from the field in which schools, districts, and states attribute important gains in student achievement to the development and sustained implementation of parental involvement programs. LaRoque, Kleiman, and Darling (2011) argue that it is important to create ways to increase parental involvement in schools, “given that increased level of parental involvement in schools and in the education of their children is positively correlated with increasing educational achievement” (p. 115).

Bridgeland et al. (2008), in their report on parents’ perspectives on American high schools, found that high-performing schools are more likely than low-performing schools to be perceived as encouraging parental involvement, engaging parents in deeper ways, and notifying and involving parents if their child is having performance issues at school. According to their report,

Regardless of their income, race, ethnicity or school their children attend, parents share common beliefs about the importance of education today. Furthermore, parents with less education, lower incomes, and children in low-performing schools are the most likely to see a rigorous education, and their own involvement, as critical to their child’s success. [However], there is a stark contrast in views about how

schools are preparing their children for the future. Parents of children in low-performing schools are seething with frustration at how poorly their children are being prepared (p. 4).

As opposed to high-performing schools, low-performing schools were correlated with low levels of parental participation. Some of the reasons Bridgeland et al. (2008) found in their study for low parental participation are lack of time, lack of communication between school and homes and, only in a small percentage, parents' own limitations. Given their findings, they issue a series of recommendations for schools to improve parental participation.

Although student achievement tends to be "the" measure of school success, other indicators such as attendance and graduation rates are also influenced by parental involvement. Epstein and Sheldon (2002) claim that "attendance improves when schools take comprehensive approaches to family and community involvement" (p. 317), including establishing and sustaining home-school connections. Other reports also show correlation between parental involvement and higher student graduation (Bridgeland, Dilulio, Streeter & Mason, 2008; Henderson, 2004).

Gonzalez-DeHass, Willems and Holbein (2005) found important correlations between parental involvement and different measures of student academic motivation. According to them,

When parents are involved, students report more effort, concentration, and attention. Students are more inherently interested in learning, and they experience higher perceived competence. [...] Students whose parents are involved are more

likely to take personal responsibility for their learning. When parents show an interest in their child's education by getting involved, students adopt a mastery goal orientation to learning where they are more likely to seek challenging tasks, persist through academic challenges, and experience satisfaction in their schoolwork (p. 118).

Henderson (2004) points out that, parental involvement, not only positively affects students, but also families themselves, and the whole community benefits. Not all parents, however, understand parental involvement and get involved in the same way. In the next section I explore what the literature says about differential parent involvement for parents from diverse groups.

Parental involvement and equity

Researchers have found that parents from all groups highly value education. Moreover, parents in minoritized groups value education even more than White parents. Bridgeland, Dilulio, Streeter & Mason (2008) report that in their study all "parents share high aspirations for their children; [but] African American and Hispanic parents see the need for college the most" (p. 4). Similarly, Ryan, Casas, Kelly-Vance & Ryalls' (2010) "results indicate that Latino (and other ethnic minority) parents valued academic and social success equally, and more strongly than did Whites" (p. 391) (See also Immerwahr & Foleno, 2000, as cited in Valencia & Black, 2002). Despite their reported interest in education and the known benefits of parental involvement, it has been widely documented that parents from different social groups do not get involved in the same way.

Lenore Floyd (1998) reports a decrease in parent-school communication in the last decades of the Twentieth century for low-income and minority parents (also Tinkler, 2002). For her, the reasons for this lack of communication with and participation in schools is that parent involvement programs designed with middle class highly educated parents in mind do not work for most low-income and minoritized parents, and therefore their participation in them is low. However, for many educators this is a sign that parents from minority groups are not interested in their children's education. These deficit views of minoritized parents "often positions the homes and communities at the root of students' academic failure, without taking into account the institutional biases inherent in schools that have contributed to the mismatch between home and school" (Civil, Planas, Quintos, 2005, p. 82). In contrast, Civil, Planas, and Quintos base their work in the essential knowledges and strengths of the families. Similarly, Lenore Floyd (1998) presents the results of a parental involvement project specifically designed for low-income families and claims that the program was successful because it built "on the foundation of parents' already established strengths" (p. 126).

Annette Lareau (1989) conducted an intensive study on parental involvement comparing two school settings: one school with mostly working class families and another school with predominantly middle class population. Her results reveal that even though most parents reported that they wanted to be partners in their children's education, parents with higher levels of education, who possess the language and style of educational discourse, that is, the middle class cultural capital, have greater

advantages when participating in their children's schooling, whereas working class and poor parents, who do not possess that kind of sanctioned capital, find barriers for their participation. Indeed, Civil and Bernier (2006), agree that working-class parents and parents from particular cultural groups, "have historically had an uphill battle in advocating for their children's best interests in schools" (p. 314). In a later study, Lareau and Horvat (1999) suggest that based on similar mechanisms of cultural capital, African American parents are often more alienated from public school institutions than White parents. In fact,

parents' cultural and social resources become forms of capital when they facilitate parents' compliance with dominant standards in school interaction. In particular, cultural capital includes parents' large vocabularies, sense of entitlement to interact with teachers as equals, time, transportation, and child care arrangements to attend school events during school day" (Lareau and Horvat, 1999, p. 42).

As examined in the presentation of the problem, in chapter one, these aspects are usually not part of the cultural capital and wealth of working class Latino (and other) families. Thus, Latino families, like African American and other underrepresented families, are in many ways excluded from actively participating in schools.

In looking at equity in parental involvement, immigrant families are of particular interest since they usually don't have experiences with the U.S. educational system, and their social and cultural capital may lose their power as capital in the new

context. For example, “in the case of immigrant parents, a lack of familiarity with how the system works often makes it very difficult for them to know how to advocate for their children’s education (e.g. discussing placement in certain courses)”(Civil and Bernier, 2006, p. 316). Reay’s interviews reveal difficulties immigrant mothers had using their knowledge of schooling to support their children academically. These mothers’ school experiences in their home countries were so different from their children’s that they could barely draw upon their capital (cited in Civil and Bernier, 2006). This does not mean, however, that immigrant parents are not involved in their children’s education. Immigrant parents, because of their educational experiences in different countries and in a different time, may have different conceptions of schooling and what it means to be involved in their children’s education. Arias and Morillo-Campbell (2008) suggest that successful parental involvement programs with ELL population should include both traditional and non-traditional models of parental involvement. By traditional models they focus on training immigrant parents on how to support their children academically and how to participate in school activities. Non-traditional models “are based on developing a reciprocal understanding of schools and families. These relationships situate the cultural strengths of family and community within the school curriculum, parental education, and parent advocacy” (p. 11). That is, non-traditional models focus on integration of immigrant families in the school culture by acknowledging, valuing, and building on the funds of knowledges of these families and their communities.

As school population becomes more and more diverse, schools face greater challenges in engaging all parents in their children's education (LaRoque, Kleiman and Darling, 2011). LaRoque, Kleiman and Darling emphasize the importance of schools rethinking parental involvement and suggest strategies to reach out to parents from traditionally disenfranchised groups. One of their recommendations is to create an environment of respect and to build trust with the families. Other researchers have also highlighted the importance of building rapport with parents (i.e. Civil and Bernier, 2006; Civil, Planas, Quintos, 2005; Ramirez, 2003) to make them feel comfortable sharing their ideas and concerns, and contributing to productive collaborations with schools. Building trust, however, is not always easy, especially with parents from diverse cultural groups. Lareau and Horvat (1999) point out that

Many black parents, given the historical legacy of racial discrimination in schools, cannot presume or trust that their children will be treated fairly in school. Yet, they encounter rules of the game in which educators define desirable family-school relationships as based on trust, partnership, cooperation and deference. These rules are more difficult for black than white parents to comply with (p. 42).

Another widespread recommendation is for schools to widen their ideas of what counts as parental involvement to include practices that are not typically part of the traditional middle-class conception of parental involvement, but are part of the funds of knowledge of the communities they serve (i.e. Arias & Morillo-Campbell, 2008; Jackson and Remilliard, 2005; López & Vázquez, 2006; Ryan et al., 2010; Torres & Hurtado-Vivas, 2011; Valencia & Black, 2002). For these reasons, in order

to improve understanding and, therefore, relationships between schools and families from diverse backgrounds (often different from school staff's), it is vital that teachers and school personnel actively learn about the contexts and living conditions of the families, as well as their beliefs and resources, and develop parental involvement programs that build on the values and strengths of the community.

Latino parent involvement in their children's education and participation in schools

Latino students are the fastest growing group of students. They also have a high risk of low academic achievement as measured by standardized testing and the highest dropout rates of all groups in some states (Behnke and Kelly, 2011; Ryan, Casas, Kelly-Vance, Ryalls, 2010). It has often been suggested that the reasons for this situation are Latinos' "lack of parental involvement in education and appreciation of its importance" (Ryan et al., 2010, p. 391). Valencia & Black (2002) describe this argument as follows:

Given that Mexican Americans [and other Latinos] (allegedly) do not hold education high in their value hierarchy, this leads to inadequate familial socialization for academic competence, which in turn contributes to the school failure of Mexican American children and youth (p. 83).

These researchers claim that the basis for this myth lies in deficit thinking views of Mexican American, and other Latinos which blame the victim, rather than examine the social, political, and economic situation, as well as inequitable schooling opportunities that exclude some students from optimal learning. They present

compelling evidence of Mexican American and other minorities' struggle for equal educational opportunity, as well as examples of studies of parental involvement which clearly contradict this pervasive myth and case studies of Mexican American families showing different ways parents and grandparents get deeply involved in children's education.

Indeed, as described in chapter one, there are many factors to take into account when looking at Latino immigrant families' involvement in education. There is a wealth of literature that sheds light on the many ways Latino families get involved in their children's education as well as the challenges they face in dealing with schools. These qualitative studies seek to understand Latino families' perspectives on education rather than measuring their success by comparing their results on standardized testing with the results of other groups. Scholars who work in this line of inquiry explicitly move away from deficit perspectives of Latino families and take a funds of knowledge approach in their research, as in the case of this study. From this perspective, they depict a very different image of the Latino community and their involvement in the education of their children.

In a qualitative study with a diverse group of first generation Latino/a parents with adolescent children in North Carolina, Perreira, Chapman and Stein (2006) found that providing better educational opportunities for their children was not only important for the parents, but it was one reason families migrated to the U.S. Through interviews, researchers reveal parents' voices sharing their lived immigration experiences. Some of the challenges parents described as they

acculturated in the U.S. comprised “change in social position that includes the social support networks, the loss of social status or class, and the loss of familiar social roles” (p. 1391). The loss of social status, in turn, led to an economic and social segregation that families did not experience in their countries of origin. Also, families had to manage the fear and uncertainty associated with navigating new systems and institutions in a new country and in a new language, and many parents confronted the racism associated with negative views of Latinos for the first time. Faced with these challenges, families used their familial capital, in the form of “*respecto* [sic] and *familismo*,” and developed important coping mechanisms that helped them in the process of acculturation. Research by Perreira et al. “shows that *respecto* [sic] and *familismo* are only two components of the adaptive culture that Latino immigrant parents develop to translate risks [and challenges] into resiliencies” (p. 1387). As part of the coping mechanisms, families developed bicultural coping skills and “actively [sought] and [fostered] institutional support systems, [...] [sought] help from non-traditional sources and [attempted] to instill pride and knowledge of their Latino heritage in their adolescents” (p. 1391). Families that had bilingual staff or interpreters available in their children’s schools had successful experiences. However, other families who did not have access to language translation had very negative experiences, since as newcomers they did not understand schools’ expectations and options, and could not fully participate in their children’s educational decisions; for example, course placement, as mentioned before (Perreira, Chapman and Stein, 2006).

One of the major problems with the myth that Latinos do not care about the education of their children is that school personnel tend to equate parental involvement in education with parental participation in schools. Getting involved in education by coming to school events and helping out in the classroom, however, is part of White middle-class cultural standards, but not necessarily the way Latino families understand educational involvement (Valencia & Black, 2002; Tinkler, 2002).

López and Vázquez (2006) carried out a study in which they interviewed Latino parents who were recent immigrants about their understandings of their role in their children's education. Their results show a strong commitment from parents to their children's educational success, but not necessarily in the traditionally conceived school-based way of parental involvement. Latino parents see their role in their children's education within the area of motivation and character formation, rather than in the area of academic support. According to López and Vázquez (2006),

parents relied in [different kinds of] *consejos* [advice] to communicate and teach their children important lessons about life –particularly, the struggles associated to not having an education and the need to persevere to have a better future, [as well as] lessons about comportment, conduct, and behavior— especially, the importance of making important life choices that will secure their children's future. In effect, [...] *consejos* functioned as important forms of cultural capital that are grounded in the Latino/Latina experience (S. Auerbach,

2001; Delgado Bernal, 1997, 2001; Faulstich Orellana, Reynolds, Dorner & Meza, 2003; Solórzano & Delgado Bernal, 2001; Stanton-Salazar, 2001; Yosso, 2005) and emerge from the specificity of household funds of knowledge (Gonzalez & Moll, 2002; Moll, 1988, 1992; Moll et al., 1992) and community cultural wealth (Yosso, 2005) (p. 389-390).

Indeed, “consejos” have been recognized by many researchers (i.e. Hernandez, 2010; Valdes, 1996) as an important cultural tool in the Latino community to influence students’ dispositions towards education. For example, “the parents and grandparents in [Valencia and Black’s] study explicitly connect, through *consejos*, academic success with college, and later adult economic security” (Valencia & Black, 2006, p. 98, italics in original).

Given that the Latino community have their particular ways of getting involved in their students’ education and understanding participation in schools, Behnke and Kelly (2011) argue that there is a “need for the development of programs that support Latino families and help to promote school success and retention for Latino students” (p. 2). They report on two successful parent involvement programs in NC, specifically developed with Latino families in mind. These programs “took a collaborative approach to determine what would be covered in the program” and “looked to parents for input and expertise” (p. 2). Behnke and Kelly conclude that these programs were so successful “because they were developed in Spanish for the Latino parents [...] and used culturally appropriate activities and specially crafted

concepts that were specifically designed to meet the needs of Spanish-speaking parents and youth” (p. 8).

Latino parent involvement in the area of literacy has proved successful when approached from a funds of knowledge/community cultural wealth and Freirean perspectives (Larrotta & Yamamura, 2011; Torres & Hurtado-Vivas, 2011). In a study about how the demands to help with homework in the area of literacy affect Latino parents, Torres and Hurtado-Vivas (2011) call for the schools to move away from deficit views of Latino families and not to burden them with a responsibility that is the school’s obligation. According to them, schools should not impose on Latino parents practices “that are based on the middle-class Euro-American model of parental involvement” (p. 224), but instead they should “broaden and value the multiple and rich Latino family literacy practices” (p. 223). In their work with Latina mothers, they take a Freirean approach to literacy, acknowledging that the Latino community is very diverse in terms of family literacy and that people with low levels of formal education “have multiple and complex ways to read the world” (p. 227). They also recognize other factors that influence Latino parents’ views of parental involvement, like previous experiences in schools, social class, and the school environment, and they invited a group of Latina mothers to write about their experiences with schools in order to better understand them. As a result of these critical literacy workshops, this group of mothers ended up writing stories about their cultures and compiling them in a book, and some of them even considered taking a copy to their children’s schools. (Torres & Hurtado-Vivas, 2011)

Also Building on Freire's idea of emancipatory learning, Larrota and Yamamura (2011) created a family literacy project to examine "the role of parent interactions and relationships with special emphasis on practices that facilitate effective parental involvement in children's literacy development" (p. 74). In the workshops parents read and discussed culturally responsive readings and shared about their life experiences with other parents, building a learning community. The mothers in this study reported "high educational hopes for their children" and a "desire to help their children excel in an unfamiliar school system;" they joined the project "to learn how to translate those aspirations into action" (p. 77). As a result of their participation in the workshops these mothers report gaining important social and familial capital. Through getting to know better other parents and school personnel, and networking with them, they accessed new information and resources. Also, by positioning parents as experts in culturally relevant topics discussed in the workshops, these mothers report gaining confidence in their ability to help their children with school work and improved communication with other family members through discussing relevant topics treated in the workshop readings.

In general, "parents, particularly those from certain language/ethnic/racial groups and from low-income backgrounds, are hardly ever seen as intellectual resources for their children's schooling" (Civil and Bernier, 2006, p.316). However, experiences like these with Latina mothers in literacy show the incredible potential inherent in the Latino community which schools often overlook, whether intentionally or not. In fact, "the internal home behaviors by Mexican Americans

[and other underrepresented groups] concerning school have been little studied, but are of critical importance to understanding parental attitudes towards the value of education” (Valencia & Black, 2002). By not being able to recognize and understand Latino parents’ potential, schools are missing opportunities to capitalize on valuable funds of knowledge of the community and to get parents engaged in their children’s education, building on their strengths.

For these reasons, it is of crucial importance to create programs aimed at, on the one hand, educating school personnel to successfully work with Latinos and other underrepresented communities and, on the other hand, to support Latino families in their endeavors to encourage and assist their children to succeed in school (i.e. Behnke and Kelly, 2011; LaRoque, Kleiman and Darling, 2011; Ramirez, 2003; Arias & Morillo-Campbell, 2008).

Parental Involvement in mathematics

According to the Principles and Standards for School Mathematics (National Council of Teachers of mathematics, 2000),

when parents understand and support the schools’ mathematics program they can be invaluable in convincing their daughters and sons of the need to learn mathematics and to take schooling seriously. Families become advocates for education standards when they understand the importance of high-quality mathematics education for their children (p. 378).

However, as discussed in the previous sections, it is not always easy for parents, especially for parents from underrepresented groups, to get involved in the education of their children. This section explores what researchers have found regarding the involvement of all groups of parents in their children's education, specifically in the area of mathematics.

According to Allexaht-Snider (2006), "examining home and community contexts and parent perspectives is crucial for improving mathematics learning and participation for students whose access to, and engagement in, mathematics have been limited" (p. 188). In order to "better understand potential contributions and barriers to urban students' motivation for, and success in, mathematics as seen through the eyes of parents and from the point of view of home and community settings" (p. 188), many researchers have carried out intensive and extensive case studies, ethnographic research, and interviews with families and school personnel. This work is of critical importance to inform the education community about how parents' and communities' perspectives can be included and embraced in the dialogue about equity in mathematics education (Allexaht-Snider, 2006). This section presents studies which bring the voices of parents and highlight the importance of home-school communication and collaboration in the area of mathematics education. It is my hope that these studies will help contextualize my research project as a contribution in the same line of work.

Concerned about persistent underachievement of urban children in mathematics, Anderson and Gold (2006) studied how numeracy practices of 4

children 3 to 5 year old living in an urban area travel from home to school and vice versa, and in what ways teachers capitalize, or not, on the practices students bring from home. In their case studies, they found that “deficit assumptions about family and community support for children, and limited interaction between caregivers and teachers , further contribute to the tendency of school personnel to overlook the mathematical practices that children bring with them to school” (p. 261). Based on their results, they suggest that taking a broader view of numeracy that includes and coordinates students’ numeracy practices in and outside the school has the potential to improve mathematical performance of students in urban settings. Moreover, they claim that parents and caregivers are important sources of information about children’s numeracy practices outside of school and that schools should seek a more collaborative relationship with families and, at the same time, take a pedagogical stance that includes the sociocultural practices students bring from home.

Anderson and Gold (2006) are not the only researchers who advocate for the importance of students’ mathematical experiences outside of school. Civil and Planas (2010), drawing on their work that expanded for over a decade of research with Latino families in mathematics education, argue that in order to understand students’ performance in mathematics, it is necessary to know and understand their experiences outside of school, in particular their home environments. According to them, “the access to [students’] home contexts, by means of access to their parents’ voices, may be an effective way of gaining knowledge about their mathematical daily practices, beyond stereotypes and misconceptions reinforced by dominant negative social

representations on them” (p. 132). Moreover, the circumstances in which immigrant families live and the factors associated with being immigrants, as for instance language, need to be taken into account when looking at students’ mathematical learning experiences. Also, the ways parents understand school practices and how they value them, as well as in what ways parents communicate those values to their children “may be seen as significant social issues of influence” (p. 133).

In a study with White British and Pakistani immigrant parents in England, DeAbreu and Cline (2005) also looked at how parents understood and valued the school mathematics their children were learning, and in what ways “the extent to which [they] represented their own school mathematics and their child’s school mathematics as the ‘same’ or ‘different’ [...] influenced how they tried to support their children’s learning of school mathematics” (p. 697). Their findings show that both British and Pakistani parents encountered differences between the mathematics they learned in school and the mathematics their children were learning. Both groups of parents reported differences in the way mathematics is taught, in the tools they used (i.e. calculators), and in the strategies used to tackle math problems. However, while British parents considered these differences as a consequence only of historical changes, Pakistani parents believed that the mismatch was a consequence of both historical changes and cultural differences, including issues related to the linguistic code. Civil and Bernier (2006) argue that although there has been some research exploring parents’ understanding of reform-based mathematics teaching, “there is an even bigger need to explore these perceptions while taking into account parents’

educational background, social class, ethnicity, race, and language, and how these sociocultural factors affect the interplay between parents and teachers in the context of mathematics education” (p. 310). In this regard, the study conducted by DeAbreu and Cline (2005) showed almost no difference between the British and Pakistani groups of parents, except for the awareness of the role of language in mathematics. In both groups they found “evidence that the value they attributed to (or perceived in) one particular tool or way of doing mathematics influenced the parents’ and children’s practice of school mathematics at home” (p. 717). There were parents that strongly believed their children were missing important skills as a consequence of the present reform-based mathematics teaching, and taught those skills (i.e. memorizing the multiplication tables) to their children at home as an enhancement to the math the children were learning at school. There were other parents who recognized that the way they learned mathematics was different from the way their children were learning, and avoided exposing the children to those differences so the children would follow the school way. In their sample, the parents of high achieving students, especially Pakistani parents, showed more flexibility in negotiating home and school mathematics than parents of low achieving students, who tended to favor one of the two forms of mathematics over the other, in both British and Pakistani groups. These authors argue for the value of increasing the research base on parental involvement in mathematics, since parents do not find it easy to support their children in mathematics at home. In fact, “the difficulties that an individual may encounter when learning mathematics have to do with his/her membership in specific social and cultural

groups, the value given to their mathematical practices by other groups, and the relationship between his/her social and cultural groups and other groups” (Civil, Planas, Quintos, 2005, p. 82). If parents can understand and negotiate the differences between “their mathematics” and their “children’s mathematics,” they will be able to positively engage in the mathematics education of their children, conveying the value of learning mathematics and positively influencing students’ dispositions towards mathematics. Whether the mismatch parents experience between the mathematics they learned and the mathematics their children are learning is perceived as a consequence of historical changes or cultural differences, or both, DeAbreu and Cline (2005) claim that parents “may need support not just to learn how mathematics is taught at school but on strategies for bridging any home-school gap” (p. 720).

The gap between home and school mathematics has been studied and tackled by researchers, parents, teachers and schools in different ways. Researchers like Civil, Planas and Quintos (2005) argue that

in order to gain a better understanding of the situation surrounding immigrant students’ performance in mathematics, we need to know more about these students’ social contexts and, in particular about their parents’ perceptions of their children’s mathematics education, [since children’s] learning opportunities are likely to be framed by what their parents think and expect (p. 81)

In their study, immigrant parents, some of them Latinos in the U.S. and some other Pakistani and Moroccan in Spain, use their own experiences as learners of

mathematics in their countries as frames of reference to make sense of the mathematics education experiences of their children. Despite the historical differences between the mathematics education experiences of parents and their children that even non-immigrant parents experience (like British parents in the study conducted by Abreu and Cline' (2005)), Civil, Planas and Quintos (2005) claim that "in the case of immigrants, these differences across systems appear to be particularly value-laden" (p. 84). These differences create more anxiety, particularly in the case of immigrants who occupy low positions in the social hierarchy, and even more so for parents who had better jobs in their home countries and have had to take low paying jobs in the new country. Although parents had high expectations for their children's performance in school, "they feel limited in their influence on the host school system because of their relationships with other mainstream groups that do not seem to value their knowledge (p. 84). In another article, Civil and Planas (2010) argue for the "need for respect and positive valorizations of different group's knowledge" (p. 147). According to them, "children who experience respect for their home culture at school, and for their school culture at home, may see their learning as a smooth transition process among cultures instead of a place for conflict" (p. 147). To address this important issue, some teachers have worked on creating math classroom activities based on the funds of knowledge of students' families and communities.

Grounded on the idea that households and communities possess valuable knowledge that can be used as important resources for instruction, Marta Civil (2007) engaged with different teachers in "developing teaching innovations in mathematics

that build on cultural aspects of the students' community/ies" (p. 2). This work reveals tensions that arose as researcher and teachers attempted to create mathematical experiences based on students' everyday mathematics (like counting, measuring, and simple arithmetic), and at the same time tried to "move" students to more formal mathematical practices (like generalization, abstraction, and use of mathematical register). Civil noticed that differences emerged not only in the nature of home vs. school mathematics, but also in the ways children learn at home and at school. While "at home and in their community, children were often active participants in the functioning of the household" (p. 5), and therefore learned by apprenticeship; in schools they were often expected to learn by passively listening to the teacher or reading from a text. To change the nature of mathematics experiences in the classroom, the researcher and teacher conducted home visits and parent interviews to learn about the funds of knowledge of the students' families, and then the teacher drew parents into the classroom as "co-constructors of the curriculum" (p. 21). This "very different view from typical parental involvement" (p. 21) allowed parents to participate in the project by offering knowledge, advice, and materials that the teacher needed. Developing classroom activities that "not only build on the knowledge and experiences in the community but also in its *forms* of knowledge (e.g. apprenticeship)" (p. 28), as well as positioning parents as intellectual resources in these projects, "is key to the equity agenda" (p. 28) in mathematics education.

The idea of parents as intellectual resources has been explored more in depth by Civil, Bratton and Quintos (2005). In a study with Latina mothers, they present a

mathematics project in which the parents participated through different roles: as parents, as learners, as teachers, and as leaders. As participating mothers tried to get involved in the education of their children and help them with mathematics, they also became learners of mathematics. As they worked in the project, they started to lead mathematics workshops for other parents, so they became their teachers, and finally they began to discuss how to take leadership roles in the schools, and even the district, to advocate for better mathematics education not only for their children but for all children. This study is one example of the great potential that parents from all backgrounds have for not only getting involved in mathematics education to help their own children, but, given the opportunity and the tools, to become leaders and advocates for high quality mathematics education for all children.

This chapter has reviewed research studies that establish the importance of parent involvement in students' school success, in particular for students from underrepresented populations, and specifically in mathematics. According to the literature, families from underrepresented groups face barriers in their efforts to get involved in their children's education. They often face a school culture, including parent involvement initiatives and expectations based on white middle-class values and norms. From an equity point of view, it is of vital importance that schools make explicit efforts to get to know the families and communities of their students, develop parental involvement programs based on the culture and values of these groups, and convene parents from marginalized groups to participate as partners in the education

of the children. In particular, in the area of mathematics, the literature review reveals the importance for schools to work in collaboration with parents to support students' success in mathematics. In order to do that, schools need to be acquainted with parents' ideas about mathematics and mathematics education, as well as mathematical practices in which students participate at home. These knowledges and practices can be valuable resources to support students' mathematical learning experiences and for teachers to develop instructional materials that build on the funds of knowledge of the communities they serve. It is my hope that, by exploring parents' ideas, values and practices in relation to mathematics, this study will contribute to improve our understanding of Latino immigrant parents' involvement in their children's mathematics education and can inform school programs and policies that seek to increase equity in mathematics education.

Chapter 4: Methodology

Introduction

The goal of this project is to investigate how Latino immigrant parents use their capital and funds of knowledge to influence the conditions of educability of their children. That is, I seek to understand first the circumstances in which my participants live in relation to their life histories. Second, I want to analyze how their life experiences shape *their* particular interests, concerns, needs and resources in relation to education and mathematics, in other words, what their funds of knowledge and their capital are. Third, based on their funds of knowledge and capital, I want to investigate what messages they convey to their children about education and mathematics, what relationships they develop with their children's schools, and how they influence what their children do outside of school. I will investigate how families' and schools' practices align (or not) in these three areas and therefore how parents influence the conditions of educability for their children.

My positionality shaped the development of my research questions. Similarly my relationship with the participants shaped my choice of methodology, the type of data that I collected, the analytical tools that I used and lastly the conclusions that I was able to draw. First, I chose to do a qualitative study. Bonal et al. (2010) state "investigating the conditions of educability [of children] requires a qualitative methodological approach that is able to identify the diverse expressions that poverty

[and other factors] adopt, the different forms of experiencing [them], and the key dimensions that in each case condition the educational trajectory of the children and the possibilities for their school success” (p. 33). Second, these data will be collected mainly through individual interviews with parents to capture participants’ personal narratives. Also, I will use participant observation as I interact with parents in their homes. This research requires the researcher to be familiar with participants and the community. That is, a key aspect of the project is to develop a positive rapport with them. Third, the lived experiences of participants will be analyzed through the theoretical framework to investigate Latino parents’ funds of knowledge and resources and how they use these in their involvement in the mathematics education of their children. Understanding the participants’ point of view implies that important analytical work needs to be done from the initial to the final categories that will better describe the participants’ perspective of their experiences. Therefore, the theoretical categories cannot be totally defined from the outset, but rather, their development is part of the project. Fourth, I hope that with these cases I can contribute to a more nuanced understanding of Latino immigrant parents’ involvement in their children’s education within the context of their lives. These deeper insights can inform the design of parental involvement programs in schools aimed at improving the conditions of educability of historically marginalized groups, which is the ultimate goal of this research. For all these reasons, I chose to use critical ethnography as my methodology.

Critical ethnography

Ethnography in general, or ethnographic methods, have been traditionally used in anthropology to study societies and cultures totally different from the researcher's¹⁴. However,

a radical change in perspective in certain anthropological trends at the end of the twentieth century shifted the research to “we,” to those everyday settings, like schools, in which the social relations and power relations in society [...] are forged. [...] People from everywhere have assumed ethnography as a way to better understand their own worlds in relation to other, those that hold power and privilege. [...] What the ethnographer does is *document what is not-documented* of the social reality (Rockwell, 2009¹⁵, p. 21, italics in original).

Critical ethnography, in particular, “begins with an ethical responsibility to address processes of unfairness or injustice within a particular *lived* domain” (Madison, 2012, p.5, italics in original). As I discussed before, in chapter 1, the conditions of Latinos in mathematics are characterized by low expectations, fewer resources than other groups of students, tracking into lower levels of math, and

¹⁴ The Greek root “ethnos” means “people,” but has historically used in the sense of “other people,” and ethnography was the study of “the other.”

¹⁵ All quotes and references of Rockwell have been translated from Spanish by Carolina Napp-Avelli.

portrayal of Latinos as inherently low achievers in mathematics. My concern with this reality has led me to think about ways to change it. Because of who I am, my experiences working as an interpreter and parent liaison, and what I feel I can contribute, I have chosen to work with parents to better understand this reality and think about ways to improve it. As Soyini Madison (2012) explains, the critical ethnographer works in the space between “what is” and “what could be” (p. 5). She points out that

The conditions for existence within a particular context are not as they *could* be for specific subjects; as a result, the researcher feels an ethical obligation to make a contribution toward changing those conditions toward greater freedom and equity (p. 5, italics in the original)

This is, in fact, my deepest motivation for doing this research and the reason I have chosen critical ethnography as the methodology.

Next, I want to highlight some important points regarding the methodology. First, I want to describe the relationship between theory and method in ethnographic work, and therefore, in this study. Second, I want to stress the importance of building rapport with participants in my work. Third, although the purpose of this study is not directly to generate change, I want to discuss how my study and my choice of the methodology may serve the ultimate goal of working for a more equitable society.

Theory and Method in Ethnographic Work

One of the most important characteristics of ethnographic work is that theory and method, data collection and analysis are intrinsically intertwined in its process. In ethnographic work, theory and method are the same and yet different.

Ethnography has been defined as a “thick description” of the phenomena being studied (Geertz, 1973a, as cited in Rockwell, 2009, p. 22). Because every observation carries implicit conceptions about the reality we are observing, there is no such a thing as an objective description. For this reason, it is essential that all ethnographic work integrates the theoretical framework in the description of the participants’ thought and actions. In fact, “theory is used in ethnography as an *interpretive or analytical method*. We often rely on theory [...] to interpret or illuminate a social phenomenon” (Madison, 2012, p.14). Against positivistic conceptions of knowledge and research, ethnographers claim that every description is subjective. It is the product of analytical and conceptual work that has a theoretical framework behind it. And it is precisely making the theoretical framework explicit that makes the descriptions reliable (Rockwell, 2009).

There is always a dialectic relationship between theory and observation in the work of the ethnographer. Ethnographers go to the field equipped with their theoretical framework that allows them to observe certain events in a certain way. However, they try to capture as many details as they can in their field notes and be as descriptive as possible. They intentionally try to record things that may not make sense at the beginning. This openness in including things that are not part of the

original framework is of critical importance because these episodes push the ethnographer to adjust the theoretical framework in order to interpret them, generating new categories of analysis that will allow her/him to observe new relations. In the case of this study, when I started the project I went to the field with a funds of knowledge lens, that is, with the idea that that my participants have knowledge which they have acquired over the years through their experiences. Having such a broad perspective allowed me to collect all kinds of anecdotes, stories, and episodes that I either heard from the participants or observed in the interactions with them. As I transcribed and coded the interviews I tried to identify in those experiences different types of capital, from a community cultural wealth and Bourdieuan perspectives, and think about which of the three dimensions of the educability framework would be affected. These theoretical categories (different types of capital and dimensions of educability) formed the basis for the themes in the memos. Organizing the participant's experiences according to these themes highlighted gaps in the data and generated many new questions, which I then took back into the field as a new set of interview questions. For example, as I listened to my participants talking about their relationships with their children's schools, I wondered how my participants' parents related to their children's schools when my participants were students. Likewise as I learned how Sandra negotiated Kathy's entrance into an expensive summer camp without having to pay the fee, I wanted to know more about where and when she learned to solve problems in that way. Thus, the data collection and the analysis are not strictly separated in the work of the

ethnographer (Rockwell, 2009). On the contrary, they are intertwined in the process of writing successive versions of what will be the final product of the research. Far from a “mere empirical description,” an ethnography is a conceptual piece of work that integrates theory and analysis.

Establishing Rapport

Rapport is defined by Madison (2012) as “the feeling of comfort, accord, and trust” (p. 39) between the researcher and the participants. A central characteristic of the ethnographic work is the relationship between researcher and the community in which the research takes place. First, the ethnographer spends extended amount of time in the setting where s/he is going to do research, observing and getting to know the community to develop trust. This first hand, direct experience is central to the work of the ethnographer. Second, the ethnographer aims at understanding what some anthropologists have called the “native point of view” or the “local knowledge” (Rockwell, 2009, p. 23). Elsie Rockwell explains that

in order to [understand the local knowledge], it is essential to establish a close collaboration with people from the local community, maintain openness to their ways of understanding the world, and respect the value of their knowledge. [...] The interpretation of local meanings is not a final moment, but a continuous and unavoidable process. The integration of that local knowledge is only possible through a

theoretical perspective that recognizes and values it as a valid knowledge in the process of research (p. 23).

An example of this kind of work is the mathematics workshops Civil and Bernier (2006) did with a group of Latina mothers in Tucson, which was framed by the funds of knowledge perspective. In describing how they started to work with this group of mothers, they explain that “developing ‘confianza’ (trust) was at the heart of these workshops” (p. 113). Moreover, because they established this rapport with the core group of mothers they “were able to listen to [the mothers] telling [them] about their experiences as learners and facilitators of the mathematics workshops” (p. 317). Fred Ramirez (2003) in his study of Latino parent involvement in schools also emphasizes the importance of establishing a good rapport with the participants, so they feel comfortable talking with the researcher and disclosing information.

At the same time that it is very important to develop rapport with the participants so they trust us –researchers- and feel comfortable sharing information, we, as critical scholars, cannot forget the power relations that exist between us and our participants. We must honor that trust. At every moment during the project “critical ethnographers must explicitly consider how their own acts of studying and representing people and situations are acts of domination even as critical ethnographers reveal the same in what they study” (Noblit et al., 2004, as cited in Madison, 2012, p. 8-9).

Ethnography and Change

Although the motivation of the critical ethnographer is to work in the space between “what it is” and “what could be” in order to contribute to changing certain conditions toward greater equity (Madison, 2012), the ethnographic work, on its own, does not necessarily transform educational practices (Rockwell, 2009, p. 30). The critical ethnographer, however,

takes us beneath the surface appearances, disrupts the *status quo*, and unsettles both neutrality and taken for granted assumptions by bringing to light underlying and obscure operations of power and control (Madison, 2012, p. 5)

It is through this important role of uncovering and informing about certain processes that ethnographic work contributes to practices that lead to change. Actually, “the most important transformation that ethnography accomplishes occurs in those who practice it” (Rockwell, 2009, p. 30). For this reason, “the contribution of ethnography to educational practice lies in the perspective from which we interpret what occurs in schools, in the ways we understand transformation” (p. 30). It is the researchers’ theoretical framework that will guide their data collection and analysis and will inform them of new possibilities of change toward a more equitable society. According to Madison, “critical theory finds its method in critical ethnography. In this sense, ethnography becomes the ‘doing’ –or, better, the performance—of critical theory. To think of ethnography as *critical theory in action* is an interesting and productive description” (Madison, 2012, p. 14).

Sample

The participants in my study are four Latino immigrant caregivers, one father, two mothers and one aunt, who live in two different households. Sandra and Beatriz are sisters and they take care of Sandra's three children. Abraham and Anahí are married and they have three girls. Both families had a child in kindergarten and two younger children at the time we started the study. I briefly introduce them below.

Sandra is in her early forties. She is from Peru and has been living in the U.S. for about 14 years. She lives with her husband, Jose, their three children, two girls and one boy; and her oldest sister Beatriz who came from Peru to help Sandra when her oldest daughter was born in 2007. Kathy, the oldest child, was 5 years old and was attending kindergarten at their public neighborhood school at the time we started the study. Lucía, the middle child, was three years old and was attending a head start program three half days a week at an early childhood center. Kevin, the youngest, was a year old and he stayed home with Auntie Beatriz.

Sandra is a legal resident in the U.S. but not yet a citizen. She manages to speak and understand English, but she has difficulties reading and writing, and she feels very limited by the language barrier in general. Sandra finished high school in Peru and has some college experience, but she did not get a bachelor's degree. She obtained three technical degrees, which she could not validate in the U.S.

Beatriz came with a visa, but overstayed its duration and she is for now undocumented. She has her own son in Peru. He is in college and she sends him money for his studies and living expenses. Beatriz barely knows any English, since

she stays in the house most of the time. Auntie Beatriz did not finish high school. She took courses to learn how to sew and made her living working as a seamstress.

Abraham and Anahí are married and have three girls. Rebeca was 5 years old and was attending kindergarten at their neighborhood school at the time we started the study. Graciela was 2.5 years old and was attending a special program for speech therapy, 3 days a week. Andrea was still a baby and stayed home with grandma. Anahí's mother was living with them to help with the girls.

Anahí is from Bolivia and she is in her mid-thirties. She came to the U.S. in the 90's, as a teenager, and finished high school here. She even went to college and studied nursing, but could not take the licensing exam because she was undocumented at that time. She is fully bilingual and she is now a U.S. citizen.

Abraham is from El Salvador and he is in his early thirties. He came to the U.S. about a decade ago. He has learned enough English to get by, but he is not fluent. He works in construction and he is at the moment undocumented, which is an important concern for the family.

Table 3 summarizes the sample.

	Country of origin	Time in the U.S.	Children and family	Own education	Family sources of income	Level of English	Immigration status
Sandra	Peru	About 14 years. Came as a nanny with Peruvian diplomats	Kathy -5yo, girl. Kinder at public neighborhood school. Lucía - 3 yo, girl. Head start, 3 half-days/week Kevin - 1yo, boy. Stays home.	HS in Peru. Some college education (no bachelor's degree)	Sandra : no full time job. Works by the hour cleaning, nanny, elderly care. Looking for job now. Jose : unemployed	Manages to communicate (speak and understand), but difficulties reading and writing. Feels limited by the language barrier	Green Card
Beatriz	Peru	About 5 years ago to help Sandra when Kathy was born	They live together Sandra, Beatriz, Sandra's husband, Jose, and the children Beatriz has her own son in Peru. He is in college.	Did not finish HS Took courses in <u>sewing/dressmaking?</u> and worked as a seamstress	Auntie Beatriz : watches children, takes seamstress jobs. Kathy is on free lunch at school	No English	Undocumented
Abraham	El Salvador	About 10 years. Came for no strong reason	Rebeca : 5 yo, girl. Attending kinder at public neighborhood school Graciela : 2.5 yo, girl. Attending special program for speech therapy. 3 days/week. Andrea : baby. Stays home	HS in El Salvador. Started studies in business administration in El Salvador, but dropped out before end of first year to come to U.S.	Abraham : works in construction. Anahí : Works with a wealthy family as a housekeeper. Stable job, has been working with them for many years Grandma : stays home with children	Limited English, but does not seem to feel very restricted by it.	Undocumented
Anahí	Bolivia	Almost 20 years. Came to live with her dad.	They live together Abraham, Anahí, the girls, and Anahí's mother.	HS in Washington DC. Studied nursing, but did not get license	Rebeca receives reduced price lunch at school	Fully bilingual	U.S. citizen

Table 3: Summary of participants

Recruiting criteria

The criteria for parents to participate in this study were: to be Latino/a, to have immigrated to the U.S., have children in the school system, be interested in math education, and be willing to participate in a series of mathematics workshops. This last criterion, willing to participate in mathematics workshops, ended up narrowing the pool of potential participants to the sample in the study.

It was particularly important for me, as a researcher, that parents felt they could gain something from participating in this project. I was hoping to establish some kind of collaboration with them in which both parts gained something, rather than doing the project only for my own benefit. Knowing the community, I am very conscious of parents' restrictions with time and difficult schedules, and I purposely chose not to insist on their participation when I felt the study could be a burden for them. Only those parents who were genuinely interested in spending time talking with me and working on mathematics participated in the study.

Recruiting process

The recruiting process had several steps in which I explored parents' interests and got to know them more. It worked "like a funnel," in a way that at every step fewer and fewer parents participated, until three parents actually attended a series of mathematics workshops.

In order to reach out to parents I was present at different events like Back to School Night and parent support groups at public schools that serve a large number of

Latino immigrants. I passed out flyers and left my information with parents as well as collected information from them. I also spoke about my project with parents I knew from an ESL class I was teaching and my work as an interpreter and parent liaison. At this level, many parents expressed interest in mathematics education, both for themselves and for their children. I contacted all the parents who left their information to meet with them and talk about the project, but many expressed conflicts with scheduling and lack of time. With those who agreed, I met for an informal conversation and invited them to participate in the project. Overall, I contacted more than 30 parents and had the first informal conversation with 13 of them. Those who expressed more interest or curiosity about the project were invited for a first interview. I conducted a first interview with 7 parents. During the interview, parents were offered to participate in a series of mathematics workshops. In the end, three parents self-selected to participate in the project because of their interest in mathematics education and their willingness to meet with me to discuss educational issues and work on doing some math.

Representativeness of the sample

Because of their self-selection, the participants in this study represent Latino immigrant parents who are particularly involved in their children's education and specifically interested in learning ways to support their children in mathematics. To illustrate their interest and commitment, here are their reasons for participating in this study,

S: Oh, so that I could help Kathy. I mean, for Kathy, for the children, since they're young and I know I will need it, you know, they need it. I do it for them, and also for myself. I said, "OK, I'm going to go to remember" (Interview 3. Line 360)

Ah: In order to be able to remember, at least, for me, [...] the foundations you have [...] and mostly because my daughter is starting school. So I wanted to be more informed and seeing how the system is here. [...] Yes, also to remember and say, "Oh, yes..." and having the understanding that you haven't lost what you learned, and the interest, the curiosity of going there, seeing, knowing more than anything, the system they're using in school (Interview 2. Line 750-755)

Ab: For example, I was interested... I know my country's teaching system. I don't know it completely, but I have a good notion about it. I am interested to know what the learning system is in the schools in the United States (Interview 2. Line 757)

As stated in Table 1 on page 11, according to their level of education, one participant who has not finished high school has a level of education close to the median level of education of foreign born Latinos as a group. The other three participants in this study are among the 14.9% of foreign born Latinos who have some college experience, and hence they have a level of education higher than 74.4% of Latino immigrants in the U.S. That is, they are at the end of the third quartile of the foreign born Latino population in the U.S. according to level of education. This

means that the average level of education of the participants in this sample is higher than the average for the Latino immigrant population. However, according to their occupation (construction, housekeeping), income (students in both households are FARMS), English proficiency (3 out of 4 participants do not feel proficient in English), and immigration status (2 out of 4 participants are undocumented) these families are similar to other families in which parents are Latinos and immigrants in the U.S., and therefore, their stories and experiences can illustrate the experiences of other Latino immigrant families.

Tasks and Data Collection Procedures

There are several specific tasks that I did with parents as part of their participation in this study: the consent form, a short questionnaire, several interviews, and a series of mathematics workshops. There were also many informal and unstructured interactions with participants which contributed to establishing rapport and understanding them in their family context and circumstances.

Participant Observation: Informal Interactions with the Community

As mentioned before, getting to know the community is an important piece of the ethnographic work. All of my experience observing and volunteering for almost a decade and working in schools as an interpreter and as parent liaison for about three years is not formal data in the sense that it is not recorded as part of the study. However, it plays an important role in my own conception of the community with whom I worked in this study. In my interactions with parents I have observed

different families' life situations that affect in many ways the educability conditions of Latino students. Many times I have wondered how people make sense of these kinds of situations and I have developed my own ideas about how various factors impact the educability conditions of children in the Latino community. As part of the study, I will be looking to contest my own conceptions of the community, and to deepen my understanding of their life situations as well as their funds of knowledge and capital.

First Informal Conversation: Questionnaire and Consent Form

The first meeting with each participant was an informal conversation, semi-structured by a questionnaire I prepared (see Appendix A). The goal of this conversation was to explain the purpose of the study, have parents sign the consent form, and collect the same basic information from each parent using the questionnaire.

All parents chose to have the conversation and the consent form in Spanish. After a short introduction in which I informed parents about the study in a broad sense, I presented them with the consent form. I read the Spanish version of the consent form with each parent and explained any terms and pieces of text that needed some clarification. I explained to parents that they were free to participate or not in this study without any consequences, and specifically informed them that they could drop out at any time during the study without penalty. Parents signed the consent form and I gave them a copy of the Spanish version for their records.

During the first meeting with each participant I also completed a general questionnaire that I used as a guide for the first informal conversation and as a way to collect at least the same basic information from each parent, given that the meeting was not very structured. The questionnaire was not given to parents to complete, but instead I completed it as we were talking. During this first conversation I explained to parents the purpose and methods of the study and opened a space for them to ask any questions they may have had about it, so they felt more comfortable and at ease. It was also an opportunity to get to know each other better. As mentioned before, the issue of building rapport with parents is an important tenet of the study, and informal conversations were meant to contribute to that purpose.

Interviews

The interviews provided the core of the data for the study. Although I interviewed more than the three parents, some of the parents who were interviewed did not participate in the mathematics workshops, and therefore are not considered participants in this study. In the case of the participants, I conducted 3 interviews with each of them. For Abraham and Anahí the three interviews were conducted jointly. For Sandra and Beatriz, although they were together (except for Sandra's interview 3) and both answered questions, I focused more on Sandra at the beginning, since she was the one who demonstrated interest to participate in the study and was attending the mathematics workshops, and then on Beatriz towards the end of the

study. Also, the mathematics workshops have parts with questions and conversations that feel like interviews and therefore were transcribed and coded like the interviews.

Table 4 summarizes the interviews that were conducted for the study

PARTICIPANTS	DURATION	COMMENTS
Sandra	1:20 hs	Interview 1
Sandra	1:16 hs	Interview 2
Sandra	2:40 hs	Interview 3
Sandra and Beatriz	0:48 hs	Interview 4 (Sandra) Interview 1 (Beatriz)
Beatriz	1:37 hs	Interview 2
Beatriz	1:15 hs	Interview 3
Abraham and Anahí	3:10 hs	Interview 1
Abraham and Anahí	2:15 hs	Interview 2
Abraham and Anahí	1:47 hs	Interview 3

Table 4: Summary of Interviews

All interviews were conducted in Spanish and they took place at the participants' or my home. I always tried to accommodate parents' preferences and adjust to their schedules to make it easier for them. Often, we had to reschedule an interview several times, and I was very flexible.

All interviews were semi-structured. For the first interview I prepared a set of general questions that addressed certain themes (see Appendix B), but in an open ended style that aimed at capturing parents' perspectives and experiences. Many times, after the first set of questions the conversation went in a different direction than the questions I had prepared, and I followed the participant's lead. Because I was personally interested in getting to know them, I was not concerned about getting specific pieces of information, especially in the first and second interviews. To the contrary, I was eager to listen to my participants' stories in any way they wanted to

share them with me. Many of the questions I had prepared for the first interview were indeed not asked. For the second and following interviews, questions were specifically crafted for each participant based on the information collected and analyzed in previous interviews (see example in Appendix C). At the end of the cycle of workshops, when we had already established a strong sense of trust and friendship, I conducted a long and very focused interview with a set of common questions organized around some of the theoretical constructs to ensure that I get specific information that would inform my research questions (see Appendix D).

The interviews were meant and designed to be experienced by parents as a stress-free conversation about issues that were of importance to them and to me. Because “critical ethnography requires a deep and abiding dialogue with others as never before” (Madison, 2012, p. 10), I was not detached from the conversation; instead, I looked for common interests and shared my own experiences as a way to strengthen the bond with parents. Building trust with parents is not something that only occurred before the study, but was ongoing throughout in order to continue to make parents feel more comfortable and to strengthen our relationship. “The interviewee is not an object, but a subject with agency, history, and his or her own idiosyncratic command of a story. Interviewer and interviewee are in partnership and dialogue as they construct memory, meaning and experience together” (p. 28). It was very important for me, and it is for the results of the study, that parents felt safe and confident to share their experiences. At the same time, I tried to be conscious of issues of power and not to dominate the conversation by imposing my own ideas as

“truth.” The most important attribute of the researcher as interviewer is to be a good listener, and that was my goal during all interviews. My intention was to open up a space in which parents could be themselves without being judged. I consciously tried to monitor the balance between sharing my experience as a way to develop trust and shared meanings, and be mindful not to impose my ideas on the participants. For instance, I made a conscious effort to ask specific questions (i.e. *why* is it important for you that your children get an education?) to elicit my participants’ thinking and give time and space for them to answer, rather than assume my participants agree with me. That is, just because we talked at length about the importance of education it does not mean my participants and I have the same reasons to believe education is important.

Interviews were recorded with a Livescribe pen, with which I also took some notes. As a back-up, the audio of the interviews was also recorded with a cell phone.

Informal Conversations and Interactions with Participants

As I was hoping, throughout the study my relationship with the participants developed little by little into a friendship. In between interviews and workshops we called each other or visited for different reasons. For example, they called me when they needed help with completing forms or papers, I called them if I had a particular piece of information that I thought might be useful for them, I was invited to children’s birthday parties, I invited them to my children’s summer camp performance, etc. As expected, these informal interactions are also part of the study.

They allowed me to participate in and observe family interactions, and gather general information about the participants, not related specifically to mathematics education. This information allowed me to understand more deeply how the participants manage living as immigrant in the U.S. society. When we called each other I took notes of our phone conversations in a researcher's journal and treated them as data. All of the information collected through informal interactions was very valuable in informing the design of interviews and the analysis of the data. For instance, it helped me contextualize or interpret answers provided during interviews.

Mathematics Workshops

During the study I met with my participants ten times on Sunday mornings to discuss educational issues in general, as well as to work on mathematics and talk about how to support their children in doing well in their school mathematics (See Appendix E for a chart of who attended and the topics covered in each workshop). The meetings were audio-recorded with a cell phone and with a Livescribe pen and paper. The Livescribe pen and paper were particularly useful in recording the mathematical work we did during the workshops.

Although I will not analyze in depth the mathematical work we did as part of the study, these workshops were critical to the project in several ways. First, they played an important role in the participant selection, as explained previously. Second, it gave a sense of purpose for our conversations about education and my questions about families' funds of knowledge and at the same time gave us a

background to talk about mathematics in very concrete ways. Third, it played the role of a pilot experience for me in terms of working with parents in mathematics, and therefore has important implications for future development of mathematics workshops for Latino parents. Having a common interest in mathematics and a shared project made our meetings meaningful beyond this study. It was particularly important for me that parents could take something valuable away from their participation.

The structure of the mathematics workshops was also very flexible. First, the times of the meetings often changed to accommodate families' activities and schedules, and we ended up meeting at 7am on Sundays, so the workshops would not interfere with other family commitments. Also, I did not cut spontaneous conversations that originated in the interactions, but I tried to connect them to education or to their life conditions, if possible. We did two types of mathematical work during the meetings. We worked on upper elementary mathematics, like fractions and decimals; and we also worked on activities that could help parents support their children in mathematics in school. For each meeting I prepared some activities and allowed them to choose what they wanted to work on.

Data analysis

As mentioned above, the substance of the data for this study comes from the interviews and the workshops I conducted with parents. First, I listened to the interviews and workshops, and created timelines and some notes that helped me identify important themes for each participant and household. From these notes I

created memos that helped me develop codes to code the transcripts once the interviews and workshops were transcribed. Through the process of coding the transcripts I familiarized myself with the data and started to organize it to create the cases.

Memos

After listening to the first interviews, I wrote the first memo about my participants; I tried to describe who they were and the most interesting themes that appear in my conversations with each of them. These memos were important in identifying areas in which I needed more information. Having my advisor read these memos and react to them was also useful in identifying what themes were more interesting and relevant, as well as what other information was useful to include in the memo or collect in further interviews. In a way, the first memos were an attempt to introduce my participants to another person who may not know them and give my first impressions about them. That is, I did not just describe their age, country of origin, and other facts about them, but also what caught my attention as interesting and special about each of them, as well as reflections and questions that came up as I was writing the memos. For example, in several instances I had questions about how the kinds of opportunities they were trying to create for her children reflected or not their own experiences growing up, or I made comments with reflections about the ways in which the participants were similar or different to other parents I have worked with in schools. Once I collected more information about the participants,

whether through a second interview, informal interactions, or conversations during the mathematics workshops, I created a series of memos in which each memo built upon the previous one. As interactions with the participants and memo writing happened during the same period of time, I had multiple opportunities to collect particular pieces of data from my participants to complete information for successive versions of the memos and develop more coherent stories.

Memos were particularly useful in organizing the data according to themes and then relate the themes to the theoretical constructs. For example, a theme that came up in Sandra's case from the beginning was how she connected with many people and shared information and resources. That theme became in successive versions her "social and navigational capital." Also, the memos were instrumental in sorting themes according to their relevance to each of the research questions. In this process the research questions were refined and tuned according to the themes that emerged from the data. For example, in early versions of the dissertation, there were questions that asked about families' funds of knowledge and separate questions that asked about capital. Based on how capital and funds of knowledge appear in the data as intrinsically interconnected and describing different aspects of the same situation, in later versions of the research questions I integrated them as a way to describe resources and limitations of the families in different areas.

Thematic coding

Each interview and parts of the workshops in which conversations about education or any topic of interest occurred were transcribed.

For the analysis of the transcripts I used the qualitative data analysis software Atlas.ti. I developed codes based on the theoretical framework and the themes identified for the participants while writing the memos (see Appendix F for an initial list of codes). Then, I uploaded the audio files and transcripts and created links (anchors) between them to make it easier to refer back to specific parts of the transcript and audio. I coded the transcripts and during the coding I took notes about the codes and created different kinds of memos, using the Atlas.ti memo tool. The notes and reflections about the coding were very useful in helping me refine my codes and create new codes.

The codes I developed initially in order to answer my original research questions were focused on funds of knowledge and different types of capital and were used to code the transcripts of the interviews and workshops. However, since the problem and the research questions evolved as I got deeper into the analysis, some of the initial codes became irrelevant to the new research questions and I realized that I needed new codes. For example, I developed new codes associated with the three dimensions of educability, which were not included in the first list. In the process I also realized that some of the codes were not specific enough and therefore not useful. For example, the original code “funds of knowledge” was too general because any of my participants’ experiences could be coded as funds of knowledge. I realized

that the different forms of capital described in community cultural wealth operationalized the idea of funds of knowledge and became the main codes that I used in the analysis. Notwithstanding, the process of coding afforded me the opportunity to familiarize myself with the corpus of data. This allowed me to reorganize and create new themes. Since I knew where to look for pieces of data that supported my statements, I did not need to recode the transcripts again.

Creation of the Cases

From the themes that I developed as I wrote the memos about my participants and coded the transcripts I started to create the cases. There were several iterations of the cases that helped reframe the problem and the research questions, and vice versa. As the problem became more clearly defined from the data, the cases took shape in ways that better responded to the research questions.

The final version of the cases is organized in three parts: Part I is an introduction of the participants and describes the circumstances in which they currently live with their families, contextualizing them in their life histories. It includes how they became part of this study, some background about their upbringing in their home countries, and their immigration to the U.S. Part II analyzes my participants' funds of knowledge and capital. This part builds on part I, as the participants' life experiences are the basis for their funds of knowledge and capital. Although the themes are not necessarily all the same in the different cases, there are themes that are common to both cases. The first section of Part II briefly presents the

economic situation of the family, since economic capital is often a strong determinant of what opportunities students can access. The second section on parents' embodied capital analyzes what types of knowledges and skills my participants acquired as they were growing up. This section is closely related to the section on parenting, which looks at the kinds of values my participants transmit to their children as part of their education in a broad sense. As noted by Hernandez (2010) very often Latino parents feel that their main responsibility is the "moral upbringing of the children, [that is] guiding youngsters, molding them with *consejos* or advice, and supervising them carefully" (p. 22). This section is meant to capture these practices, as part of observing the kind of environment parents create for their children to develop their embodied capital. There is an important section on parents' education. This section describes parents' experiences as students, the kind of capital they have acquired through formal education, and any difficulties they may have faced in their education. Also, it explores the ways in which they value education, both for them and their children, their experiences as mathematics learners, and their relations with mathematics. Part III includes the analysis of how parents influence the educability conditions of their children. As explained in the theoretical framework, the conditions of educability are defined by the interrelations of three dimensions: students' dispositions towards education, the relationships between families and schools, and what students do in their time outside of school. The importance of these three dimensions is explained below.

First, students' disposition toward education is an important factor in their school success. Bonal et al. (2010) explain that,

For some [children] school represents the only space where they can live their childhood, for some others it is a meaningless obligation, and yet for others is the key to a better future. The diverse forms in which students understand and seize the schooling experience is clearly affected by the [life conditions of the children] and the ways they react to those conditions. [...] In this way, [the social condition] of the student does not univocally determine [the result of his/her school experience] (p.47).

Because students' dispositions toward education strongly influence the children's conditions of educability, in this study I analyze in what ways parents influence students' dispositions as part of their involvement in their children's education.

Second, the type of school students attend is identified by Bonal et al. (2010) as another important variable in children's conditions of educability.

It is convenient therefore to understand how schools that serve poor students are, to know whether they are open or closed [in regard to the relationship with the families they serve], with confidence to change the life conditions of students and families or eager to see them out of school (p.51).

As explained before, the type of school students attend is not part of this study. What is relevant to this study is the focus on the relationship between schools and families.

Whether it is at the whole school or at the classroom level, school spaces can be experienced by families as welcoming or threatening places. It is important to understand how schools accept the students [and] how they treat them. This way, we will have the necessary knowledge to understand how different aspects of the schools impact the educational trajectory of the students, and therefore, their educability conditions (p. 51).

Although schools have a major responsibility in creating rapport between the school and the community, parents can also influence this relationship with schools to affect their children's conditions of educability. As an example, in her book *Home Advantage: Social Class and Parental Intervention in Elementary Education*, Lareau (1989) analyzes how parents from different social class interact with schools to shape their children's educational experiences.

Third, according to Bonal et al. (2010), children's leisure time "can be a source of estrangement or closeness with school and, therefore, intervene in the educability conditions of the children" (p. 44). When children participate in their leisure time in institutionalized activities, usually paid activities characterized by schedules, norms, and supervision by adults; or at least structured activities, usually not in an institution, but with "stable and regular patterns for the use of time" (p. 45); students have potentially more opportunities to develop school-like practices through these activities, and therefore greatly benefit from the alignment between the out of school and school practices.

Thus, Part III examines in what ways parents influence their children's dispositions towards education; how parents participate in their children's schools; and in what ways parents influence what their children do in their time outside of school.

Chapter 5: Abraham and Anahí

Organization of the case

As described in the methodology chapter, the cases are organized in three parts.

1. *Part one* is an introduction to Abraham's and Anahí's life histories in narrative form. It provides the background information for the case.

2. *Part two* is the central data for the case, as it analyzes the funds of knowledge and different types of community cultural wealth that the family possesses, and it builds on their background information presented in part one.

3. *Part three* presents an analysis of how the participants use their funds of knowledge and capital identified in part two to support their children's education in general, and in the area of mathematics in particular.

Part 1. Introduction

This introduction starts with how Abraham and Anahí became participants in this study. Next, the story goes back to their childhood and adolescence in their home country and describes the circumstances that led them to emigrate to the U.S. Back to the present, the story continues with a description of the current circumstances in which the participants live. Finally, it connects the time they arrived in the U.S. to the present. Their background and experiences are the basis for their funds of

knowledge that will be analyzed in part two and that will influence how they support their children's education, which will be analyzed in part three.

Meeting Abraham and Anahí. I met Abraham at an elementary school at which I previously worked. In an informal conversation Abraham brought up the topic of the importance of getting an education. He said he would like to go to college and get a degree. I mentioned that I wanted to start a group for parents to study math, both for GED preparation and to better help their children with school mathematics. He seemed interested and I invited him to join us. From the start he was ready to participate in this group. When I told him we would meet the following Sunday and asked him if he would come, he said "yes," and there he was! For me, this was a big contrast with other people who expressed interest but never showed up. He engaged right away, so much so that he told his wife Anahí about the work we were doing and encouraged her to come to the workshops. Anahí joined the study group on the fourth meeting. I had met her before at school as well, because she used to come to the school often to participate in the classroom and other school activities. She was also interested in the work of furthering her mathematical ability and she engaged in the project from the moment she joined.

An overview of Abraham's biography. Abraham was born in El Salvador in the 80's during the war, but luckily in the area where he lived, he did not have to deal with it directly. Near the capital San Salvador, life was not affected by the war as much as in more remote areas of the country, so he and his siblings attended school regularly. According to him, education was not a priority back then in El Salvador

and it took years to gain consciousness about the importance of education in the country. After the war, the government tried to promote education through the motto “Education is the solution,” and to re-educate children and youth who did not attend school for a decade and only knew how to work with weapons.

Abraham is the youngest of three siblings in a family that he described as dysfunctional. His mother raised them almost by herself. His parents separated when he was two years old, and he did not spend time with his father when he was growing up. When Abraham was seven, his mother met Carlos, who did not actively participate in Abraham’s life, even though Abraham called him dad. Abraham’s mother worked hard to put food on the table. She worked as a maid, in a sewing workshop, and also in a factory. She was the only breadwinner in the house until she met Carlos. Abraham’s mother and Carlos lived together for about three years, until Carlos got his green card and moved to the U.S. and she stayed with the children by herself again. Abraham’s mother did not push her children to study or communicate the importance of getting an education. Similarly, when she was a child, she did not get the idea that education was important. She did not finish elementary school and neither did most of her siblings. Her own mother, Abraham’s grandmother, taught her and her siblings what she could, but Abraham’s grandfather never prioritized studying, so she never embraced the importance of getting an education. When Abraham was cutting class or missing school, his mother used to tell him “it’s up to you, you are the one studying” (Workshop 3. Line 051). Abraham figured out early that his education was his own responsibility. He was conscious that he was a

capable student and did better than average in school without much effort. At the same time he learned that getting an education was very important and succeeded in school, according to him, as a response to his life situation.

In our conversations, he was always very determined and very interested in getting an education. In El Salvador, he graduated from high school and even started college, but never finished. As a student in high school, he enjoyed learning about everything, from literature, to physics, to math. He found everything interesting. He described himself as capable, but very inconsistent. He used to cut class, finish assignments late, and study mainly the night before for tests and exams. However, because he was capable and smart, he always ended up passing and even getting good grades. He confessed that consistency and perseverance are hard for him, but learning does not seem difficult. He repeatedly said he likes mathematics and feels smart and capable in regard to learning it.

Abraham described himself as being very mature as a child and adolescent. During his high school years, he not only learned academic content, but he also paid careful attention to the advice teachers gave students regarding life issues. In our conversations, he often quotes teachers who encouraged them to study and excel, as well as to be responsible for their actions. He listened carefully to those messages because he was eager to grow up. He wanted to look older and acted older than his age. Despite being the youngest of three siblings, he still gives advice to his older brother on life issues. Currently, he is a thoughtful and responsible man, but he wishes he were more persistent and perseverant. Following through on things he

starts, for example related to education, is hard for him and he believes he needs to work on that aspect of his personality.

After finishing high school Abraham started his studies in business administration in college, and he did very well in the first semester. According to him, he had an easy life in El Salvador. He was still living with his mother, he did not have to work, and he had a girlfriend. Life was easy and predictable. However, he decided to emigrate to the North. He did not even think about finishing his studies before leaving El Salvador, he just left. He has no regrets, he does not complain, but if you ask him why he left, he will answer, “I am still wondering” (Interview 1. Line 143). He talked to his step father and asked him for help with emigrating to the U.S. It took him three months and a large amount of money to get to New York and meet his step father.

An overview of Anahí’s biography. Abraham’s wife, Anahí, is from Bolivia. She grew up in the middle of the country, on the Andes. Although she did not consider her family poor, she grew up surrounded by poverty. She knew she was privileged compared with those around her, such as her friend Nora. Anahí’s mother was a professional nurse and always valued education. She emphasized the importance of education at home and provided Anahí and her siblings with books and educational materials. In contrast, Nora did not go to school because she had to help at home until Anahí’s mother taught Nora how to read and convinced Nora’s mother of the importance of schooling her. Anahí talks about Nora to show the contrast between herself and other children around her. From a young age when she used to

play with Nora, Anahí knew the difference between being educated or not. Anahí was a good student and grew up with the expectation that she would go to college and be a professional. She not only went to school as a child, but she also had complementary education after school, such as private English classes.

Despite her advantages compared with other children around her, Anahí's childhood and adolescence were not what we would call a bed of roses. Anahí has four siblings, two of them from the same parents and the other two only from the same father. Anahí's half-brothers are the first and third in order of age, Anahí is the second, and her two younger siblings are fourth and fifth. Anahí's father went back and forth in his relationship with Anahí's mother and Anahí's brothers' mother, Milagros. After Anahí's parents separated permanently he decided to move to the U.S. and emigrated with Milagros. He arranged with Anahí's mother that she would take care of his other two children, so Anahí's mother was in charge of five children altogether. Anahí's father and Milagros sent money from the U.S. to help cover the children's expenses and Anahí's mother invested that money in a lending agency, which was owned by a friend of hers and that would supposedly give them much higher interest than the bank. In the late 80s these types of agencies collapsed in Bolivia, and despite the fact that her friend promised to reimburse her, Anahí's mother never recovered the money. This is when Milagros came back and took her sons to the U.S. Anahí thought she would like to go too, one day.

Needing to return to Anahí's father and Milagros the money she had lost, Anahí's mother had to work day and night shifts to recover that money and to put

food on the table. Anahí remembers even spending Christmas at the hospital with her mother while she was working. Since Anahí was the oldest of the three siblings, seven years older than her brother and nine years older than her sister, she had to help at home with household chores like cleaning, cooking, and taking care of her younger siblings, in addition to going to school. When she finished high school in Bolivia at the age of 17 and was applying to go to dentistry school, she decided to come to the U.S. to visit her father. Her mother was reluctant to let her come, but she had to give in when Anahí got so sad that she started to get sick. Anahí did not tell her mother she was planning to stay, but she knew the trip was not just a visit. She was looking for a better life. She wanted to learn English and work to send money to Bolivia to help her mother.

Abraham and Anahí's present circumstances. At present, Anahí is in her mid-thirties and Abraham in his early thirties¹⁶. They have been married for six years and have three girls: Rebeca, age 5, Graciela, age 3, and Andrea, age 1. They live in a two-bedroom, two-bathroom condominium, which Anahí bought when she was single, on the 10th floor of a big condominium building. In the apartment they live with their children and Anahí's mother, who came from Bolivia to help them with the girls. Rebeca is attending kindergarten and Graciela a head start program three mornings a week. Graciela was recently diagnosed with autism.

¹⁶ Ages are at the time of the first interview

Abraham works in construction. The past two years have been good jobwise, but several years ago, he could not find a job for many months and the family struggled financially. Anahí works for an affluent family, the Johnsons, helping them with their children and various household tasks. She has been working with them for many years, since their children were little and she worked as a nanny. Now they are teenagers and she drives them to their daily activities, cooks dinner for the family, and makes sure that everything is taken care of in the house, especially when Mr. and Mrs. Johnson travel.

In terms of the family finances and taking care of the children, Abraham and Anahí work together as a team. When one goes to work, the other takes care of the girls. When Abraham could not find a job, Anahí was supporting the family financially. This year he has had a lot of work. He worked non-stop for months, including weekdays and weekends, to help finish paying the debts they had from the time he could not work. While he was working so hard, Anahí was taking care of the girls with her mother's help.

Anahí's story from the time she arrived in the U.S. to the present. Many things happened between the time Anahí arrived in the U.S. and the present time. Anahí arrived in Washington DC in 1995 and enrolled in 11th grade at the age of 17. After less than two years of study she obtained her high school diploma in the U.S.. These two years of high school also afforded her the opportunity to learn English and to get more acquainted with American life. In terms of mathematics, however, she did not have the opportunity to advance her knowledge, since she was placed in a course at a

lower level than the level she had been in at her high school in Bolivia due to her limited English proficiency.

When she talks about those two years, she inevitably mentions Mr. Hodges, her homeroom and math teacher, and Mrs. Lopez her counselor. Noticing she was capable, Mr. Hodges always gave Anahí more advanced work to do in mathematics. He also gave her the opportunity to get community hours by helping him grade math work from students who were not in Anahí's class. Mrs. Lopez, the counselor, advised Anahí which classes to take and made sure Anahí obtained her high school diploma before she moved to another school.

When she arrived in the U.S. Anahí started to work immediately. In the very beginning, she worked on the weekends helping her father in his construction work, cleaning and performing simple tasks like caulking for minimum wage, which at the time was \$6/hr. This is how she met Mrs. Weiss, a Jewish woman who noticed Anahí's capabilities and sought to help her. In some ways, this woman became a mentor to her. First she hired Anahí to clean her house on the weekends, and noticing she was responsible and reliable, Mrs. Weiss eventually gave her an entire apartment building to clean once she finished high school. She always encouraged Anahí to study and get a college degree, but at that time Anahí did not have the financial resources to pursue a postsecondary education.

Anahí had a clear goal when she came to the U.S. She came to pursue the American Dream, which to a great extent, was associated with making money to help her family and be economically independent. When she describes her feelings at that

time and her thoughts about making money, paying the debts she incurred in to come to the U.S., and staying afloat financially, her discourse gains speed. She communicates a sense of anxiety and urgency to make money, a sense that making money was the number one priority in her life, and there was nothing else she would think about at that time. But in the back of her mind, college was the next step.

She worked for a year for Mrs. Weiss, cleaning her house and the building, and collected some money to apply for college. At that point, she started to feel she was losing all the language skills she had acquired in high school, since she was working by herself and had no opportunities to interact with people and practice using English. She decided to find another job and worked in a restaurant for some months until she found a job as a nanny. In the meantime she started college. Mrs. Weiss was still in close contact with her: she brought her the information and the packet to apply for college, and she recommended Anahí to a friend of hers, Rebecca, an elderly woman who was living alone and needed some help. In 1998 Anahí moved in with Rebecca to take care of her and she started studying geriatric nursing in a small institution. She chose a six months program and by the summer 1998 she got her certificate, but when she had to take the licensing exam, they requested that she complete forms that included proof of legal status, which she did not have at that time. Anahí's step-mother told her she could get deported if she revealed she was undocumented, and Anahí was so afraid that she of getting caught that she decided not to take the licensing test. Unfortunately, she lost the opportunity to be a nurse at that time.

Years later, both the lawyer who was managing her immigration case and Mrs. Weiss told her that if they had known about her situation, they would have done something to help her. However, Anahí was so fearful to be deported back to Bolivia that she did not want to tell anyone. It did not even occur to her that they could have helped with this. When she became a legal resident, she went to the nursing school where she studied, but it had closed for good, so she did not have a chance to go back to a familiar place and find out how to pick up where she left off.

In 1999, while still living with Rebecca, Anahí started to work for a family, cleaning and babysitting their children. She worked for that family for two years until she got a better job with the Johnsons, for whom she is still working. In 2005 she met Abraham and soon after they were living together. Then marriage, children, and all the responsibilities associated with having a family got in the way of her dream to become a nurse.

Abraham's story from the time she arrived in the U.S. to the present. As for Abraham, he arrived in New York in 2004, and he was living with Carlos, his step father. He worked in construction for about a year and a half, and paid his step father back all the money he had borrowed from him to get here. In December 2005, he came to Maryland to visit his cousin, who had started the trip from El Salvador to the U.S. with him, but arrived two months before Abraham. Since he was not working, he helped his cousin by babysitting her two children. Once, the baby got very sick, vomiting and having diarrhea. Abraham communicated with his cousin and she sent her friend Anahí to help him, since she was working. Abraham had seen Anahí once

before, but they were not friends. When Anahí arrived and saw the child, she noticed he was getting dehydrated and they had to take him to the hospital immediately. When they arrived at the hospital they realized they were not immediate family of the child, they had no documents of the child, and they did not even know his full name. It was a stressful situation. Luckily, the hospital admitted the baby while his mother was on her way. This episode provided them an opportunity to become more acquainted with each other. When they talk about this nerve-wracking experience that brought them together, their speech enlivens, laughing and interrupting each other, communicating the stress of the situation, but also showing that they are happy it happened and that they got the opportunity to get to know each other more. After that episode, they called each other several times, and then they started dating.

Something that caught Abraham's attention when he met Anahí is that she had almost lost her Spanish. She made such an effort to learn English and get acculturated in the U.S. society that she was barely using Spanish any more. Since Abraham did not know English, they had to communicate in Spanish and she soon recovered her native language. Now she is fully bilingual. Since then, Abraham started to learn English and he is now able to get by comfortably, but he still feels limited by the language barrier and would like to take English classes.

Abraham's and Anahí's background and experiences serve as their funds of knowledge, and are the basis for the resources they have to support their children's (mathematics) education. In the next part of this chapter I will analyze how these experiences translate into resources and capital they use to develop an embodied

capital for their children and to support them in their education, in particular in the area of mathematics.

Part 2. Abraham and Anahí's Funds of Knowledge to Support their Children's Education in General and in Particular in Mathematics

Part two is the central part of the case. Building on the background information presented in part one, it unpacks the funds of knowledge and different types of community cultural wealth that Abraham and Anahí possess as a family. What Abraham and Anahí do to support their children's education and the opportunities they can offer them to develop embodied capital, are in many ways regulated by their own funds of knowledge, as well as the limitations they have to face due to the social conditions in which they live. In this second part, I connect Abraham's and Anahí's life experiences, as their funds of knowledge with the various types of capital they have developed to support their children's education.

There are six sections that compose part two.

1. The *first section* on objective and economic capital briefly describes the family's sources of income, material possessions, and how they see their economic situation in terms of possibilities or hindrances.

2. The *second section*, "Being Immigrant and Immigration Status," explores how the experiences that are specifically related to being immigrant affect Abraham and Anahí, including isolation, issues related to learning English, and how being undocumented affects the families in different ways and translates into opportunities or difficulties to acquire different kinds of capital.

3. The *third section*, embodied capital, analyzes the participants' experiences growing up and how these experiences shape the way they approach life as adults, in particular in relation to parenting and education.

4. The *fourth section*, on parenting explains how Anahí and Abraham see their role as parents in raising their children, and highlights the main goals, hopes and expectations they have for their children.

5. The *fifth section*, on education, is strongly related to section four, but it describes in more detail Abraham's and Anahí's approach to academic education, their experiences in schools both as students and parents, and the aspirations they have for the education of their children.

6. Finally, the *sixth section* explores Abraham and Anahí's particular experiences with mathematics in different areas: as learners of mathematics, in their everyday life, in the work we did for this study and also for their children's future.

Objective and Economic Capital

When we think about capital, the clearest symbol of capital is economic capital, represented by income, and one's valuable objects and goods. In terms of objective capital Anahí owns the condo in which they live and they have two cars. The house is well equipped, in particular with educational materials. In their living-room there are several shelving units full of books related to education and toys and the lower shelves hold the children's books so the girls have easy access to them. The children also have notebooks and paper, crayons, pencils, scissors, and other

school and craft supplies available. They have an old laptop computer, and a mid-size flat TV and many children's movies, some of them educational. They also have a fish bowl with 2 fishes.

In terms of income, Abraham and Anahí's family are considered by federal standards to be a low-income family as attested by the facts that Rebeca, who is already attending a public school, receives reduced price lunch, and Andrea and Graciela, who are under the age of 5, qualify for the WIC (Women, Infants and Children) nutrition program. Although they are a low-income family, their basic needs are met. Fortunately, both Abraham and Anahí have been consistently working for some time, after tough years when Abraham could not find a job. They share,

Ah- Sometimes you are tight, with the recession, jobs,... last year wasn't a prosperous year

Ab- Last year I think it was better, the year before that so-so, but three or four years ago, 2009. That was bad...

Ah- But we never lack food, we were never in a situation like "what do we do? We don't have anything to feed them," precisely because of the programs there are in this country. (Interview 1. Lines 314-318)

In spite of some economic hardship, Abraham and Anahí didn't seem to feel helpless, not even during those hard years. Their navigational capital¹⁷ has allowed

¹⁷ "*Navigational capital* refers to skills of maneuvering through social institutions [especially those] not created with Communities of Color in mind. [...]"

them to find resources to compensate for their lack of economic capital. In addition, their experiences in their home countries, where they have seen such different realities especially in regard to poverty and lack of resources, affords them an appreciation of all the opportunities that this country has given them.

Currently Abraham has been able to work enough for them to pay their bills and some debts they accumulated in past years when he could not find work. The family is now economically stable, but extra expenses, like replacing one of the cars they have that is very old, are not easy to cover. Also, now that they are a family of six, their material aspirations have increased. Talking about their children, Anahí said,

Ah: They're priority, and then you start saying, "OK, the space..." You have to start looking... I mean, it's the, like people say, the dream of the material. You have to attend to the material, having a house, a piece of land where your children can play... (Interview 2. Line 313)

The “dream of the material” is a recurring theme in their experience as immigrants. Anahí explains, “I came to this country to make money. I worked to pay

Navigational capital thus acknowledges individual agency within institutional constraints, but it also connects to social networks that facilitate community navigation through places and spaces including schools, the job market, and the health care and judicial systems” (Yosso, 2005, p. 80)

my debts first and then to save money” (Interview 1. Line 322). And when I asked her why she did not try to get her nursing license once she got her citizenship, it is Abraham who explains,

Ab- I'll explain you the reason, I imagine, why she... She had too good a job, and when you are doing well, you don't look at... you don't have other expectations. Well economically, but after the responsibilities for the family arrived, the girls, and all that, it is when one realizes that we should have... And also, with the recession it was really bad.
(Interview 1. Line 236)

In this quote Abraham reflects on how immigrants’ focus on making a living prevents them from working towards other goals, like getting an education. It seems that being successful as an immigrant equates to making money and being able to fulfill the dream of having material things. However, when other responsibilities associated with having children arise, they realize how beneficial it would be to have a college degree. In fact, before meeting Abraham and having the girls, Anahí was doing very well economically. She was able to buy the condominium in which they currently live and pay for all her expenses. Now, however, they both need to be working to pay the mortgage and cover all the family’s expenditures. Although Anahí’s job is stable because she has been working with the Johnsons for many years and they trust her, Abraham’s job depends on there being a demand in the construction job market. He has been working steadily for some time, but his job is not as reliable as Anahí’s job. Also, the kind of jobs they have do not include a

signed contract with benefits like health insurance, retirement plans or paid vacation, and they both get paid by the hour in cash. The year we did the first interview Anahí had taken a second job with another family to help them pay their debts faster, but shortly after starting she resigned to spend more time with Graciela, as she had been diagnosed with autism. She thinks she has a pretty good job now, but she is also conscious that the Johnsons' children are growing up and she will have to be prepared to find other employment.

Anahí's mother living with them is also an indirect source of economic capital. Although there may be some expenses from having one more person in the family, they don't need to send money to Bolivia to help her (nor to El Salvador); and she provides childcare for Andrea every day, for Graciela when she is not at school (which is only three mornings per week), and for Rebeca after school. This not only saves the family an important amount of money in childcare, but also allows Abraham and Anahí to work at the same time and bring in two salaries to support the family. In this case, familial capital¹⁸ translates into economic capital.

¹⁸ "*Familial capital* refers to those cultural knowledges nurtured among *familia* (kin) that carry a sense of community history, memory and cultural intuition. [...] This form of cultural wealth engages a commitment to community well-being and expands the concept of family to include a more broad understanding of kinship" (Yosso, 2005, p.79)

The family has some major limitations associated with their financial resources, such as not being able to buy another car right now, but in their speech they do not convey a sense of urgency or great concern about their economic situation as they do, for example, about Abraham's immigration status. Financially, they feel stable. They explain,

Ah: And as I said, economically, when a person is more stable, you have more rights and you demand more things. But [the papers] is the only issue that is holding us back now, it is like pulling us backwards, you know? We can go forward, we keep going, we work, during the day [we have jobs], but...

Ab- Yeah, but I think that at the standard level, I think we can't complain, because we try to do the best with the girls, which is one of the most important things (Interview 1. Lines 172-174).

This quote not only reflects Anahí's feelings about their economic situation, but also other issues, namely, how Abraham's immigration status affects the family and how despite the difficulties, they always keep high hopes for their children. There is a sense that being financially stable depends on them, whereas there is not much they can do about Abraham's immigration status. These and other aspects of the immigrant experience will be analyzed in the next section.

Experience of Being Immigrant and Immigration Status

As part of Anahí's experience as an immigrant she had to face isolation and lack of a network of support of people she trusted. Growing up in Bolivia, she always had her mother's support and advice. However, when she came to the U.S. at the age of 17 she did not have the same relationship of trust with her father and step-mother that she had with her mother. Anahí feels it was a big mistake to trust her step mother when she faced the situation of being undocumented and having to take the exam to get the nursing license, but at that time she did not know who else to go to,

Ah: I made a big mistake... Even now I say, it was a big mistake, but so you see how envious people are. I showed her that letter that I got, to take the exam; I showed it to my brothers' mother. And she said, "Oh, no, if you go... you'll get deported." So then I thought why am I going to get in trouble?... Get deported... So I let it go. And when I thought about it again, one or two months had gone by already, and I don't know what I went to do to the lawyer but showed her the paper. She told me "why didn't you bring it? I could have given you a letter stating that you are in the process of getting legal status or something like that, and [being in college] would have helped you legalize your situation faster." But then the exam had already passed. They did not accept me. When I went back to the institute where I was going, the teachers I knew were not there anymore. So you see how envious people are... And my father said "take the risk" but I did not listen to

146

him, I did not go because of her. She insisted so much that my father also said, "Well, those are the risks, you have to decide." And I said no,... I did not want to return to my country. [...] So then I said, ok, I will work. And I started working and stopped studying. I got... I was in charge of a 3 story building in DC whose owners were Jewish. And when I commented this to her she told me, "Anahí, if you had told me immediately..." because I was already working with her while I was taking classes, and she told me "if you had told me this, I would have done something to help you, because you can do it." But it was too late... When I went again, because she told me "even if you have to repeat, we'll pay for your studies," those Jewish people; but when I went, [the school] was not there anymore, it was closed. They had moved. (Workshop 5. Line 113)

As a young woman, Anahí had to make very important decisions that have had a significant impact on her future, and as an immigrant, being away from her mother, she felt she did not have the support she needed to resolve this difficult situation.

Life in the U.S. was not easy for Anahí during her first years in this country. Situations like missing out on the chance to gain licensure as a nurse or another time when she did not get paid for her work made her develop strategies to challenge inequalities and deal with injustices. One way to fighting back was to learn English. During the second interview Abraham and Anahí talk about language,

Ah: whether you like it or not, a language, when you speak it fluently, it helps you a lot because I've been in the same situation as all the immigrants who come here illegally. [...] So if you speak it well, you don't get intimidated. People respect you and even if you're illegal, they say, "Well, she's an employee, she knows it well, so, OK."
(Interview 2. Lines 351-354)

Ah: When he met me I would speak a lot more English than Spanish. I had an [English] accent already [when speaking Spanish]...

C: Oh, you would speak a lot more English than Spanish?

Ah: Yes, a lot more. [And] he would speak a mix.

Ab: Anahí had a cute accent when I met her. [Laughter]

Ah: I wouldn't, I wouldn't speak... I mean, I was closed to a point that it made me... [...], my sister would tell me "Anahí, don't forget your Spanish." [...] But there was a point when I closed myself up because of what happened, when they didn't pay me, and I said, "That was a big experience for me to say, 'No more Spanish; English only.'" I wouldn't watch soap operas. I think I would watch the news in Spanish only on the weekends, but other than that it was all English at home... (Interview 2. Lines 369-384)

Through developing resistant capital¹⁹, Anahí was able to capitalize on an unfavorable situation (not getting paid, feeling discriminated) by turning it into an asset for her. Knowing English is not only linguistic capital²⁰ in the Community Cultural Wealth (Yosso, 2005) sense, but also in the Bourdieuan sense, since she learned the language of the dominant class.

Years later Anahí obtained her citizenship, but Abraham has remained undocumented. Abraham, Anahí, and the girls are defined as a mixed-status family (Fortuny, Capps, Simms, & Chaudry, 2009), that is, families in which the children are citizens, but one or both of the parents are not. This situation is a source of stress for the family “because parents cannot work legally and are subject to deportation” (p. 6). Although they have never mentioned the possibility of deportation, thinking about the future, Anahí says,

Ah: another situation that affects [us] a lot, and we feel it, is that he is not legal here. I am legal, I am a citizen, and either you want it or not, it affects [us] [...] This is the situation, this is our reality.

(Interview 1. Line170)

¹⁹ *Resistant capital* refers to those knowledges and skills fostered through oppositional behavior that challenges inequality [...] and it is grounded in the legacy of resistance to subordination exhibited by Communities of Color [...] (Deloria, 1969, as cited in Yosso, 2005, p. 81)

²⁰ *Linguistic capital* includes the intellectual and social skills attained through communication experiences in more than one language and/or style. [...] Linguistic capital also refers to the ability to communicate via visual art, music or poetry. [...]

They have already consulted with an attorney to apply for Abraham's citizenship, but they know the process is long and difficult, and for now the fact that Abraham does not have legal status in the U.S. functions as a force that "is holding [them] back, it is like pulling [them] backwards," as Anahí expressed. It creates a stressful situation for the family and hinders their progress. For instance, thinking in terms of capital, having legal immigration status can turn into economic capital in different ways. The following quote illustrates how not having legal status directly translates into lower wages, and also hampers opportunities that would likely lead to a better economic situation for the family over time, like having the opportunity to study and obtain a college degree. They explain,

Ab: So [not having legal status] does limit you...

Ah: Yes. [...] And at work it also puts some limits because... [...] Sometimes the employers don't pay you what's fair, and of course, your income is less than that of a legal person, which is higher. [...] You can see it clearly. I was in that situation some years ago and I've seen it.

C: Where do you see it? Do you have workmates who have papers and all that?

Ab: Yes.

Ah: Yes.

C: And they make more per hour or...?

Ah: Of course they make more!

Ab: So [employers] stick to what the law says. [...]

Ah: and you can see it because I was in the same, in the same situation as Abraham. There was a time when I was illegal in this country. There was a moment when they didn't pay me either. I didn't get my paycheck.

C: Did you work and they didn't pay you?

Ah: They didn't give me... So when I went and complained they told me, "No, you didn't work..." or something. [C: Oh!] So then I said, "it is not even worth getting angry and worrying about it..." [...]

Ab: The problem is that when you are undocumented [...] generally you work for cash. [...] So... for example, in my case I make good money, but it is because... it's all physical effort. I make good money, thank God,... if I complain it would be...[...]

Ah: He should be making more, but he doesn't. [...]

Ab: For example, if I were legal, I could work 8 hours, and no more than 8 hours in order to have the necessary income to cover all expenses, and then after those 8 hours, then thinking about studying. [...] So I have to work 15, 16 hours a day to cover all the expenses. [C: Wow.] Uh-huh, so...

C: Are you working 15 hours a day?!

Ab: 15, yeah.

C: Wow...

Ab: So then that puts a limit on you to think about studying. Studying falls...

Ah: Studying falls behind...

Ab: In addition to... one prioritizes [...] children, they are the priority.

(Interview 2. Lines 267-311)

Furthering their education is one of their dreams that is hampered by the lack of legal status, and not only because of the time, but also because of financial constraints.

Ab: for example, the economical factor, in order to study at a university, is very important. It's always going to be more expensive for someone who doesn't have the legal documents because you don't have easy access to government loans (Interview 2. Line 263).

Ab: I have a limitation but I think that generally it's... Well, not impossible, not impossible, but it's a limitation that...

Ah: It limits you....

Ab: it is not impossible to break, but...

Ah: Uh, you can apply to a lot of, uh, benefits... One of the benefits is that you can apply for the government study, in which they give you, you know? You make your co-pay or half of it, but it covers [the tuition]. That's a big help... [...] but only if you are legal in this country. [...]

Ah: But the thing here is that it does impede... the fact of not being able to [pay for college]... No, it's not possible, especially now the way things are.

C: What is not possible?

Ah: Uh, being able to study.

Ab: Well, it's not that it's not possible, but the situation with the legal status limits you a lot. I don't think it's not possible because I would be lying to you saying it's not possible. (Interview 2. Line 247-260).

Besides, as presented in the introduction Anahí missed her opportunity to be a nurse, which carries not only the economic advantage of a potentially better salary, but also stability, job benefits, and the institutional and social capital of being a professional.

In the same way as education loans, access to mortgage loans is more difficult without legal papers. Talking about the possibility to buy a house and have more space for the girls, Anahí comments,

Ah: even for those things, [the immigration status] affects you because if you want to buy a property, the first thing they ask you is if you're legal and what your income is. [...] And sometimes they say, "No, because you're not going to... If anything happens to your husband you're not going to be able to cover, and you're going to lose it." So you [have to] take the risk... (Interview 2. Lines 313-315)

The experience of being immigrants is related to capital in many ways. Immigrating at a young age and leaving family behind brought feelings of isolation and lack of support for Anahí. Limited English proficiency and lack of legal immigration status resulted in discrimination and injustice for Anahí, and affects Abraham's wages and the family's access to different types of loans and possibilities for furthering their education or purchasing a home. Notwithstanding, Anahí's and Abraham's immigrant experience also leads to the development of resistant, linguistic, and aspirational capitals, forming an important part of their resiliency. Anahí's quest for equal opportunities pushed her to learn English. Resiliency and aspirational capital are ubiquitous in the immigrant experience as illustrated in several of the quotes in this section. Despite the odds, they continue to work and move forward, and they still think their situation is better than it could be (in their countries). Even in the toughest times they had food to put on the table and they feel they cannot complain about their situation. In particular Abraham, who arrived years later than Anahí and has not yet obtained legal status, feels it would be unfair to complain and instead he always maintains a positive attitude. They feel living in the U.S. entails many opportunities and they hope their economic situation and their lives will keep improving with hard work. They look at a promising future through the possibilities and opportunities their children may have in this country, even if they don't have the same opportunities. This is, no doubt, an important driving force for Abraham and Anahí.

Embodied capital and conditions of educability

The way a child is raised and what s/he naturally and unconsciously learns from the opportunities and experiences s/he has as a child constitutes what Bourdieu defines as embodied capital (Bourdieu, 2007). This includes the variables I have identified for this study, based on the educability framework (Bonal et al., 2010). That is, whether parents value education and transmit that value to their children in various ways; namely, communicating the importance of getting an education, getting involved in the child's school, and offering activities and experiences outside of school hours that align with the school curriculum and/or philosophy. According to Bourdieu, the process of acquisition of capital depends "on the cultural capital embodied in the whole family" (Bourdieu, 2007, p. 86). That is, it depends on the parents' capital including how they were raised. This is precisely the theory of reproduction of capital. According to Bourdieu (2007), the more capital the parents have acquired growing up, the more capital will be embodied in the family, and therefore, transmitted to the children, and vice versa. Hence, when trying to understand the conditions of educability that Anahí and Abraham are creating for their children, as well as the experiences they are providing for their children to develop their embodied capital, it is important to look at their own upbringing, their embodied capital and the educability conditions in which they grew up, since the way they were raised is likely to strongly influence the way they raise their children.

From the educability point of view both Abraham and Anahí were children that got an education in their childhood and adolescence, therefore they had positive

conditions of educability. However, their circumstances were different. Abraham shares many of the conditions described in the scenario of educability via inversion, whereas Anahí falls more into the scenario of educability via opportunity (Bonal et al., 2010). In this section I analyze their conditions of educability and how they became two mature young people through different life experiences.

Abraham: Educability via inversion

When he was a child, Abraham always had a roof, food on the table, and clothes to wear. He never lacked the basic material needs, despite growing up in a poor family. In terms of education, however, he did not get a great deal of support at home. His mother did not finish school, so she never thought about her children attending school as “mandatory.” Her idea of the role of a parent was more associated with covering the basic needs than with making sure her children got an education. For her, education was not as important as it is for Abraham now, therefore, she could never communicate that message to her children.

Interestingly, though, Abraham was curious and smart as an adolescent, and naturally oriented toward academics. He had an innate passion for learning, but he was never a diligent student. The fact that he used to miss school often and turn homework and assignments in late was not a problem for his mother. She turned that responsibility to him, since she conceived studying as a choice, rather than a requirement. Therefore, Abraham had to figure out for himself that getting an education was important, and succeeded in school in some way as a response to his

life situation. From the point of view of educability, Abraham would be a case of educability via inversion (Bonal et al., 2010). In this scenario of educability, the opportunity to get an education derives “from the child’s ability to react to conditions that are, precisely, adverse to his/her educability [...]. This is a scenario characterized by the student’s capacity to overcome hardship, and his/her ability to revert/turn around an unfavorable situation and transform it into a positive investment”²¹ (Bonal et al., 2010, p. 83). During the first interview, he and Anahí discuss how this process worked for him:

Ab: and I don't complain, I don't complain, that was my school: to learn from something I did not have.

Ah: He had a different childhood than me.

Ab: Totally different and an adolescence totally...

Ah: He grew up... his childhood had freedom [...]

Ab: But that same thing helped me be who I am.

Ah: To be mature, to be who he is. (Interview 1. Lines 172-182)

He describes himself as a very mature child and adolescent. He paid close attention to all the deficiencies he and his siblings had in their childhood and adolescence and he was eager to grow up; maybe with the hope of overcoming the situation in which they lived. Despite being the youngest, he gives advice to his older siblings on life issues. He says,

²¹ Translation from original text in Spanish by Carolina Napp-Avelli

Ab: I never had a family. Well, my family was very dysfunctional. My mom... all my respects for my mother, the best ever, admirable [but]... We were three, raised in the same environment. And the three of us are different. I am the youngest and now I have to advise them, as if I were the oldest. Thank God, I always [...] had an urge to grow up! I had an urge to be a mature person [...] since I was a child. So I paid attention to all those deficiencies, the family, the home, and in the school... I always was... my problem was inconstancy. [...] my sister, last time she was like, "I would have liked to have a better family, a functional family." And I said, "We all wanted that! But you have to start from where you are." [...] But if you ask me "why are you like this?" I am like this from the necessity that I saw in myself.

(Workshop 3. Line 127)

From a Bourdieuean perspective, the fact that Abraham was not socialized in a middle class family would mean that he did not have opportunities to develop valuable embodied capital. However, he developed rich funds of knowledge during his childhood and adolescence through his experiences. He developed a sharp ability to observe and analyze the reality around him and, based on those observations, solve problems and make decisions by himself. He learned to be independent, and he acquired the ability to imagine a better life (aspirational capital). As we will see in the next section, this is a critical resource he possesses, to envision what he wants for

his children, and to create for them the best conditions of educability possible with the resources they have as a family.

Anahí: Educability via opportunity

The conditions of educability for Anahí were very different than for Abraham. She falls more within the scenario of educability via opportunity (Bonal et al., 2010). Although Anahí's family was not necessarily considered poor, the scenario of educability via opportunity describes Anahí's upbringing rather well. According to Bonal et al.,

The students who present a scenario of educability via opportunity have [at least] a minimum of material, affective and normative resources at home. They are poor, but with the capacity to face the daily material needs, high level of stability, support from their families, and with clear norms and benchmarks. Evidently, this scenario does not exclude the existence of deficiencies in the home, whether material, affective or normative. These deficiencies, notwithstanding, do not represent a structural risk for the development of educational practices on the part of the child. [...] [The students in this category have] families that, despite living in environments of poverty, convey values, norms, and obligations close to the school culture, [which are] based on the ability to get organized, respect the norms, and take responsibilities” (Bonal et al., 2010, p. 65-66).

Growing up, Anahí learned from her mother the importance of getting an education and she was raised with the expectation that she would be a professional.

At home, Anahí had books and educational materials, and she had a clear responsibility to do well in school. She not only had the responsibility, but also the resources, like private math tutoring when things at school did not go as well as expected. She even had English classes after school to complement the education she was getting at school. All these educational resources and supports Anahí had do not exclude other situations of hardship at home. The fact that Anahí's mother was alone raising three children, and that she lost all her and Anahí's father's savings and had to work long hours to maintain the family and return the money she lost, placed Anahí in the situation of having to take on many responsibilities at home.

Those responsibilities she had at home forced Anahí to learn how to perform all sorts of housekeeping tasks, including cooking, as well as being responsible for her younger brother and sister. These skills prepared her for her first job in the U.S., and even the job she currently has. She also learned the importance of taking responsibility, making decisions, working hard, and having high expectations for herself. These character traits were noticed by Mrs. Weiss, the woman she worked for, who encouraged her to go to college and later recommended her to work for other families. Because these experiences have proven so valuable for Anahí, it is very important to her to educate her children to become responsible, hard-working, committed, and self-disciplined people.

Due to their opposite experiences growing up Abraham and Anahí bring different skills to parenting, which will be analyzed in the next section.

Parenting

Both Anahí and Abraham describe themselves as mature young people. They arrived at a similar result for opposite reasons. Anahí had many responsibilities at home when she was a teenager: she had to do well in school, she had to take care of her younger siblings, and she had to help her mother with cooking and cleaning the house. Those responsibilities made her a very mature young woman. Abraham, on the contrary, had no responsibilities at home. He neither had to work to help with the family's economy, nor did he have to help with household chores. He was a student, but did not have the responsibility to do well in school either. That total freedom taught him to be independent and forced him to figure out how to solve problems as they came up. He also learned to decide what was important and what he needed to focus on, which is a great burden for a teenager. That freedom made him a very mature young man.

Abraham: Forming a Strong and Loving Family

Abraham always knew one day he was going to have children. He is an incredibly loving and caring father. His life centers on his family. In fact, one of the aspects he most appreciates in his wife is her motherly side. He shares without prompting, "What I most admire about my wife, and what I love the most is how she takes care of my daughters" (Interview 1. Line 552). When I talk with him, there is often one (or two!) girl(s) on his lap playing with him and seeking his attention. Although some times he has to work many hours per day and can't see his girls as

much as he would like, when he is home, he is there for his daughters. He feeds them, gives them a bath, sits with them to read and do homework, and puts them to sleep. He also spends time playing and talking with them. Because he felt his family was so dysfunctional when he was growing up, having close relationships and good communication within the family is very important for him. Staying united is a priority. During the first interview, talking about the time when Rebeca was born, Anahí commented,

Ah: There were tough moments, we even thought that this [their relationship] would end and he would leave and I'd stay with my daughter.

Ab- Well, nobody is prepared for anything. I always say that each direction we take is very different. You may be working [in a particular job] now; do you know where you will be in 4 years? No [...] Will you be prepared for that? No. You don't know, so you can't say I should have prepared for it, because it's too late. You need to find a [a way to overcome the situation], the best alternative

Ah- solutions to the problem

Ab- I told Anahí, I don't need to hear that we made a mistake that we should have thought... What I need to hear is that we are going to move forward. This is the way to overcome [the situation]

Ah- and he is right. You missed the train, ok, there will come another train, and if you are ready [you'll catch it], if not there will be a last train, and then you really need to seize it. (Interview 1. Lines 361-370)

This quote reflects how Abraham has processed the unpredictability and instability of his childhood into an important resource. Because he did not have a structured life growing up, and he did not have a sense of what was coming up, he understand problems or difficulties as part of life and developed the ability to face them in a positive way, figuring out how to solve them on the spot.

Abraham understands the importance of talking to their children through his experience of not having those opportunities at home and having to rely on other resources. In 9th grade, for instance, he had an advisory class, called “orientation” that was particularly important for him.

Ab: all I learned in those orientation classes in which teachers spoke about... the reality of life [...] It was a class outside the content education, it was orientation. The teacher talked about any topic, and... at least for me, it helped me a lot.

C: What topics did you talk about?

Ab: Everything, everything. For example, [he tells a story about the teacher taking his father's car without permission and crashing]. [The teacher said,] “So, one needs to listen, it is not that your parents don't want to lend you things, but things are expensive. In the same way your parents buy you all the supplies to come to school and study, so

you should not destroy those things. Besides, older people advice you because they have [experience?], because everything is a responsibility. For example, “have you heard that there is no age for love? [...] But love has responsibilities...” [And the teacher would discuss the responsibilities of love] That was the orientation class. I imagine every one picked a piece of it.

C: Didn't you have these kinds of conversations at home with your mom or your siblings?

Ab: Never, not in my house. And it helps. It is what I always say, for example to my mother in law, I tell her, "we need to talk about things very clearly because, when the youth get out of school there are a million lies out there, and those who know more take advantage of those who do not know.” When I told you about that motto in El Salvador, "education is the solution," that is true. If somebody reads and studies, it is not that he is not going to get cheated ever, but it is more difficult (Interview 1. Lines 094-096)

Because he did not have those conversations at home, he found advice in teachers and other people around him. Now, as a father he has figured out that having a strong family and creating for his daughters the supportive environment he would have liked to have growing up are his priorities.

Abraham's ability to solve problems as they appear and his focus on creating a strong communication with his daughters makes him a very positive and resilient person, and it also fosters a strong familial capital.

Anahí: Teaching good principles

Anahí is extremely committed to her children, and in particular to educating them in good principles, discipline with love, and high expectations regarding their academic learning. After seeing her with her children, I could not believe it when she told me she never thought she would be a mother. Now, however, her family is the most important thing in her life. She shares, "I think I may not have finished a career, but I have started a career that is infinite, being a mother, raising my children, maintaining a home. I was not ready for it" (Interview 1. Line 361). She is not only committed in terms of providing basic needs for the girls, and helping them do well in school; but she also reflects deeply about developing parent-child communication and trust, giving her children freedom with responsibility and raising children to be compassionate and productive citizens.

Another important aspect of Abraham and Anahí's parenting is educating their children in good values and principles. Anahí explains, "So, yes, this is one of the priorities of this family, [...] have good principles" (Interview 1. Line 408). One of the principles is to teach children to have good habits, and to be a model for them:

Ah: if [...] you have good habits, of reading, of wanting to learn, you never get tired. But if a person is not used to do that, it is hard, it's hard

for them. That is why I always tell them, every night before going to sleep, [read] your book. If you don't want to read, look at the pictures. [You have to] maintain that rhythm, the habit. If you don't have a good habit, what is it going to end up being? Habit is one of the first principles. Orderliness, if you are all untidy,... forget about it! Everything upside down. [...] One thing is to have little children, or adolescents, and teach them, but sometimes even myself, I am tired, I take my shoes off here, or I put on my pajama in the living room... There is a point where you can't keep your house organized. (Interview 1. Line 374)

When she talks about raising her daughters, Anahí inevitably talks about responsibilities. For her, teaching her children to be responsible (for example for doing well in school), respect norms, and have limits are central pieces of educating them. This is what she learned when she was little. The following excerpt clearly shows how she thinks about creating a structured environment for her daughters, with freedom, but within parental limits:

Ah: There is a great example of the girl where I work. The girl is already 16, and she has limits, she goes out to the dances and she has a limit. She is happy with her friends, and her friends are "no, stay a little bit longer", and she is "no, I have to go, if you don't want to call, I'll call my dad." And his dad says, "ok, I'm on my way". [...] So that is to have a limit, teach them to respect themselves and that this is the

limit [...]. But if you are not going to trust them, and they are not going to have that trust with themselves, to know their limits, then no! no! [...] That is why I tell Abraham, it is going to come one day [...] when [Rebeca] will be older, she is going to say, " I want to go out" "ok, great, I am going to take you to the mall, I'll leave you there, but be alert. Do you have money? Good, this is what you can spend, don't ask for more. I can't give you more money." If she wants to go to a dance, ok, there are dances that the school organizes. Ok, you can go, no problem. The good thing is that they are only until 10pm maximum, or 9. (Interview 1. Line 537)

For Anahí, limits and responsibility, actually lead to independence. What is important here is that Anahí wants to make sure her daughters understand the importance of limits and own the ideas behind them, rather than consider them an imposition. When they “have that trust with themselves, to know their limits,” that is when they will really be independent.

Knowing your limits and your goals is a winning strategy for Anahí, something she really works on conveying to the girls. She came to the U.S. with the goal of working, studying and attaining a good life in America, and she is proud of herself for having never deviated from those goals, despite having plenty of opportunities to do so.

Ah: In high school I had the opportunity to take the wrong path, with drugs, that I was offered, and also the parties, those skip parties, when

167

they cut classes.[But I knew] how to maintain control. There are a lot of youth nowadays [who say], “I am young, I enjoy my life, I do what I want, I am of age, you can't beat me, if you kick me out I leave, I don't care, I do what I want.” Especially if you [don't] graduate young, “yeah, I can do it in summer school, no, I can go for adult education in the evenings.” That is what they think now.

C: Do you think schools can do something different to prevent this?

Ah- Unfortunately schools can't do it. That needs to start at home. [...] The parents have to teach, for example, inculcating that they need to have discipline, respect towards themselves, their families, people around them, that what they are learning is for their benefit and the benefit of others they can help. But definitely, the school,... the education [...] at school needs to go together with the education at home. School can't go alone. There needs to be a base. (Interview 1. Lines 479-487)

For Anahí being responsible and knowing one's limits are important because they truly worked for her. She feels that teaching her children to have clear goals and exert self-control is a central piece of equipping them to make the right decisions at crucial moments, since she knows that sooner or later her daughters will face situations similar to those she faced as a young woman. For this reason, she constantly talks about the importance of having open conversations with her children about what their goals are in life.

For Anahí, schools cannot do all the work alone. Learning principles and values starts at home and it is the base for everything else children learn. It is, indeed, part of their embodied capital.

Abraham and Anahí: Team Work and Familial Capital

When I met with Abraham and Anahí in their home for the interview, I could see their team work in action. They were both interchangeably taking care of the girls, feeding them, playing with them, and putting them to bed for a nap. In many instances throughout this presentation of Anahí and Abraham's case there are examples of familial capital. They not only work as a team to raise their children, but they also share the burden of the house economy. Anahí's mother is also an important asset for the family, since she helps with the girls and the house affording Anahí and Abraham, for example, the possibilities of both working at the same time or coming to the mathematics workshops together.

Their familial capital is also reflected in the way Abraham and Anahí learn from each other and push each other to improve. The fact that they have had such different experiences growing up makes them approach life in different ways and bringing different skills and resources to tackle life issues. As an example, in the last quote, Anahí listens to Abraham and she learns from his approach to tackle problems or situations that come up in life. In another example I will present in part three, she pushes him to take a risk by encouraging him to go to Rebeca's school to read a book to the class, and she supported him emphasizing his effort and involvement no matter

his level of English. She pushed him to do something that was difficult, and he did it; and she speaks about the episode with pride.

This strong familial capital that Abraham and Anahí have developed also reflects in their relationship with their children. As shown in the previous sections, both Anahí and Abraham emphasize the importance of having an open communication with their children about life issues, and both talk about being there for them when they will have to face changes, make choices, and decide about difficult issues in life. This topic comes up very often in our conversations. They explain,

Ah- I think that when they reach adolescence they need to be more centered and also there is another level of teaching. It is different. We need to use different vocabulary, different ways of communicating. It's another level of learning and teaching about life, and that's the way it is! There is [a point in time] where the level starts, when we say “this is bad this is good.” [Then we] talk about the changes; your body is changing for this reason and this is what is going to happen. But everything at the right time. If I talk about this now, it does not make sense. Everything comes on stages, the childhood stage, adolescence, youth, ... and being completely an adult is another stage, we all go through the same path. We as parents always need to be patient and talk to them, [and] listen...

Ab- The habit of talking with one's children is very good.

Ah- communication, be open-minded. I am very open-minded in all aspects. From my way of thinking, because my daughter can tell me, “no, I think differently,” and I have to respect her, but she needs to show me why she is thinking the way she is thinking, why she reached that conclusion, and I may agree with her. Make her analyze the problem, like a math problem, like if you had three carrots and you eat one and then you have two carrots, why? Because you ate one carrot.

Life is mathematics! [laugh] (Interview 1. Lines 390-394)

For Anahí, having a good communication with her children includes not only telling and explaining, but more importantly, listening. By listening to the children she conveys the message that what they are saying is important, which develops self-confidence. She also requires her children to justify their ideas and actions, which is an important life skill that will prepare their children for school.

Many research studies have pointed out that often Latino parents understand parental involvement in education in the way I have described in Anahí and Abraham’s parenting approach in this section. That is, providing the basic material needs, having a good communication with their children, and teaching them good principles and values, for example through *consejos* (advice) (Hernandez, 2010). Abraham and Anahí, however, understand parental involvement in their children’s education in a way that includes direct engagement with their children’s schools and academic life. Abraham, feels that that kind of involvement was missing in his

family when he was a child, and even for his mother, when she was a child. He explains:

Ab: My dad... split with my mom when I was 2 years old and then, when I was 7, my mom got together with another man, whom I call dad, but for somebody to really play the role of a father... that is very difficult, [because] there needs to be a very active [role] in education. Even my grandparents did not send several of my uncles to school. My grandfather, because my grandmother taught them what she could... But that perseverance of the parents... of the importance of education [they did not convey that to my mother]... (Workshop 3. Line 061)

As Abraham explained, for them being active and present in their children's education is a crucial aspect of being parents. This is an important difference between Abraham and Anahí, and many other immigrant families in terms of creating conditions of educability for their children. In the next section I will analyze their experiences in education and how they impact their involvement in their children's education.

Education

Abraham and Anahí think about education not only in terms of getting a degree, but in a much broader sense. Although neither of them has a college degree, they both have the experience of having studied in college, at least for a short period of time, and understand the difference between being and not being highly educated,

not only in terms of obtaining institutional capital, but in terms of personal empowerment. They understand education as capital in many different ways. Abraham talks about education, or learning, as a tool for understanding the world around us and being able to think and develop new ideas; and Anahí talks about education as a tool for social mobility. They both highly value knowledge and reasoning in general, and they convey these values to their children by requiring them to justify and explain what they say and do. This is an ability that can translate into a powerful skill for their children's academic success.

Due to their different experiences growing up, Abraham and Anahí approach the education of their children differently. Anahí talks to them about self-discipline and their responsibilities with regard to school and wants to make sure they understand and fulfill them, because this is what she learned as a child and it worked for her throughout her life. Abraham, on the other hand, wants to make sure that his children like and enjoy what they do, rather than feel the burden of doing school work. He wants them to stay engaged and do not abandon their formal education too soon, as it happened to him. In this section we will see how these two important, and in many ways complementary, approaches to parenting have great potential for creating conditions in which Anahí and Abraham's children develop important embodied capital.

Abraham: Passion for learning

Abraham talks about learning and knowledge with passion. Education for him is a powerful tool. It not only gives you the basis, but almost the right, to talk about any issues.

Ab: my friend David, sometimes he does not want to understand. I tell him, if you don't understand, you say you are right but it is not that way. Otherwise, tell me where it is written, did you read? Where did you read that? That is why I think education is the solution, because when we read, we know (Workshop 3. Line 133).

For him, the power of education goes beyond getting a degree. It has an intrinsic value. His high school teachers used to tell him “you have to study to learn, not to pass the test”, and that idea stuck with him. He tells me, “what I learn I want to own it, I want to know it” (Workshop 3, 143). And when he knows something, he wants to know “the why;” because “there are many people... or even ourselves, we get used to just copy, without knowing why” (Workshop 1. Line 075); and “when people are not educated, anyone can come and deceive them” (Workshop 3. Line 077). Education for Abraham is almost a liberation tool. Education gives him self-confidence. When he knows something he likes to show off, especially when he remembers mathematical facts and formulas. Mathematics seems to have for him a special value, it is a kind of knowledge that is not accessible to everybody and having mathematical knowledge it is special and important for him. Although he shows more interest for the hard sciences like mathematics, electricity, or physics, he

demonstrates interest in everything you can learn. In high school he appreciated reading the classics and argued with a cousin of his about the importance of it. He felt that anything you learn is important.

Ab: ...in language arts, when you study literature, we were studying realism and surrealism, and we had to do the biographies of every one and copy and analyze them.... And my cousin was like, “So what! Why should I care whether Dante wrote this or Shakespeare wrote that other stuff? That is not going to help me!” [...] That is what he said. And I said, “no, they do it for us to know”. (Workshop 3. Lines 185-189)

Even if Abraham did not articulate why it was important to study the classics beyond just to know it, he seems to believe that anything you can learn and know is valuable. For him, “...we never stop learning, even little things. Well, things we see as little, but there is nothing little in learning, we can know lots of things in one topic and not in another” (Workshop 3. Line 147).

It seems that for Abraham learning is essential in life because it keeps you alive; it helps you keep your mind awake. According to him, if you stop learning your mind closes and it is like something inside you dies:

Ab: I always tell my wife, I am scared to fall behind... Sometimes I start to do this, the exercises. How do you call these?... [C: equations] first order equations, because I am afraid... This makes your mind be awake. And I was talking to my friend, he said, ‘I don't like studying,’

175

and I told him, 'I am scared of not studying.' [...] I feel now it is the time when my mind is really awake, with a disposition to learn anything. Because last time somebody asked me, what do you like to study? I don't know yet, but I like to learn about everything. There is moment when the mind is like this [open] and then it shuts down and that's it. (Workshop 3. Line 119)

Anahí: almost a college graduate

Anahí studied geriatric nursing and got her certificate. However, she could never work as a nurse because she never got her license. She passed the classes, she did the practicum, and she even got a job offer. She put a great deal of effort to become a nurse, but without documents, she could not complete her dream.

Ah: When I passed the classes I was already doing work, and because I liked it and it really caught my attention, they offered me a job at [the hospital I was doing the practicum]. Right next to it, they had their nursing home, which is for elderly. That is where I did my practicum. I went there [...] and since they saw I was on time, because the people in the nursing home look at that, so they told me "if you want to apply"... and they even gave me the application. And they told me "take the exam," but when the time arrived... I couldn't. [...] I tried, but when I had to complete the paperwork, you had to bring copies of

your legal status. What was I going to send them? (Workshop 5. Line 111)

Even after all these years, she did not abandon the idea of getting the nursing license. When I did the first interview with them she told me,

Ah- And I found all those papers when I was cleaning up stuff. I have my certificate, what I am missing is the license. Somebody told me that if I go with my certificate and say I want to get my license,... but I have to pass an exam. [Practicum, you have to go to class (?)] and they prepare you.

C: Why don't you do it? You are so close!

Ah- I should look into it (Interview 1. Lines 228-232)

Anahí has had the experience of going to college, taking classes, passing exams, even working as a professional nurse, during her internships at several nursing homes. These experiences constitute an important capital she has and uses in educating her children. However, because of her immigration status, she could not take the licensing exam and therefore she could not get a job as a nurse. This situation illustrates Anahí's capital, but also how her life conditions determine in what ways she can convert the capital she has into other forms of capital. Despite she did everything that is necessary to be a nurse, she has never been recognized as such, situating Anahí at a great disadvantage with respect to other nursing students that had legal status. This is yet another example of Bourdieu's theory of reproduction of

capital. Because Anahí did not have legal status, which is capital, she did not have the opportunity to access the institutional capital in the form of the nurse license.

Abraham and Anahí: Aspirational capital

Both Abraham and Anahí highly value education and both wish they had a college degree. In fact, they have not yet given up on their dream of going to college, although they are conscious that now, having three little children, it is not going to be easy. As shown before, there are three main issues that are interfering with going back to study: expenses associated with going to college, time, and Abraham's immigration status. In spite of these difficulties Abraham refuses to say it is impossible to go back to school. Anahí knows that she could have seized more opportunities. She is aware that you don't have infinite opportunities in life, but that there will still be some opportunities for them to get a college degree. For her, "it is about perseverance, about maintaining that goal. Maybe you can't today, now, but for the future, yes!" (Interview 1. Lines 387-391)

Anahí often thinks about how she could possibly go back to study and take the licensing exam to get the geriatric nurse degree, or maybe studying something different. She says,

Ah: Another thing I want is, possibly in the mornings or on the weekends, it depends, because I also work on the weekends, but I want to come back to take classes and get [the license]... I had the certificate of geriatric nurse (Workshop 5. Line 008).

C: So your idea now is to go back to school...

Ah: Going back... it all depends on the money, because I will have to pay for the classes again. And I have to find out. It has to be on my time, it will have to be on the weekends. Another thing I was looking at, that really caught my attention is [becoming a] teacher's assistant
(Workshop 5. Lines 103-105)

She also talks about examples of people who got degrees much later in their lives, indicating that for her it is never too late. Getting a degree for her is a personal goal, something she will do in life, either sooner or later.

Ah: studying, or learning is not an excuse. Who wants to cultivate their intelligence, does it. There are great examples. Last year a 90 year old woman graduated with a degree in psychology. There was another one, a man working in a hospital, cleaning, and he ended up being a doctor!
Yes! From the bottom. (Interview 1. Line 387)

Although she keeps the hope she will finish college one day, she also knows it is difficult now. She knows she has to do it because she is not going to be in the job she has now forever, since the children she has been taking care of are growing; but at the same time, the dream is elusive within the responsibilities of everyday life.

Ah: Despite the fact we have gone maybe one year to college. I went for a year. He went for a year, but we haven't been able to finish it for many reasons. Uh, when you come to this country you focus on working, on making money, on, on... that's what's fundamental. And
179

you kind of put it aside and say, "Well... Yes, I'm going to do it. I'm going to do it," but when the moment comes, then you can't. You already have a family. You already have children and then you don't... I mean, I want to do it, but at the same time, what's going to happen? [...] I was planning to resume, seriously. Although something technical, because it's very important... I'm not going to be in that job all the time (Interview 2. Line 236)

There are also many examples through this presentation in which Abraham expresses his wishes to continue studying to maintain his mind young and active and to acquire new knowledge and skills. This aspirational capital is a driving force for him.

Getting a college education for them may seem out of reach sometimes, but when Abraham and Anahí talk about what they want for their girls in terms of education, they don't leave a shadow of a doubt. Despite their different experiences growing up, they have the same goal for their children. They want to provide them with the opportunities Abraham did not have growing up, but Anahí did, and even more.

Ah: Both he and I, we may have been raised differently, but we have the same goal, the same thinking that education is critical to succeed, to have a good... situation, maybe socially. Because whether you want it or not, here, and in any other country, there will be the social [class?]. (Interview 1. Line 483)

Here, Anahí presents education as a tool for social mobility, to be able to move to a different social class, which directly equates education with capital. When I asked Abraham and Anahí how important it was for them that their children go to college, both responded without hesitation, “essential;” and Anahí explained,

Ah: First because neither Abraham nor I have a profession. [...] It's very, very important, and both Abraham and I have that priority with our daughters, for them to have... even if it's something technical. They have to at least step a foot on a university, go to a university, and seize what, what we can provide them, since we couldn't [finish].

(Interview 2. Line 236)

Abraham laments/regrets not having graduated from college, so his desire is to see his daughters go to college and even maybe to graduate school. Talking about Rebeca, the oldest child, he says,

Ab: In my family nobody graduated from college, yet, [...], so my aspiration is that she graduates. Even I lament/regret [I did not graduate]. I say, I can still continue, right? And that does not mean that [everybody has to go to college and then] there will only be professionals in the world [...], because that way, nobody would want to work in construction. Because education is like this, it starts like this and then like this and ends like this, like a funnel [makes gesture with his hands representing a funnel], so one has to try to get in there [the

narrow part], one of the few, and it is hard, because education is a privilege. (Workshop 1. Line 036)

As a father, Abraham wants to make a difference in the next generation, his daughters' generation, and he is working on it by doing what he would have liked to have from his parents: that is, getting involved in his children's education. He shares, "I want to give what I did not have". (Workshop 3. Line 130). He wants to be a father who is different from the models he saw in his childhood.

Ab: when I [used to] see things about participating, I always said...

When I have children I don't want them to lack any support in school.

(Workshop 3. Line 127)

Anahí had a different experience. Education was a priority in her house, and she wants for her children what she got, and even more. She had books to read and the school supplies she needed. Her mother was always concerned about her education and worked hard to provide Anahí with opportunities to get the best education she could offer her. For example, when Anahí was in sixth or seventh grade, she had some difficulties in mathematics.

Ah: That's when it was a little difficult for me. [...] Where I got stuck,

but with the help of a tutor, then I got up to level...

C: Your mom got a tutor for you?

Ah: A tutor, yes, because it also happened that, uh, because of the political issues, I was attending a public school when there were a lot of strikes, and when I transferred to a private school [they were] a lot

more advanced. [...] That's what caused me to get far behind. They were way ahead... I was just starting equations and they were already doing other type of equations. That was what affected me. (Interview 2. Lines 045-051)

Even at present, Anahí's mother still encourages her to study.

Ah: ... for my mother education has no limits. She says, "Well, you had your chance. You still have it." Uh, that's why she told me [before she came to the U.S.], "When I go there, we'll talk, and if there's an opportunity, [...] go study. Do it. Don't do it for me, but for you, and not only for you, but also you'll be able to give your children some more encouragement. They'll say, 'Oh, my mom is going to college...[...]"

C: Did your mom tell you that when you were little?

Ah: My mom continued studying when she was pregnant with my sister because she needed to renew her nurse's license, and I would see how my mom would study because I would color the drawings on a biology assignment that she had to present during the exam.

C: So you would help her?

Ah: I would help her color and everything, and I was like ten, eleven years old.

C: So ever since you were a child your mother instilled in you [the idea of going] to college?

Ah: Yes, always. (Interview 2. Lines 414-421)

Anahí's mother encourages Anahí to study not just for herself, but as a way to set a model for her children, to show them that it is possible.

This is how Anahí encapsulates what is a guiding principle in their family:

Ah- So what is the priority for us? That our kids will have what [Abraham] did not have when he was a child, that I did have.

(Interview 1. Line 170)

Abraham and Anahí: Not All Parents Have the Same Interest in Education

Abraham and Anahí not only say they want their children to go to college, but they take action to make it happen. As we will see in part three, they make efforts to check homework and read with the children every night, and to stay in regular communication with schools in order to be abreast about their children's progress. Abraham and Anahí are aware of the work they do with their children every day to support their academic success. When they interact with other parents they come across in their children's schools, they realize that not all parents do what they are doing and they explicitly disagree with their approaches, indicating they truly believe on what they are doing to support their children's education. For instance, reflecting about their experience in this study, Abraham and Anahí proposed that mathematics workshops similar to those we did in this project should be available to other parents in the public schools, but right away they commented,

Ab: but someone may say, "What am I going for? It's not going to help me anyway."

Ah: And that's the problem with [...] us parents. There are many parents, there are many fathers and mothers who stay home... they don't have the interest. Unfortunately that's the truth. They don't have an interest, or they say, "Well, I have to go do [this or that]... because my husband [is coming and I have to] cook, or taking care of things..." Or they take care of other people's children and they say, "I can't because I have the children and am working." You know what I mean? It all depends, I think, also on the family, how they're doing economically in order to attend and saying, "Yes, I'm able to attend." For example, in our case, economically, we are not doing excellent but we are not in poverty either.

Ab: Yes, but we have the interest, which is the most important thing.

Ah: ... but we do have the interest. We do have the curiosity. We want to know, but there are parents who don't. (Interview 2. Lines 825-829)

In this paragraph Anahí first identifies herself with the problem, "this is the problem with *us* parents," but right in the next sentence she distinguishes herself from some parents who stay home instead of getting involved in educational opportunities, because "they don't have the interest," and they make other things a priority over education. Next, however, she seems to recognize that sometimes parents have to

work and don't have a choice, and she clearly points out at how economic capital may be a factor in the possibilities other parents have to get involved in projects like this. This reflection underscores the complexity of issues related to parental participation and the multiple factors that need to be taken into account. In the end, Anahí seems to recognize that resources should be considered, but that they have the interest and other parents don't, insinuating that some parents may have the resources, but they still don't participate because they don't have the interest. For Abraham, actually, the interest is the most important piece, even more than the resources. For him if there is a will, there is a way,

Ab: And that's what we need to understand [that there needs to be parents' interest], I think. That's the struggle. I mean, it doesn't matter what resources we have [...] because the resources are there as well.

The libraries are open for everybody. (Interview 2. Line 775)

At the end of the project, I asked Abraham and Anahí if they thought other parents may benefit from participating in a project like this and she responded right away, "If they have interest yes, but if they don't have interest, no" (Interview 2. Line 990). Their strong interest is a driving force for them.

Mathematics

In this section I will look at Anahí and Abraham's experiences as learners of mathematics, where they see mathematics in their everyday life and how they use it,

how they see mathematics as useful and important, or not, in theirs and their children's lives, and in what way this project has influenced them.

Abraham's and Anahí's experiences as mathematics students

Although Anahí already had her high school diploma, to my surprise she was still interested in coming to the mathematics workshops. When I asked her why she was interested in coming she enthusiastically responded "oh, because I like math! And I think, having a review is not a bad thing" (Workshop 5. Line 008). She still found very interesting to review math concepts and learning ways to work with her children.

Math was not always easy for Anahí. In 6th grade she moved from a public school to a private school in Bolivia and she found math hard, since in the private school they were more advanced. With help of a tutor she got up to speed and did not have any major problems since then. In fact, Anahí had a higher level of math than her classmates, when she arrived in the U.S. Noticing it, Mr. Hodges, her high school math teacher, always gave her more advanced work to do, and had her help him grade math homework and assignments. After high school she studied nursing and there she had to use mathematics mostly to measure volume, capacity, temperature, blood pressures, etc. The only thing she remembers she had some difficulty with was calculating percentage, which is still a little bit confusing for her sometimes. She likes doing calculations, like adding and subtracting, because they are like a brain teaser.

She thinks mathematics is important, because numbers are all around us. Anything that involves numbers is mathematics. In life you are always counting, calculating, and measuring; and all that is math. She explains,

Ah: You're always aware of [mathematics]. For example, when you cook, you use math. At least I use it a lot because of my job. [...] In my personal life, in my house, in my home, there's also math.

C: What math do you use when you cook?

Ah: Mostly grams, uh, to measure, weight, yes, and time, the time you have to cook it. [...] And because of my job I need to use a lot of recipes and a lot of books, so I have all the measures I need to use.

C: Fractions?

Ah: Fractions as well, yes. Sometimes I have to duplicate a recipe depending on what you have to do and need. And it's fun. It's fun, and sometimes, of course, sometimes I don't duplicate it well and [makes a funny face], but even like that it turns well. [Laughter] (Interview 2. Lines 088-095)

For Anahí, more advance mathematics, like algebra, calculus and beyond, are also important because all kinds of technological developments are possible because of advanced mathematics. For her it is very important that her daughters learn mathematics, although not more important than other subject areas. She read that the development of language and mathematics need to go together and she tries to make sure that Rebeca is doing equally well in reading and math.

Abraham likes math, but he thinks school math is not engaging. In our first meeting, I showed him a card game he could play with Rebeca and we practiced until he learned how to play it. He enjoyed the game and commented, “This is what I always say, I always tell my wife, I am the kind of person that needs to see [experience things], like this, so I won’t forget” [he makes a gesture showing the cards in his hands, that indicates he likes hands-on activities] (Workshop 1. Line 184). That is probably why he did not enjoy much learning mathematics at the elementary level. In the second interview he commented,

Ab: I think the most difficult thing at the basic level in math was they made it... at least when I was learning, it was very, very serious. [Laughter] Lots of numbers. So, if there are no games, I mean, for a child, right? You don't learn, I think. (Interview 2. Line 036)

Then in middle school, when he started to learn algebra and mathematics became very abstract he had some difficulties too, until he got to a point when he started to learn the methods for solving the problems and things started to make sense. He explains,

Ab: At the intermediate level, which was from sixth to, like eighth grade... [...] I never understood. [It was like] they were speaking in Chinese, in another language. I didn't know what... but then you learn the little tricks and... [...] A teacher used to say, "If you do an exercise 20 times and you learn it, that same basic exercise is going to help you develop and solve the others that are more difficult [...] But if you

want to memorize everything, you have to practice, I mean, you have to do all the exercises for you to learn." But then in ninth grade I started to, I mean, that's when I started liking math and understood what math was.

C: Did you start liking it because you started to understand?

Ab: [Yes], because I started to understand [...] For example, I remember in trigonometry, when... a right, 90-degree angle, two... or four angles, four 90-degree triangles make a square. And that's when you start understanding, right? [...] And when you understand, I mean, when you understand something, you like it. Of course, when you don't understand something, you're not going to like it. [Laughter]

(Interview 2. Lines 036-045)

For Abraham it is important to enjoy what one is learning, and that happened for him when he started to understand it and make connections.

After high school, he attended college for one year and he says, "I did one year in the university [...] and, ... I would say I am good at math [smile]" (Workshop 1. Lines 025-027). He also had to use math when he took a course in electricity.

Ab: After high school, the first year I went to the university, we had math, [...] Math I and Math II. [...], in El Salvador, and then somewhere else where I've studied math was in an electricity course I took. [...] You work with math in order to know the voltages and all

that, [...] how much voltage a circuit can withstand, but ever since, I haven't taken any other [math] courses. (Interview 2. Lines 081-085)

Mathematics as capital

Although he has not taken other math courses, Abraham uses mathematics on a daily basis at work, and he sees the value of being fluent with calculations and measurements.

Ab: ...in my job, you know, since it's in construction, you use numbers all the time, and when you know, it's easier for you to understand the measurements you have to get. Half of 83 inches [...], what is half of that? Uh, 3 feet plus 5 inches.

C: And you do all that comfortably?

Ab: Uh-huh, with less difficulty than someone who doesn't understand. (Interview 2. Lines 099-102)

Math for Abraham has a special nature. As pointed out earlier (see “passion for learning”), he tries to practice math problems, like equations, to keep his mind awake and young, because mathematics helps develop reasoning. Another reason Abraham particularly likes mathematics is “because of the different ways you can work with it. There are different ways to get the same answer. And each person does it their own different way” (Interview 2. Line 012). So when one solves mathematical problems one can think in the way that makes sense to oneself.

Abraham conceptualizes mathematics as a useful tool. He uses measurements and calculations in his daily work, but he also knows he could benefit from more advanced math skills, like proportional reasoning, if he felt more comfortable with it.

Ab: And had I continued, for example, in college, it would be easier for me to understand [...] the blueprints, but I don't understand the way I should understand them because I'm not used to seeing the scales. [...] I know that if I had [...] studied all that and had finished, it would be easier. Although maybe the language would be difficult, but it would be easier for me to understand. I understand, but it's, it's more difficult. (Interview 2. Line 163)

More mathematics would give Abraham the possibility to understand blueprints better, which, in turn, may position him as a higher skilled worker. Moreover, mathematics could potentially help him bridge the language barrier: although the language would still be difficult, with more mathematics he would understand better.

Anahí and Abraham don't think that people have to know more mathematics to be better prepared for life necessarily, but knowing more mathematics equips you with more tools to understand the world around you,

C: Do you think that people who know more math are better prepared for life in general?

Ab: Maybe not better prepared, but they have...

Ah: They have a better notion of what's going on around them.

(Interview 2. Lines 141-144)

Later in the conversation Abraham explains how mathematics develops a logical way of thinking and that helps you make sense of other things,

Ab: I don't think [math] is more important than the other [subjects].

Otherwise they would just teach math. [Laughter] [...] but it's... easier when you understand math,... then it's easier to understand other things. I think so.

C: Understanding other things... like what, for example?

Ab: For example...If you solve math problems, you're using logic, and there are several things that when you're reading, they're going to make sense, because you're reading and imagining. My personal opinion. (Interview 2. Lines 446-453)

Although mathematics is not more, or less, important than other subjects for Abraham and Anahí, knowing mathematics carries an important added value in the form of logical thinking that allows you to make sense of what you read and see in the world around you.

Also, in a more practical level, knowing more mathematics would afford Abraham a better understanding of blueprints, as he mentioned above, and also easier access to technical training. People who know mathematics at a higher level, he says,

Ab: ... have the facility that if they need a more technical training, they have a better facility to understand. I think that's the important

thing about continuing... I mean, you can't stay at the basics, you have to continue moving forward. You can't underestimate the basics. If you don't know the basics, you can't understand all the rest, but it's important... [...] to continue in the process ... It's easier for people when they understand math... to a higher level. (Interview 2. Line 145)

For Anahí, knowing more mathematics would afford her

Ah: for example, understanding some things, [like] how a person did something. For example, I don't build, but I use [math] in the kitchen, but there was a point when furniture needs to be assembled and I say, "Wow," the way they all leave everything ready and then it's easy. Or saying, "Well, how they've really created this device and..." You wonder. For example, how they make satellites, those which go outside of the world to..., [...] and all that. You wonder about that. In the last edition of National Geographic, it talks about how they measure or how they create it or... (Interview 2. Line 155).

The more mathematics you know, according to Abraham and Anahí, the more opportunities you have to understand a variety of topics and issues to which people with low levels of mathematical knowledge don't have access. Knowing mathematics is actually a sign of higher education level for Anahí. She explains,

Ah: [understanding mathematics] also depends on the educational level of each person, you know, because there are a lot of people who

haven't done or finished elementary, or high school. [...] I think that all is... depending on the educational culture that the person has. That point is also very important, I think, for them to understand math. Because if they don't have a foundation, they don't [understand mathematics]... Uh, and not only in this country you're going to see that, but also in other countries (Interview 2. Line 148).

In order to be able to access more advanced mathematics, Anahí suggests you need to have a foundational level of education. For people who have not finished elementary school, mathematics is hard to understand. So when people know mathematics it is because they have certain level of education or culture. Therefore, for her, knowing mathematics is associated with certain social status.

On the other hand, not knowing mathematics has severe implications for people. One example is the high number of foreclosures that occurred a few years ago, that highly affected the Latino community. Abraham explains,

Ab: And that's the disadvantage of not knowing math, because if they sell you a house with a fixed interest with only one loan, it's going to be fine, right? But if someone comes and sells you a house with a double loan from two banks with a variable interest and you're only paying interest for 8 months and...[...] after 8 months they come and start charging you both loans and the interest changed, it increased, and that's when you start paying capital and interest. So if a payment was for \$3,000, now it's going to be \$6,000, \$5,000. [...] But if you

don't understand, then it's easier for you to get easily ripped off.

(Interview 2. Lines 326-333)

Abraham and Anahí's Experiences with the Mathematics Workshops

At the beginning of the first workshop I offered the participants two options: work on GED preparation or look at mathematics their children were learning in school and focus on ways of helping their children. Abraham quickly responded, "I want to prepare for the GED. There are many things that although I knew them, I forgot," (Workshop 1. Line 021). He was interested in both types of work, but since his first choice was looking at more advanced mathematics, we started reviewing fractions, and then we looked at the idea of numeric patterns. At the end of the session we talked about the work we did and Abraham commented, "I think it was very interesting. I did not know about patterns. [...] It really caught my attention" (Workshop 1. Line 097), and later in the conversation he added, "I think it was very excellent. The class was very interesting to me. It helps me see how we need to do to help our children, very important. All that about patterns was very interesting" (Workshop 1. Line 107). After the workshop, there was a clear shift on Abraham's interest. He got very engaged in learning about the work children do at school.

A few months after finishing our weekly math meetings, I interviewed Abraham and Anahí to explore what they got out of those experiences. Anahí explained that she had the opportunity to review content and she feels now more confident to help her daughter.

Ah: ...for me, I got a lot, a lot, a lot, and it refreshed my mind from years back... [...] I feel more confident and have a larger foundation to being able to help my daughter when she has a problem... [...] and more confidence... [dealing with things] like, "Doing things this way," or "How do they do it over here?" No. It has helped quite a lot to see that it's almost the same thing that we do. Numbers are never going to change. Even if they're in Chinese... [Laughter] Numbers are numbers (Interview 2. Line 801)

It seems that the workshops helped Anahí make the connection between home and school ways to solve mathematical problems. Things that seemed different for Anahí before the workshops, “doing things this way” or “how they do it here,” turned out to be “almost the same thing that we do” after working on them and making the connection.

In terms of mathematical topics we worked on, both Abraham and Anahí highlighted the work we did on addition and subtraction problems and the use of unifix blocks to model them, and also reported to have used patterns, the number line, number expressions, number sentences and equations in the work they did with Rebeca throughout the school year.

Ah: [Rebeca] studied the topic, uh, about the patterns, everything. She did it. On the number line she had to see the numbers that were in the middle, the ones that were missing... We did that, and [Rebeca] did it [at school] (Interview 2. Line 914)

The idea that kindergarten students are already solving simple equations was particularly fascinating for Abraham,

Ab: What caught my attention was the system used to teach math. It's a very advanced system in which children are solving problems with equations at such an early age [i.e. finding a missing number in a number sentence], I mean, [...] they're already solving problems with equations.

C: Simple ones, yes.

Ab: Very simple ones, and they do... without them realizing, they're doing that. [...] For me, I'd say they're ahead, right? And that's what really caught my attention, the system.

Ah: Yes, because an addition is an equation.

Ab: Even the questions, like, the same question can be asked in different ways... an addition, a subtraction.

Ab: Very simple and very... and the children get familiar with subtraction...

C: Did you try to do different addition and subtraction problems with Rebeca?

Ab: Yes, when I was talking to her, and I told her, "This plus this is this." "Oh, but if we take away it would be subtraction," she told me.

(Interview 2. Lines 890-903)

For Anahí, the workshops did not change the way she thinks about or sees mathematics, but they have awakened her curiosity and interest in the subject,

Ah: It wasn't a change but it awakened my interest. Like thinking, "What else is coming, what else I can learn, how much can I advance, how much can I know?" That is it,... interest (Interview 2. Line 947)

Abraham explains how he has become more aware of the way he uses mathematics.

Ab: What I realized [is] that when I calculate [mental math] I have to add first the biggest numbers...[pause] I had not realized before that I arrange the numbers in the most convenient way in my mind to make the counting easier [laughter] (Interview 2. Line 947-948)

In terms of whether they work with Rebeca differently as a result of the work we did in this project, Abraham and Anahí reflect,

Ah: [The workshops] have given me more ideas on how to explain her. For example use the methods you explained to us so the child learns. [And] use different objects [Manipulatives?] for different problems. It has helped me a lot in having new ideas to explain to her, so she would understand, and learn at the same time, and not hate mathematics.

Ab: I understood how the educational system works, and that gives me more confidence on how to help her do her homework, or why she is getting that homework. For example, "tell your dad how many windows are in the house." Some people may think, "Why do they need to count windows?" But they don't realize that they are learning to count. [...] "Measure all members of your family." And someone

may just tell her I measure so and so, but that is not the exercise. [Rebeca got] that problem, “use different things to measure.” We used lots of things to measure. We used, a spoon, feet, ruler, a shoe. And now I really understand what they are learning. In that it has influenced me. Even if they send information about the educational system, if nobody teaches you, it is a lot more difficult (Interview 2. Line 951-958).

As illustrated in this section, although Abraham and Anahí did not study advanced mathematics, they have had experiences with mathematics that allow them to appreciate the importance of knowing math and they want for their children to have access to this kind of knowledge because they see mathematics as capital in many different ways. For them mathematical knowledge is a practical tool in their work: they use math in the kitchen (to measure, to time), in construction (to measure and calculate, to understand footprints, to access more technical knowledge like electricity). Mathematics is also an intellectual tool: to develop logical thinking, to understand the world around us and to avoid being cheated by people who take advantage of those who do not understand mathematics. In short, mathematics is power and capital; knowing mathematics is an instrument for social mobility, a sign of cultural capital.

From a strictly Bourdieuean point of view, Anahí and Abraham's family may be seen as lacking the necessary cultural and social capital to succeed in the current American society. Compared with highly educated middle-class families, they are considered a low-income family and they are not professionals, which together with the fact that Abraham does not have legal status and does not speak English fluently, make their circumstances difficult in many ways. For example, they are limited in their possibilities to go back to college, to buy a bigger house, or to get a stable job with benefits, among other things. Bourdieu's perspective can certainly create misleading and deficit perspective of immigrant parents and families. However, the funds of knowledge and community cultural wealth framework provides us with a powerful lens that illuminates their resiliency, aspirational capital, familial capital, navigational capital and their resistant capital. If we look at their upbringing and we expand the idea of embodied capital to include all the life experiences they have gone through and that have influenced who they are and how they see the world, then we will be able to appreciate their resources, their strengths, and their full potential.

In part three, I will illustrate how Anahí and Abraham use their capital and funds of knowledges to create conditions for their children's educational success.

Part 3. Parental Involvement: How Anahí and Abraham create positive conditions of educability for their children

Part three presents an analysis of how Abraham and Anahí use their funds of knowledge and capital to support their children's education in general, and in the area

of mathematics in particular. Part three is divided in three sections that correspond to the three areas of study identified based on the educability framework. Section one examines in what ways the Abraham and Anahí seek to influence their children's dispositions towards education in general and towards mathematics in particular. The second section analyzes the relationships Anahí and Abraham have established with their children's schools. Finally, section three is dedicated to the ways they influence the children's use of their leisure time.

In what ways do Abraham and Anahí seek to influence their children's dispositions towards education and mathematics?

Abraham and Anahí are very committed to their children's education. They work as a team towards the common goal of raising responsible children who understand the importance of getting educated, but they don't always do it in the same ways. As we have seen in the previous part, they have had very different experiences with education growing up and therefore, they approach education sometimes in similar and sometimes in complementary ways. For this reason, their approaches to influencing their children's dispositions towards schooling are not always the same. This is the way Abraham describes this difference from his point of view,

Ab: I was talking with my wife and my mother in law, we talk and discuss things because they have a way to teach and I tell them a different way. I say, sometimes even if parents are on top of things, it

does not work. There are kids who do not want to learn because they are forced, and they see it as a punishment to do homework, and it should not be like that. It should be something that is so much fun that the kids say, "I want to learn." (Workshop 1. Line038)

While Abraham seeks to engage his children in school work and study through making it fun and attractive, something they look forward to doing; Anahí seeks to help her children understand that doing their school work and studying is a very important responsibility they have to themselves.

Ab: I told my daughter, you can do whatever you want, but you need to do what you like, something you love, because when you love it, you do it with pleasure.

Ah: ...if I tell her you are going to be a nurse, you are going to be a nurse,... no! She won't do it. She has been asking questions [about the future].... And I told her, your priority is to learn to read, learn the numbers, play, obey, be good, help at home. These are your obligations now. [...] I told her, your work is to enjoy the moment, learn, read, write,... [...] I want to know what you learned in school, what you did. So she would not concentrate her head, her mind, on something else that is not the main thing, reading, focus on the books.

(Interview1. Line 181-182)

Although Anahí thinks that as a parent the most important thing is to instill in her children the responsibility of studying, she also wants them to enjoy their school

experience and not to worry about other things. When Rebeca asks questions about her future, Anahí makes sure that college is in Rebeca's image for her future. She tells me,

Ah: I always tell my daughter, [...] "You're going to go to college. You're going to go to college. You're going to have a career and you're going to study like your cousins, like what your uncles are doing..." So it is like giving her... It's a different way to think (interview 2. Line 415)

One very important way they convey the importance of education is by dedicating time and effort to making sure Rebeca does well in school. As we will see in the next two sections, they spend time in their daughters' schools and communicating with their teachers, as well as working with Rebeca and Graciela at home.

Abraham often sits down with Rebeca to do homework or review what they have done in school and sometimes she gets upset when she has made a mistake or got something wrong at school. In those cases, he works with her on making her feel more confident by showing her that everybody makes mistakes and that it is good to let other people help us.

Ab: I tell her, "When I was in kindergarten I made many mistakes," "Really?" "Yes, and my mom had to sit with me to practice," "Is it true?" And then she gets better... (Workshop 1. Line 066)

Because he did not have any support at home, Abraham has learned from his own mistakes and understands that learning may take time. He started to like mathematics in 9th grade, when he started to make sense of it, so he knows that even if you struggle at the lower levels, you can start to understand later and get better at it.

Ab- In 8th grade we started algebra, equations. And I did not understand anything, I was totally lost. [...] Until there is a point in which you discover how things work, and then things become easy. That is the important thing. At least I always think about that with [...] my daughter, she needs to get to a point in which she discovers she will be able to learn, because if that does not happen, she will get stuck. There are moments,... like you said before, [when] it is like they are a little less aware. [And] if they were told, “no, you can't do more,” they will stay there. But if there is a moment that, even if they don't understand, if they keep going, they will get something because [...] later you say, “aaah!” [...] And practice is [essential]... because with the quadratic equation I practiced the formula so much that I never forgot “2 times b, plus or minus the square root of... Over 2a”. All the problems in the book, I did them! (Workshop 1. Line 089)

When Abraham works with Rebeca on homework he is prepared to support her through her mistakes and struggles because he had those experiences as a learner, before he really felt he was a successful student. Still, he says, “I used to get frustrated, even now I get frustrated. I say, why don't I get it?” (Workshop 1. Line

091). For this reason, he always wants to make math fun for his daughters, so they don't get frustrated and they want to learn it. One of the activities he found most interesting from our mathematics workshops was learning games to play with Rebeca, and he did tried them all at home with her.

In the next two sections, we will see more things they do in terms of engaging in the school and in activities outside of school, that convey to the girls how important education is in the family.

In what ways do Abraham and Anahí seek to participate in their children's schools?

In different occasions Abraham talks about the importance of going to school to learn how schools work in the U.S., because he thinks that “to go to the school to see how the educational system is here is very important,” and he adds “many parents don't go” (Interview 1. Lines 462), emphasizing that this is a problematic issue. He explains that “sometimes we don't realize that if we don't go to the school and talk to the teacher we are totally lost because we don't know how the process goes” (Workshop 1. Line 104). Although he does not mention it explicitly, in using the pronoun “we,” it is implicit in both his statements that going to school is particularly important for immigrants as a group, because we need to learn how the educational system and the process of education work here, in the U.S. It is certainly important for him, but he thinks it should be important to other immigrant parents too. He tries to take advantage of the opportunities schools offer to parents to get engaged and

learn how to support students with academic work. For example he attended a series of reading workshops for families that were offered in Rebeca's school. "It is so good they did it for us" he commented to me (Workshop 1. Line 052), explaining that the reading workshops were done not only in English, but also in Spanish and French for immigrant parents. After participating in this study they also thought that "it would be ideal if [the mathematics workshops] were at the school," and that a program like this should "invite more people" (interview 2. Lines 810-811), reach out to more parents. Anahí explained,

Ah: this program that you... have,... there should be more of them in public schools because there are many parents who say, "I don't know how to help." "Well, come over. We have this program. I can guide you." (Interview 2. Line 823)

In our conversations, during the meetings for this study we discussed school expectations with respect to the students' level of achievement. For Abraham, it was important to fully understand school standards,

Ab: ...to inform yourself, [...] what the parameters are, because we were talking about the parameters or the standards, or [even] what a standard is, [for example] what reading level a second grader needs to have in order to go into third grade. Or what math level is needed to move onto the next level. [Because some times parents say] "Oh, but my son can read," but if he reads very slowly, he's not moving onto the

next grade, right? So for me it's important to understand what my daughter is doing (Interview 2. Line 753)

Abraham and Anahí agree that going to school and being aware of what it is happening in their children's classrooms is very important. They speak in particular about Rebeca's school.

C: Do you go to the school often?

Ab: In general, yes

Ah: At the beginning we went, we were there always,... but now, we are always aware of what the curriculum is, what they are going to cover during the whole year, what they need to learn to pass to the next level, what the class [grade?] is based on, and what she is going to learn during the school year. We got that information at the beginning, and also we asked the teacher when we had the conference, and we also asked her to tell us how she assesses her, how she knows in which level my daughter is. She showed us how she evaluates [Rebeca].

C: What assessments?

Ah: For example in math, in spelling, reading. She showed us the papers, and we have them. And why are we aware? Because we want to be involved in their education. [...] We will always be aware of what she is learning. (Interview 1. Lines 463-473)

They went to the school at the beginning of the year and established a relationship with the teacher. Then, although Anahí suggests that later in the year

208

they did not go to the school as often as at the beginning, they maintained their involvement from home. For example, when they sit with Rebeca to do homework and they have questions about it, they send the teacher a note.

Ab: I came home one day and on Tuesday they had given her the [weekly] homework... [...] and I told her, "Rebeca, you're going to do the one for Monday and the one for Tuesday because you didn't do any on Monday," and she told me, "Dad, we already did that one. My teacher told me this one is for Monday." "No, here it says this one is for Monday. You're making a mistake. Here's Monday and today is Tuesday, so you have to do Monday's and Tuesday's." "No, Dad, you're making a mistake. We already did that." [...] So then I wrote to the teacher, "R says that she did this homework yesterday." Communication with the teachers is important. [The teacher] responded. "Yes, she [completed] this work. She finished it." [...] I'm thinking we are not the only ones who do that, but many [parents] still don't [communicate with the teacher regularly].

Ah: We have [...] that communication with the teachers, because sometimes we don't have a chance to go. For example, with Graciela it's different. We have a journal we have to do, the days she goes, the days she doesn't. We write that there.

C: You have to write on the journal every day? So they have homework for you! [Laughter]

Ab: And that even helps us.

Ah: And we do it voluntarily because we are involved, and then we say, "OK," and with Rebeca, we're always in the loop, but...

Ab: Teachers get so happy when parents collaborate. (Interview 2. Lines 844-852)

Abraham and Anahí maintain an ongoing communication with their children's teachers, and gather a great deal of academic information about what the girls are learning throughout the year from multiple sources. Talking in particular about Rebeca, I asked Anahí,

C: How do you know whether she is doing well at school?

Ah: When we ask [the teacher], when she brings her homework. When she brings a weekly homework I know what they are focusing on for the week. I know this month they are focusing on addition, or subtraction, or reading. She already has to write a four-word sentence. And when she has a question, she has to give a complete answer, not half way. Because if you don't do it now, then it is when the gap starts, when the child starts to fall behind, instead of moving forward and then it is worse to level up [it is more difficult to catch up] (Interview 1. Lines 475-477)

At the beginning of the year, when Abraham and Anahí often went to Rebeca's school, they visited the classroom, they observed what happened, and they also volunteered to read to the whole group. Because Anahí is fully bilingual and can

read fluently in English, she was the first mother who volunteered to read to the class. Then she encouraged Abraham to do the same, even though his level of English is not as good as hers. They both know how important it is to get out of their comfort zone to show their children, and other children as well, the importance of making the effort to read,

Ab- But even if [it's hard], we have to try [to make an effort]. For example, the day I read the book, I read it the night before. My wife told me, "tell me, how are you going to read it?" and "what are you going to tell the children?" "Don't worry, I know what I will tell the kids: 'look, pay attention because I made a big effort to be here reading a book.'"(Workshop 1. Line 133)

Ah: Abraham did not want to go, but I insisted [...]. I told him, 'the fact that you may not read it correctly, or you have an accent does not prevent you from reading. [...] Are you going to back down and not educate your daughter? Are you not going to [help] to give your daughter an education?' That is the problem here, that many parents don't participate because of that reason. They don't speak the language, they are shy and ashamed. [...] In life you need to open up and jump... (Interview 1. Line 497)

For Abraham and Anahí, participating in the school is part of educating their children, and as we saw before, it is part of being a parent.

Abraham and Anahí have also been very much involved with their middle daughter's teachers. As I mentioned before, Graciela was diagnosed with some degree of autism. They noticed, when she was two years old, that she reacted differently than other children to stimuli like the reflex of the light from a chandelier, for example, and that she did not speak much. They consulted right away with specialists and she was referred to the Infants and Toddlers program. The year before this study Graciela had a team (teacher, occupational therapist, speech therapist) from [a program for young children] who came to their home to work with her twice a month. Both Anahí and Abraham talk about how the team worked with Graciela and how the program has not only helped Graciela start developing her communication skills, but it also "helped [them] to see and understand that, yes, she needs a little bit more help, she needs more attention, and it is different, the education, the learning with her" (Anahí, Interview 1. Line 039). The year of the study, Graciela was going to the school three times a week for two and a half hours each day. She had an Individualized Education Program, and there was a meeting coming up to which they both were planning to attend.

In what ways do Abraham and Anahí seek to influence what her children do in their time outside of school?

According to Bonal et al. (2010), children's activities in their leisure time can contribute to school-like dispositions when they are institutionalized, or at least structured, activities with a schedule, rules to be followed and supervision from

adults. Leisure time can also be a source of estrangement from school when students spend time in unsupervised activities that have no norms or structure and challenge the school culture.

In the time the girls are out of school Abraham and Anahí engage in various activities with them. Because the children are so young, many activities are structured, and all are under supervision. The girls also participate on institutionalized activities like sports and summer camp.

For their oldest daughter, Rebeca, they spend time regularly on activities directly related with school, like sitting with her to do homework. They also make a consistent effort read with the three girls on a daily basis, even though it is not always easy,

Ab: That is very important, reading, sit with the kids to read is so [important]... It is difficult, I understand the situations are difficult, but I truly believe that motto, that "the solution is education". (Workshop 3. Line 127)

Abraham not only sits down with Rebeca to do her homework because he knows it is what he should do as a parent, he truly engages with her on the work and he even learns from her:

Ab- Sometimes we think we are more advanced, but you learn a lot from the children. They are incredible to learn from. Sometimes I try to tell Rebeca [something], and she tells me, "No daddy, you are

wrong.” So it helps a lot to sit with them. That's what is supposed to be. (Workshop 1. Line 112)

They also take the children to the park and try to organize play dates for them so they can socialize with friends, but they have had some difficulties trying to get together with other families.

Ab- the parents themselves don't want to establish a relationship with the parents of their children's classmates. Because once I told another mother, ‘We can have a play date,’ because I learn about play dates here. I used to have “play dates by myself” [laughs]. My mom never organized a play date for me I had to plan it by myself. But the lady was “no, no...” So I told Anahí, ‘maybe she does not like it, or she is afraid.’ [...] but [having a playdate] is good because they start to socialize... [...]

Ah-and not only that, but you are teaching them to be sociable, independent, and they will have limits, ok, here is my limit [...] because you are going to let your child go out (Interview 1. Lines 533-537).

In the summer, Rebeca attended a summer camp at her school organized by the County Recreation Department. According to Anahí, the children mostly played during the day, but they also read, and they had guest speakers who came to talk about bullying, safety, first aid and other topics. Rebeca liked her summer camp. Other than that, during the summer of the study, they didn't have any other

institutionalized activities, but Anahí planned to work with Rebeca in reading and math to avoid the “summer slide.”

C: Are you planning to work with the girls on some math this summer?

Ah: Yes. [...] With Rebeca, we are... I don't want her to forget what she's learned. Always playing with numbers in different ways.

C: You do it at home regularly?

Ah: At home, yes, it's fifteen minutes. I've bought myself a timer. Because lately she hasn't been willing to... She's been saying things like, "No, I don't want to!" and she's been having tantrums. [...] So I put it very clearly, "These are numbers that are done quickly." These are number [series] that I prepare sometimes. I write, "What's the number that's in the middle? What's the missing number?" So she's thinking and has to write it. [...] I am using the program called Kumon. Have you heard about the Kumon program? [C: Yes.] She used to go to Kumon before going to school. So I have the Kumon material, so with that... [...] it has games, like a support. [...]

Ah: So she needs to focus on it. There are drawings of animals, balls, everything, and she has to count and write it down. [...] She does complete it... addition, subtraction, she has already learned. (Interview 2. Lines 601-623)

Even before starting pre-K, Rebeca was attending the Kumon academy for math preparation, but then the schedules got very complicated and nobody could pick her up, so she stopped going, but since they had already paid, they at least got the materials that they are now using. In terms of working with her, they also use different websites and have Rebeca practice on the computer and get familiar with it.

The girls also participated in institutionalized activities during the school year. Rebeca attended a Tae-Kwondo class and Graciela went to Gymboree class, which includes movement with music and games, to develop children's motor skills and socialization, and which has helped her a great deal to open up and start relating to other children. Now, in the summer, they have taken a break from those activities. Graciela did not qualify to go to summer camp with Rebeca this year because she is too young, and she did not qualify for summer camp at her school because she is doing very well and the program was for students who have more severe needs. So she is staying at home with Anahí, who is taking time off from work, but they are very happy with her progress this year and they plan to work with her in the summer as well.

Ah: And with Graciela...

Ab: ... she has really, really, really advanced. I mean...

C: So during the summer she continues going to school?

Ah: Right now she's at home with us, but she's opening up more verbally. She's repeating...[...]

Ab: Yes, this year she learned... She learned the entire alphabet. [...]
From Spring Break to, to the [summer] vacation, she learned the numbers and the alphabet.

Ah: Yes, we taught her [...] She knows the letters now.

C: Do you both work with her?

Ah: Yes, both of us.

Ab: She learned her sign words.

Ah: My mom as well [works with her]. [...]

Ah: She's doing activities at home, coloring, playing with play-doh...
[...] We decided to have a break from all [the structured activities],
and also going to the park as well... lots of park. She likes activity, so
lots of park. We go different places (Interview 2. Lines 661-698)

Even if Graciela did not go to summer camp, Anahí plays with her and does activities that help Graciela develop the skills she will need for school.

It is my hope that the case of Abraham and Anahí will contribute to a better understanding of Latino working-class immigrant families' experiences and how these experiences influence their involvement in their children's education. In the analysis I have presented in this chapter I have used my theoretical framework to identify both the limitations Abraham and Anahí face to their advancement as a

family (i.e. economically), as well as resources and strengths they draw upon to support their children's education, within those limitations.

As shown in this analysis, Abraham and Anahí are involved in their children's education in many ways. Unlike other Latino parents, who conceive their involvement in their children's education as providing material needs, like food and a home, and transmitting good values like compassion, respect for authority, or hard work (Hernandez, 2010), Abraham and Anahí, conceive their involvement as much larger. For them participating in school activities and events, as well as engaging with academics and school work at home are priorities and an integral part of being parents. Although they don't have college degrees, they both have had a college experience and understand the advantages they would have had if they had finished their studies. They have a clear idea of the difference education makes by comparing what they are doing now to what they could be doing if they had a college degree. This realization nourishes a strong aspirational capital with regard to their children's educational achievement. They want for their children what they did not achieve, and they use all their resources toward the goal of sending their children to college.

They clearly prioritize their children's education before many other family needs. Long working days, limited English proficiency, and differences in curriculum between what they have studied and what their children are doing, are not excuses for avoiding to engage in their children's academic efforts. Despite long working days, they spend time doing homework with Rebeca; they work out their schedules to be able to attend Graciela's IEP meetings; and they engaged in math

workshops over the weekends if they were not working to be better prepared to support their children in mathematics. In particular, they see mathematics as important capital for their children and they make sure their children are learning what they have to learn. Looking through the educability lens we have seen that the kind of activities they do with the children foster positive dispositions towards schooling and support the school culture. They also convey a message that school is important by participating in their children's school events and activities.

Chapter 6: Sandra and Beatriz

Organization of the case

In the same way as Abraham's and Anahí's case, Sandra's and Beatriz's case is also organized in three parts.

1. *Part one* is the introduction to their life histories in narrative form and it provides the background information for the case.

2. *Part two* is the main data for the case, as it analyzes the funds of knowledge and different types of community cultural wealth that the family possesses, and it builds on their background information.

3. *Part three* presents an analysis of how Sandra and Beatriz use their funds of knowledge and capital identified in part two to create positive conditions of educability for Sandra's children's and support them particularly in the area of mathematics.

Sandra's and Beatriz's case is different from Abraham's and Anahí's case in that Sandra is a parent, but Beatriz is the aunt. Therefore, the roles and responsibilities toward the children are not symmetrical. Although Sandra is the main source of data for the case, Beatriz plays such an important role as Sandra's partner in the children's education, that her background and knowledge are vital pieces in this case.

Part 1. Introduction

This introduction starts with how I met Sandra and Beatriz and how they became involved in this study. Next, the story goes back to their childhood and adolescence in their home country and describes the circumstances that led them to emigrate to the U.S. Back to the present, the story continues with a description of the current circumstances in which they live. Finally, it connects the moment they arrived to the U.S. to the present. I will start now with how I met them and how they became involved in the study.

Meeting Sandra and Beatriz. I met Sandra in an English as a second language class I was teaching in the evenings some years ago. She was one of the students in the basic level. She came to class for about a month, but then she dropped out, and I did not see her for some time. Months later, while I was working as an interpreter for the school system, I saw her in a school, doing the paperwork to enroll one of her children in the school. I greeted her and we started to talk. While helping her with the paperwork I commented that I was looking for parents who were interested in learning ways to support their children in mathematics, and she was curious about it. She gave me her phone number and we met at her home a couple of weeks later for the first interview. There, I met Beatriz, Sandra's oldest sister, who lives with them and takes care of the children when Sandra goes to work.

Sandra is very friendly and from the beginning I felt comfortable with her because I got a sense that she had a genuine interest in the kind of work I was proposing. The reason for her interest, I soon realized, was that she saw this project

as an opportunity to improve her children's education. Over the course of this study, I interacted with Sandra multiple times and got more and more fascinated with her determined personality and her eagerness to improve.

Beatriz is shyer than Sandra and speaks in soft voice. Although she did not come to the mathematics workshops because she stayed home taking care of the children, I saw her every time I went to interview Sandra and she showed interest and participated in our conversations. Also, she learned from Sandra what we did in the workshops and practiced those activities with the children when they stayed with her. She is part of the study as Sandra's partner in the education of her children.

An overview of Sandra and Beatriz's biography. Sandra and Beatriz are from the South of Peru, close to the Chilean and Bolivian borders. Beatriz is the oldest of seven siblings and Sandra is the sixth, nine years younger than Beatriz. They spent her first years in a very rural area, where her parents raised cattle, sheep and llamas, the only animals that survive the harsh climate of that region. Beatriz grew up without telephone, electricity, or gas in their house. They cooked on a wood stove. Their house was so isolated that every Monday morning she walked with a sister and two cousins for four hours to get to a small village where she went to school. She and her sister stayed with a relative during the week, and they walked back again four hours to go back home on Fridays. Their father always encouraged her and her siblings to go to school. He had some education and was able to read and write, but their mother was illiterate. Sandra and Beatriz's mother died giving birth to their younger brother, when Sandra was about one and a half years old. When I asked

Sandra about her childhood, she barely remembers anything before 5 or 6 years old, and it is Beatriz who tells the story. Sandra and her brother were sent to live with their grandparents when their mother died. Unfortunately, three months later, both their grandparents died, drowned by a flooding of the river during the rainy season. The two little ones went back to stay with their father, who had help from his sister, the children's aunt, to watch them. At the age of fifteen Beatriz moved to a larger city in the coast to start high school, and took Sandra, who was about 4 or 5 years old, with her. Sandra lived with Beatriz for a short time and then with friends of their family for a few years. Sandra's earliest memories are from this time, but they are still scattered. Although their father insisted on them finishing school, Beatriz did not like to study and before finishing high school she decided to go to Lima to work as a maid against her father's wishes. Before leaving she visited Sandra and saw that she was not being schooled although she was almost seven years old, so she took her little sister with her again. Beatriz enrolled Sandra in school and took care of her for some time. Sandra remembers that during that time they visited their sister Marina who worked for a wealthy family and Sandra used to play with their children. The family had three children, the oldest almost two years younger than Sandra and the other two were four and five years younger. They came to love Sandra and she ended up staying with this family permanently. Four years later, a fourth baby girl was born. She is 9 years younger than Sandra and they have a special relationship because Sandra took care of her often.

Sandra refers to her foster parents as her godparents and to their children as her siblings²². She talks about her godparents as caring and supportive people. However, she often felt she was treated a little different than her foster brothers and sisters, in particular with respect to education. When Sandra moved in with her godparents, she was already going to school, so she was transferred to the public school in a nearby neighborhood. Sandra is very thankful to her godparents. However, in terms of educating her, she wishes they would have done more. First, she always went to public schools, while her foster siblings went to private schools. Her godfather tried to convince her that the school you go to did not matter as long as you learn, but Sandra always questioned why then her foster siblings did not go to public school. Since Sandra started to go to school quite late in terms of age, she was already behind at the onset. To help her move forward, when she was in high school her godmother enrolled her in an accelerated program and paid for it, so she could make up for the early years she did not go to school and could graduate with same-age peers. Although the accelerated program helped her graduate at the age of 18, Sandra thinks it was not as strong in content as the regular programs and she did not learn as much as she could have learned. When she graduated from high school they encouraged her to go to college, but they were never strict with her in terms of finishing a college education, as they were with their other children, who are all professionals.

²² I will refer to them as her foster siblings for clarity purposes

Sandra did not have an easy adolescence. Although her life was more stable than in her childhood, things at home were not always smooth. The relationship with her godmother was always more difficult than with her godfather. She recognizes she was not an easy teenager; she was rebellious and oppositional especially when she felt things were unfair; for example having to help with house tasks like cleaning up, cooking and doing laundry when her foster siblings did not have to do it. She often had mixed feelings with respect to her godparents. On the one hand, she was very grateful for all they were doing for her, but on the other hand, she always felt she was not treated the same as her foster siblings, and that created a great deal of tensions and a deep conflict.

Sandra followed the advice of her godfather, who was a high rank military in Peru, and applied to join the military after she finished high school. With great effort and help of her godfather's contacts she took and passed the exams to join the intelligence school, but when it came the time to pay for school, her godparents did not pay for it and Sandra could not afford to attend. Then Sandra started several different careers one after another, but never really finished a bachelor's degree. She has several certificates of courses in cosmetology, and three technical degrees of one year of study each in special education, another in accounting, and a third one in massotherapy (massage). Her Godparents were always supportive of her studying, but never made it mandatory for her as for their other children. Every time she decided she wanted to study something, they were happy, they encouraged her to do it, helped her enroll, provided materials for school, but every time she decided to quit

or change, they always said, “ok, if that is what you want, no problem.” When I talked about this with Sandra, I realized how important and difficult this issue is for her. Talking about her foster siblings being all professionals while she makes her living cleaning houses, her voice broke and she had to stop and take a deep breath. She does not want to be ungrateful. She quickly explained that her Godparents have done a lot for her: they have raised her, they have been at the hospital for the birth of every one of her three children, and they speak about her as their own child. Still, Sandra feels her life would be very different if she were a professional like her foster siblings.

While she was studying all these different things, she was living with a friend and made a living doing many different things. Since the end of high school she had clients as a cosmetologist, most of them her Godmother’s friends. She also worked taking care of elderly people and for some time in a school as a special education teacher assistant. She also had a boyfriend who was extremely jealous, and the relationship was very difficult, given Sandra’s friendly and social personality. Sandra began to feel that her life was stagnating and started to search for new horizons. She started to plan to go to Italy with a friend, when her Godmother recommended her with a family of diplomats who were coming to the U.S. and were looking for a nanny. Sandra stands out as a focused woman with clear ideas, and at the same time very social and friendly, especially with children. Those characteristics were key in getting a job as a nanny with a family of Peruvian diplomats, and making her way to the U.S. After interviewing Sandra the diplomat’s wife told her, “I already have a

person, but I really like you. You never know what may happen, don't lose your hope." It turned out that when the family was scheduled to go to the embassy to get the visa, the lady who was originally selected to be the nanny was not ready, so the diplomats called Sandra and she did not hesitate. Sandra came to the U.S. in 1997 with a work visa and a job.

Beatriz, in the meanwhile, continued working as a maid. One day, listening to a religious program on the radio they said that Jesus knew your past and your future, and she suddenly thought about her future and imagined herself working as a maid forever. That image made her think "what will my future be? All my life working as a maid?" So that night she prayed, "Lord, I don't like to study, but if you want me to study, make it happen." (Interview 5, min 15:00). After some time, she saw an advertisement in the newspaper about a tailoring and dressmaking school and with the help of a friend from the church she applied, and even got full tuition remission. When she started to study dressmaking and sewing she realized she was very good at it and she engaged with enthusiasm. She finished this course and even managed to get admission to the university without a high school diploma, to take some more advanced courses like fashion design. At the age of 25 she moved back to the south of Peru and got a job in a children's clothing store. She worked there for years making clothes and designing fancy dresses for first communions and special occasions, and with the money she made she also had a little shop at home and had her own clientele.

When Beatriz was about 28 or 29 years old, she fell in love with a man. Although her family did not like him, she married him and soon got pregnant, but their marriage was not a happy one. He was insanely jealous, to the point that he did not let Beatriz work or see her family. He was aggressive with her, he did not care about their son and he was even seeing another woman. Beatriz was very unhappy, but her religious beliefs made it very hard for her to think about leaving him. One day, while he was not home, Beatriz left the house and went to church. She told the priest her story and he told her that God did not approve adultery, giving her the courage to make the decision to separate from him. She took her son and went to live with some relatives until she started working again. She worked hard to send her son to a private school to avoid teachers' strikes, and to provide him with a religious education. She struggled for many years to pay the rent and the school tuition, until her son finished high school. That year her sister Sandra proposed that Beatriz move with her to the U.S. to help her with her daughter Kathy, who had been born with some problems. Sandra would pay Beatriz, and she would be able to send money to her son to go to college. When Beatriz agreed, Sandra asked her Godfather to help her bring Beatriz to the U.S. Knowing how important it was for Sandra to have help with Kathy, he used his contacts to get a visa for Beatriz and in 2007 she came to the U.S. to live with Sandra and her family.

Sandra's family's present circumstances. Currently, Sandra owns a condominium where she lives in with her husband, Jose, their three children (Kathy, Lucía, and Kevin, ages five, three and one respectively, at the beginning of this

study), and Auntie Beatriz. The two-bedroom, one-bathroom condo, which she bought when she was single, is in the middle floor of a three story building. I visited her there for the first interview.

At the beginning of the study Kathy was about to start kindergarten, and Lucía a three-years-old program three half days a week. Kevin was still one and stayed home with Auntie Beatriz, and with Sandra when she was not working. Beatriz also takes care of Kathy and Lucía when they are not in school. But Auntie Beatriz does not just stay with the children, she plays school with them, she reads with them, she really engages with them in academics. Thanks to Sandra and Beatriz's hard work as a team, Kathy, who attended kindergarten during the time of the study, was one of the best students in her class according to her teacher²³, and Lucía did very well in school at the age of three.

During the time of this study, Sandra did not have a full time job. She worked by the hour on several part-time jobs like cleaning houses, baby-sitting children, and serving tables in weddings and events with a catering company. Sandra's husband used to work in construction, but had not had a reliable job for a long time and the family's finances were suffering. Auntie Beatriz stayed home and she made some money babysitting some children, and doing some seamstress work, but most of that money was sent to Peru to pay for her son's college education and living expenses.

²³ Also, Kathy was identified as a TAG (Talented And Gifted) student in first grade.

Sandra's story from the time she arrived to the U.S. to the present. Since she left Peru, Sandra was determined to stay in the U.S. and that was the agreement she had with the diplomats. When they left, she stayed with her visa working again as a nanny, but with an American family. While she was working with them, Sandra's visa expired. Since her boss was a lawyer, he helped her find a good immigration lawyer and advised her thorough the process. In December 2000, there was an extension of the grandfathering date for those people who had qualified for a green card before January 1998, under §245(i) of the immigration law, and Sandra qualified to apply for her residency, becoming a legal resident in 2008. Currently, she is planning to prepare the citizenship exam and become a citizen.

In the meantime, while she was doing the paperwork for her green card, she met Jose and they started dating. He was also undocumented and Sandra thought that if he was her husband he could get residency as well, so they got married. The problem was that he had a pending case with immigration because he entered illegally in the U.S. several times, so Sandra's lawyer recommended that she not include him in the application. Jose is still undocumented. Soon after, in 2007, Kathy was born with an open palate and she had to go through several surgeries. She also got tubes in her ears and had speech therapy for several years. Since Sandra was in the process of applying for residency, she could not stop working at that time and asked Beatriz to come to take care of Kathy. Then, in 2009, Lucía was born and three years later Kevin.

In the US, while working as a nanny, Sandra tried to get her cosmetology credentials evaluated, but she was told she had to start from the beginning and get the certificate here, so she could not ply her trade, and she sadly regrets not having a career. So a few years after she arrived in the U.S. she went to a local community college to enroll in cosmetology, but she was told her level of English was too low to take classes. They sent her to another community college where they required her to be a full time student and pay full tuition. She had neither the money to pay for college, nor the time, since she was working full time as a nanny. After that experience, she never tried to seriously study English again.

According to her, her level of spoken English has improved substantially since that time, although she still feels quite limited by the language barrier. She manages to communicate orally and even to read, using dictionaries and guessing meaning from context. The main problem, she explained, is her writing.

Part 2: Sandra and Beatriz's Funds of Knowledge to Support Sandra's Children's Education in General and in Particular in Mathematics

In this second part, I will examine the funds of knowledge and community cultural wealth, that Sandra and Beatriz have developed based on the background described in part one. Their funds of knowledge influence their ideas about education, and what they do in terms of fostering Sandra's children's embodied capital, and supporting them to succeed in mathematics and in school in general.

That is, I will analyze in what ways they are creating opportunities to break the cycle of reproduction of capital for Sandra's children.

Part two is organized in five sections that analyze different kind of funds of knowledge and capital:

1. The *first section*, presents Sandra's family economic and objectified capital. That is, the families' possessions and sources of income, which tends to be the most representative form of capital. I will discuss as well as ways in which they are affected by limited resources in this area.

2. The *second section*, embodied capital, describes how Sandra's life experiences have influenced who she is and how she deals with life situations, in particular those that involve her children's education and well-being. As a response to her unstable childhood Sandra developed great social and navigational capitals as coping mechanisms that help her solve problems.

3. The *third section*, on parenting focuses on how Sandra and Beatriz work together to raise Sandra's children, inculcating in them good values and principles, like resiliency and a sense of community, which are related to Sandra's own embodied capital.

4. The *fourth section*, is strongly related to section three, but specifically focused on education. It describes Sandra's experiences as a student in general and her views about education as important capital for her children, in particular her daughters.

5. Finally, the *fifth section* is similar to section four, but focuses on mathematics. That is, it explores Sandra's experiences with mathematics, how she sees

mathematics in the future life of her children, and how she describes her experiences with mathematics in this project.

Objective and Economic Capital

This section describes Sandra's family's economic resources and material possessions, as well as in what ways they feel affected by their financial situation.

Sandra purchased the condominium in which the family lives when she was single. The apartment has been updated and is well kept. The living room is bright, with a large window that leads to the balcony. It has hardwood floors and the walls look recently painted in a burgundy color. In one of the walls there is a big mirror and below it there is a couch covered by a blanket. Next to the couch there is a desk with a computer that looks pretty new with a flat monitor and speakers, and with piles of papers with children drawings and other office supplies sitting around it. In another wall there is a well-kept black entertainment center, with a picture of the family, a flat screen TV, some papers on one shelf, and many toys, games, and books. There are toys next to the wall and some other scattered on the couch and in the balcony. In the dining room there is a table with six chairs and a large refrigerator. The kitchen is separated from the dining room by half a wall with a marble countertop on which there is a cage with a singing bird, and many different things, including a bowl with fruit, children's cups and baby bottles, more papers and various kitchen utensils.

They also have an old car and a new truck, which Sandra's husband bought to carry construction materials before losing his job. Now, paying the high monthly fee for the truck is getting harder and harder without Jose's income, but if they sell it they will lose a great deal of money, so they are trying to keep it until they pay it off.

None of the adults in Sandra's household has a stable job, with a salary and benefits. Jose used to make a good living, but for the last few years he has not worked consistently. Every now and then he gets a call for some little job, but so far there is nothing they can really count on. Auntie Beatriz babysits two children on a regular basis, and takes on small seamstress jobs, but most of the money she makes is to be sent to Peru to pay for her son's college tuition and living expenses. Sandra is currently the main breadwinner in the household. She does not have a reliable employment with a contract, a salary, and benefits, but she manages to work in different things and makes enough to pay the expenses. She cleans three houses on a regular basis and some others when they call her. She also works as a waitress for a catering company on the weekends on an on-call basis. As a family they don't have a dependable, fixed income, and Sandra told me that last year they made less than a \$20,000 total. At school, Kathy receives free lunch, and Lucía attends a Head Start program for families whose household income is below a certain threshold. Therefore, according to federal standards, they are considered a low-income family. In fact, the accountant who does their taxes suggested that they apply for federal programs, but Sandra feels they are not poor because there are other people who are doing worse than them. On a daily basis, they have food on the table and Sandra

manages to have clothes, school supplies and anything else the children need. Sometimes they have difficulties paying some bills, but that does not seem to be a serious concern for Sandra since they always end up paying them. The greatest concern for Sandra is to think about their children's postsecondary education.

Although her oldest daughter is only in kindergarten, Sandra is already thinking about how she is going to pay for college.

S: My husband does not think much about it. But I tell him, "we need to start saving for college, from now, something!" I don't know, that scares me. But he says "when they are older, when they will be 18 or 19 years old they'll save for college," but I say, "How? How are they going to save?... No!" (Interview 1. Lines 204)

The issue of finding a good job came up consistently in our conversations, highlighting her concerns about it, above all for financial reasons. The family's finances is a great concern for Sandra. When she talks about her life before having a family she starts with "I was doing well," and she explains how she worked two and three jobs and she was making good money: she bought her car, she bought the condo, and she even had savings. Sandra equates doing well with being financially solvent, and she illustrates this thought with a comparison,

S: I look at my bosses' lives, I mean, it's a life where you get your checkbook, you pay for this, you pay for that. But not me. I have to think about it, to see if I have enough money (Interview 3. Line 768)

Currently, she cannot spend all that time she used to working outside of the house. Since Auntie Beatriz does not drive and she has other children to watch, Sandra drives her children to and from school, as well as to doctor's and therapy appointments. This makes it very difficult for her to have an eight-hours-a-day job with a fixed schedule. She never doubts about it, her children always come first; but she cannot stop thinking about what she could do to make more money in the time she has.

Embodied Capital: Flexibility and Problem Solving.

Sandra had a very unstable childhood. She did not know her mother and never stayed in the same place with the same people for more than two years until she was almost 8 years old. She grew up moving from place to place, and not knowing who would take care of her next, until she went to live with her Godparents. Even then, nothing ever told her she would stay with them for many years as she did. In a way, she understood she had to live the present and be very adaptable. She had to learn to be independent and resourceful, and to be prepared for whatever changes may happen, before they even happen. Being very extroverted and sociable helped her make friends everywhere she went, as well as it has helped her when she came to the U.S. and every time she has to deal with new people and new institutions. In this section we will see how she uses her ability to reach out to people and to network with them for the benefit of her children.

Growing up in a wealthy family -when she moved with her Godparents- she could see first-hand opportunities their children had that she never had before. However, she could only partially enjoy those opportunities. She saw the power of a good, private education in her foster siblings, while she went to public schools. She had the opportunity to go to college, but she experienced the consequences of not following through on her post-secondary studies. While her Godparents did not say much when she stopped studying, her foster siblings were not allowed to quit college. Now Sandra can clearly see the difference that not obtaining a college degree made in her life compared with them. She also observed the kind of education and resources her bosses' children had when she worked as a nanny in the U.S. Through these experiences, she developed a clear idea of what a good education looks like and the importance of following through until the end and getting a valuable college degree. These experiences will become an important capital to find good educational opportunities for her children, as well as communicating to them the importance of education as part of their embodied capital.

Before coming to the U.S. Sandra did many things and had the opportunity to acquire many different skills. First, she had to learn at home how to perform all kinds of household chores like cleaning, cooking, and doing laundry. In high school she learned cosmetology and worked as a cosmetologist and a masseuse within the circle of the family's acquaintances, earning her own money at an early age. She also worked taking care of elderly in a nursing home, and as a special education teacher aide in a school. In the US she worked as a nanny, waitress, and housekeeper. On

the one hand, all these skills make Sandra a very versatile person, but on the other hand, they reflect this tendency to always change and not persist on any particular path. Therefore, she never made a career out of any of these occupations.

Because her life was ever changing, Sandra developed an incredible adaptability and ability to find the resources she needed wherever she was. She is more than anything a problem solver. She even developed an incredible ability to anticipate what problems may arise and she tries to address them before they actually become problems. One of the characteristics that allows her to be such a great problem solver is that she is not afraid of recognizing when there is something she does not know, or something with which she needs help, and she is always willing to reach out for help and try new ways to tackle a problematic situation. This ability has helped Sandra develop an important navigational capital and it is also intimately related to her aspirational and social capitals.

Social capital

Generating social capital is certainly one of Sandra's strengths. She has always been very social and liked to interact with many people. She constantly gathers and shares information and resources with other people, in particular other mothers, and she shows a genuine interest in helping others. Whether it is for herself or for friends' interest, she tirelessly navigates schools, insurances, and different service offices, not without difficulty, but with perseverance and a great deal of success.

Sandra is a person who thinks beyond her own interests. She is very eager to cultivate social capital in the sense of creating a community and developing a deep sense of solidarity. She reaches out to people not only when she needs help, but also for other people's benefit. She is concerned about other people's problems and she learns from other people's experiences. For her, creating social capital is a two-way process. She models the idea of community as a network of people that take care of and help each other, the opposite of an individualistic stance. She has the spirit of a leader in the sense that she sees the importance of mobilizing other people, the power of working together for a common good. There is a lot of agency in the way she actively seeks for new opportunities to improve her life and the lives of others around her. While I was interviewing her the first time, she got a phone call from a friend asking Sandra to substitute for her to babysit a little boy. When she hung up she talked about how they help each other when one of them can't take a job. Networking and knowing each other, benefits both people. In fact she also got the job as a waitress through another friend.

S: I am working in a catering place. I am working for a catering company. So I'm a waitress, [...] but in catering, in a company that serves private parties, like when you have a wedding and you hire this company. So they send out cooks, waitresses. So we decorate all the tables, everything, and then we serve...

C: And how did you get it?

S: A friend is working doing that [and she told me]. They pay little, but... (Interview 2. Lines 48-53)

School issues are another area in which Sandra shares information and resources with other people. For example, she met a mother in Kathy's classroom, with whom she has exchanged phone numbers and they call each other for information when the school closes due to extreme weather, when the bus is late, or when the school requests something.

C: Have you met other parents at school?

S: Yes, some

C: Have you befriended them, have you done things together?

S: We have called each other. For example, I have a mom that has her kid in my child's class and, for example, if the bus does not come, I call her, "Do you know anything?" Or about an activity, or I see a flier from her classroom in which they ask for something like... last time they asked for a typical outfit from your country, so I called her and asked her, did you receive this? [...] Little things like that. She tells me, "Yes, there is no school for such and such reason," or "The bus did not come, I don't know what is going on." I tell her, "We need to call, maybe the schools are closed due to bad weather." So then I call. I have the number of the school, the bus lot, everything, so I call quickly. We talk to each other, we help each other. [...]

S: I met her in the classroom. She told me “my child is new. I don’t know how he will do.” “Oh, my daughter has been here for two years.” I told Kathy, “so-and-so is new, help him in the class if he needs, because he is new and he does not speak any English.” I don’t know if they helped each other, but... That’s what I told her. So I call her, she calls me, we call each other. I try to befriend her... (Interview 1. Lines 144-150)

In this example, we can see how Sandra creates relationships with other moms to help each other, and even how she teaches these values to her daughter by encouraging her to help a child who was a newcomer at the school and did not speak the language. This is the kind of embodied capital her children are acquiring, a social capital that fosters a sense of community.

Sandra’s community spirit plays out in the way she interacts with other parents when she feels she can help them. Because she saw the benefits of schooling in Kathy, she encouraged another mother to enroll her daughter in the school so the girl would have the same benefits.

S: I know a woman that takes the girl to Kathy’s school. I pushed her, I told her, “You have to put your kid in school. The girl is old enough.” [Beatriz] babysat both girls [Kathy and the girl]. Beatriz babysat this little friend since she was little. So the little girl told mom, “Kathy is going to school” and she looked sad when Kathy went on the bus. So I told her mom, “The girl is sad, you should put her in school.” It’s true;
241

it's [only] two hours that they go. You work all day and it is outrageous, because you say, "argh, for two hours! Who is going to pick her up, who is going to drop her off? I know for you it is a waste of time. But even those two hours, you can't imagine, they learn something! At least they do something different than being home. I think they learn, I think it is good." But she was "no, no." The first year she did not want. The second year ... when she saw Kathy spoke English,... One day when she came to drop off her daughter and she saw Kathy when she was going to her promotion, the last day of school and she was dressed very pretty, she looked at Kathy, and she [Kathy] was like "I am going to my school". That day she told me "I saw Kathy so different". "It's the school. The school is helping her! Enroll her, enroll her," I told her. I brought the registration papers for her and everything. So finally she ventured [but the deadline was passed due]. I told her, "It is too late now." "Go to school and see if they have a spot." [Finally] the girl is in. (Interview 1. Lines 231-232).

Sandra really took time to talk to that mother, she got the papers for her, she helped her complete the papers, and encouraged her to go to the school and see what she could do to enroll the girl when it was already too late for enrollment. Moreover, she did it even if it meant that Auntie Beatriz would have one fewer child to babysit, therefore less money for the family. Sandra selflessly looked out for the girl's interest. This girl would not be in the school if it was not for Sandra's efforts.

A very important reason Sandra wants to participate in Kathy's school, besides knowing how she is doing at school, is networking. She not only wants to know the teacher and other parents, but she wants other people to know who they are.

In her words,

S: I want to know other parents, who other kids' parents are, see the teachers, talk to them. I want them to know that I am Kathy's mother, who we are,... I want to see. That is why I go. (Interview 1. Line 129)

In several instances in our conversations she mentioned the importance of getting to know other parents. Moreover, she would make it a priority in the school, if she was part of the PTO²⁴ board or had some power position among parents.

S: First, if I were the president of my daughter's class, or of the board, I would say, "All of us parents need to meet to get to know each other, exchange [phone] numbers..." Right? To pass on information about meetings or something, anything, being always in contact, knowing each other well, right? That's good for many reasons, because then you know who your daughter plays with and also who the family are. (Interview 3. Line 676)

²⁴ Parent Teacher Organization. It is similar to the PTA (Parent Teacher Association), but they are not part of a larger association like the State's PTA and therefore parents don't pay membership dues.

Sandra wants her children to have options to socialize and be independent, but she wants to make sure the environment is safe before she lets them go out of the house. In other words, instead of prohibiting her children from playing at a friend's house or interacting with other people, her approach is to act on creating a community, developing trust among families in the school and, therefore, making the environment safer for her children to be able to be independent and go out to play with other children.

In her eagerness to create community, Sandra reaches out to many people at different places and times, gathering and sharing information and being open to opportunities that may come her way. In fact, that is how she got involved in this project.

Navigational capital

An area in which Sandra has developed a great deal of navigational capital is dealing with Kathy's health insurance. Sandra has devoted much energy and put her navigational capital to test, to make sure Kathy gets all the health services she needs and that she is in good health. Kathy was born with an open palate and had to go through several surgeries, including getting tubes in her ears. For this reason, Kathy has a special insurance that has covered her speech therapy in the past, and other services such as summer camp and psychological therapy.

The summer before this study Sandra found out that Kathy's insurance will help her pay for a summer camp for Kathy, so to find a summer camp she liked,

Sandra drove around the neighborhood knocking on every door which said “summer camp” –schools, community centers, churches-.

C: How did you get [the summer camp]?

S: How did I get it? I was going with the car over here and over there and in every camp that I would see I would go in and find out more, right? How much it was. [...] I mean, just driving by, I saw the sign, "Summer Camp" [...] So I stopped by and told them, [...] "I'm looking for a camp for my daughters," and I told her the ages and, straight out she told me, "It's three hundred the first week and then two hundred seventy something..." And then... "Are you still interested?" (Laughter) "like saying, "will you be able to pay that?" "Yes," I told her. "I mean, that's a, different topic," I told her. "But I would like to have the information." I will have to check it out, you know? So she explained to me, she gave me a packet "So this is the way it is. We give them lunch. It's from 9 to 4 in the afternoon. [...] So, uh, so she gave me the information and that's what I told the insurance company.

(Interview 2. Lines 154-164)

In this example, Sandra displays her resistant capital challenging the summer camp secretary, “that is a different topic.” Rather than getting discouraged by this person’s comment insinuating she won’t be able to pay for it, Sandra redirects the conversation focusing on her goal: getting a good summer camp for Kathy. Once she

got the information, Sandra deployed her navigational and linguistic capital to work on the insurance,

S: So then I called and the insurance company told me, "Look for a camp. It can be... like YMCA also has summer camps. [...] So then I called and the prices were similar. [...] [Kathy's] insurance company faxed the papers [...] for a fund. [...] And when I faxed them this information, the insurance company contacted the camp director and they told them, "I would like you to reserve a space for Kathy while the fund is created." [...] And then I called the director, and [...] I tried to explain to her because she only speaks English. Then she understood me and told me, "Yes, yes," she told me, "I got an email from the coordinator. [...] Yes, she asked for a space until the fund... [...] Can you come in on Monday to talk at 7 in the morning with the girl?" I said, "OK." and I went with Kathy. (Interview 2. Lines 155-174)

Sandra took Kathy to the summer camp for two days while trying to contact the insurance and arrange the payment through the fund. However, that never happened.

S: She stayed on Tuesday and then I told her, "Miss, and now,... have they contacted you today?" "No," she told me. "But you know what?" she said, "I like the girl, and she is in the camp. So whether you pay or not pay, she's going to stay in the camp, OK?" [...] And I gave her a

246

hug. So that's when I told her, "Look, I ca-... Sometimes I have some free time. I can come over and help. I don't know. If you'd like me to clean over here." "No, no, no," she said, "I don't want you to clean. You can come over and help translate for us. "Translate?" I said. "Yes," she said. [Because] the cook didn't speak English at all. "OK,"

(Interview 2. Lines 179-184)

In this excerpt Sandra shows a great deal of social, navigational, and linguistic capital. She had to find a summer camp, get all the information, call Kathy's insurance, and go back and forth between the insurance and the summer camp management. She had to explain and negotiate things in English, and although the fund for which the insurance company had applied never appeared, Kathy went to the summer camp the whole summer.

Through Kathy's insurance, Sandra also got a psychologist for Kathy. During the summer before the study, Sandra was concerned because Kathy felt bad about other children asking about why she was wearing ear buds (Kathy needs to wear ear buds because she has tubes in her ears). Sandra explained to Kathy that it was ok to have to use ear buds in her ears, but feeling that this was not enough, she also looked for other resources, like the psychologist, to make sure her daughter gets the help she needs. Kathy's insurance paid for the psychologist, but it was Sandra by talking to the insurance company who actually made it happen. That is, Sandra's navigational capital resulted in getting the services her child needed, which otherwise she would not have been able to afford.

Parenting: Transmitting values and preparing her children for life

Sandra's most important job is being a mother. She organizes her life around her children's needs, paying a lot of attention to their education, health, and well-being in general. She spends time with them, requests services for them, and takes them to school, doctors, and therapy as needed. She constantly talks to them and transmits important values like compassion and responsibility. When she talks about her husband, however, she speaks about him as a person with a secondary role in the children's life. The person who teams with her in taking care of the children and educating them is Beatriz. Because Beatriz does not drive, she stays home with the children while Sandra goes to work or drops off and picks up the girls at and from school. Auntie Beatriz helps with bath time, bed time, cooking, and house chores. She is really an important support for Sandra and the children.

One of the most important values Sandra transmits to her children is her positive attitude towards others and her sense of community. During the first interview Kathy wanted a cookie, but she did not want to share with Lucía. Sandra explained Kathy that not sharing would not be fair, and then she told to me,

S: I always tell [Kathy] "everything that comes into the house is for everyone, you need to share." Because sometimes she brings something from school, and I tell her, "Sorry, if you brought it you need to share it. If you don't want to share, eat it at school." So sometimes she comes sad, "Mommy, I bought this, but it is really good". And I tell her, "Well you need to share the good things, not the

248

bad ones.” And sometimes she does not want to give her sister anything, or just a tiny piece. “But you also need to share with Mom, Dad, Auntie...” so she starts cutting in tiny pieces. (Interview 1. Line 119)

Sandra also teaches her children to be compassionate with others, as we have seen when she told Kathy to help a student who was new to the school and did not know English. At the same time, however, she wants to prepare them to face situations in which other people may not be compassionate with them. Noticing Kathy was feeling bad about her ear tubes and having to wear ear buds when she goes to the swimming pool, Sandra sought a psychologist’s help.

S: [I told the psychologist], "I'd like you to work with her on the fact that, since she has been through a lot of little surgeries, she feels less than others [because] she found out that they installed tubes in her ears"[...] Anybody can have it, but she feels bad that she has to use a bud or that she had surgery, and she tells me "Why was I born like this? Why, Mom? Why not other kids? Why me?" "Sometimes I explain to her but I would like you to explain to her, so that nobody makes her feel less..." I want her to be prepared, right? So when someone tells her, "Hey, this and that," that she has the right answer. That's why I bring her over here. She [the psychologist] told me, "Yes, we're going to work on that." (Interview 2. Lines 102-107)

As she said, Sandra wants her daughter “to be prepared.” Taking her to a psychologist gives Kathy the opportunity to understand that she is different from other children in some way, but that it is OK to be different and that nobody should make her feel inferior. It is an opportunity to develop Kathy’s self-confidence and resistant capital.

In the same way, Sandra also prepares Lucía to deal with other children when they are not nice to her. One day she was at the park with Kathy and Lucía, and they met another girl, who only wanted to play with Kathy. Sandra describes the situation to me,

S: She told [Lucía], "Hey, you. Get out of this park!" Because she and Kathy were, having a good time up there, and I saw little Lucía going away, the opposite way, and in a corner she started to cry. It broke my heart, so I went up and asked her, "Lucía, what's going on?" and she told me, "I don't like [that girl]. She told me, 'Get out of the park'" And I told [Lucía], "Don't let anybody tell you to get out of the park. You tell her this, 'I'm sorry, but this park is for everybody. I can't go away. I'm sorry, so excuse me but I'm going to play somewhere else,' and go somewhere else to play with me." "OK, Mom." (Interview 3. Line 398)

Sandra models for Lucía how to deal with other people in a very friendly way, even when that person is not being nice to her. The way Sandra enacts resistant capital is by maintaining her goal and not letting other people defeat her. This is a

very powerful message she transmits to her children, which will equip them to navigate difficult circumstances they may find in their lives.

While I was talking to Sandra, during the second interview, the girls and a little friend were playing and drawing. At some point Lucía got frustrated with her drawing and came to Sandra. This is a snippet of the conversation,

L: Mom, Mom, I can't paint and- [background noise]

S: Good, I think it's good!

L: (complaining) but I can't!

S: Yes you can, you can do anything

Even in the everyday simplest interactions, Sandra pushes her children to overcome the obstacles they find. She responded right away, without a hint of doubt, communicating an incredible confidence in Lucía's abilities. As an observer, I felt I could see first-hand how Sandra empowers her children on an everyday basis, with these messages she continuously sends to them. This kind of confidence and expectations are installed in the environment in which the children live, shaping the embodied capital they acquire without even noticing it.

Education

Education, meaning schooling and academic learning, is for Sandra a crucial part of parenting, probably the most important. In this section, I will explore how her experiences in education and the way she feels about her own education shape the way she tackles her children's education. In terms of supporting Sandra's children's

development, Auntie Beatriz is also a very important figure. Her knowledge and dedication play an important role in Sandra's children's academic progress.

Sandra: Missed Opportunities

Although she has not been persistent in finishing what she started, Sandra seems to have not given up on her own education. For example, she keeps looking for English classes, and she came to this project with the idea of learning mathematics, not only to help her children, but also for her own advancement. She is enthusiastic about learning in general and according to her, she was "an OK" student in school; not particularly brilliant, but never failed any classes. She actually enjoyed studying in elementary and high school. When she talks about her postsecondary education, she describes herself as "indecisive." She started several different paths in college, but did not truly pursue any of them. She claims she did not do "what she was supposed to do" and that this is why she is now in the situation she finds herself. She regrets her lack of persistence, and I sense she sees in her children's education an opportunity to remedy that "failure" by making sure her children get the support they need to go to college and achieve what she was not able to achieve.

When thinking about going back to school, lack of financial resources is the biggest obstacle for Sandra, but it is not the only one.

C: If you could choose any job, what would you like to do? [...]

S: I would really like to be a nurse. [...] I would love to. I worked taking care of a child for one year.

C: But why can't you?...

S: Oh, because it takes a lot of money, a lot of time. I don't know if I will perform on the tests. It's probably lots of studying.

C: Mh... But you can do it little by little... [...]

S: With small children it's difficult, but... (Interview 2. Lines 598-610)

Although she maintains her dreams of finishing a degree and starting a career, the circumstances in which Sandra lives now make it very difficult for her to think about it seriously. Another time she told me,

S: Right now I'm looking for a massage school but people tell me it's expensive [...] I haven't looked into that, but there is a massage school. A place where it is, I think, seven thousand, ten thousand dollars [...] a course that lasts seven months, or six months. So then I said, "I'm going to study cosmetology," I said. It's a year. It's also around ten thousand dollars, but it is a full time study. So I said, no, what I need is money, so... (Interview 2. Lines 404-410)

Lack of time, fear of not being able to perform on tests, and the cost of education are not easy to overcome. Right now, having three children and her husband not working regularly, it is very hard for Sandra to think about going back to school. She says, "what I need is money," and it truly seems she does not have much of a choice in her life circumstances. She tried to go back to college soon after she arrived to the U.S. but she was not accepted because she had a very low level of English. Then she worked long hours as a nanny and did not have a car, which made

it difficult to get to the English classes on time. At that time she was making what she thought was good money, so she did not worry much about truly learning the language.

In the next section we will see how Sandra turns these missed opportunities, and her experiences working with wealthy people into an important capital. From these experiences, she has learned first-hand the value of education in very concrete ways, and she is able to communicate this message to her children very clearly from a very early age.

Aspirational Capital: Opportunities Ahead for Sandra's Children

There is no doubt about the importance Sandra assigns to education. When we talk about educational issues she is clear and articulated, giving the impression she has thought about these questions many times before. Sending her three children to college is not only her dream, but also her goal, and she is determined to achieve it. This is apparent in the way she speaks about education. She is enthusiastic and direct, and does not hesitate when she answers my questions. She talks about education as the key to a better life, the tool to acquire economic power, and therefore access to commodities and services that they, as a family, don't have easy access to at this time. In her talk there is a clear connection between education and economic capital and a better life. When I asked her why it was important that her children get an education, she said,

S: I don't want my kids doing what I do, cleaning houses, or... there is no future. However, if they have a good job, they will be able to save money, they will have their vacation... it is another life. Another world... I think. (Interview 1. Line 201)

When talking about helping her children succeed in education and get into college, she uses the word "scared" several times, which communicates a sense of urgency and maybe even alarm. Sending her children to college is clearly a pressing issue for her. She is aware of the difficulties and the hurdles they will have to overcome as a family to get three children into post-secondary education. She is conscious of their limited economic resources, and that is the main concern. Still, she has big hopes. Her aspirational and resistant capitals work together to push herself to pursue her goal. She does not get discouraged because of the difficulties. Her "being scared" does not give the sense that she gets paralyzed, but on the contrary, it has the effect of "we need to start working on it now!"

Because she knows it is going to be practically impossible for them to save enough money to send three children to college, she is trying to support them to be excellent students so they can get scholarships. This may be a way to send them to college. She will make it possible.

S: [College] is expensive, I tell [my husband, but] he says we need to save for our retirement. "They will be young and have strength to work." And I tell him, "no, no, it is not like that." [...] I want my children in college. I want it. This is my dream. It is really difficult,

255

but it is not impossible. [...] I want them to be good students so they can get a scholarship! [...] Or if it is not a scholarship, at least a loan. But at least... [...] take advantage of the scholarship, take advantage of the loan. Because if the child does not want to study, if s/he is not a good student, but does qualifies for a loan... we can get it, but, what is the point? Bad student, s/he won't get a job anyway. I want them to be good. That is what I want for them. (Interview 1. Lines 206-209)

Although getting a scholarship is an important motivator for raising good students, Sandra's focus on academic excellence, goes even beyond getting financial aid. If her children are good students they will truly be able to seize the educational opportunities in college and beyond. There is not only a practical reason to be a good student, but also an intrinsic motivation, which she wants to instill in her children.

The path to college for Sandra starts even before kindergarten. Sandra's oldest daughter, Kathy, started school at the age of three because she needed speech therapy. Since then, Sandra has been observing her progress and realized how school made an important difference in Kathy's development. From the very beginning Sandra noticed that Kathy started to learn English, to socialize with other children, and to be more independent and self-confident. Having seen the positive impact that early childhood education had on Kathy, Sandra tried to enroll Lucía in school at the age of two. She wanted Lucía to be in school as soon as possible, but the girl did not qualify for special services and had to wait until she was three to start school. Even at

that time, since she did not have any special need, she qualified for school only three half-days a week, and she did not have bus services.

C: The bus does not come?

S: No, this year she does not have a bus [...] That keeps me tied up

(Interview 2. Lines 041-044)

Having to drop her off at school and pick her up two and a half hours later meant that Sandra couldn't take any full time job. It was not easy for her, but she did not even question it. She saw education is an important investment and she would do whatever it takes to have her children in school as soon as possible and be academically successful. Even if it meant she couldn't take a full time job.

Sandra has learned from her own experience what she does not want for her children. Since she came to this country as a nanny, she has always worked in low skilled jobs, like nanny, waitress or house cleaner because she had neither a valuable college degree nor a good knowledge of the English language. Her experience working with wealthy families made the connection between education and a better life very tangible for her. She explains,

S: Why do I want [my children] to go to college and finish a five-year, seven-year career, however long they need to take? Because I've always studied one year here, one year there, two years here, and that's it, you know? And I know that I'm doing what I'm doing because I haven't prepared myself. I mean, because I've had the opportunity to do things here, and I haven't done it. I've worried about other things

and haven't done what I should have done, with myself... But I have seen, [...] for example, my boss' children. Right now they're in college. Two of them finished and have good jobs. One of the girls I took care of is now working at the White House. At the White House! I mean, she studied politics, and the other girl studied math. [...] But they studied in [...] a private university... a good [school]. [...] And that's why I want my kids to go to college, and if they don't finish, they're going to end up like me. I mean, not like me, I know. They're going to have a job in a bank, maybe, as a cashier, I don't know, but if they finish a career, a well-finished career... I always say this, "To not be one of the bunch, but one of the best," whatever they choose.

(Interview 3. Line 768)

Sandra's own experience tells her that it is very important to support her children until they finish at least a bachelor's degree. She knows anything less will not make the difference she would like to see in her children's lives.

To support her children's educational success, Sandra tirelessly looks for information and opportunities. She knows very clearly that they do not have as many resources as middle and upper class families and she has no room for maneuvering. When describing how the families she worked for as a nanny deal with helping children with homework, she made a clear distinction between "them" and "us." She told me,

S: Look, I've worked with people who have money, and they can't help their children with homework over the phone, because they are at work. [...] So what did those who had money do? Hired a math tutor to come twice a week to do math homework. [The children] were in the regular school, but [the parents] can afford to pay a math tutor. Something we can't do. I could not do that. (Interview 1. Line 180)

Being conscious of this limitation, Sandra is always alert about opportunities. She spends a lot of time gathering information and resources to be ready in case she needs them. It is like having "savings" in educational resources. Engaging in this project is just one example. When I told Sandra about my project, she was first curious and accepted to meet with me again for an interview to know more about it. So when I explained my idea about the mathematics workshops for parents, and asked her what she thought about it, she responded,

S: Yes, I am interested. Because this way I could help [Kathy] with homework, or if she is not very interested, find the way to get her engaged and do homework and not get bored. If we do it together, I think she won't get bored. But if she does it all alone... (Interview 1. Line 157)

Because she knows she will not be able to hire a tutor in case there is a need in the future, she is seizing the opportunity to participate in this project to learn how to support her children in mathematics, not only to make sure they get the correct

answer, but to get them engaged, to get them interested in the work and develop that intrinsic motivation she wants to see in them.

Resistant Capital: I Want my Daughters to Study

Sandra wants her three children to go to college and be prepared in life, but she is particularly concerned about her daughters' education. In the first interview she told me,

S: I want [my children] to be prepared. For example, the girls I want them to be able to choose their husband, and if this husband does not work out, that they are able to say "I can do it by myself." And the boy, the same. But I've seen so many women,... and I ask them "why do you put up with him?" And they tell me, "I have no choice. What can I do? For my children... I don't know how to do anything." That scares me. I want my children to be prepared. (Interview 1. Line 203).

Again, during the third interview, talking about how their limited financial resources forces Sandra to ponder whether she has the money or not every time she needs to buy something, she says,

S: My daughters are not going to go through this. I mean, my daughters won't... That's what I always tell Beatriz, "I want my daughters to choose their husband. I don't want a man choosing them, and if that marriage doesn't work, that's it." Not because... "Hey, if we separate, I'm not going to be able to finish paying this..." No. So they

[can] decide, that's why. That's why I want [them to have a career]

(Interview 3. Line 768)

Sandra wants to make sure her daughters never “get stuck” with a husband just because they are economically dependent. That means for her ensuring that her daughters get more than a one or two-year associates degree, like those she obtained in Peru. She wants them to be professionals. Sandra clearly conceives education as capital, as the golden key to independence and liberation, especially for women. She often adds “and my son too,” but the emphasis is always on her daughters, not because they are older and are already in school, but because they are women. I see in her approach to her daughters’ education a great deal of resistant capital. Sandra consciously and actively works to equip her daughters with tools –like education- to challenge the status quo, especially in a community like the Latino community in which gender inequality, represented in “machismo,” is widespread. Although she does not explicitly stated it, in her discourse there is an implicit understanding that the world is not the same for men and women.

Parent Involvement Matters

Sandra values education beyond the discourse. The value of education is so clear to her that she wants to project her enthusiasm onto other people. When she got the information about this project from me, even before we started with the workshops, Sandra thought a project like this had the potential “to help a lot of people, because many children don’t do their homework and their parents do not help

them” (Interview 1. Line 168). Sandra reached out to other mothers, who she thought may benefit from a project like this, but their responses were disappointing,

S: I mentioned it to, like five people, but they told me, "Oh, but..." I mean, they gave the excuse like, "What do I do with my child? What do I do with I-don't-know? What time would it be?" and so forth, and then, one of them told me that she couldn't because, and she has two [children], and I told her, "But what you're going to learn is going to be useful for the little one and the one who's in school," "No," she said, "What she's taking right now, she understands it. I mean, I don't need it," "But it's going to be useful for you" "But what am I going to do it for? [...] What for?" I told her, "But the little girl is barely starting." [...] She was not interested. Another one [who has a child who] was starting first, and now is moving into second grade... [she wasn't interested either]. She told me, "I'll let you know if I go. [...] I don't know," she said. (Interview 3. Lines 539-542)

The contrast between Sandra's and other mothers' attitudes with regard to learning ways to support their children in mathematics positions Sandra as an outlier within the environment in which she lives. In addition, Sandra's reflections about other mothers' responses to her invitation opened a window into Sandra's values. Another mother Sandra invited to the project was an engineer and said her daughter was lazy and there was nothing she could do to help her.

S: There is a mom here. I told her about you. Her daughter is 9 years old. She told me, “my daughter does not want to do homework. I don't know what to do.” I told her, “and how do you help her?” [...] Because I told her that you were coming to interview me and see whether parents need help and, well, same thing you told me. Because addition, they teach in a different way and we don't know. I don't know how it is in her country [...]. Santo Domingo is where she is from. Then I told her, “maybe [you need to] find the way to get her engaged in that.” “No, no, no, my girl does not want to sit down.” “But don't you want to talk about it?” “No!” She said, “what is that, a survey?” “I've been told it is an interview,” I told her. “But at the end, it is about trying to create a group to learn, look at math and learn math and help our children.” “No,” she told me, “I know a lot about math. I am an engineer.” But then “you are not finding the way. You may be an engineer, well prepared, everything you want, but you are not finding the way...”

C: Why can't she help her then?

S: She says her daughter is lazy. “My daughter does not want anything. That is the problem. She gets bored, she gets annoyed when she needs to sit down and do homework. She does not want to do homework.” Then I told her, “then your problem is a different one.” “I don't want anybody to teach me math because I know... she does not

want to study," she told me. [...] "I don't want surveys, I don't want anything. What I want is... I don't know what to do with this one!" She is her only daughter, and she has problems. (Interview 1. Lines 293-297)

In her narration, Sandra shows a remarkable contrast between this mother's defeated attitude, and her own attitude of getting engaged in her friend's problem, gathering information about the situation, thinking deeply about it, and offering different ideas to try to find ways for her to get the help she needs. This is the way Sandra addresses challenging situations and gets involved in her children's education to find ways to support them academically. From Sandra's point of view this mom was not finding ways to do so.

Sandra also commented the idea of this project to a mother she knew from the bus stop, whose child was struggling in school.

S: Someone at the bus stop told me yes [about coming to the math workshops]. She said, "Yes, yes. Let me know." When I let her know, she said, "Oh... You know, I end up really tired from work and my son is, he is already learning. At least that's what the teacher has told me." I told her, "You can also help with homework," "No," she said, "He does his homework by himself," "But you haven't seen if he's doing it well. That's going to help you," I said. "The teacher says that in kindergarten there's very little math, almost nothing. What is he going to learn? He doesn't even know how to read," she said. "Yes, but in

264

kindergarten is where they learn all that.” If they don't have a good start in kindergarten, first, second grade, I think later on it's going to be difficult for her. Now is the time to support [Kathy]. I am honestly interested in Kathy, if possible, once a week, having a little math group, you know, where they get help. I would love that, so she is prepared (Interview 3. Line 545).

Sandra insists to her friend on the importance of her, as a mom, to get involved with her child's education, help him with homework, and make sure he is doing it right. Basically, she is telling this mom to not just accept the minimum, to go beyond and reach out for excellence. However, this mom has different priorities at this moment. This example illustrates the ways in which Sandra values education and gets involved in her children's schooling. Sandra's suggestions to the other mother are the things that she does with her children. Sandra understands that if you really want your children to go to college, you need to get involved from the very beginning, even before kindergarten, and you cannot rely on the school to do everything for your child. Sandra knows that if you wait until your children struggle in school to get involved, it almost too late. You have to prepare them before they encounter difficulties, so they will not have academic problems in the future. Sandra's approach to supporting her children in school strikingly contrasts with how other mothers in her neighborhood deal with their children's academic struggles. Sandra's capital allows her to see opportunities where other mothers see “more work” or “a burden” because she is able to make the connection between supporting her

children to be good students, and scholarships and other opportunities for her children in the future.

In order to make sure her children are making adequate progress Sandra does not rely on a single source of information. She gathers information from the environment, whether it is feedback from school personnel and other specialists like a psychologist or a speech therapist, or observe her children and others and compare. The school, of course, is a main source of information about Kathy's progress. In several occasions during Kathy's kindergarten year, Sandra got very positive feedback about Kathy. She shared,

S: they told me at school, "What have you done? You have done a great job. This girl is doing very well. She's doing very well."

(Interview 2. Line 086)

S: Kathy, my child, [at her school] they have a board where they put the best students [C: yes, the student of the month] and she is there. She told me, "Mom, I am there and nobody else from my class." And I said, "really?!" And I quickly went to see. And yes! There she was.

(Workshop 1. Line 040)

S: I tell her, "Kathy, I don't understand the notebook [the report card] very much..." [...] And I tell her, "What does that mean?" "Mom, it's OK. You don't need to see that. I'm the first of my class. My teacher has told me that I'm very good." [...] "Mom, it's OK. I'm doing well.

Don't worry." (Interview 3. Lines 479-484)

When Sandra took Kathy to the psychologist she was surprised by Kathy's intelligence and mastery of language.

S: [The psychologist] told me, "Did you know that this girl is very intelligent?" and I told her, "Yes, other people have told me that." To me she's fine, I mean, she understands me and everything, right? And sometimes she needs a little help with homework, but that's normal. And she told me, "Oh, but she's so intelligent, she has a vocabulary that a five year-old girl does not have." [...] There are words that I haven't said to her and she knows them, and the lady asked her, "Where did you learn that from?" And she explains it. "Do you know what does that mean?" [...] "So tell me." And she says it, in English. So these are things that... "Imagination," she explains the word imagination. What it means. She explains seriously. (Interview 2. Lines 094-097)

Sandra pays careful attention to the feedback she gets about her children, especially when it comes from qualified people like a psychologist, and I feel Sandra takes all this praise about Kathy as a confirmation that she needs to keep doing what she is doing with her. The fact that Kathy is very intelligent and is doing really well does not mean for Sandra that she does not need to do anything. On the contrary, it seems to stimulate her to do even more with her daughter. She keeps looking for things she can work on with Kathy, for example she engaged in this project to learn new ways to work with her in math, even though Kathy is doing really well in school.

Another source of information for Sandra is to look at what other children same age can do to see if they are developing according to their age. Compared with other children her age, Kathy is doing so well that Sandra is concerned that she may fall behind at school because she is around children who are falling behind in their learning.

S: Sometimes I feel worried because I see the children in her classroom, [because] I know like two or three... [...] and I know they're behind. So she is going to get delayed, I think [...] I have seen that, and I know the mothers. And [Kathy] tells me [what they can cannot do in school], right? I know a little friend who lives close by, a classmate, so I look and compare. (Interview 2. Lines 107-112)

Part of being involved for Sandra includes knowing what her children are learning at school. When I asked her about what they learned in mathematics, she told me

C: What have they done in math in the school this year, your children?

S: Kathy [...] did addition, subtraction [and], counting, yes. [...] She writes the numbers from 1 to 100 and she counts them, skipping as well. [...] When someone writes a number and covers the next one, she already knows what number is coming. Yes, I mean, she's worked quite a lot on math... (Interview 3. Lines 163-168)

Sandra was able to recall and describe many activities that Kathy did in mathematics during kindergarten because she sat with her to do homework regularly over the course of the year, making sure she learned all the skills.

Sandra keeps monitoring her children even when school is out. In late June, when Kathy finished kindergarten, I asked her about her girls' performance in mathematics,

C: in general, do you feel they're doing well in math or, or do you feel they're struggling?

S: Up until now... Well, up until they finished school [the school year], yes, very well, right? But some times, lately, sometimes we work on a question and they start using their fingers or come up with a wrong answer, sometimes, right? [...] It must be that there's no practice every day because math is easily forgotten. [Laughs] But if they sit and review again, I think they will [do it right]. It's not like I have to tell her, "Oh, no..." and that she doesn't want to do it, right? Neither Kathy nor Lucía gets bothered by it. They're interested. I mean, they like it... for now.

C: But you think that since there's no school [for the summer], they've kind of gone down?

S: Yes, yes. We have given them too much vacation. [Laughter] Oh, yes, vacation... That's what they told me, "Be careful because in the summer children forget everything." (Interview 3. Lines 273-277)

Sandra not only monitors the girls. She also noticed that little Kevin, the boy, did not speak much and she started the assessment process even before he was two years old. Although he had already started to speak by the time he was assessed, he was still a little behind with respect to the standards and was approved for speech therapy when he was two, while he was already in the waiting list to start school. When the therapist got to the house to work with Kevin, he said Kevin was doing very well compared with other children and he was not surprised given the amount of books and educational materials they had at home, and seeing how Beatriz and Sandra work with him. This is yet another example of how aware Sandra is of her children's development and how important it is for her that her children be ready for school and actually go to school as soon as possible. Early childhood education experience is not the norm in the Latino community and it has been identified as one of the causes of the so called achievement gap between Latino and white American students when they start elementary school. This is definitely not going to be a problem for Sandra's children thanks to Sandra's involvement in their education.

Mathematics

Sandra thinks mathematics constitutes important knowledge to learn for her children. In this section we will see how her own experiences with mathematics influence what she wants for her children and in what ways she thinks of mathematics as capital for her children.

Experiences Learning Mathematics

Sandra likes mathematics although she does not feel very confident because she has forgotten most of what she learned in school. Although mathematics was not necessarily her favorite subject, she does not describe it as a difficult one. The secret for her was to understand it very well from the beginning, and then it would go smoothly. We will see in several examples that this is precisely what she always wants for her children.

Sandra confessed that sometimes she had some difficulties with mathematics. In those cases, she was not afraid to ask for help. First she would ask her classmates, those she knew were very good students. If that was not enough, she did not hesitate to ask the teacher.

S: Well, when I was studying in Peru, sometimes I needed help. I mean, I would ask for it. I would say, "Hey, how did you get this?" And they would explain it to me and I'd understand it, but I'd see others who didn't ask for any help.

C: Who did you ask for help?

S: The one who knew the most in the classroom. A classmate who you would see others asking for help, right? I ask him for help. If he doesn't understand, I am not going to [be shy]... I am not embarrassed and I would raise my hand and ask. [If] they would laugh at me, I wouldn't care. "I don't know," I would say, "What do you want me to do?" I would raise my hand and I wouldn't be embarrassed. They

would repeat it for me and I would be like, "I still don't understand"

[Laughter] and they would repeat it for me again. (Interview 3. Lines 103-107)

This is very representative of Sandra's attitude in life in general. She is a woman who does not get intimidated by difficulties. When she encounters a problem, she finds the way to solve it or get around it. This attitude is a real strength of hers. She actually takes difficulties as challenges.

S: If you become interested, I mean, you hear the formula, how the teacher taught it, and then there's no problem after that. I mean, you say, "OK, it didn't work. Something is wrong here. Let me do it again." Patience, right? And again and again, and then you get it... I was that kind of person. I mean, I don't get frustrated, like saying, "Oh, this is not my thing!" and that's it. No.

C: So you take it as a challenge, to solve it...

S: I like challenges. I love that. Challenges, for example, I like to do what others can't. I mean, I like to achieve things. (Interview 3. Lines 067-070)

Her strategy to not get lost was to ask questions from the very beginning, right when she did not understand something, before it is too late.

S: Right, and the other thing is that you don't understand it the first time and it becomes worse as the time passes... I think that you get lost

in class. You no longer want to go. You say, "Oh, no. If I couldn't do this, that is going to be worse." (Interview 3. Line 094)

This is probably the reason she never had major problems with mathematics. She solved the problems before they even appeared.

Because Sandra is not afraid of not knowing, she does not mind being in class with other people who know more than her. Rather, she thinks it can be beneficial.

S: It's even better to be next to someone who understands than to two who don't know. [Laughter]

C: But would you rather work with someone or work on your own?

S: Mmm, it doesn't matter. Mm, it's better with someone.

C: Do you think you learn more when you work with someone?

S: Mmm...

C: Or when you're on your own?

S: I think that when you're with someone you learn more because, s/he poses questions that maybe you wouldn't know how to do, right? I think... (Interview 3. Lines 431-437)

Here, there is another example of how she describes, in a very specific and articulated way, the power of interactions with others, in particular with regard to learning.

Mathematics is, for Sandra, a matter of practice and interest. According to her, anybody can learn math if he/she has the interest and the willingness work on it.

C: Many times during the workshops you said, "It's just that math is a lot of practice. It's a lot of practice. You have to practice. You have to practice." What do you mean by that?

S: Well, that if you don't practice, you are lost. [...]

C: So do you think anyone can learn math?

S: Yes.

C: Is the key simply practicing?

S: No... The key is to get started and practice, right? I mean, yes. Anybody can learn math. Anybody who wants to learn, right? "Hey, I want to..." "OK, let's get started," and that person's going to learn. If you explain well and that person is interested, s/he is going to learn.

(Interview 3. Lines 442-458)

For Sandra, when there is a will there is a way. Sometimes the way may not be easy, but she keeps her hopes high and her spirit positive. When Sandra talks to her children about their future, about going to college, we will see in the next section how she transmits to them that if they really want to achieve something, there is always a way to do it. Her aspirational capital is a powerful resource to develop their children's embodied capital and high expectations for themselves.

Sandra's experiences in education and her attitudes toward learning reflect in many ways her community oriented personality, her persistent search for information and resources, and her tireless spirit to overcome difficulties. In these examples we

have seen how she uses her embodied capital, including her social, navigational, and aspirational capitals, to improve her mathematics education.

Importance of her Children Learning Mathematics

For Sandra mathematics is very important as a tool to solve many things in life. She explains,

S: I think math is very important... it's more important than history, than geography, than everything. I mean, for example, because math solves a lot of things for you in life, and it's always the same, right?

C: What is always the same?

S: I mean, numbers are the same here, in China, everywhere. I mean, math is always useful anywhere. On the other hand, languages, uh... Everything changes, but not with math, whoever is good [with math] in Peru, here s/he is going to be good [here] too, just change... the way to solve things, right? I think so. That's what I would like, for my daughters to be good at math... and my son too. (Interview 3. Lines 088-091)

She, again, reiterates the importance for her daughters in particular to be good at math, because math is a powerful tool. It is interesting to note the comparison Sandra makes between knowing mathematics and knowing languages. Being an immigrant, having the experience of moving to another country where all she knew in

terms of language lost its power, the value of knowing something that will be recognized anywhere one goes is, not surprisingly, high.

For Sandra, understanding mathematics from the beginning is a prerequisite to liking mathematics. Maybe that is one of the reasons she puts so much emphasis on her children's understanding of math early in school.

S: I would like for them to understand from the beginning and for them to like it. [Right] That's what I'd like. (Interview 3. Line 091)

C: how important is it for you that your children know math? For them to be mathematically skilled? How important is that?

S: For me it's very important. I think all careers have some kind of math, right? So if they don't learn math well in school now, how is it going to be later on?

C: [...] Is math particularly important or special in some way for you? Or not necessarily, just the same as any other subject.

S: I think that... Uh-huh. They have to know a little bit more [math] than the other subjects, right? A little bit more, but they have, I think, to understand it well, to not get frustrated, and also a little bit of everything, but I want them to know math. In fact, I want [them to understand math] so that they don't have any problems.

C: So you would be less worried if they don't know history or if they don't know science?

S: No, they should know that as well. I mean, they should know all the subjects, but they should know math, understand it the way it should be. I mean, so that they can solve any kind of problems. It doesn't matter if they take a little more time, but they shouldn't leave a problem unsolved, right? For them to understand everything well.

(Interview 3. Lines 153-162)

For Sandra all subjects are important for her children to learn, but mathematics seems to be somewhat special. With mathematics you have to do well from the beginning and understand what you are studying. It seems that Sandra sees mathematics as very sequential, and for that reason you need to get it right at every step, so you avoid having gaps in your understanding and you do not get lost. Once you are lost, you get frustrated and it is hard to catch up. For that reason she wants to make sure her children are doing well in math from the beginning.

Sandra's Experience with/in the Mathematics Workshops

Sandra came to the mathematics workshops first with the idea of learning ways to support Kathy, and later also Lucía and Kevin, in mathematics, but also to review many topics she learned at school and forgot. Although preparing herself to assist her children is a strong motivator, when I asked whether she would have come to learn math if she did not have children she answered,

S: Of course, yes. So I wouldn't be staying at home, to know something, yes! I would. Someone tells me, "There's something to

learn..." If it's like this, really early, or really late, I mean, as long as it doesn't conflict with my job, I'd go (Interview 3. Line 364)

In the first session, when I asked whether they wanted to work on mathematics to prepare for GED or on topics more related to what their children were doing at school, she did not seem to have any strong preference. However, after working on both options, she clearly engaged with the work we did to support the children. From there on she wanted to learn the math at the same pace as Kathy.

S: I want my math to go side by side with Kathy's, you know? Going over it... as she's progressing, so I am helping her and [we are] working together. I tell her, [...] "We're going to learn together" (Interview 3. Line 377)

In the interview we did at the end of the project Sandra said she found the workshops useful because now she is "being able to help Kathy, [...] Understanding how she's learning her math. Yes, it did help me" (Interview 3. Line 367). Of all the mathematics topics we worked on, Sandra found very interesting the series of problems on addition and subtraction and she also enjoyed the card games,

S: The thing I liked the most were the little problems [different types of addition and subtraction problems]. I think those problems you presented were really interesting, those we were solving. [...] I like that very much, and the games, the little games [with cards]... I like that. I mean, at least at home, I have done that, twice, three times (Interview 3. Lines 369-372)

Auntie Beatriz also learned the card game and played with the children. In fact, every time Sandra learned something new in the workshops she shared with Beatriz, so they both would learn the new tools to work with the children,

S: The little problems I gave them to Beatriz... Beatriz and I, both of us, you know? I'd share with her and she would read and that's how we've been [working] with little Kathy (Interview 3. Line 367).

Sandra also found interesting to get more familiar with how children learn mathematics here, which is different from the way she learned in Peru as a child.

S: I thought it was interesting the way they work with [mathematics] here, I mean, what things are different over in Peru, right? So, I did like [...] that you shouldn't be teaching children to do things in only one way, I mean, you have to play with different ways, for the child to understand...(Interview 3. Line 411)

S: Before I would try to help her... I would tell her, "Kathy, how did they teach you?" [Laughter] And Kathy would explain to me. She would say, "Mom, my teacher says..." "OK, so it's this way..." But at the beginning Kathy was getting to know the numbers and all that, so I would only help her with that. But now [I can say] "Kathy, look, we're going to do it this way" (Interview 3. Line 476).

Summarizing, Sandra clearly conceives education and mathematics as capital in many different ways. In this part, I have tried to describe how Sandra's different

funds of knowledge and experiences have shaped the way she conceptualizes and values mathematics, and acts upon those values. I have explored in which ways she thinks learning mathematics is important for her children and how she and Auntie Beatriz engage in learning math to teach the children. The way Sandra values education and the ways in which Sandra conveys the importance of education, are intimately interconnected. In the next part of this case I will show in more detail how Sandra's values translate into what she and Auntie Beatriz do to create positive conditions of educability for Sandra's children.

Part 3. Parental Involvement: How Sandra and Beatriz create positive conditions of educability for Sandra's children

Based on the educability framework (Bonal et al., 2010), I have identified three dimensions of analysis that influence students' conditions of educability, and therefore their success in school. In the following sections, I will look at how Sandra seeks to influence her children's dispositions towards school and education, how she participates in her children's schools, and what activities she and Beatriz plan for her children to do in the time they are not in school. According to the framework, the more home and school practices and values align along these three dimensions, the higher are students' chances of succeeding academically.

In what ways does Sandra seek to influence her children's dispositions towards education and mathematics?

Sandra explicitly talks to her children about the importance of studying and getting an education, and she talks about them going to college as a fact, not as a vague possibility. She does not miss one opportunity to show Kathy that everybody goes to school, and she clearly connects what the Kathy is learning right now to what she will learn in college illustrating for her the idea that the path to college starts even before kindergarten. She presents each educational event as a step in the path to college in a way so simple, that even a pre-K student would be able to understand the connection.

C: What do you do to communicate [the importance of going to college] to your children?

S: To Kathy [and the others] we tell them, "you have to do your homework. You have to do your homework, because if you don't do your homework well you are not going to learn." Because of the faces [happy face if she does it right and sad face if it is wrong], you know. Sometimes she goes, "No, I don't want to go to school I am tired, I already know lots of things! I know my abc's, I know everything! I don't need to go anymore, I already know the colors." And I tell her, "No! Now you are going to the school for little children and you have to learn this, but then you grow up and you go to another school, and you learn other things," I tell her. When [we were in this] hotel she

met a life guard, and the life guard was going to school. And she asked, “how come he is so old and goes to school?” He was a college student. So I told her, “He goes to another school for big kids.” [...] You can go with your car. You will also do that.” “Really, Mommy?” “But there they won’t teach you the colors, and the numbers 1 to 10, but other things. The homework is other things.” “Ooh...” and she looks at me... “That’s why you need to do your homework now, so you will understand better this other thing, so then later you will be prepared for the things they teach in the big school. But if you don’t understand this now, you won’t understand in the other place. So now it is when you need to sit down and do your homework.” So then [Lucía, wants] too, “mommy, I also have homework! I want to do it.” “Oh, yes, yes, yes, you sit down there” and we hand her a notebook, she colors, she does what she wants. The other one has to cut out, glue things, so we give her also a magazine, scissors, she cuts out, she glues,... (Interview 1. Lines 210-212).

During the very same interview, Kathy was curious about what we were doing and kept interrupting to ask questions. To explain to Kathy that she had to let us work, Sandra said to her,

[Kathy interrupts]

S: Kathy, you need to let her work. She is doing her homework

K: Homework? For you?!

C: For my school.

S: Everybody goes to school, I told you

K: her homework?

C: Yes, it is an assignment that I have to do

K: So you will get a happy face?

S: Yes, if she does not do it, she gets a sad face (Interview 1. Lines 075-083)

In this spontaneous episode we can see how Sandra seizes every opportunity to send Kathy the message that school is important and keeps giving her examples of people who go to school.

While I was interviewing Sandra for the second time, Lucía was playing around with a toy horse. Sandra commented,

S: [Lucía plays] with that horse, over here and over there. Now she says, "I want a real horse and I want a house." So I have told her, "Then, if you want a real horse, a house, all that, you have to study", I told her. [...] And I talk to them about it. [Lucía comes and whispers to Sandra. Sandra reports] She wants a farm. So I tell her when we are in the car, when I'm driving, "There are people who have money," for her [Kathy?] to listen, but both listen. Sometimes she [Lucía] captures more, and I tell her, uh, "Do you see that man?" [a beggar] "Yes, Mom." "That man is asking for money because he didn't want to study. He didn't want to go to school. His mom told him, 'Let's go' and she

283

let him cry, and 'I don't want to; I don't want to', until the mom got tired and said, 'OK, you're not going to study.' And now he doesn't know how to read, doesn't know how to write, he cannot get a good job to earn money." "And doesn't he have a home?" "He doesn't. If he doesn't work... He didn't want to learn English," and she tells me, "Mom, but you don't speak English and how do... We have a home." "I went to school," I tell her, "So then I can... Working hard, working hard, that's how I could buy my little car. That man doesn't have a car..." [...] So then they both tell me, "Mommy, I'm going to go to school to learn. I don't want to sleep on the street." "Where does he sleep?" "Under that bridge, and there they are, cold, under the rain, that's where they sleep, because he didn't want to learn." "No, Mommy. I'm going to study a lot so that I can work and have my house. I don't want to sleep on the street." I put all that in their heads.

(Interview 2. Lines 285-290)

Sandra does not only tell her daughters they have to study, she also makes the connection between studying and having a better life. Studying is not just something you have to do because it is mandatory, it is something you want to do if you want to have a better life. She influences her children's dispositions toward schooling and education by instilling in them a sense of purpose for being a good student.

In what ways does Sandra seek to participate in her children's schools?

Sandra is always attentive to school events and activities. She has the school's monthly newsletter and fliers posted on the refrigerator and she attends as many events as she can. She teaches her children that school is very important, not only telling them it is important and insisting they to do their school work, but also by going to her children's school regularly, talking to the teachers, and being present in their school life. She shows her children their school is important for her too. In this section I will show some examples of school events and activities in which Sandra has participated in the last two years.

When Kathy was in Pre-K, they used to go to family literacy nights at the school all together as a family (Sandra, Beatriz and the children), offering not only Kathy, but also the little ones, the opportunity to get engaged with reading, and sending them the message that it is an important event.

C: Do you participate in her school? Are there activities for parents?

S: Yes... for story time, I go. It's every month or two. We try to go all together. There is a light dinner. [...] Then they read a story. They sit all in the cafeteria and a teacher reads; and then they ask questions to the children to see if they understood, so they have to go up on the stage to show what they understood. For example, they ask "What did the bear do, did he break this or that?" And the child has to point. Then they do crafts. They bring paper, [or] something. Last time they made a place mat, and for Christmas they made puppets to be hung, they

285

sewed them, they stuffed them, very interesting. I want them to be there. I try to go always.

C: Is it for the whole family?

S: It says there, bring your family. I help one of them, my sister helps the other. We manage. The baby is born, so the baby comes too. I participate in that. That party for families [she points at another flier] we missed it because they got sick, but we signed up. I try to always take her. (Interview 1. Lines 120-124)

Sandra not only goes to the event, but she also pays attention to the kinds of activities the teachers do in these events, for example the kinds of questions they ask the students and how the students respond. Story time is a learning event for everyone.

When Kathy was about to start kindergarten, Sandra went to the school several times to meet the teacher. She was not very excited about talking to her because she found it hard to understand her English. She told me,

S: I actually don't understand the teacher when she speaks. I don't understand everything. Most of the things, I don't understand.

C: And aren't there people who translate there?

S: Oh, yes. That's not a problem. I mean, I am guessing what she's saying and so she says a word that I understand and the next one I didn't understand. The next one I understand. So then I already know what she said, right? I have like an idea. I know what she's talking

about, but I'm talking about, I don't understand her English that well
(Interview 2. Lines 71-73).

English seems to be a struggle in the communication with the teacher, at least in the first interactions, but Sandra acts to prevent it from becoming a true barrier. Instead of shutting down the communication with the teacher, Sandra manages to understand the main idea of what the teacher is saying with the language resources she has. By getting involved and interacting with the teacher, she pushes herself to practice her English.

Sandra attends parent-teacher conferences and interacts informally with people at the schools on a regular basis. As we have seen in part two, for Sandra it is important that families and school personnel know each other. In Kathy's school the teacher, the secretaries, and the parent liaison know who Kathy is and they know she is Kathy's mother.

Sandra also went to PTO meetings in both schools Kathy attended and she signed up to be a volunteer in the classroom in all categories the volunteer forms had. However, she has not been able to be in the classroom, for two main reasons, she was expecting the classroom staff to contact her, which did not happen, and with other two little ones, it has not been easy to have free time to just stop by the school in the mornings. In Kathy's school, she noticed that only few parents attended the meetings and she was very disappointed about it. Sandra would like to participate more, but she feels very limited by the language.

C: So what have been the biggest obstacles to your involvement in school? What's the biggest thing that keeps you from participating more in school?

S: Maybe English. If I knew English well, wow, I would've even voted for president [I think she means she would volunteer to be the president of the PTO]. [Laughs] If I knew a lot about computers or English, I would've... Someone said over there, "Would someone volunteer to be..." I think treasurer, I don't remember what position... A friend of mine over at the school told me, "You, you do it," and I told her, "No, you do it." I told her, "If I knew English very well, and if I knew [how to use computers] of course I would stand up and I would be there, would give good ideas," because [...] Ms. García [the parent liaison at school] was also telling me that, that the PTO doesn't have a lot of money. I mean, they don't have ideas to get money, and I told her, "Well, there needs to be lots of activities," and she was telling me that sometimes you have to go places and ask for donations... [Right]... at the stores, and I said, "Wow." [...] "Hey, I can do that. [Laughs] Or selling donuts." She was giving me ideas, and I told her, "Wow, lots of things can be done," but the problem is with English, right? Because the president of the PTO only speaks English. (Interview 3. Lines 651-652).

Sandra thinks parent participation in school is very important. For her, the school is a special space to foster community, for parents to get to know each other, be informed of what is going on in the school, and work together for everybody's benefit. That is how it used to be back in Peru. She told me,

S: Oh, over there it's better. [Laughs] [C: Is it?] Yes, over there we [...] are more united. I mean, they always choose a board. I mean, they choose it the same way they do here. Over here [...] I've gone to all the meetings with the exception of two, I think, or one [...], and I was listening, we've had an interpreter, and sometimes we don't, but we've been there. For example, what I didn't like, and I told them there, I raised my hand and I told them, "But how come?" They selected again the board for next year, for the upcoming year, and they, the candidates were not there. So I told them, "How come? Why isn't that man here?" "Well, he couldn't make it. We don't know why." So that's... out! I mean, we can't select him if we don't see him up there. He has to be present, I think, right? And, in Peru it is different, you know. In Peru the board is always there. The board is in contact with everybody, with all the parents. [If] there's a meeting we are always informed of what's going on.

C: Did your mom participate in the school? Did she always go to the meetings?

S: It was my Godmother... [...] But yes, I mean, she'd always go to the meetings. Beatriz went too. Beatriz went to her son's meetings.

(Interview 3. Lines 606-613)

Sandra brings a different experience from her home country. As part of her embodied capital, or her funds of knowledge, she sees parent participation in schools in the U.S. as very different from the way it was in Peru. For her, parent participation in school is not so much an individual act, but it has more of a community spirit; it is a way to stay in contact with other parents in addition to knowing what is going on in the school.

S: [In Kathy's school] there are meetings where there are five people. That's unfair. [...] That's wrong, because like I say, for example, Kathy has a friend in her classroom, right? The mom never goes to the meetings, and she's at home. That's where she is. [...] I know who is in my neighborhood from [the school], more or less, from Kathy's class, and we talk. So I told her, "Hey, there's a meeting on Tuesday. Let's go all together in just one car." So I take all of them in my car. That's how we do it, but I have invited this lady several times and she hasn't gone. The day when they had the International Food Night, she signed up to take some food. She was late, very late! When we were all leaving. "Is it over?" "It's over," I said. [...] And I've told her, "It's very important for you to attend the meetings, because you also have

to sign and be present for your daughter, right? [Show] you're there," but there are a lot of people who don't go.

C: But why do you think other parents don't go?

S: Because they say... they don't care. At the bus stop [I asked another mom] "Are you going to go to the meeting?" "Oh, I don't know... I'll go if I have the time." "But what do you do? Do you work?" "No," she said; "but it's really cold" and I don't know what else. She's not interested. [...] I think it's important, right? Sometimes I can't go to Lucía's meetings. Sometimes I have to divide myself. I go here; I go there. Very rarely I force my husband to go to Kathy's meetings because he complains; he doesn't want to go. "What is that meeting?" [And I tell him] "That's the way it is, and don't complain, because the other one is next. [Laughter] The little boy."

(Interview 3. Lines 620-626)

Once more, through the comparison between Sandra's approach to participation and other mothers' attitudes, as described by Sandra, we have direct access to Sandra's thoughts and values. In this excerpt first Sandra showed disapproval of parents who do not participate and do not seem to have a good reason for it. Then, she clearly articulated how she engages in the PTO meetings and other school events and how important she thinks it is to participate in these events. In her efforts to recruit parents to attend the PTO meeting or International Food Night, Sandra participates in school events even when she is not at the school. Sandra's

approach to invite other mothers to go all together in one car and to talk to those who do not go to convince them of the importance of participating illustrates how she conceives parent participation, based on her funds of knowledge.

In what ways does Sandra seek to influence what her children do in their time outside of school?

As Bonal et al. (2010) suggest, what students do in their leisure time has an important impact on children's performance in school. Because Sandra's children are still very young, what they do outside of school hours is mainly Sandra's decision. In this section I will report how Sandra spends time with her children outside of school doing activities that support her children's academic development, and how she gets around the obstacles she encounters to offer her children the best extra-curricular activities she can.

Doing School Work at Home

Homework is taken very seriously at Sandra's house. Sandra's children know that they have to do their homework every day, that they have to give her all the papers and forms that come from school in their backpacks, and that they have to show her the work they have done. When Kathy comes back from school every day, Sandra sits down with her to do homework or makes sure Auntie Beatriz does. She knows what the girl is learning at school, and she closely monitors her work.

C: Do you sit down with her to do homework?

S: Either I or her aunt. Somebody sits with her. [...] I can leave her by herself, telling her "do this, write your name", because she has to write her name five times, seven times each day. And she does it. Or sometimes she does [numbers] from one to ten. They have to write the following number, the previous number. (Interview 1. Lines 160-163)

C: So they are doing some math already, though it is very easy now for parents.

S: I am scared. I say, oh my gosh! If now sometimes we don't understand... because everything is in English. So I say what do I do now? (Interview 1. Lines 164-165).

There are some barriers associated with doing homework with children. As illustrated in this quote, English is one of the most salient when she works with Kathy, but it is not the only one Sandra has faced. When she worked as a nanny, she experienced other difficulties when trying to help children with homework and that was a reason why she wanted to be better prepared for the time her children get to higher grades.

C: but why do you think [many parents] don't help [children with homework]?

S: First, the most important, because they don't know the way... how to perform an addition. I've seen that the addition, multiplication, division, it is different, the way they arrange it. I never tried to solve it, but in the time I worked as a nanny... [...] I've seen how it is, I said...

“I can't help you with this. I would have to arrange it in a different way to do it.” But he was not interested in that. “No, no, for me it is this way, it has to be this way.” Well, this way I can't. But the way I do it, is going to yield the same result. But no... Because they were requested to show their work on the side. So then I couldn't help him, I said oh gosh... (Interview 1. Lines 169-174)

In this particular example, she identifies difficulties specific to helping children with mathematics. In different countries the “standard” algorithms look different, and that is a common source of confusion for immigrant parents (Civil and Planas, 2010; Civil, Planas and Quintos, 2005; DeAbreu & Cline, 2005)

Not everything is a hurdle, however, when dealing with homework. In the following example we can see how Sandra's lack of English proficiency is actually turned into a great opportunity for problem solving for Kathy. Because Sandra does not know all the words, they need to figure out how to find the words they need to use and understand them. It is also very powerful how they work together, in true collaboration, and how Sandra shows Kathy ways she uses to overcome the language barrier.

S: ...there are words that she doesn't know, what it is, we don't know how to write it, and I would get the dictionary and look for it. "Let's see, Kathy. OK, over here it says this. OK, copy it." So that's what we'd do. Both of us work on it. Even Kathy tells me, "Mom, wait. Where can I find that word we don't understand? Where, where?" We

would start... We have a lot of dictionaries and things like that, and she starts looking. "How do you write 'pan' [=bread], Mom?" She goes to the kitchen cabinet and looks for the bread, and on the bag it says "bread". So that's how we help... So I help her to know how to solve things, right? And she also looks for it that way. Not so much now because Kathy, lately, she already knows how to write and make her own sentences. [...] I am impressed. She also does math... At school she does everything, but at home, they would only send her that paper that says, "Fill in from 1 to 100." Then "Fill in counting by twos," right? Counting by twos, counting by fives, counting by tens. So that's what she was working on. [...] I've always tried to do it that way. I go, "1, 2, 3, 4... 20, right?" I'm sorry, "10," and over here, "11," over here, "12," "... 20" So that's how she starts seeing that [pattern] [they do it in a square, so 11 is under 1, 12 under 2, and so on]. She tells me, "Oh, OK, Mom." Sometimes she does it wrong, but she does it again [and corrects it]. (Interview 3. Line 207)

Sandra not only sits down with the girls to do the school homework, but she also creates extra work for them, sometimes based on the homework they bring from school, to strengthen their learning and make them repeated until they do it correctly, so she knows they have truly learned it. When I asked her what the children learned at school, she talked about what they did this year in class and how she and Beatriz support that learning from home,

S: Oh, and also at home, Beatriz and I, we always, "Kathy, make a table with 100 numbers." So that's her homework. Otherwise she doesn't play. So she gets started, quickly, very quickly. She does it fast. [...]

S: Oh, Lucía knows [the numbers] from 1 to 10 in school. But at home sometimes she counts a little bit more. We have taught her at home.

C: Does she know how to write them as well?

S: Mmm, no, no. With her they've practiced her name a lot, painting, uh, what else? The circle, the triangle... [...] Shapes, in geometry... And what she did quite a lot was reading. Well, she doesn't read, right? But every Tuesday she had to take a report [a reading log]... She has to read a book every day, and for it, they'd say, for it to be true, [students have to write] the title of the book, how many pages you read and I would have her do those things, right? I would tell her, "OK, count the pages," and she'd count them. Maybe she would skip one... [...] but because we would do it at home. I would require her to do that. So I would write the number and then, who wrote it as well; the author, the title, the pages and how much time we've read. [...] For example, she knows how to read the time, but she always says zero first, right? She says, "Mom, there's a zero, two, three, and a zero." "Really?" I say, "Yes, Mom." We always send her or Kathy to read the

time. "Who can go and see what time it is?" And she goes, so yeah.

(Interview 3. Lines 170-184)

In these examples we can see how by engaging with her children in homework, Sandra develops important habits like finishing homework before going to play. Also, although she completes Lucía's reading log, Sandra requires Lucía to find the information that needs to go in it, so the girl develops ownership of the product. Sandra also engages Lucía in activities that develop mathematics skills, like counting the pages and reading the numbers in the clock. So she is actually integrating reading and math in the children's everyday activities.

Sandra is not the only one who engages in activities that support academic learning at home. Auntie Beatriz also engages with the children in play that involves school-like activities.

S: Sometimes I'm working and Beatriz plays teacher. She tells them, "OK. I'm the teacher. Get out your sheet." For example, in these few days, someone brought her a girl. [...] The mom is from Dominican Republic and her dad too, and they didn't speak Spanish to [the girl]. So Beatriz gets them together and says, [...] "OK, one sheet for you and another one for you. Kathy, you're helping me with translation." She tells Kathy and Kathy translates for the girl, and since at home we have [bilingual flash cards with] a duck, on the front it says, "Duck", and on the back it's in Spanish. So Beatriz says, "I want..." She covers the name and says, "I want you both to write the name of this animal."

So Kathy does it quickly, "Oh, Duck," she writes. Kathy can be wrong in one letter, in some of them, but the girl didn't know how to write, so she would copy Kathy. [...] The girl didn't know how to write [...] and I tell her, "Ask Kathy to spell it for you." So she started to spell. She would remember one word and another one would be like, "How do you write it?" But Kathy tells her, "It's written like this. Look, I'll teach you," and she would give her the little notebook. I mean, she was way behind. (Interview 3. Lines 187-191)

In this excerpt we can see Kathy, not only as a good speller, but also as linguistically proficient in both languages, English and Spanish, and capable of explaining how to spell and write new words to her friend, which is more than just knowing how to write a word. This excerpt also shows how Kathy is positioned by Sandra and Beatriz as a capable and proficient, and the kind of opportunities Kathy has at home to develop skills that support her school work.

In the same way, Auntie Beatriz works uses the flash cards with numbers, S: [Beatriz tells them] "Now, numbers" Same thing with numbers [they have flash cards]. "Number 1. This is the number 1" The shape of the number 1 comes up, but behind it you see how it's written in English. Beatriz teaches them. So Beatriz says, "OK, correct yourselves. I want to see." [...] And Lucía, on the side also, "I also want to take the test," with her paper. So Lucía only has to write the first letter or a little stick, and two sticks on the other one; something

298

like that. She does what she wants, but Beatriz tells her, "OK, you do this," but not with the cards. (Interview 3. Lines 187-197).

Lucía, despite being only three years old, is also positioned as capable of taking the exam like the older girls, and given the opportunity of engaging in school-like activities even before she starts Pre-K.

Auntie Beatriz creates math problems for the girls, in particular for Kathy, that go way beyond Kathy's homework. They are challenging and engaging problems. Sandra tells me,

S: You know what Beatriz does? She tells her, "Kathy. You have 5 cats, and each cat has 2 ears. How many ears are there on 5 cats?"

And Kathy answers it.

C: That's a multiplication kind of problem.

S: Kathy answers it. Same with legs. "If you have 10 cows," she says, "And each cow has one tail. How many tails do you have in total?"

And Kathy answers. [...] Beatriz likes it. For example, I go to work, I'm doing the laundry, and Beatriz is sitting at the table and says, "OK. I want to know, let's see. Each one of you is going to tell me how many ears, how many legs, how many eyes. If you have so many animals, go ahead and count the eyes." She also does that. How many noses... (Interview 3. Lines 229-237)

Auntie Beatriz has a great creativity and intuition for mathematics and exposes the girls to questions that are, on the one hand, appropriate in the way they

are presented as a word problem representing a situation that is familiar to the children and that allows the girls to use different methods to solve (go get actual toy animals and count, draw the situation, count, skip count, etc.) and, on the other hand, are challenging for them, and push them to think outside the box, since these are actually multiplication problems. The girls seem to be up to the challenge and Kathy, in kindergarten, is already developing skills that will support her understanding and learning of multiplication in upper grades.

Mathematics in daily life activities

Besides doing homework and play school, Sandra and Beatriz also incorporates mathematics learning in daily life activities, like cooking.

S: Oh, when we make custard. I have them bring me the eggs. I tell her, "It's eight eggs." So one of them puts in the eggs, counting them, and the other brings me the milk. They help me quite a lot. "How many eggs did you put in?"

C: Do they measure things?

S: When we make a chocolate cake, which has measurements, right? "This is a measuring cup," so I tell them, "Lucía, put in two cups of flour." [...] "Two cups, very good. Does it say two?" "Yes, Mom. It's two." "OK," and we dump it in. "Now, one cup of milk." So she pours the milk. [...] This Sunday they made some things with Beatriz. I was out and came home, and they had made custard, jello, and I don't

know what else. Beatriz told me, "The girls made this." "The girls?" I said. "Yes," she said. [Sometimes they make a mess] "Bring me the eggs," and an egg breaks on its way. [Laughter] "Mom, I broke an egg!" "So how many do you have left?" (Interview 3. Lines 213-224)

Cooking offers a great opportunity of using mathematics in real life and this example shows how the girls are incorporating mathematical skills as part of their embodied capital by participating in this activity. They count, read the numbers in a recipe, measure and even subtract, when the egg broke! Sandra turns every incident into a learning opportunity and lets her children learn from their mistakes. In addition, the girls are, again, positioned as capable participants of the activities they do at home and not just observers.

I want to highlight that incorporated in all these activities that Sandra does with her children to prepare them for school success, there is an important emphasis on developing productive working habits and a great attitude towards learning. In many of the examples already presented, there is always encouragement to do things correctly, no matter how long it takes, and there is a sense that making mistakes is normal, and you just need to do it again until you get it right. That is how you learn. Sandra explicitly tells Kathy,

S: That's what I always tell Kathy, "If you practice and practice, you're going to do it better. If you make a mistake, it's OK. Later on you're not going to make that mistake." (Interview 3. Line 565)

Children's Leisure Time in the Summer

The summer Kathy finished pre-K Sandra decided to enroll her in summer camp so she could socialize with other children and be more independent. As illustrated as part of Sandra's navigational capital, when she wants something for her children, she works hard to find the way to obtain it, and Kathy's summer camp is a great example. Sandra's efforts were not in vain. She describes how Kathy interacted with other children in the summer camp and the results she saw on her as a result of those interactions.

S: The camp where I put her, it helped her be more open, because she expresses herself very well in English. [...] and that does help! [...] And I think that those new words, I think, that she learned them there, yes. She was separated [in a group] with kids her age and one year younger than her, but at the same time, during lunch time, everybody gets together. [...] Each one shows what they know, they do dances, and talk... So I think that that's when she opened up. And it wasn't one teacher that they had there. They had two or three, you know? I feel like that really helps quite a lot, quite a lot. (Interview 2. Lines 118-127)

The following summer Sandra found out there was a \$40 summer camp in a nearby school. Since she was hesitant to go back to the camp Kathy had gone the previous year, because the payment was never made, Sandra visited this new camp. She asked whether they would take children to the swimming pool and on field trips,

as it was the case in the camp Kathy went before, and the answer was no. Although the price was substantially less, Sandra was not convinced about this potential camp. Because she wanted more enriching activities for Kathy, she went back to the previous summer camp.

S: I, a little embarrassed and everything, I went to talk to the director...

Beatriz told me, "Why do you care? Get rid of that embarrassment, because as long as Kathy is in camp, it doesn't matter." That's what Beatriz would tell me, and I would say, "No, I'd better not send her anymore." "I think you should send her," she said. "I think so, I think so," she said. "OK... But I'm going to go talk to them first because I don't like the idea that they'll embarrass Kathy and... No, I'm going to go and if they want to yell at me, and then, if they tell me yes, I'll take Kathy." So it's close, and I went. They accepted Kathy. [...] Beatriz told me, "The girl is going to learn more at camp than she'd do with this girl [the girl who could not spell "duck"]. This girl is behind."

(Interview 3. Line 294)

She went back to the summer camp Kathy went the previous summer and managed to apply for it through some Hispanic organization or institution, rather than through Kathy's insurance, in order to get a discount. Talking to people here and there, she ended up paying \$50/week for a camp that was worth about \$300/week. In that camp, Kathy had the opportunity of going on field trips to museums downtown and to the coast, including sailing on a boat, and trying sports and outdoor activities

she does not have the opportunity to learn with the family, like swimming, archery, and rock climbing. Sandra has a very clear idea of what she wants in terms of education, in the broad sense, for her children, and she does not settle for less unless it is really the only option. Auntie Beatriz, as shown here, is a key instrumental piece of the puzzle. She is clearly Sandra's partner in the education of the children, illustrating how familial capital works in real life. With Auntie Beatriz's support Sandra was able to put into action her great tenacity and navigational capital. This example shows how different pieces of the community cultural wealth work together to enable each other in order to make up for the lack of economic resources, allowing Kathy access to rich educational opportunities.

Sandra is convinced that summer camp is a great educational experience for Kathy and does not understand why some other parents who have more resources than her do not make these choices for their children. Talking about a friend she told me,

S: Those who have [only one child] sometimes don't even send them.

I have a friend who has a child, a daughter, and she never sends her anywhere. She says, "No, that's giving your money away to them."

C: Why "giving money away"?

S: Because she says that, "What she's going to do there, she can do it at home. What do you think they do? I can take her to the pool, to the park as well. So why giving them your money? And there are so many children that they don't pay attention to all of them." But I tell her,

304

"But I see that when they get together with other children, they're not shy..." Like they respond faster, I don't know. I have seen a change in Kathy. These last two days, Kathy, you know, on Monday she went to camp, [...] but Kathy was sad, "I don't want to go the camp because my friend came over..." The girl Beatriz was babysitting. "I want to be with her." They'd have a good time. They'd play something for a while. They'd be in the balcony, go for a walk. I would come home and they would eat together. Yes, it was good. [But I told Kathy] "Kathy, all your friends are in a camp." I don't even know if they're in camps, but that's what I told her, "They're all in camps. OK, so what are you going to say? Which camp have you gone to? They're going to ask you." So she told me, "OK, Mom. Take me." I dropped her off. She was sad the first day, right? But there were teachers from last year, from camp. She knows some of the children. Lots of children from last year were there. When she came back, "Kathy, how did it go?" She came back, red! She was [sunburned]! "I'm happy," she said. "Mom, I like my camp. I saw this person. I saw this other..." [...]

And the next day, "Kathy, do you want to go to camp?" "Yes, Mom. We're going to go to the pool. They asked us to take a towel and this and that." "OK..." I was like [makes a gesture pretending she is praying], "Oh my God, Kathy, you're going to be careful, honey! Ohh, you don't know how to swim. Remember that you don't... make sure

305

nobody pushes you down and you sink... Scream! Be next to the teacher. OK, put some sunscreen on," and she says, "Mom, it's OK. I'm going to be careful." She came back [happy] from camp yesterday, and today as well. Today she left very happy. I think they were going somewhere. [...] Tomorrow they're going to... on a boat, on a little boat. She says they're going to [the coast]. I am scared. I am scared.

Even against her own fears, Sandra is offering Kathy the opportunity to have experiences the girl never had before. Sandra understands that those experiences will make Kathy grow and develop in a way other children who do not have these opportunities will not. In fact, in this quote Kathy already shows a great deal of self-confidence and independence.

In addition, during the summer, Sandra and Beatriz keep reading with the children daily. Sandra signed them up for a reading program at the local library where she takes them weekly, and she is planning to incorporate some other academic activities like mathematics after three weeks the school year ended. She also is trying to provide opportunities for physical activities, like going to the swimming pool. She wants her children to learn how to swim as young as possible, since she never learned.

S: Yes, starting July, we want to start with a little math, a little... Reading, we're doing that. Every night Kathy has to read something. So I signed her up at the library, where they read, five books a month and they give them a prize, so she takes her books. She has to return

the books. They all have little cards. [...] On Wednesday night they read, 7:00, 7:30, they read a story. I take the girls there. [...] I mean, I take them when I can. For example, the pool closes at 7:00. I try to get them into the water [first and then go to the library]. This summer I have a plan to sign them up for swimming; all year if possible.

(Interview 3. Lines 253-260)

All these activities contribute to have her children engaged in academics in a relaxed environment, so they won't lose what they have learned during the school year. She even incorporated physical activities to complement the more intellectual ones, contributing to the children's balanced development. Sandra wants her children to learn how to swim so she can let them go in the swimming pool by themselves and not worry.

They also do some low-budget fun recreational activities like picnics at different parks in the area. Some of the parks have amenities like train rides, or a farm with animals that the children can visit, or just nice playgrounds.

In this part three of Sandra and Beatriz's case, I have presented how the way Sandra values education plays out in her decisions and actions. In the case of Sandra, the most salient limitations she faces in her involvement, although not the only ones, are the language barrier and the financial restrictions. However, she has other funds of knowledge or sources of capital she draws on to provide her children with services and rich experiences to grow and develop in many different areas. Auntie Beatriz is

an incredible source of familial capital for Sandra. She not only helps her with watching the children, but she is a true partner in Sandra's children's education in thinking about what the best options are and helping Sandra make good decisions. In terms of her children's education, her incredible aspirational capital, together with social and navigational capital, is what guides her in her journey to not only send her children to college, but also prepare them for life.

Chapter 7: Discussion and Implications

The goal of this study was to contribute to a better understanding of Latino immigrant parents' involvement in their children's education in general and more specifically in mathematics. To that end I recruited three Latino immigrant parents for the study and worked with them for over a year and a half. As part of the study we worked on mathematics, we discussed educational issues in general, and I also interviewed them in depth about their history and life experiences. Based on the conditions of educability, I tried to understand what the constraints and the possibilities are for these families to support their children's educational success. I analyzed their resources and the factors that hinder their progress from a funds of knowledge and Bourdieuean perspectives, and I also looked at how they use their resources to support their children's education in terms of influencing their children's dispositions toward education, participating in their children's schools, and promoting activities that align with school practices in the time children are not in school. As a person who has worked directly with immigrant parents in the schools, I believe that understanding families' efforts to assist their children succeed academically is particularly important for school personnel in order to support and increase parental involvement, and possibly, student achievement.

In this chapter I want to provide a more integrated view of the conditions of educability by looking at the interconnections among the three dimensions involved

in the framework, and the opportunities parents create for their children to learn mathematics from an educability point of view. I will also reflect on how the age of the children in the families study affects the conditions of educability. Then, I will discuss the sample from a funds of knowledge and capital perspectives. Finally, I go back to my positionality reflecting on what I have learned from engaging in the study, both personally and as a parent liaison between families and schools.

Integrated View of Conditions of Educability

In this study I analyzed two cases of Latino immigrant families in their efforts to support their children's educational success. For practical purposes, I looked at parents' work with the students along the three dimensions identified in the framework of educability separately. However, the three dimensions are strongly interconnected. In the next section I give an overview of how parents' efforts to influence their children's dispositions towards education, to participate in school activities, and to influence what their children do in their time outside of school, are interrelated and support each other to create better conditions for their children to succeed in school.

Interconnectedness of the Three Dimensions of the Educability Framework

The fact that the participants in the study are in constant communication with their children's schools and stay abreast of what their children are learning greatly influences their ability to help them with their homework at home. From the literature, as well as from my experiences working with Latino parents, I know that

many times Latino parents are willing to help their children with homework, but they often face difficulties with the language or with the content, in this case mathematics, or how it is taught in the U.S. The parents in this study attend parent-teacher conferences, know the topics their children need to learn and when they will learn them, and send notes to the teacher when something is not clear in the homework. This ongoing communication between home and school makes it possible for them to support their children not only by making sure they do their homework, but by engaging with them in the academic work as well. Because they know what their children are doing in school, they are also able to incorporate what they are learning in activities outside of school, like counting, reading, playing with flash cards, etc., in a purposeful way. Also, by sitting with them to work on academics they send an important message to the children about the importance of studying, and they have opportunities to make connections for their children between doing their homework now and later going to college, therefore, influencing their dispositions toward education. The way the parents (plus an aunt) in this study work to support their children to succeed in education along the three dimensions at the same time, is not typical of the parents in their communities, as reported by the participants. They distance themselves from other parents who do not attend school events, who do not spend time reading and doing homework with their children, or who do not send their children to participate in institutionalized activities over the summer despite they have the means to do so. These two cases illustrate how it is not the work they do along one of the dimensions that makes the difference, but it is the interaction

between the three dimensions of the educability framework that creates strong conditions for children to succeed in school.

Creating Opportunities to Learn Mathematics

In terms of creating opportunities for the children to learn mathematics, we have seen how the participants work on mathematics homework with their children and closely follow what they are doing in school. Moreover, they incorporate what the children are learning in school in mathematical activities outside of school, like measuring (with different units, when cooking), counting (pages they read, eyes in a number of animals), or telling the time by reading the numbers in the clock, among others. These two dimensions clearly work jointly to create conditions for students to learn mathematics.

What was not as strongly present in the cases were ways in which parents sought to influence students' dispositions towards mathematics. I found that the participants' use of mathematics was almost limited to whole number arithmetic, except maybe when Abraham took the electricity course, which he did not finish. Beyond the four arithmetic operations, the participants for example reported having difficulties with proportional reasoning like percentage and scales. Although Anahí knows that mathematical knowledge is related to space science and technology development, she does not report to make that connection when talking to her children. Beyond arithmetic, mathematics does not seem to be part of these families' everyday lives and that may be the reason why the importance of learning

mathematics is communicated as part of the learning that you need to go to college, but not in concrete ways related to the value of learning mathematics in particular, for instance for their children's future professional life. With the important push for STEM education in the last few years and the demand for highly qualified workers in these fields, I think it would be important for schools to develop ways to educate parents and the community on the importance of learning mathematics for the children's future in much more concrete ways.

Influence of Children's age in the Conditions of Educability

One factor that I think influenced the way parents work to create conditions of educability is the age of their children. Although the study was not designed to recruit families with young children, the fact that the oldest children in both families were in kindergarten influenced how parents engaged with them with regard to educational issues and leisure time. In particular, what children did in the time they were not in school was highly regulated by their parents. While it is easier to monitor young children than older children's time, the way these families structured what their children did in their leisure time, was still very effective in terms of developing positive conditions of educability. In the case of older children who are allowed to spend time at home by themselves or go out on their own, there are many more options and risks depending on the choices they make, and therefore the ways parents supervise older children's leisure time is critical for their conditions of educability. That said, it is important to point out that both mothers in the study talked about

raising independent children and both described ways in which they envision how they will monitor their children's leisure time in the future. For example, Anahí talks about letting her children go to a party, but coming back at an agreed time, or going to the mall, but not spending more than a certain amount of money. Sandra's efforts to reach out to other families and get to know each other is also a way to know where and with whom her children will be when they will be old enough to spend more time at friends' homes or even stay for sleep-overs. These type of parenting will likely guarantee that even when the children are older the way they spend their leisure time will not compromise their positive conditions of educability.

Also, the fact that the children are young makes it easier to engage with them in their academic work in general and in particular in mathematics. As the children grow older and the academic content becomes more and more complex, these parents may face more challenges to engage with their children in the actual academic work. Their regular communication with schools will become even more important to make sure their children are meeting the standards and are making progress as expected. In case their children face difficulties in the future that they cannot personally address, they will have to draw on their social and navigational capital to find extra resources. In fact, participating in this study is one way they are preparing for the future by better understanding what their children are learning in school.

Regarding influencing students' dispositions toward education, having young children can impact the conditions of educability in different ways. Although young children tend to be more curious and therefore may be easier to engage in academic

learning than older children, the connection between what they are doing in school and the value of education for their future is more distant. In the analyses of the cases, there is evidence of how these parents are working to engage their children in what they are currently doing in school, developing their curiosity, and at the same time conveying to their young children a sense of purpose for learning and doing well in school that is strongly connected to the children's opportunities to attend college and have a better life in the future. Children who identify with school values and understand the instrumental value of education as the key to a better life, have a higher probability of success in school than children who do not.

Discussion of the Sample in Terms of Funds of Knowledge and Capital

My personal goal on doing this study was to gain insights that could inform my future endeavors to support parents, especially Latino immigrant parents, in their efforts to help their children learn mathematics and succeed in school. To do so, I purposely looked for parents that were interested in learning mathematics, and therefore Abraham, Anahí, Sandra, and indirectly Beatriz, self-selected into the study. The very nature of this selection process resulted in a sample that may not be considered representative of the Latino parent population in general in the sense that of all the parents I talked to and even interviewed, Sandra, Abraham and Anahí were the only ones who participated in the mathematics workshops. Civil and Bernier (2006) ran into the same problem in their work with Latina mothers in their MAPPS project. They

acknowledge that [their] sampling bias was a problem with the overall project, as it largely attracted parents who already had a personal connection to the school system. [...] It means that these parents cannot be taken as representative for all parents in the school district. [...] Some of the mothers in this core group became part of the group because of a specific interest and inclination toward mathematics; others [...] were already very involved in many school related functions, and for them this project was one more way to maintain their engagement (p.316).

In the same way, Abraham, Anahí and Sandra have particular interests, experiences, and capital that enabled them to participate in this project, but that are not characteristic of the majority of Latino immigrant parents in their school district. For example, they conceive supporting their children academically as part of parenting. Also, because they finished high school, they draw on their experiences learning mathematics to understand their children's learning process. Likewise, the fact that they started college but did not finish, gives them ideas of what they need to do to help their children get to college and also finish it. I will develop these ideas in the next sections.

By suggesting that this study may contribute to better understandings of Latino immigrant families' involvement in their children's education I am not claiming that the funds of knowledge of the families in this study and what they do to support their children's educational success are representative of all Latino immigrant

families. On the contrary, I recognize that these families are special in many ways. They make education a priority at home, and they act on this value by spending effort and time learning content and strategies to help their children academically, including participating in this project. Although they have some special funds of knowledge, I believe their stories and experiences are in many ways similar to other Latino immigrant families' experiences and can inform future work with a broader range of Latino families as educators seek to build on the funds of knowledge that families bring to their work in supporting their children with academics.

In the following sections I will discuss how the participants' funds of knowledge have influenced their possibilities to participate in this study.

Beyond Aspirational Capital

According to Yosso (2005), Latinos and other Communities of Color are characterized by their aspirational capital, which allows them and their children “to dream of possibilities beyond their present circumstances, often without the objective means to attain those goals” (p. 78). In my own experiences working with Latino parents and even in the process of recruiting participants for this project, I talked to many parents who expressed interest in learning about ways to support their children's mathematics education in the hopes of generating better educational opportunities for their children. Yet, when they had to commit to meeting with me to work on mathematics, only Abraham, Anahí and Sandra actually participated. I claim that these parents have particular experiences, funds of knowledge, and capital that

allowed them to transform their aspirational capital into concrete opportunities for their children.

First, Abraham, Anahí and Sandra are parents who were already involved in the education of their children, and this project appeared to them as another opportunity to furthering their commitment to their children's education. Second, they all finished high school. Therefore, they studied mathematics, at least up to a level of algebra, and even beyond. Although they may not remember most of what they learned in school, the idea of working on mathematics meant for them that they could recover something they once owned, rather than to venture into an unknown world. Third, the three participants have all had some college experience, so they have ideas of what going to college is like. Moreover, the fact that they did not get an exchangeable credential despite having been close to obtaining it, affords them a better understanding of why they did not get it and what their life could have been had they obtained a college degree. Fourth, both Sandra and Anahí have experience working as nannies for affluent families who dedicate a great deal of resources to educate their children and they have seen firsthand what these families do to support their children's education and in what ways education pays back.

As with most parents, the majority of Latino parents wish to send their children to college, but for many of them this is merely a dream, out of their reach. Abraham, Anahí, and Sandra, not only possess aspirational capital, but also other experiences, funds of knowledge, and capital that back their dreams of sending their children to college with the knowledge of concrete steps to reach that goal.

Involvement in Academic Learning as an Essential Part of Parenting

As presented in the case analyses, making involvement in their children's academic education an essential part of parenting is a common characteristic among the participants in this study. However, this does not seem to be representative of Latino parents as a group. Guadalupe Valdés (1996)

explained that Mexican parents did not see their roles as involving the teaching of school subjects. In their own school experiences, this had been the province of the teacher. Mothers, on the other hand, had been responsible for the moral upbringing of their children. Parent teaching involved guiding youngsters, molding them with *consejos* or advice, and supervising them carefully (as cited in Hernandez 2010, p. 22)

Although none of the participants in this study were Mexican, in my own experiences working with other Latino parents in schools, I have often met parents who felt overwhelmed by school expectations that include parents working with their children on academics at home. On the contrary, the participants in this study have a clear understanding of the difference that engaging with their children at home on school work can make in their success in school. Moreover, Abraham, Anahí and Sandra claim that schools cannot do all the work, and that parents have to work on supporting the work children do at school from home. In the two cases I presented in this study, the participants, including Auntie Beatriz, not only instill in their children responsibility and strong work ethics by regularly sitting with them to do homework,

but they also engage in the actual academic work with them and even extend their learning opportunities beyond what is required in the homework.

We can say that in both cases the work that families do to support school work at home is a team effort. In the case of Abraham and Anahí, it is not only the two of them who work as a team to support their children's education, but they also count on Anahí's mother, who supports them in supporting their children. In the case of Sandra, Beatriz is not just a supporter, but a true partner in the education of her children. In both cases, children's education is a family matter.

In addition, from the point of view of educability we have seen how the participants work in the three dimensions that influence the conditions of educability of the children.

Experiences Learning Mathematics

The three main participants in this study finished high school in their countries, and Anahí even has a high school diploma from the U.S. That means that they studied mathematics at least up to a level of algebra. All of them reported that they liked mathematics when they were in school and that they had positive experiences learning it. In the three cases, however, the positive experiences were not associated with extreme facility or proficiency with mathematics. The three participants reported to have faced difficulties with mathematics at some point in time, but with help of classmates, teachers, or tutors, and with a great deal of practice, they were able to overcome those problems. Therefore, they not only have seen the

content before, but they have also experienced the struggle over some concepts and understand it as part of the process of learning mathematics. So they know that even if a mathematics problem may seem difficult at the outset that does not mean they will be incapable of solving it. The fact that they have learned the content previously gives them confidence on their ability to learn it again, even if it takes time and practice. All of these funds of knowledge are critical in these parents envisioning themselves learning mathematics, and therefore engaging in this project.

Abraham, Anahí and Sandra reported having two main motivators to participate in this study: to better understand the school system in the U.S. and learn new ways to support their children in mathematics, and to learn mathematics for their personal advancement. The fact that the participants first chose to engage in reviewing and reconnecting with content they had seen before has important implications in terms of recruiting parents who have not finished high school. The participants in the study engaged in the project because their experiences allowed them to see themselves as students of mathematics. This may not be the case for parents who did not finish high school or who had negative experiences with mathematics.

Although Abraham, Anahí, and Sandra may have had more experience with mathematics than the average parent in the Latino immigrant community, the reality is that what they found most interesting of the work we did in the mathematics workshops was the activities related to the work their children are doing in school. For that kind of work, however, they did not need any math knowledge they may

have learned in school beyond whole number arithmetic. I believe the activities we did and the ideas we discussed in the mathematics workshops in relation to the work children are doing in lower elementary school were accessible to parents with a much wider range of experiences with mathematics.

As much as I feel that anyone can learn mathematics if they have the will, math is still a barrier for a lot of parents. Although most parents are interested in supporting their children in school, for many Latino (and other) parents, mathematics may evoke negative experiences in school and images of failure. From the point of view of someone who has worked in the schools, it is of particular importance to engage parents who do not feel comfortable with mathematics because they may feel less capable of assisting their children, and they may even inadvertently send negative messages about mathematics to the students. So focusing the outreach efforts to involve parents on supporting their children to be successful in school may seem less intimidating for some parents than proposing to work on mathematics. More work is needed to design programs and outreach efforts in school that target parents who may be willing to get involved in their children's education, but have negative dispositions toward mathematics.

Understanding the Value of Going to College

Abraham, Anahí, and Sandra, all have some experiences of going to college, which constitute an important capital for them. These experiences, however, are not capital in the sense of institutional capital as described by Bourdieu (2007), but in the

funds of knowledge sense. That is, their college experiences did not translate into socially valued educational credentials, but they are experiences that inform what the participants do, in particular how they look at the educational future of their children. The three of them were much closer to getting college degrees than many other Latino parents, so for them that possibility is much more concrete. They know what failed in their cases and that is what motivates them to guide their children's education. For example, both Sandra and Abraham regret they did not persevere enough. However, they did not have parental support at the college level. They both see in the education of their children an opportunity to "remedy" what they did not accomplish.

Before having their children, both Anahí and Sandra made enough money to buy condos and make a living. In the interviews, both reported they worked long hours as housekeeper and nanny for wealthy families and, since they were making money, they did not push themselves to go back to college. Now that they have children and cannot work so many hours, it is hard for them to make the same money they used to make. At the same time they did not get a degree while working, they saw how the families they worked for invested in the education of their children and how that investment is paying back in the form of job opportunities for the children they cared for. They also use what they learned from these experiences to look at their children's future. They understand that everything they do to make sure their children do well in school is preparing them for college from the very beginning. For their children to be good in mathematics is a step in that direction.

Cycle of reproduction of capital

Although the idea of working with Latino parents on mathematics always had the underlying motivation of empowering those who have been underserved the most, the reality is that within the Latino immigrant community, the participants in this study are better off and have higher education than the most. In a sense, this is yet another example of the reproduction of capital. If we think about the knowledge parents acquired in the mathematics workshops as capital, only those parents with more capital were able to get engaged in the project and acquire even more capital. Because I think of mathematics as capital, I thought that by offering the opportunity to work on mathematics and to discuss educational issues I could, in a way, make the rules of power explicit, and therefore make a tool that is powerful in this society available to people who do not usually have access to it. But it is clear that there is still a tremendous gap that needs to be bridged in order for Latinos to be empowered through mathematics. Because the cycle of reproduction of capital is so pervasive, I believe that those of us who are highly educated, have economic advantages, and wield certain positions of power in society have a major responsibility to do *whatever is needed to find ways* to reach out to the most disadvantaged, to share our knowledge and learn about theirs in order to bridge the gap.

In general, the endeavor of empowering the most disenfranchised is a complex one. As the participants clearly stated, for parents to be able to profit from activities like those proposed in this study, they need to at least have an interest to participate. However, their interest and willingness to participate is, in turn, strongly related to

their capital. For someone to be willing to invest time and effort in a particular activity s/he has to understand the benefit of it. This is particularly difficult for goals like preparing one's children for college, when the concrete benefits will not be seen until the end of the process, but the work that needs to be done to reach the goal has to be done throughout the process. Therefore, it is not surprising that the participants in this study, who understand the benefits of participating in this project, have more capital than the average parents in the Latino immigrant community. As it has been discussed at length in the analysis of the cases and also in this chapter, their capital and funds of knowledge is what allows them to understand the value of education and see their participation in this project as an opportunity to prepare for supporting their children's education.

What have I learned? Back to Positionality

I worked with the two families in the study for almost two years and the experience has been enriching and rewarding. These families have showed me what parent involvement in Latino immigrant families can look like in very concrete ways. The work I have done with them as part of this study has informed me in different ways and made me reflect about my different identities and my roles in different positions, but in particular about the possibilities and importance of the work parent liaisons do in schools as the link between schools and families.

On a personal level, it was empowering to talk with other immigrant parents about experiences regarding parenting and navigating the school system. We talked about the differences in the school system and school expectations in relation to

parental involvement in our countries compared with the U.S. We shared information and asked questions about services and resources we have used and educational programs in the school system. This aspect of our dialogue connected me with my participants through our shared experiences as immigrant parents.

Through these conversations I also learned about the participants' financial concerns with regard to the educational future of their children. As a middle class mother, I have gained a deeper consciousness about the privileges my family, and in particular my children, have in terms of their education. In our house, the question of whether our children will be able to go to college simply does not exist. Although we may have some financial concerns, the possibility of our children going to college is never at stake. The parents in this study, including Auntie Beatriz who sends money for her son to finish college in Peru, are thinking, planning, and working to make it possible for their children to attend college in the future in ways that deserve my deepest respect and admiration.

A critical perspective like Community Cultural Wealth was instrumental in helping me "see" families' strengths and forms of capital that are usually not taken into account and valued in society. As part of my journey of racial and cultural awareness, throughout the study I experienced an important shift in the way I saw and analyzed what families do to support their children's education and development. For example, at the beginning of the study I identified certain ideas the participants had and ways they acted as important to develop positive conditions of educability for their children, but the way I presented them as important was based on their

resemblance to middle-class practices. As I worked on revising earlier versions of the cases to create more elaborated ones, comments like “access to a psychological therapy is a privilege that working class families very seldom enjoy,” although it may be true, it struck me as coming from a deficit perspective of working-class families. In that statement, the value of Sandra taking Kathy to a psychologist was based on the implicit comparison to what middle-class families do and highlighted my own deficit views of working-class families. Through the work I did in this study, my perspective shifted to understand that the value of Sandra getting services for her daughter lays in the way she uses her capital to empower her children and not in whether or not she does what middle-class parents do. In the final version of the case the sentence reads, “Sandra’s navigational capital resulted in getting the services her child needed, which otherwise she would not have been able to afford,” highlighting how she overcomes lack of economic capital using other types of capital she possesses to obtain for her child the services she needs. I feel this shift in perspective is part of the “process of racial and cultural awareness, consciousness, and positionality” (Milner, 2007, p. 388) which, as I discussed in the preface of this study, I started not long ago. I believe I still have a long way to go in this journey, as I continue to develop my consciousness about my white middle-class way of seeing the reality and my position with respect to working-class parents of color and other underrepresented groups. In addition, even identifying tensions and reflecting about my positionality with respect to my participants, how to represent them in my writing in ways that honor their values, points of views, and actions while still recognizing

their plights, continues to be challenging. I know I strongly relate to the parents in this study not only through our experiences as immigrants, but also in the way they value education and mathematics, so my relationship with them does not challenge my positionality as a white middle-class woman and highly educated person, but on the contrary, we embrace our relationship as a resource. They appreciate learning mathematics with me and gaining knowledge about educational programs, the new curriculum, and how standardized testing works. Likewise, I learned about resources in the school system they obtained for their children that I did not know about, and I gained a much deeper understanding of the funds of knowledge and types of capital they have as families and how they use these resources. I am conscious that other parents, especially those who choose not to participate in schools, may present challenges that are more difficult to overcome in terms of understanding their choices from my positionality as a white middle-class highly educated person. I hope to continue to increase my awareness and consciousness as I continue to work and develop rapport with parents and families that are different from me (in terms of race, class, level of education, etc.). As I gain a deeper understanding of their decisions and actions, I will also gain more understanding in how to improve the way I portray them within their life circumstances.

In my role as a parent liaison, this study has made me reflect on many different aspects of home-school relationships, and think about new possibilities I would like to explore if I had a chance to work again in that capacity or in collaboration with someone in that role.

While I am cognizant that not all families in schools may be as involved as the families who participated in my study, in any school we can find families that make education a priority. These families are a great asset for schools and I believe that identifying them and tapping into their passion and energy in strategic ways could be beneficial for the school community. Creating spaces in schools in which parents can discuss educational issues, share ideas with other parents, and empower each other by working together to push our Latino students to higher levels of education, in particular in the STEM areas, has the potential to transform the school community, especially if there are parents in the group who make education a priority and can share concrete ideas on how they make it a reality. This project has renewed my conviction to the importance of creating a strong sense of community in the schools, an environment in which parents, especially immigrants, feel comfortable participating, sharing resources, and finding support and assistance with their concerns. I believe schools are spaces that have special conditions for integration of immigrant families into the American culture and at the same time for the development of a network of support among families who have common experiences as immigrants. Moreover, from a critical perspective, schools can be vital spaces for parent and family empowerment through changing the rules of power. However, for that to happen it is important to find ways to reach out to those families who are not already actively participating in schools and to understand their reasons for not doing so.

As opposed to a wealth of literature on Latino parent involvement, the participants in this study did not report any episodes in which they felt marginalized or discriminated in the school, as they felt at work due to their immigration status. This does not mean discrimination is not present in schools. The parents who self-selected in this study are parents who feel comfortable in schools and make efforts to participate and understand the school system. From a critical perspective, however, it is particularly important to understand the experiences of parents who do not feel comfortable in school settings. As researchers, I think it is not only important, but it is our duty to find out the reasons why many Latino parents are not involved in schools. More research is needed in this area in order to find ways to engage parents who do not typically participate in schools and change schools' culture to become more inclusive and supportive of all types of parents' involvement. However, this kind of research requires, from my point of view, that a relationship of trust be established with these parents. This study, for example would not have been possible if the parents in the study did not have an established a relationship with me. They allowed me in their homes because they knew me as a person who worked in the schools and they trusted me. Parent liaisons working in collaboration with researchers can be instrumental in reaching out to families and encourage them to share their experiences and points of view about how to create more inclusive environments in schools.

In terms of assisting parents in supporting their children's academic work, I think a series of workshops for parents and caregivers could be very beneficial for

immigrant families. Based on the work I did with the participants for this project, there are several ideas that I think can make workshops more accessible and appealing to a wider range of parents.

First of all, I feel there is a need to create more awareness about the importance for the new generation to turn their attention to STEM fields (Moses, 2001). We need to work with parents on helping them understand in what ways mathematics is used in many different jobs and careers and the consequences for their children's future in case they fail to learn advanced mathematics. Not only the jobs of the future are linked to students' success in STEM areas, but also Latinos, as minority students, can benefit from scholarships and other programs, which are part of current momentous initiatives aimed at diversifying the work force in STEM fields.

Another important improvement would be to offer mathematics workshops (or another subject) for families as part of school parental involvement programs. Having the possibility of working with parents within a school setting has the potential to make the connections between the work in the mathematics workshops and what the children are doing in school even more tangible. Housing these programs for parents in schools would make these initiatives more visible and connected to school work, and therefore has the potential to attract more parents. It also holds the promise to foster more teacher involvement in these programs by having teachers propose activities for parents to work on, which may benefit the children and directly support classroom instruction. This way parents can learn how

to support their children on what they are doing in class, developing self-confidence and seeing the purpose of participating in these types of programs more clearly.

Regarding academic content, the fact that all children in the families who participated in this study were very young made it easier for the parents and caregiver to support them in mathematics. However, for families with older children, it would be important to develop mathematical funds of knowledge that parents can use to support their children when the academic content they are studying becomes more advanced. I think a focus on developing a deep understanding of proportional reasoning could be particularly empowering for two reasons. As the participants in this study shared, they encounter many situations in their lives that require proportional reasoning, like cooking, calculating percentages, or reading footprints, that on the one hand are challenging for them, and on the other hand are problems based on their funds of knowledge. So a program aimed at developing proportional reasoning can build on mathematical knowledge and experiences families already have and at the same time advance their content knowledge in important ways.

In addition, my experience working with parents in schools and in this project indicates that most parents are motivated to support their children in their education, but may feel intimidated by the idea of doing mathematics. Therefore, when planning recruiting efforts the focus should be on supporting the children, rather than on learning mathematics (or other academic knowledge), as it was in this study. The most important difference that the funds of knowledge of the participants made, in comparison with other parents, was in their ability to understand the potential benefits

of participating in activities that help them to be better prepared in supporting their children, and therefore their willingness to enroll in the study. If schools create programs and outreach efforts to attract a more diverse (in terms of funds of knowledge) group of parents, I believe that many more parents can benefit from participating in activities like those done in this study, since they did not require a high level of education or mathematics. Focusing on what children are doing in the classroom has also great potential to engage a more diverse group of parents since they will be able to practice with their children what they learned in the workshops. Moreover, creating homework clubs where parents can attend with their children to practice the skills they learned, while having school staff to support them in their work with students could be a very positive experience not only in terms of improving academic content but also in developing a sense of community in schools. Programs like this can also help mitigate teachers' deficit views of minority parents.

Although not all Latino parents have a high school diploma or college experience like the parents in this study, other funds of knowledge like social, navigational, and resistant capital may be similar to those of the participants and therefore schools can draw on that community cultural wealth to create programs for families, taking into account how limitations associated with financial hardship and immigration status, among other things, affect Latino families. It is my hope that through the cases I developed, this study can contribute to a better understanding of Latino immigrant families' funds of knowledge and capital and how they use them to support their children to succeed in school and learn mathematics in the context of

their lives. In particular, I hope a better understanding of Latino immigrant parents' experiences, resources, and limitations, can contribute to contest pervasive deficit views of Latino families and create programs in the schools particularly designed with Latino immigrant families in mind; programs that may progressively change the culture in the schools to become more inclusive and increase Latino parental involvement in their children's education.

Appendices

Appendix A: Parent Information Sheet (English and Spanish)

First and Last Name: _____

Country of Origin: _____

How long have you been living in the Estados Unidos? _____

What do you do for a living? _____

Children in the family. Enter all children living in the household, including those under the age of 5.

Name of the child	Date of Birth	Grade	School	Problems with math?

Languages. In each box indicate "YES", "NO" or "SO-SO"

Language	Understanding	Speaking	Reading	Writing
Spanish				
English				
Other:				

Where did you go to school? _____

What is the highest grade you finished? _____

Math courses you have completed (mark with an X all that apply)

	Never seen it	I studied it, but I forgot	I studied it and I remember some	I studied it and I remember a lot
Arithmetic (addition, subtraction, multiplication, división)				
Decimals				
Fractions				
Percents				
Geometry (shapes, angles, area, perimeter)				
Statistics				
Algebra (equations, variables, functions)				
Trigonometry				
Accounting				
Calculus				

Why are you interested in learning mathemtics? (mark all that apply)

<input type="checkbox"/>	Because I like mathematics
<input type="checkbox"/>	Because I would like to get the GED
<input type="checkbox"/>	Because I want to be able to help my children with school work
<input type="checkbox"/>	Because I think that if I know more math I can get a better job

Other reason (or any other comment you want to make) _____

Would you be interested in chatting with me and discuss ideas to créate a math program for parents? _____

How can I contact you? _____

Ficha de información de los padres

Nombre y Apellido(s): _____

País de origen: _____

¿Hace cuánto tiempo que vive en los Estados Unidos? _____

¿A qué se dedica? _____

Niños en la familia. Mencione los niños que viven con usted, incluyendo los menores de 5 años.

Nombre del niño/a	Fecha de nacimiento	Grado	Escuela	¿Tiene problemas en matemática?

Idiomas. En cada casilla indique "SI", "NO" o "Más o Menos"

Idioma	Lo entiendo	Lo hablo	Lo leo	Lo escribo
Español				
Inglés				
Otro:				

¿Dónde asistió a la escuela? _____

¿Hasta qué grado cursó? _____

Cursos de matemática que haya completado (marque con una X todos lo que apliquen)

	Nunca lo vi	Estudié pero me olvide todo	Estudié y me acuerdo algo	Estudié y me acuerdo mucho
Aritmética (suma, resta, multiplicación y división)				
Números decimales				
Fracciones/Quebrados				
Porcentajes				
Geometría (figuras, ángulos, áreas, perímetros)				
Estadística				
Álgebra (ecuaciones, variables, funciones)				
Trigonometría				
Contabilidad				
Cálculo				

¿Por qué está interesado/a en aprender matemática? (marque todas las que apliquen)

<input type="checkbox"/>	Porque me gusta la matemática
<input type="checkbox"/>	Porque me gustaría sacarme el GED
<input type="checkbox"/>	Porque quiero poder ayudar a mis hijos con el trabajo de la escuela
<input type="checkbox"/>	Porque pienso que si sé más matemática puedo conseguir un trabajo mejor

Otra (o cualquier otro comentario que quiera hacer) _____

¿Le interesaría charlar conmigo y discutir ideas para crear un programa de matemática para padres y madres para el año que viene? _____

¿Cómo puedo contactarme con usted? _____

Appendix B: Potential Questions for First Interview (English and Spanish)

Introduction script (English):

“Thank you for agreeing to meet with me. I know everybody is really busy, so I really appreciate it. I am very interested in talking with Latino parents who have children in public schools because I would like to do a project with parents aimed at improving mathematics education and Latino parent participation in schools.

Since I have to present the project at the University of Maryland, they request me that I explain to you in detail what I want to do, what your rights are as a participant of the study, anything that may happen to you if you participate, etc. It is a very formal document with lots of things and it seems a little scary at the beginning, but it is actually to protect you. Please, ask all the questions you’d like about anything that is written in this document and especially anything you would like to know about my project. If you agree to participate after I explain everything to you, you will have to sign a consent form indicating you agree to participate. And if you do not agree, you don’t have to sign and that is fine, ok?”

[Read consent form with participant and offer them to think about it and sign it whenever they feel ready]

[If they sign, I can show them how I will record the interviews in audio with my cell phone and with the livescribe pen.]

So, first of all, tell me a little bit about you, your family, your life in the U.S., how long you have been here, what you do for a living, etc., anything you want to talk about. [See questions below, to guide the conversation]

Introducción (Español):

“Gracias por aceptar encontrarse conmigo. Yo sé que todo el mundo está muy ocupado, así que lo aprecio mucho. Estoy muy interesada en hablar con papás y mamás latinos que tienen niños en escuelas públicas porque quiero hacer un proyecto de trabajo con los padres para ver si podemos mejorar la enseñanza de la matemática y aumentar la participación de los papás y mamás hispanos en las escuelas.

Como el proyecto lo tengo que presentar en la Universidad de Maryland, ellos me exigen que le explique con detalle lo que quiero hacer, cuáles son sus derechos como participante en el proyecto, si pudiera pasarle algo malo por participar, etc. Es un papel formal con un montón de cosas y asusta un poco, pero en realidad es para protegerla. Por favor haga todas las preguntas que quiera sobre todo lo que está escrito en el documento y sobre cualquier cosa que quieran saber sobre mi proyecto. Si están de acuerdo en participar después que les explique todo, me tienen que firmar un permiso que están de acuerdo. Y si no están de acuerdo, pues no firman y no pasa nada ¿ok?”

[Leer el formulario de consentimiento con ellos y ofrecerles que lo piensen y lo formen otro día si no los veo muy convencidos]

[Si lo firman, les puedo mostrar cómo voy a grabar el audio con el celular y con el livescribe pen.]

Bueno, primero que todo, cuénteme un poco de usted, de su familia, de su vida en EEUU, hace cuánto que está en el país, a qué se dedica, etc. No sé, lo que le parezca.

[Preguntas para guiar la conversación si no saben por dónde empezar]

1. Where are you from?
2. How long have you been living in the U.S.?
3. Why did you decide to come and how was the experience?
4. I would like to know about your family. Who do you live with? In particular I would like to know about your children. How many kids do you have and what are their ages and grades?
5. What schools do your kids attend?
6. Are you happy with the schools? Why?/Why not? What do you like about the schools and what do you dislike?
7. Do you participate in her school? Are there activities for parents?
8. Do you think parent participation in schools is important? Why?
9. What kind of activity or event would facilitate your participation in your children's education?
10. Do you think it is important to stay informed about your children's academic progress? Why?/Why not?

11. Do you know whether your children are doing well in the school? Whether they have difficulties in any areas? What class do they like the best? Etc.
12. What does the school do to keep you informed about your child's progress? Is there anything they can do better to inform you?
13. Do you think it is important that your children study? Why?/Why not?
14. What are your expectations in terms of your children's education?
15. Tell me about your education.
 - a. How was school in your home country? [Or, where did you study? If I suspect that she/he may have studied in different places]
 - b. Was it very different from the way school is here in the USA? Why or why not?
 - c. What is the highest level of education you have reached? [I can also use the info collected in the initial questionnaire and start from the information I already have] If the level is not high (which is expected) I'd ask why didn't you keep studying? [I'll try to see if the topic comes up without having to ask directly]

Appendix C: Potential Questions for Second Interview (Sandra)

1. How is the school this year going?
 - a. Tell me about Lucía at her school. How does she like school? What days does she go? [She started a head start program for 3 years old children]
 - b. Tell me about Kathy at her new school [she started kindergarten]
 - i. Who is Kathy's teacher? How does she like the teacher? How is she doing at school?
 - ii. What happened with the bus stop, did you collect signatures to add a bus stop closer to your house?
2. What happened with Kathy's speech therapy? Did you get her assessed again at the hospital? Were you concerned when they told you at the previous school that they would discontinue Kathy's speech therapy? Did you look for another opinion, or was the ENT doctor that asked you to do so?
3. Have you participated in the schools in any way?
4. And what about you, have you worked on learning how to use the computer? Who uses the computer that you have at home? Your husband? The children? What do the children do in the computer? Do you like them using the computer? Why?/Why not?
5. How is the job search going? Have you found a job?
6. When we talked on the phone you told me you've attended some workshops on massage, manicure and other things, and that you worked in a beauty salon. Tell me more about those jobs and any others you may have done.

7. Can you work here legally? Do you have papers? [I'll see how I ask this question.
I will probably bring up that sometimes I know of jobs that people can apply and I can tell her, but many times they request papers]
8. What is/are the reason/s for you to want to work? [Is it only for financial need?]
9. What does your husband do? How did you meet him?
10. What do your children do in the afternoons after school?
11. What do you do on the weekends with the children and the family? What activities do you like to do as a family?
12. Does your sister live with you? When did she come to the US? Do you have more siblings? Tell me more about your family in Peru. What do your parents do? [I'll try to find out more about the way she was raised, her embodied capital]
13. In the first interview you talked a lot about the importance of your children going to college and all the things you are thinking about in order to help them achieve that goal. Where did you get all this? Given that you did not finish college, how did you get to internalize the importance of education in this way?
14. What are Kathy and Lucía doing in math? Do you help them with homework this year? How is it going?
15. What other activities besides homework do you do with them related to math?
16. In the past interview you told me you could help the children you used to watch with homework in other areas, but not in math. What other subjects did you help them with? How did you manage to help them in those subjects?

Appendix D: Interview after Finishing the Mathematics Workshops

Past experiences with math. Math as capital for them

1. Do you like math? What are your feelings about math? What do you like/dislike about math?
2. How were you as a math student in school? Did you like math at that time? Were you a good/struggling math student?
3. Have you ever studied math again after graduating from high school? Have you ever thought about studying math again? Why?
4. Can you tell me about a positive experience you had with math? A negative one?
5. Do you think it is important to know mathematics as a life skill in general? Why? Do you think people who know mathematics are better prepared for life? Why? [Do you think you would have access to things you don't have access now, for example, if you knew more math? Would you be able to do your job better? Would you feel more competent? (to help your children, to solve life problems, to understand the world around you)]
6. Have you been in situations in your life when you thought "I wish I knew more mathematics"? Can you give examples? (She mentioned when she had to work as a cashier. Explore when she bought the condo, how she did to not lose her property, whether she refinanced)
7. Have you been in situations in which you used math to solve real life problems? Can you give examples? (Understanding bank/credit card

statements, knowing what is a better deal at the supermarket, keeping her home accountability, maybe)

8. Do you use math at work? What kind of math?

Parent involvement in mathematics education of children

9. Is it important for you that your children go to college? Why?

10. How important it is for you that your children be mathematically literate? Is mathematics particularly important or special compared with other subjects? Why?

11. What did [your oldest child] learn in math this year? Are you satisfied with what she learned? You told me in our conversations that sometimes you helped her with homework. What did you do to help her? How did you feel about it? [Do you like working with her? Do you feel prepared?]

12. What would you do if your children struggle with mathematics later in the school?

13. What kinds of activities do you do on a regular basis with your children that involve mathematics? [Counting, measuring, sorting, adding and subtracting, learning about shapes, math games, games in the computer, looking at the calendar, shopping, etc.]

14. Do you have any particular plans to work with your children on math in the summer? What are you planning to do?

Math workshops

15. During this year we have been meeting to talk about education issues and do some math. What is your impression about these meetings in general?
16. What was/were the reason(s) to engage in the math sessions? [Would you have been interested in engaging with math had you not have children in school?]
17. What have you got from these meetings?
18. We did many different things in those meetings. Of all the things we did, which ones have stuck with you the most? [Which ones do you remember?]
[If she/he does not remember things we did I can ask about particular topics:
 - a. Simply chat about children and life issues
 - b. Talk about education issues
 - c. Talk about school system, testing, programs, CCSS
 - d. Math.
 - i. General ideas about how children learn math
 - ii. Fractions: concept, proper/improper fractions and mixed numbers, number line, equivalent fractions. GED
 - iii. Numerical expressions and number sentences
 - iv. Patterns
 - v. Number line
 - vi. Addition problems CGI. Use of manipulatives
 - vii. Games]

19. Which activities have been most helpful? Why? What math topics have been more useful or interesting? Why?
20. Have the ideas we've discussed in the workshops changed in any way how you think about math? Please, elaborate.
21. How was the pace of the work? Did we go too fast/slowly? Did we review things too much/little?
22. How comfortable did you feel doing math? Did you feel comfortable when there was something you did not know or something that was difficult for you? [Was it ok to not know something?] Did you feel you could ask any questions when there was something you did not know? [What can I have done to make it better for you? What can I do to make it better for other parents?]
23. Was it better when you were by yourself or with somebody else? How did you learn best? Why?
24. Have the ideas we've discussed in the workshops changed in any way how you work with your child in math? Please, elaborate.
25. What kinds of math activities/questions/conversations do you engage in with your child at home?
26. What have the least helpful things been in these workshops?
27. After all the time we spent with this math sessions, do you think it was worth the time and effort?

28. Would you like to continue attending this kind of workshops? What would you change to make them better? [In all regards: scheduling, topics, use of time, number and type of participants, etc. Would you like the workshops to offer an opportunity to work with your child?]
29. What (other) things/topics would you like to learn regarding your child's mathematics education?
30. Do you think other parents may benefit from a program like this if done at your child's school?
31. Do you think anybody can learn math? What does it take to learn math?
Please, elaborate
32. What suggestions do you have for someone who would like to implement something like this in the school? [In all regards: scheduling, topics, use of time, number and type of participants, etc.]
33. Would you recommend this kind of workshops to other parents? What would you tell them? [Role play]

Thoughts about education and parent participation in school in home country vs USA.

34. What do you think about education in the US, compared with education in your country? Do you think your children will have more, or less, or different opportunities here than in your country?
35. What do you think about mathematics education in the US, compared with mathematics education in your country?

36. How is parental school participation in the US compared to your country? Do you feel your children's schools offer you opportunities to participate? Do you feel invited in the schools? What are the particular school features that make you feel welcome in your children's school? Would it be different if you were in your country?

37. What are the main barriers to your participation in schools? [Explore language, immigration status, work schedules, lack of familiarity with the school system]

38. What things would make it easier for you to participate more in your children's school? What can schools do?

39. What can you (and other parents) do to make the school better?

Children's leisure time. Educability framework

40. What do your children do in the afternoons after school? Why do you think doing that is important? [Explore the difference between what they offer, and what they demand the children to do]

41. What do you do on the weekends with the children and the family? What activities do you like to do as a family?

42. What are your children doing this summer? [Are you happy with the plan?]

Family. Embodied capital

43. In most of our conversations you talked a lot about the importance of your children going to college and all the things you are thinking about in order to help them achieve that goal. Where did you get all this? Given that you did not finish college, how did you get to internalize the importance of (higher) education in this way? Do your siblings think like you?
44. For Anahí and Abraham: In the last interview you told me that the fact that Abraham does not have legal status is holding the family back in some way. In what ways exactly? What would you do differently if he had papers? Can you elaborate?

Appendix E: Mathematics Workshops Chart

Workshop	Content	Participants
1	Talk about the study and the purpose of the mathematics workshops. Talk about education in Latin America vs. education in the U.S. Patterns. MSA and standardized testing. CCSS. Card games that involve comparing numbers and adding to 10. Review concept of fraction.	Abraham and Sandra
2	Concept of fraction, equivalent fractions. TAG Program in the county (Talented and Gifted). Perceptions and concerns about the neighborhood middle and high school	Sandra
3	Abraham talks about his experiences as a student back in El Salvador, his family, and his childhood. Proper and improper fractions. Equivalent fractions, including simplifying. Converting improper fractions to mixed numbers and vice versa. Converting fractions to decimals and vice versa. Abraham talks about the important of continuing studying and his relationship with learning and mathematics.	Abraham
4	Anahí joined the project. Consent form. Reviewed what we did with fractions so far. Abraham explains Anahí about fractions (proper, improper, mixed numbers), representing fractions with pictures, decimals, converting, etc.	Abraham and Anahí
5	Anahí talks about Graciela as a special education child. Anahí talks about why she decided to join the project, how she got to the U.S., high school in the U.S., college, immigration issues. Patterns, number line, greater than, less than.	Anahí
6	Review game card 1. Expressions, number sentences, and the connection to equations.	Abraham and Sandra

7	Sandra tells the story about their roof collapsing. Sandra and Anahí talk about the time their children started school. Experiences participating in their children's schools. Special education programs and IEPs (Individualized Education Program). Long chat about parenting. 10x10 chart, how to use it with their children. Summer plans. Whole numbers in the number line.	Sandra and Anahí
8	Addition and subtraction problems (examples from CGI), we analyzed joint and separate and part-part-whole.	Sandra and Anahí
9	Addition and subtraction problems: comparing. Stayed with Abraham to look at GED requirements and options to prepare of it.	Abraham and Sandra
10	Review all the work we did with fractions	Abraham

Appendix F: Initial List of Codes

CODES

- Agency
- Areas of need/Difficulties
- Aspirational capital
- Children
- Comparison between home country and U.S.
- Embodied capital
- Experiences with schools
- Familial capital
- Funds of knowledge/Experiences
- Institutionalized capital
- Latinos
- Linguistic capital
- Math
- Navigational capital
- Objectified capital
- Parent involvement in children's education
- Parents' dispositions toward education
- Resistant capital
- Self

- Services
- Social capital/Community
- Suggestions for schools

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