

PART VIII

Co-constructing literacies with communities

LITERACY STUDIES AND SITUATED METHODS

Exploring the social organization of household activity and family media use

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Introduction

There are various approaches to studying the new media practices of youth. Research on new media and learning has often examined online or in-world interactions and the influence of peer and popular culture on youths' new media repertoires (Black 2008; boyd 2008; Ito *et al.* 2008). Less research has focused on families' everyday practices and the ways families organize and leverage their resources to create environments for game play. In this chapter, we examine how children's interest-based, collaborative, and new media practices emerge from the social organization of the household. We draw on a theory of *connected learning* (Ito *et al.* 2013) – a process that places practices that are socially connected, interest-driven, and oriented toward educational and economic opportunity as the object of learning – to examine the everyday lives and new media practices of Latino and low-income families. Specifically, in this study we were interested in documenting how the social organization of households helps to shape families' media use. In this chapter, we focus on the ways mothers' smart phones and home practices influence children's game play. Following Takeuchi and Stevens (2011), we focus on 'joint media engagement' or the in-room practices of youth using digital media and the roles that parents play in shaping youths' media practices; practices, we argue, that have important implications for developing children's new literacies in multiple contexts.

In this work, we aim to inform approaches to “connected learning” that work to expand students' repertoires of practice (Gutiérrez and Rogoff 2003) by situating their digital media use in everyday activity and leveraging these practices for new learning. This situated understanding of how families use mobile tools for learning in the home also affords opportunities to contribute to the evolving norms for media use in schools. Of significance, a situated approach to understanding families' new media practices pushes researchers to develop textured and more detailed perspectives on lived cultural practices. For example, observations of the distributed nature of technology tool use in homes are aligned in important ways to forms of joint media engagement that help to create relevant and productive forms of learning. It is noteworthy that the social organization of family game-play in our work, as well as studies of joint media activity

(Takeuchi and Stevens 2011), stand in contrast to the prevalent one-to-one computing paradigm in academic spaces.

This particular study grows out of the “Leveraging Horizontal Expertise” project organized around views of learning in which everyday and scientific or school-based learning grow into one another (Vygotsky 1986).¹ From this perspective, everyday literacy practices have transformative potential and serve an important role in helping to reconstruct the relationship of cognitive structures to experience (Roschelle 1992). Although there was a range of practices documented across families’ quotidian activity, we focus on several salient practices that, we argue, were instrumental to the structuring of new media practices in homes.

First, we present the use of mothers’ cell phones and how children and families incorporate mothers’ cell phones as a hub for access to the Internet and social media. We then present a case of one family’s practices to illustrate how the parents’ uses of new media intersect with their household rules, beliefs, interests, and necessities and how this activity shapes children’s practices in the home and at *El Pueblo Mágico*, a design experiment approach we will elaborate shortly. With the example of the Ramirez² family, we map how youths’ participation trajectories shape and are shaped through access, gendered practices and interests across participants in the home and in a designed learning space.

Current issues and topics

Within our approach, we acknowledge some persistent contradictions related to new media and learning. New media tools are often saddled with the promise of connecting to youth interests and providing contexts for collaboration; however, in order to leverage their affordances for learning, more attention should be paid to the social practices surrounding technology use. We know from seminal research in digital media and learning that only a minority of youth participate with new media through what Ito *et al.* (2008) refer to as “geeking out” or as “core” players (Kafai *et al.* 2012). These youth are able to construct their own learning through regular, intensive, and strategic participation with digital media that connects learning across social, academic, and interest-driven practices. Most youth, however, are more casual and social, and less engaged with new media. We argue that there is a need to understand better the everyday media practices of a larger number of youth, including youth from non-dominant communities, to design new opportunities that recruit youth as core participants into new practices with new forms of participation and tool use – practices that also recruit new identities. Further, we argue that there is a need to look more closely at how ordinary, everyday practices with digital media situated in people’s lives shape participation trajectories. By focusing on “joint media engagement” (Takeuchi and Stevens 2011) and families’ repertoires of new media practice (Gutiérrez and Rogoff 2003), we also can better understand the roles that parents play in shaping youth media practices.

Further, our situated approach maps connections among people and practices that are part of everyday life in order to engage possibilities for expanding practice. As Gee (2010: 1) discusses, “situated understanding involves being able to associate images, experiences, actions, and dialogue with words and other symbols.” We focus on how parents influence and organize children’s engagement with digital tools in order to understand how children’s situated understandings of new media develop within the context of their lives at home and at *El Pueblo Mágico*. We place our observations of parents’ digital literacy repertoires within the context of long-standing research that has indicated that parents and, in particular, mothers’ level of schooling is an important indicator of children’s academic performance (Dearing *et al.* 2006; Gonzalez *et al.* 2010; Kogut 2004; Lynch 2009; Melhuish *et al.* 2008; Torr 2008; US Department

of Education 1999). Researchers have also focused on mother and child interaction to examine familial and community learning and socialization patterns and learning outcomes (Casper *et al.* 2007; Hasan 2002; Rogoff *et al.* 2003). Many of these studies have noted differences, and too often disparities, in youth learning outcomes along the lines of the mother's class and race. While providing important understandings of the role of mothers, such analyses can miss the importance of family routines and how mothers leverage resources in shaping new practices and opportunities (Gutiérrez *et al.* 2010; Weisner 1984).

Following our interest in parents' digital literacy practices, our discussion will also draw upon literature that demonstrates the importance of gender and how gender is indexed in children's use of new media. Researchers note differences with a range of explanations about children's use of digital media across the variables of gender, race, and age (Kafai *et al.* 2008), with gender standing out as an important factor in shaping participation in digital games. Research in this area has refuted inherent differences in the desires of game players based on gender, but noted persistent structural constraints, related to normative gender roles such as greater surveillance of girls and female avatars embodying stereotypical human forms that shape participation (Lin 2008; Yee 2008). Within the broader context of girls and games, we find it instructive to look at mothers' and fathers' new literacies and uses of digital media and how their practices intersect with familial activity as important factors for shaping their children's learning in the home, academic arenas, and beyond.

Main research methods

Our study, part of the Connected Learning Research Network (CLRN), follows children from non-dominant communities who come from Latino, immigrant, and working-class backgrounds, across settings. We document the home activity of children who are in the second through fifth grades, as well as their game play within *El Pueblo Mágico* afterschool designed space. This designed intervention was modeled on the *Las Redes* 5th Dimension/*La Clase Mágica* experiments that focus on intergenerational learning, and the introduction of new tools and arrangements to create new forms of learning for university students/novice elementary school teachers and children (Cole *et al.* 2006; Gutiérrez *et al.* 2011; Vasquez 2002). We term this approach to design interventions, social design experiments (Gutiérrez 2008; Gutiérrez and Vossoughi 2010) that design for learning toward transformative ends. A focus on understanding students' repertoires of practice rather than pursuing deficit perspectives of youths' learning and potential, moves us away from studying 'digital divides' or students' lack of access or resources and toward new possibilities. Following McDermott and Raley (2011), we are interested in the value of everyday life and the ingenuity inherent in human activity (Gutiérrez 2013) – ingenuity we call *inventos* (Jacobs-Fantuzzi 2003; Schwartz and Gutiérrez 2013). We note that while there are new opportunities afforded by commodified digital and new media spaces, we have argued that the ingenuity observed in the families' practices is neither new nor unfamiliar to households from non-dominant communities. Instead, inventing, making, tinkering, designing, are indigenous practices, that is, practices that originate and occur naturally in particular ecologies (Gutiérrez 2013).

We take an activity theoretical perspective to examine the social organization of the household (Cole and Engeström 1993; Engeström 1987). We view the interaction of rules, tools, subjects, and objects (e.g., objectives) in constituting activity as fundamental to understanding how interests, affiliations, and digital media use are both shaped and shape activity through interaction. Through the examination of the activity systems of digital media use in the homes of families and at *El Pueblo Mágico*, we are interested in what types

of shared practices develop in interaction, how mutual or contested objects of activity form in everyday life, and how interests are organized by household rules, roles, and tools. (In this chapter, we will not focus specifically on the game play of the focal children we follow across settings.)

Our data on family mobile tool use and the social organization of the household is drawn from a rich qualitative dataset that is augmented by survey data of youths' new media practices ($n = 65$ at the elementary school research site and $n = 464$ at local middle school) that supports the contextualization of our observations. While our study is interested in the new media practices of children and families, our approach necessitates viewing these practices as situated in everyday lives and in light of the constraints and resources of the families' ecology. To understand families' practices, we documented participants' daily routines (Gutiérrez *et al.* 2010; Weisner 2003), their social media practices and social networks, and interviewed them about their practices and beliefs related to education, health, and energy. We combined these interviews with extensive participant observation in the homes, of children at work with undergraduates at *El Pueblo Mágico*, and the cognitive ethnographies written by undergraduates who work with children at *El Pueblo*. In two years, we have conducted a total of 196 interviews, coupled with participant observation in families' homes. We observed fifty-two family members, including twenty-two focal children, fourteen mothers, seven fathers and nine siblings. We interviewed these parents, twenty-one of the focal children and five of the siblings. We have over 200 hours of videotaped observations in the home and another large corpus of video from *El Pueblo Mágico*. In addition, families used Flip cameras to videotape morning routines, a home media tour, and other activity in the home completing a total of eighty-eight videos. See Table 38.1 for a summary of data sites and sources.

Data that inform the discussion in this chapter were analyzed for routine practices, tool use, and forms of joint activity; we logged and coded video and audio at ten and two minute intervals. At ten-minute intervals we applied meta-data codes on the main activity, tools, participants, language use, participant ensembles, and location in order to quantify observed family activity. Derived from these data, Figures 38.2 and 38.3 show the distribution of the main activities we taped when we followed children in the household of the Ramirez family, the focal case for this discussion. Representative and salient segments for further analysis and transcription were selected from field notes and activity logs to represent key events of typical household activity and youth practices. The transcriptions presented here follow a modified transcription format (Jefferson 2004).

Table 38.1 Data sites and sources

Homes	<i>El Pueblo Mágico</i>	Local schools	CU Boulder education courses
<ul style="list-style-type: none"> • 196 interviews • over 200 hours videotaped participant observation • 88 videos taken by families 	~50 hours of video	Survey data from local elementary that houses <i>El Pueblo</i> $n = 65$ and local middle school $n = 464$	~600 cognitive ethnographies of CU Boulder students

Moms, kids, and smart phones

Consistent with Pew research (Livingstone 2011; Smith 2011) reporting the prevalence of mobile tool use and mobile Internet access for Latinos, we found that ten of the families with which we worked accessed the Internet primarily through smart phones. In year one, only one of the households in the study that identified as Latino (seven out of nine families) had a computer, and none of the families had an online computer in the home. Though this changed in year two and despite the greater availability of computers, our observations and interviews indicate that mobile access remained significant across families.

Across two years of study, in eight of the fourteen families in our study, mothers with smart phones served as hubs for cell phone use and access to the Internet and social media. Even when children had Internet access via a computer or tablet, they enjoyed the use of their mother’s cell phone for social media, gaming, viewing videos, and looking up information. In only one of the families we followed did the focal children (primarily fourth and fifth graders) have their own cell phones. We found that youth in these families used their mother’s phones, and even when computer access was available in year two, children still preferred their mother’s cell phone or enjoyed using it for their own purposes. For example, Rosa, a focal student in the second grade, used her mother’s cell phone to play games and access Facebook, although a desktop computer the school had given the family had not yet been set up because it was considered too big. Across our families, it was reported and observed that children used their mothers’ cell phones to play games, and for access Facebook or other social media, especially for girls.

Statistics from surveys of new media uses and interests of elementary school children were congruent with our observations of children’s use of their mothers’ cell phones, signaling the potential importance of mothers’ new media practices in promoting joint activity with their children, especially their daughters. Our survey data reveal that 42 percent of girls and 43 percent of boys in the fourth and fifth grades used their own cell phone, while 63 percent of girls and 32 percent of boys in those grades used their mothers’ cell phone. Children’s use of cell phones at Flores Elementary School, the school that houses *El Pueblo Mágico*, and at the middle school it feeds into shows that girls’ use of their mothers cell phone drops in half from fourth and fifth grade to sixth grade, from 63 percent to 32 percent, with 95 percent of girls using their own cell phone by eighth grade, as compared to 43 percent in fourth and fifth grade. Elementary school aged boys used their mothers’ cell phones to a lesser degree and also adopt the use of their own phones less than their female peers. See Table 38.2 for a breakdown of cell phone use by gender and grade.

Table 38.2 Use of cell phones by grade and gender

	Uses own cell phone %	Uses mother’s cell phone %
Girls		
Grade 4/5	43	63
Grade 6	78	27
Grade 7	83	28
Grade 8	95	19
Boys		
Grade 4/5	42	32
Grade 6	78	25
Grade 7	86	15
Grade 8	83	19

We found across families that mothers' cell phones played a prominent role in family members' new media repertoires: specifically, we found that: (1) in four of the families, the mother's cell phone provided Internet access instead of computer-based Internet access in the home, (2) family members utilized the mother's cell phone for multiple purposes, and (3) despite distributed use of the cell phone, the mother served as the source and key access point for the tool. We documented that mothers' practices with smart phones mediated their children's activities, from socializing the children into using the phone for communication and commerce to using it to play digital games. Children used mothers' cell phones to look up information for homework, watch videos or TV, play games, and access Facebook (FB), often taking over their mother's account as their own.

Interactions with mobile phones were enmeshed in mother-child relationships, involving everyday tasks and the negotiation of access to coveted tools. For example, one evening a daughter in fourth grade discussed with her mother that she should use the cell phone to look up the word "range" for her math homework. When her mom was reluctant to relinquish the phone, the daughter explained to her mom that this strategy had worked the last time, and puffed out her lower lip to playfully and visibly express her need. We documented connections between literacy and media use. One daughter shared that when she was old enough to read, her mom introduced her to FB and playing games on her phone. In another family, the fifth-grade daughter's constant use of her mother's cell phone for accessing FB prompted the mother to exclaim jokingly, "Me voy a sacar el Facebook!" ("I am going to get rid of Facebook!"). Within a few minutes of this statement, she also asked her daughter what kind of cell phone she owned ("un blackberry"). In the Ramirez family, about whom we will learn more about shortly, Pati, a fifth grader, exclaimed that she did not have her own phone but "I use my mommy's; I know how to work it." This angered her younger sister who was not allotted similar access. In the following section, we examine family cell phone use more closely to help us better understand how practices with the cell phone and other media tools arise from the social organization of the household and inform children's interests, as well as the learning of media and literacy practices.

How interests and collaborative activity emerge, get organized, and travel

We present the case of the Ramirez family, with whom we worked over the course of academic year 2011–2012, to take a closer look at the use of the mother's cell phone in the family's everyday life. The Ramirez family is comprised of Mom, Dad, son Dan, an eighth grader, and daughters Jazi (a fourth grader) and Pati (a fifth grader), as well as an adult 'son' the family had informally adopted. Although both parents worked in landscaping and in food services, they constantly struggled with money and considered themselves poor. Dad was a fluent bilingual and Mom spoke Spanish to a lesser degree. English was the primary language spoken in the home. In the first interview with the family about their social media practices, all of the family members sat together in the living room to discuss their use of technology with us. The family did not have a computer because they shared that they could not afford one, and only Mom had a smart phone (HTC Evo) that she received for her anniversary. Together, the family eagerly constructed Mom as the tech-savvy cell phone user of the household, in contrast with Dad's practices. Daughter Pati yelled out "she texts like a teenager" and Dan followed up with "my dad text-es like an eighty-year-old." After Mom shared that she accessed FB several times a day from her phone, Dad jumped in:

Dad: she does everything on her phone,
[she does everything ↑ deposits checks, deposits check through the phone, uhhhh
she pays bills through it, oh my goodness that phone does everything

- Mom:** [navigation],
Jazi: [it's a smart phone]
Mom: [google
Jazi: >it's smart] phone!<
Mom: I do, I do my work things
Dad: a smart phone for dumb people, heheheh
Dan: people do dumb things with smart phones
(discussion of 'smart' and 'dumb' phones ensues)
Mom: you know sometimes it spells out words and I'm like that's not how you spell it, so it's really not that smart
Jazi: she does her multiplication problems on there
Dad: PlayStation 2 is all I do. That's the only thing I do on the Internet is play online
(Social media and network interview, November 9, 2011)

The family had a clear sense of Mom as an expert user of the smart phone, and a master of the tool and its use for finding information on the Internet. In contrast, Dad shared that multiplayer games were the only thing he did online. While Mom and Dad shared in their beliefs about how to raise their children, and shared goals that traveled across traditional gender roles, their digital media use fell into more normative gendered categories and practices.

In addition to the uses discussed in the family's conversation, Mom used the information garnered through her smart phone to protect, provide for, and guide her family both in the physical and digital world, in the present as well as for the future. The example below illustrates Mom's ingenuity in using her smart phone as a resource to protect her children. It happens that the neighborhood in which they live, despite being a suburban area sandwiched between several schools, is home to a surprisingly high number of registered sex offenders. We learn how the Ramirez Mom navigates the Internet to construct productive family routines to ensure the safety and well-being of her children:

- Dad:** Not when it's cold,
[when it's ALL year long she is a little too overprotective]
Jazi: [when it's raining, (2) like one day when it was raining] the little
Mom: I am a mom
Dad: Yes but I tell her you know he's growing up he needs to=
Mom: =You wanna see the sex offender site?
Dad: nooh my god ↓
Dan: Every time I wanna go, every time
Liz:³ every time right here, (laughter)
Dan: Every time I go wanna go
Dad: Yeah she shows me that all the time, the sex offenders
Mom: Wherever we are, do you see this, nope can't go there, nope can't go there (2)
[so this year they are going to hog tie me and lock me in the closet for Halloween so they could actually (laughing)]
Dan: [when I want to walk home from school] when I want to walk to the school to play basketball, no don't go by that house, that's the bad house, that's aa no no house, remember don't cross that street because there are lots of sex offenders right there, so go this way
Dad: She has that sex offender website she gets on it right away. She is like oh my god there is like 6 (snaps) 6 sex offenders=

Mom: yeah 20 just right in this area [just within 4 block range
Pati: 20!

With the knowledge gained from the sex offender site that she kept loaded onto her phone, Mom bounded the geographical space her children could travel. As she related, she is not overprotective; she “is a Mom,” and the smart phone is a tool that supports her mothering. Unlike several other mothers in our study who owned smart phones, she also prohibited her daughters’ use of social media sites and virtually monitored her son’s use of Facebook. Mom also kept passwords to the Internet in the home, determined which type of digital games the children could play, and restricted their game play to one hour a day. As we will elaborate below, this surveillance forced Jazi into subversive game play away from girls’ game play into a space dominated by their brother and father. In this case, we observed how Mom’s cultural model of child-rearing oriented her to organize daily routines for her children’s safety, as well as to monitor the amount and kind of game play she believes is allowable and productive. As in all cultural artifacts, we observe the enabling and constraining dimensions of such models – models that serve as both resources and constraints for family life.

Sweet Genius

In addition to protecting her children’s safety, Mom used her cell phone to find information to provide for the economic well-being of her family. For example, on one cold Saturday morning Dad became frustrated trying to fix Mom’s car with relatives and friends. Inside, Mom sat in the living room poring over her phone for several hours in order to help identify the problem with her car, and to find the part she thought was needed to fix it. During the “Education and health” interview we conducted with Mom, Dad stayed in the discussion and again offered his commentary on Mom’s practices. Here the discussion centered on Mom’s use of the Internet with her phone to find home remedies:

Mom: I like to do my little home [remedies
Dad: from] the Internet!
Mom: you type in home remedies, for like cold or runny nose and it pulls up different websites you can get on
Mom: I like to see different things if it works it work if it don’t
Ultimately it’s OTC and home remedies
Dad: Quit trying to make home remedies! Reading her phone trying to make it!
Monique you are gonna drop the phone inside your home remedy!
Mom: I have the girls trying somewhat similar type things, “Mom, let’s look this up”?
Mom: We watch a lot of food network. They were making play dough cupcakes.
Well today you have a blueberry filled cupcake with chocolate springs on top. Play dough. They are doing “Sweet Genius⁴” too.

(Education and health interview, November 14, 2012)

Mom discussed that she gets the girls to look up “similar type things” related to the practice of home remedy making with her on the phone. She associated this activity with another media engagement, watching cooking shows. We were able to make the connection between these two media practices and the girls’ imaginary play in the home and at *El Pueblo Mágico*. As Mom shared, the girls play “Sweet Genius,” a reality cooking competition show, and make play food in the home. In a home video created by the girls, they film themselves acting out a cooking

show with the Famous Chef Jazi, personal chef to President Obama. Their brother served as cameraman, and they produced ‘special effects’ with a light stick that glowed in different colors.

At *El Pueblo Mágico* that semester, the girls participated in a project called “World Maker” where they created an imaginary world and the foods that would go in it, including marshmallows and, as Jazi shared, the protein they would need to survive. In both the home and *El Pueblo*, they use their knowledge of food, and the practice of imaginative play to construct their world. They made “pretend” food at *El Pueblo Mágico* and at home in play with their siblings and peers. These practices have roots in their mother’s interest and practice of watching cooking shows and researching information about food and home remedies online. Figure 38.1 maps activity from Mom’s interests and media practices to the girls’ imaginary play at home to their “World Maker” activity at *El Pueblo Mágico*. The move from Mom’s interests and practices with media to children’s practices shared below highlights the kind of joint media engagement and imaginative play that predominated in the household.

Structuring ‘the how’

Play activities in the Ramirez home are better understood when situated within the rules and beliefs shared by Mom and Dad about their children’s participation in household chores, homework, and play. Through discussion in interviews and activity taped in the home, we saw that household rules, roles, and tools, and the forms of assistance given to their children for homework, chores, and play activity, closely aligned to the parents’ shared beliefs about child-rearing and family life. The parents structured household activity in ways they believed

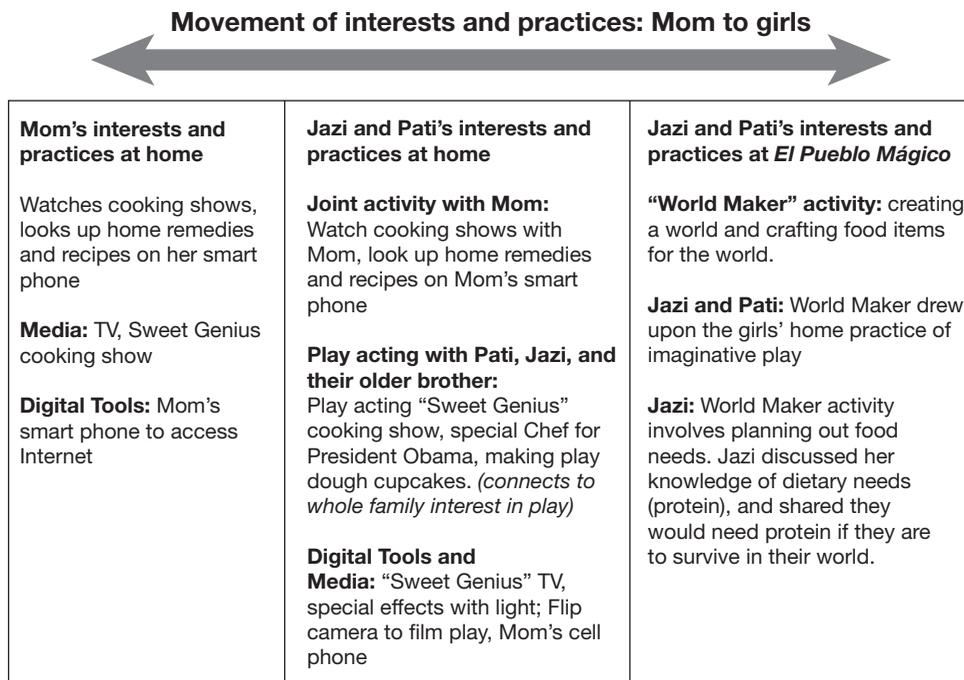


Figure 38.1 Movement of Mom’s practices and interests with her cell phone and media to her daughters, at home and at *El Pueblo Mágico*.

supported their goal of building independence in their children – a trait they believed would support the development of a career trajectory and, thus, a more productive life than their parents. In creating structures for the children to achieve that independence, Mom helped the children set goals; and she used her smart phone to inform what she talked about as the ‘How’ of achieving goals, such as attending college and becoming an astronaut. In the conversation below, Mom explains how she used the Internet to support her children (the names Lisa and Liz denote the researchers). In the course of the health and education interview we conducted, Mom discusses a question about her children’s futures and shares the following,

Mom: What do you do to help them set goals? Well he sets them and I try to help them understand how. This is what HAS to be done; this is how much it costs; this is what needs to be done in order to get to that school. This is the GPA they want you to have.

Lisa: so you go through and

Liz: where do you get that info

Mom: Internet ((says in bashful tone))

Dad: she gets on the Internet and!

Lisa: is it easy to find

Mom: is it what

Lisa: is it easy to find?

Mom: oh yeah oh yeah

Mom: This is HOW you are going to accomplish this. Don’t crush her dreams. You let her if she really wants to she can regardless. No matter what. How impossible it may seem you can do it. This is how you can do it.

(Education and health interview, November 14, 2012)

Mom felt strongly that an important part of the ‘How’ is creating routines in the children’s home life that will support their future independence. The parents were committed to their children’s education through jointly structuring homework activity. Additionally, they jointly assigned chores to the siblings, such as feeding the dogs and cleaning the bathroom. Everyone in the house, Mom and Dad and the girls and boys, cooked and cleaned, a practice captured many times on tape.

Of interest, these findings align with what Gutiérrez and colleagues observed in a seven-year interdisciplinary study of the everyday lives of middle-class families. As found in the larger study, we find that parents, like the Ramirez family, take tremendous care in identifying and arranging the developmental tasks that scaffold their children’s development, and do so toward an adult-defined image of the future (Gutiérrez *et al.* 2010; Gutiérrez 2011),

families draw on their own past trajectories to negotiate everyday life and socialize their children through the practices and family routines they arranged; the accomplishment of children’s well-being and their futures is a fundamental part of the cultural project of development of families

(Gutiérrez 2011: 12)

The Ramirez parents also valued imagination and play as important to their children’s development. Figures 38.2 and 38.3 show the main activities filmed by both the researchers and the family themselves; in both, play takes precedence, followed by activity with media, household chores, and school-related work. Mom and Dad wanted their children to aim for big

dreams and obtain higher education. They offered opportunities for the children to apprentice with them to learn how to do work and to take on tasks that the children wanted to learn, e.g., laundry, cooking, or the use of Mom's smart phone, especially with Pati, the eldest daughter.

Negotiating influence: Zombie cheerleader, half Broncos/half raiders

Mom and Dad related digital game play was the children's favorite thing to do with technology; Jazi shared playing video games was her favorite thing to do when she could not go outside to play. Yet, during our visits to the home, we did not see girls play digital games, likely because Mom scheduled our visits on days she did not work her long hours as a manager at a fast food chain restaurant. Children's home life was structured for them to be productive members of the household, and household chores and imaginative play were officially sanctioned as taking

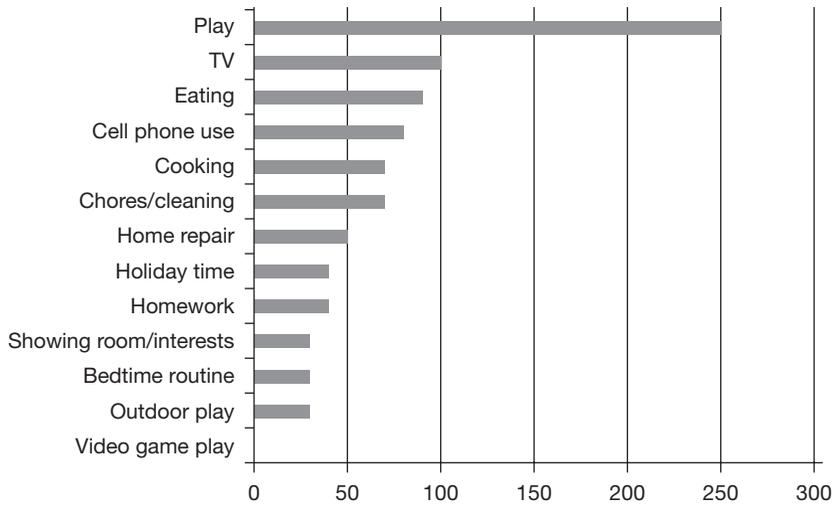


Figure 38.2 Ramirez family: number of minutes devoted to activities (a total of 16.5 hours of videotaped participant observations data).

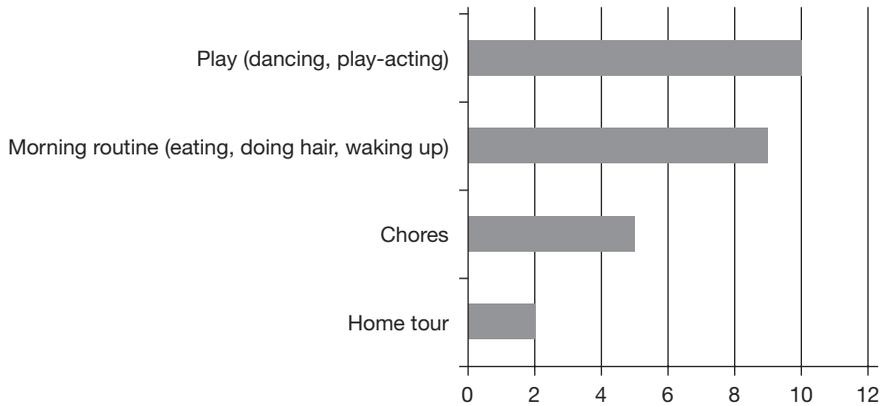


Figure 38.3 Ramirez family: main content of videos taken by family with Flip camera.

precedence over the use of digital media. Figure 38.4 shows how the parents' shared interest in and valuation of play traveled across participants in the home and into *El Pueblo*.

Mom and Dad also spoke proudly of their children's imaginative play and drawing. As with many children (Black 2008; Schwartz 2014), role-playing and character-based participation was an interest and practice that influenced digital game and imaginary play at home for both sisters. In video taken both by the family and the researchers, we documented the sisters acting out the story of Hansel and Gretel (see Figure 38.5) and creating cooking shows and other dramas. (Mom and Dad, who were off-camera, served as the children's audience for their plays and play.) Jazi discussed her fight with her brother over who would play the character of Wolverine in the *X-Men* video game. She reported that she liked to play video games because she and her siblings could work together, take risks, and start again if they failed, or in her words, "'Cause it's fun and we get to play together and we don't get mad, like, if we mess up 'cause if we mess up we die and when we die we get to be a person again and we just have to start over." Jazi's description of the possibility to make mistakes and take risks in digital games, and for collaborative, joint activity with her siblings situates her digital game play in the broader context of her family life, and the potential of this sensibility for learning.

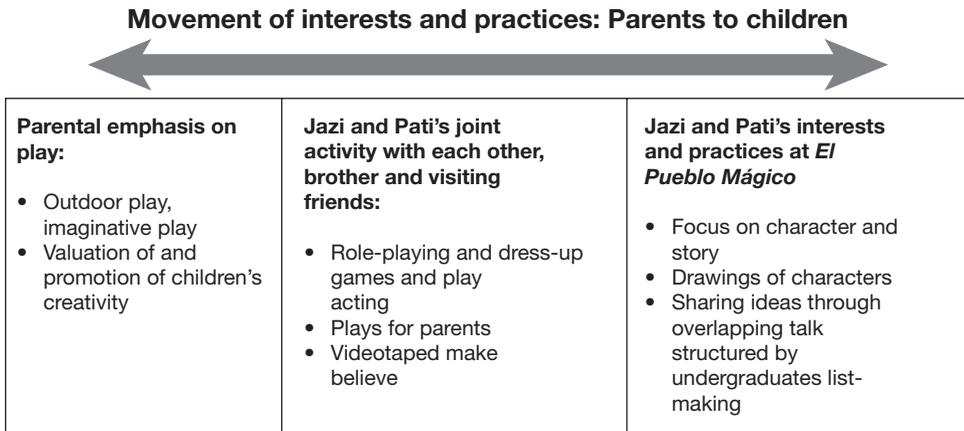


Figure 38.4 Movements of interests and practices, both parents to the children.



Figure 38.5 Play-acting 'Hansel and Gretel' Pati, Jazi, and a neighbor put on a show for Mom and Dad (photograph © Kris D. Gutiérrez).

Unsurprisingly, with Mom at home, homework, household chores, and imaginative and outdoor play predominated during our visits (see Figures 38.2 and 38.3); during our observations, we never documented any family members playing digital games. However, both from the children's final interviews and their game play at *El Pueblo Mágico*, we gained a sense of how their gaming practices and imaginative play in the home shaped their participation in creating a digital game at *El Pueblo Mágico*. At *El Pueblo Mágico*, the sisters' construction of their own game reflected their interest in character-based narratives, joint participation, and play. In addition, we learned from our analysis of the undergraduates' cognitive ethnographies and researcher field notes that the children's strong presence with yet encouraging orientation toward their peers at *El Pueblo*, mirrored the types of collaborative participation that their parents structured in the home:

Melanie asked what is the goal of the game? They said I don't know. So I said let's start with characters first. (OC: it seemed better to start with characters...as this generated more buzz. a lot of it!) Everyone was shouting out characters at the same time (undergrads and girls).

(Field notes, Schwartz, September 26, 2011)

The girls' overlapping and excited talk while planning their digital game at *El Pueblo* was similar to the structure of discourse in the home, as was their emphasis on the character Jazi brought to her game play with her brother and in the girls' imaginary play-acting.

Jazi had a more robust gaming practice than her sister Pati. In Jazi's final interview she described her brother as the person who introduced her to digital games by purchasing her a Nintendo DS (handheld game player) and a game, and showed her commercials about games on TV. Utilizing knowledge of the context of her home practices, we conducted an interview away from her home, asking her specific questions about her game play. Jazi explained that she played a variety of games that her mother disallowed and that were, she explained, "not appropriate for school." Her dad and brother helped her to get on the Internet to play massive multiplayer online games (MMOs). She liked to play *Grand Theft Auto* and *Black Ops Call of Duty* with "kids from school." She explained that she played *X-Men* with her brother in his basement bedroom and that her Dad also played games with them when he was not busy with his own game play. She related she did not like "girl games" although several of her friends preferred to play dress-up or "girl games." The gendered aspect of Jazi's participation with digital games, as sanctioned by the male members of the family, stands in contrast to her sister who aligned more with the practices related to her mother's cell phone practices (e.g., social media and information seeking). Figure 38.6 shows how practices and interests in the household generated by the male members became part of Jazi and Pati's activity.

At *El Pueblo Mágico*, sister Pati designed a "zombie cheerleader" character in her digital game as "half broncos, half raiders." This designation aptly captured the girls' split attention to their mother and father's similar yet divergent interests. At *El Pueblo Mágico* in the fall of 2011, Jazi and Pati were in an ensemble of participants that also included several other girls, undergraduates, and a researcher working together on creating a digital game with a programming application called *AgentSheets*. During their initial game play at *El Pueblo*, we observed that the girls were highly engaged in sharing ideas and working together primarily through planning and drawing characters; the support of adults in the group helped to structure a progression of tasks in which the girls were able to coordinate their game-playing activity. Unfortunately, as the task became more difficult and out of the range of expertise of the youth and female adults, none who were gamers, the task became less collaborative and less character-based. Finally, the girls lost interest.

Movement of interests and practices: Dad and brother to girls



Dad and brother's interests and practices' at home	Jazi's interests and practices at home	Jazi and Pati's interests and practices at <i>El Pueblo Mágico</i>
<p>Digital Game Play Black Ops Zombie game X-Men Sports MMO games</p> <p>Digital Tools and Media PS3, Internet, TV ads advertising games, game magazines</p> <p>Dad: "PlayStation 2 is all I do. That's the only thing I do on the Internet is play online".</p>	<p>Joint activity with Brother: Plays X-Men with brother who she fights with to play the character of Wolverine, Zombie game, <i>Grand Theft Auto</i></p> <p>Access through Dad: Login for online game play facilitated by Dad (Black Ops)</p> <p>Digital Tools and Media PS3, Internet (use of brother and fathers' logins and access)</p> <p>Jazi: does not like "girl games"; likes to play games "not allowed by Mom" and games that are "not appropriate for school".</p>	<p>Digital Game Play with undergraduates at <i>El Pueblo Mágico</i> Jazi and Pati work on "Spooky Buddies" Halloween-themed game. They focus on character development (connects to whole family interest in play)</p> <p>Digital Tools and Media <i>AgentSheets</i> digital game creation tool, hand-drawn characters, brainstorming</p> <p>Pati: her "zombie cheerleader" character in her digital game is "half broncos and half raiders" representing her mixed allegiance via Mom and Dad's football teams</p>

Figure 38.6 Movement of Dad and brother's media and mobile phone practices to the girls at home and at *El Pueblo Mágico*.

We note here the importance of designing more robust onramps that would provide the girls opportunity to level up their game play and to connect their home game-playing practices and interests to the activity at *El Pueblo*.

Recommendations for practice

Shared rules, gendered participation, mother's practices

In the Ramirez household, we saw that despite the distributed nature of responsibility and mutual objects across male and female members of the homes, gender shaped participation in digital game play. While there was an ethos of whole house participation in chores with shared rules regarding daily routines in the Ramirez family, normative gender divisions and roles on the part of the adults still largely shaped children's practices with digital media. In the Ramirez family, the Dad and brother provided supportive but also subversive scaffolding of participation in digital game play because this play ran counter to Mom's rules and ideologies of 'mothering.' However, we see Mom demonstrating great expertise with the smart phone and sharing her expertise with other family members in order to support their learning, and to protect and care for them. By viewing how both Mom and Dad served as rule-makers and gatekeepers, we learned how access formed children's interests, and how rules for participation helped and hindered learning. Of significance, we can bring these understandings into

conversation when we work to support children's digital practices and literacies in other contexts.

Mothers as important figures for children's new literacies development

At a time when twenty-first-century skills and new literacies are considered important components of schooling and digital tools are increasingly recognized for supporting and expanding learning, our findings point to the importance of attending to the following: (1) the ways mothers' role as literacy brokers is evolving with the introduction of digital tools; and (2) the everyday social practices associated with tool use. Consider how Mom in the Ramirez family protected her children and supported their learning and development through finding information with the help of her smart phone – information that structured their participation and movement in everyday life and supported their imaginative play. Tools, of course, are both enabling and constraining. Mom's rules both bounded her children's use of digital media, as well as structured their collaborative practice and use of their own imagination and multiple resources. When asked about the importance of technology in the social media interview, Pati responded, "technology isn't always that important, you could use a book you know. We learned that from our Mom." Mom's beliefs about technology were indexed in the family's everyday practices. As we previously mentioned, Mom in the Ramirez family believed that the parents' role as educators was to support the 'how' of achieving and modeling goals.

Moreover, we learn from our analyses that children's interest-based, collaborative new media practices emerge from the social organization of the household. We observed parents' and siblings' and cousins' rules, beliefs, and activities take shape through household activity and surface to engender activity at *El Pueblo Mágico*. The flow of practices from parents and other family members' interests and rules to young family members provides the opportunity to see what supports and constrains participation. These important understandings serve to inform new design principles that can re-mediate (Gutiérrez *et al.* 2009) participation trajectories, without divorcing activity from the social practices of the home – practices that can be important resources for appropriating digital literacies in other contexts.

Future directions

The family practices we have discussed illustrate how joint mediated activity creates a context for robust learning through the negotiation of shared tools. In the home, access to mobile tools and the absence of computers provides openings that generate co-participation across multiple members of the household; expertise and tool use are distributed. As our data indicate, strategies for access to and socialization of the use of mobile tools involved the development of shared goals for imaginative and digital game play; in the case of the cooking shows, joint media consumption connected to multiple sources of interests and contexts. These participation structures run counter to normative school practices that are organized around one-to-one use of digital tools, even though poor schools have difficulty providing this type of access. As mobile tools become increasingly ubiquitous in classrooms, understanding how these tools are situated, valued, and employed in families' everyday lives provides an important resource for the design of new learning environments and for the social organization of learning in the classroom.

Finally, with the rhetoric of twenty-first-century skills, schools look to incorporate features of collaborative and interest-based activity that occurs outside of schools, often in conjunction

with new media, digital games, and other forms of play, into classroom ecologies. Yet, too often digital tools are employed in schools for non-dominant youth in reductive, “worksheet” like activities. Too often digital tools are considered to be a “magic box” (Warshauer 2006) that can extend learning, without attention to the social context surrounding their use. To generate the kind of “media mix” (Ito *et al.* 2008) and “convergence culture” (Jenkins 2008) that develops synergies between practices, interests, and tools across contexts, educators need to have a greater understanding of how non-dominant youth are using the resources that circulate in their everyday lives, including the organization of their family lives. We look to the work of Glynda Hull and colleagues (Hull and Schultz 2002; Hull and Stornaiuolo 2014), as exemplars of studying the possibility and ingenuity of new media with youth from non-dominant communities across the globe, across settings, and along trajectories. In this work, we learn the possibilities of youth leveraging tools, identities, and new forms communication across difference; a kind of Cosmopolitanism in which the imagination and the imagined selves are central. While our work focused on the everyday routines of families and their potential to inform practices across settings, Hull’s body of work helps us understand how digital media can mediate youths’ sense of self and relationships to the world more broadly.

Notes

- 1 The Leveraging Horizontal Expertise study, funded by the MacArthur Foundation, is part of the suite of studies of the Connected Learning Research Network of which Gutiérrez is a Co-PI and project PI.
- 2 Pseudonyms are used for participants’ names.
- 3 Elizabeth Mendoza is a researcher who was co-conducting the interview with the one of the authors (Schwartz).
- 4 *Sweet Genius* is an US reality-based cooking television series on the Food Network.

Related topics

Connected learning, Horizontal expertise, Youth and family new media practices, New media literacies, Repertoires of practice, Non-dominant communities

Further reading

- Gee, J. P. (2010) Science, literacy, and video games: Situated learning, in A. J. Rodriguez (ed.), *Science Education as a Pathway to Teaching Language Literacy*, Rotterdam, Netherlands: Sense Publishers, pp. 1–13.
- Gutiérrez, K. (2014) Syncretic approaches to literacy learning: Leveraging horizontal knowledge and expertise, integrative research review, in P. J. Dunston, L. B. Gambrell, K. Headley, S. K. Fullerton, and P. M. Stecker (eds.), *Literacy Research Association Yearbook*, 63, Alamonte Springs, FL: Literacy Research Association.
- Gutiérrez, K. D. and Vossoughi, S. (2010) Lifting off the ground to return anew: Mediated praxis, transformative learning, and social design experiments, *Journal of Teacher Education*, 61(1/2): 100–117.
- Hull, G. and Schultz, K. (2002) *School’s Out! Bridging Out-of-School Literacies with Classroom Practice*, New York, NY: Teachers College Press.
- Schwartz, L. H. (2014) Challenging the tyranny of the five-paragraph essay: Teachers and students as semiotic boundary workers in classroom and digital space, *Literacy*, 48(3): 124–135.

References

- Black, R. W. (2008) *Adolescents and Online Fan Fiction*, New York, NY: Peter Lang.

- boyd, d. (2008) Why youth heart social network sites: The role of networked publics teenage social life, in D. Buckingham (ed.), *Youth, Identity, and Digital Media*, Cambridge, MA: The MIT Press, pp. 119–142.
- Caspe, M., Lopez, M. E., and Wolos, C. (2007) Family involvement in elementary school children's education, *Family Involvement Makes a Difference: Evidence that Family Involvement Promotes School Success for Every Child of Every Age 2* (Winter 2006/2007), Cambridge, MA: Harvard Family Research Project, Harvard Graduate School of Education.
- Cole, M. and Engeström, Y. (1993) A cultural-historical approach to distributed cognition, in G. Salomon (ed.), *Distributed Cognitions: Psychology and Educational Considerations*, Cambridge: Cambridge University Press, pp. 1–46.
- Cole, M. and the Distributed Literacy Consortium (2006) *The Fifth Dimension: An After-School Program Built on Diversity*, Beverly Hills, CA: Sage.
- Dearing, E., McCartney, K., Weiss, H. B., Kreider, H., and Simpkins, S. (2004) The promotive effects of family educational involvement for low-income children's literacy, *Journal of School Psychology*, 42(6): 445–460.
- Engeström, Y. (1987) *Learning by Expanding*, Helsinki, Finland: Orienta-konsultit.
- Gee, J. P. (2010) Science, literacy, and video games: Situated learning, in A. J. Rodriguez (ed.), *Science Education as a Pathway to Teaching Language Literacy*, Rotterdam, Netherlands: Sense Publishers, pp. 1–13.
- Gonzalez, J. E., Rivera, V., Davis, M., and Taylor, A. (2010) Foundations of young children's vocabulary development: The role of the home literacy environment (HLE), *Early Childhood Services: An Interdisciplinary Journal of Effectiveness*, 4: 69–86.
- Gutiérrez, K. D. (2008) Developing a sociocritical literacy in the third space, *Reading Research Quarterly*, 43(2): 148–164.
- Gutiérrez, K. D. (2011) Designing resilient ecologies: Towards a human science of learning, Presidential Address, annual meeting of the American Educational Research Association, New Orleans, LA.
- Gutiérrez, K. D. (2013) Invited Keynote, 'Syncretic approaches to literacy and biliteracy', Teachers College, New York, February 2, 2013
- Gutiérrez, K. D. and Rogoff, B. (2003) Cultural Ways of Learning: Individual traits or repertoires of practice, *Educational Researcher*, 32(5): 19–25.
- Gutiérrez, K. D. and Vossoughi, S. (2010) Lifting off the ground to return anew: Mediated praxis, transformative learning, and social design experiments, *Journal of Teacher Education*, 61(1/2): 100–117.
- Gutiérrez, K. D., Bien, A., and Selland, M. (2011) Polylingual and polycultural learning ecologies: Mediating Emergent academic literacies for dual language learners, *Journal of Early Childhood Literacy*, 11(2): 232–261.
- Gutiérrez, K. D., Izquierdo, C., and Kremer-Sadlik, T. (2010) Middle class working families' ideologies and engagement in children's extracurricular activities, *International Journal of Learning*, 17(3): 633–656.
- Gutiérrez, K. D., Morales, P. Z., and Martinez, D. C. (2009) Re-mediating literacy: Culture, difference, and learning for students from nondominant communities, *Review of Research in Education*, 33(1): 213–245.
- Hasan, R. (2002) Semiotic mediation and mental development in pluralistic societies: Some implications for tomorrow's schooling, in G. Wells and G. Claxton (eds.), *Learning for Life in the 21st Century: Sociocultural Perspectives on the Future of Education*, Oxford: Blackwell, pp. 112–126.
- Hull, G. and Schultz, K. (2002) *School's Out! Bridging Out-of-School Literacies with Classroom Practice*, New York, NY: Teachers College Press.
- Hull, G. and Stornaiuolo, A. (2014) Cosmopolitan literacies, social networks, and 'proper distance': Striving to understand in a global world, *Curriculum Inquiry*, 44(1): 15–44.
- Ito, M., Gutiérrez, K., Livingston, S., Penuel, B., Rhodes, J., Salen, K., Schor, J., Sefton-Green, J., and Watkins, S. C. (2013) *Connected Learning: An Agenda for Research and Design*, Irvine, CA: Digital Media and Learning Research Hub.
- Ito, M., Horst, H., Bittanti, M., boyd, d., Herr-Stephenson, B., Lange, P., Pascoe, C. J., and Robinson, L. (2008) *Living and Learning with New Media: Summary of Findings from the Digital Youth Project*, Chicago, IL: The John T. and Catharine MacArthur Foundation, available at: <http://digitalyouth.ischool.berkeley.edu/report>.
- Jacobs-Fantauzzi, E. (Director) (2003) *Inventos: Hip Hop Cubano*, documentary film, Omaha, NE: Clenched Fist Productions.
- Jefferson, G. (2004) Glossary of transcript symbols with an introduction, in G. H. Lerner, (ed.), *Conversation Analysis: Studies from the First Generation*, Philadelphia, PA: John Benjamins, pp. 13–31.

- Jenkins, H. (2008) *Convergence Culture: Where Old and New Media Collide*, New York, NY: NYU Press.
- Kafai, Y. B., Fields, D. A., and Hill, O. M. (2012) Connecting play: Understanding multimodal participation in virtual worlds, *Proceedings of the 14th ACM International Conference on Multimodal Interaction*, New York, NY: ACM, pp. 265–272.
- Kafai, Y. B., Heeter, C., Denner, J., and Sun J. Y. (eds.) (2008) *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*, Cambridge, MA: MIT Press.
- Kogut, B. (2004) Why adult literacy matters, *Phi Kappa Phi Forum*, 84(2): 26–28.
- Lin, H. (2008) Body, space, and gendered gaming experiences: A cultural geography of homes, cybercafes, and dormitories, in Y. B. Kafai, C. Heeter, J. Denner, and J. Y. Sun (eds.), *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*, Cambridge, MA: MIT Press, pp. 83–96.
- Livingstone, G. (2011) *Latinos and Digital Technology, 2010*, Washington, DC: The Pew Hispanic Center, available at: www.pewhispanic.org/files/reports/134.pdf.
- Lynch, J. (2009) Print literacy engagement of parents from low-income backgrounds: Implications for adult and family literacy programs, *Journal of Adolescent & Adult Literacy*, 52(6): 509–521.
- McDermott, R. and Raley, J. (2011) Looking closely: Toward a natural history of human ingenuity, in E. Margolis and L. Pawels (eds.), *The Sage Handbook of Visual Research Methods*, Los Angeles, CA: Sage, pp. 372–391.
- Melhuish, E., Sylva, K., Sammons, P., Siraj-Blatchford, I., Phan, M., and Malin, A. (2008) Preschool influences on mathematics achievement, *Science*, 321(5893): 1161–1162.
- Rogoff, B., Paradise, R., Arauz, R. M., Correa-Chavez, M., and Angelillo, C. (2003) Firsthand learning through intent participation, *Annual Review of Psychology*, 54, 175–203.
- Roschelle, J. (1992) Learning by collaborating: Convergent conceptual change, *The Journal of the Learning Sciences*, 2(3): 235–276.
- Schwartz, L. H. (2014) Challenging the tyranny of the five-paragraph essay: Teachers and students as semiotic boundary workers in classroom and digital space, *Literacy*, 48(3): 124–135.
- Schwartz, L. H. and Gutiérrez K. D. (2013) Turn-taking and *inventos*: Examining the everyday lives of Latino families and designing learning ecologies with youth and under-graduates, paper presented at the Digital Media and Learning Conference, Chicago, IL, March.
- Smith, A. (2011) *Americans and Their Cell Phones*, Washington, DC: Pew Research Center, available at: www.pewinternet.org/2011/08/15/americans-and-their-cell-phones/.
- Takeuchi, L. and Stevens, R. with Barron, B., Branch-Ridley, E., Brooks, M., Cooperman, H., Fenwick-Naditch, A., Fisch, S., Herr-Stephenson, R., Llorente, C., Mehus, S., Pasnik, S., Penuel, W., and Revelle, G. (2011) *The New Coviewing*, New York, NY: The Joan Ganz Cooney Center at Sesame Workshop and LIFE Center, available at: www.joanganzcooneycenter.org/publications/.
- Torr, J. (2008) Mothers' beliefs about literacy development: Indigenous and Anglo-Australian mothers from different educational backgrounds, *The Alberta Journal of Educational Research*, 54(1): 65–82.
- U.S. Department of Education (1999) *America Reads: Start Early, Finish Strong*, Washington, DC: U.S. Department of Education.
- Vasquez, O. (2002) *La Clase Mágica: Imagining Optimal Possibilities in a Bilingual Community of Learners*, Mahwah, NJ: Lawrence Erlbaum Publishers.
- Vygotsky, L. (1986) *Thought and Language*, Cambridge, MA: MIT Press.
- Warschauer, M. (2006) *Laptops and Literacy, Learning in the Wired Classroom*, New York, NY: Teachers College Press.
- Weisner, T. S. (1984) Ecocultural niches of middle childhood: A cross-cultural perspective, in W. A. Collins (ed.), *Development During Childhood: The Years from Six to Twelve*, Washington, DC: National Academy of Science Press, pp. 335–369.
- Weisner, T. S. (2003) Sustainable daily routines: An ecocultural theory of well-being, paper presented at the annual meeting of the American Anthropological Association Meeting, Chicago, IL, November 23.
- Yee, N. (2008) Maps of digital desires: Exploring the topography of gender and play in online games, in Y. B. Kafai, C. Heeter, J. Denner, and J. Y. Sun (eds.), *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*, Cambridge, MA: MIT Press, pp. 83–96.