

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/387818075>

Sustaining Latine Families' Cultural Values Through Technology Mediation Practices

Article in *Journal of Latinos and Education* · January 2025

DOI: 10.1080/15348431.2024.2444942

CITATIONS

0

READS

45

8 authors, including:



Julie Salazar

University of California, Irvine

4 PUBLICATIONS 25 CITATIONS

SEE PROFILE



Andres Bustamante

University of California, Irvine

41 PUBLICATIONS 797 CITATIONS

SEE PROFILE



Sustaining Latine Families' Cultural Values Through Technology Mediation Practices

Julie Salazar, Isabella T. Seccia, Jennie V. Maldonado, Laura Hernandez, Vanessa N. Bermudez, Lourdes M. Acevedo-Farag, June Ahn & Andres S. Bustamante

To cite this article: Julie Salazar, Isabella T. Seccia, Jennie V. Maldonado, Laura Hernandez, Vanessa N. Bermudez, Lourdes M. Acevedo-Farag, June Ahn & Andres S. Bustamante (07 Jan 2025): Sustaining Latine Families' Cultural Values Through Technology Mediation Practices, Journal of Latinos and Education, DOI: [10.1080/15348431.2024.2444942](https://doi.org/10.1080/15348431.2024.2444942)

To link to this article: <https://doi.org/10.1080/15348431.2024.2444942>



Published online: 07 Jan 2025.



Submit your article to this journal [↗](#)




View related articles [↗](#)



View Crossmark data [↗](#)



Sustaining Latine Families' Cultural Values Through Technology Mediation Practices

Julie Salazar , Isabella T. Seccia, Jennie V. Maldonado, Laura Hernandez, Vanessa N. Bermudez, Lourdes M. Acevedo-Farag, June Ahn, and Andres S. Bustamante

School of Education, University of California, Irvine, California, USA

ABSTRACT

Technology such as smartphones, tablets, and computers have become frequently used in today's world for the education of school-aged children. Latine families are one of the largest marginalized groups in the United States that rely on technology, yet they are largely excluded from technology-based research. We examined Latine caregivers' technological usage and mediation practices, and the cultural values embedded within those practices. In partnership with the Santa Ana Early Learning Initiative (SAELI), a community organization serving families with young children, we conducted ten virtual semi-structured interviews in Spanish with caregivers of Mexican and Guatemalan descent living in the United States. Caregivers described their learning experiences and home dynamics surrounding technology usage. Using a thematic analysis approach, we identified emergent themes amongst caregivers that focus on three specific cultural values: *familismo*, resilience, and *educación*. Our findings suggest Latine families' cultural values play a vital role in their mediation practices. Using Latine families' cultural and mediation practices as crucial resources can help us develop culturally sustaining technology to provide more meaningful learning experiences for children and families.

KEYWORDS

Latine families; mediation practices; technology mediation; cultural values

Introduction

Technology, such as smartphones and tablets, has become ubiquitous in children's lives, enough that digital media usage starts as early as four months of age, while computer usage begins around the ages of three and four (Geurts et al., 2022; Reid Chassiakos et al., 2016; Wood et al., 2016). This rise in technology usage has sparked increasing interest among researchers in how caregivers support children's engagement with technology. However, most studies on technology usage are centered on White, European families (Chaudron et al., 2018; Geurts et al., 2022), leaving Latine families underrepresented in technology and mediation research (Connell et al., 2015).

Families from different cultural backgrounds support children's technology use in distinct ways. The lack of research examining the ways in which Latine caregivers allow or prohibit the use of technology, termed mediation practices, leads to questions regarding how the cultural values of these families impact such practices (Connell et al., 2015). This gap misses an opportunity to sustain and reinforce the core cultural values of these communities (Paris, 2012). Investigating these practices can provide insight into opportunities to reinforce the existing practices of families and develop more culturally sustaining technology that promotes positive child development within minoritized populations (Anderson-Coto et al., 2024).

The Latine population is the largest ethnic minority group in the United States, representing 19% of the population and making up 28% of families living under the poverty line (Creamer, 2021). According to Ochoa and Reich (2020), low-income families are more likely to use mobile devices for internet access. Thus, further research is needed to understand how Latine families use technology and how technology can support and build from their cultural practices and strengths.

This study explored technology mediation practices within Latine families to understand how they foster and support the use of technology within their households. We explored the mediation practices that Latine caregivers used through qualitative interviews to investigate how they use technology with their children and what rules and norms they practice within their homes. The study is grounded in the experiences of Latine caregivers, providing an in-depth view of how technology has been integrated into their home life and what foundational cultural practices and values are embedded into their technological mediation styles.

Literature review

Parental mediation theory

Recent work has employed the term “parental mediation,” which recognizes caregivers’ active role in regulating their children’s experiences with digital media (Clark, 2011). This study uses the term “caregiver mediation” to capture the range of adults in a child’s life, including grandparents and extended family members. In contrast, other literature describes caregiver mediation as a form of parental management in the relation between their child and media (Smahelova et al., 2017; Sobel et al., 2017). Although mediation focuses on media management and supervision, caregivers’ practices play an active role in constructing the family values and home environment surrounding media usage (Livingstone & Helsper, 2008; Smahelova et al., 2017).

Prior studies have observed three categories of caregiver mediation: active mediation, co-viewing/co-using, and restrictive mediation. *Active mediation* is centered around conversations between caregivers and children during media usage (Clark, 2011; Sobel et al., 2017; Valkenburg et al., 1999; Yu et al., 2021). Caregivers engage their children in dialogue around safe internet and digital media practices (Sobel et al., 2017). *Co-viewing/Co-using* refers to parental mediation actions including teaching, collaborating, and learning alongside their children (Clark, 2011; Sobel et al., 2017; Valkenburg et al., 1999). Lastly, *restrictive mediation* is the implementation of rules and media limitations to mitigate potential adverse effects of excessive digital media usage (Nikken & Jansz, 2006; Sobel et al., 2017). All three mediation practices describe caregivers’ approaches to managing their child’s digital experience.

Scholars have examined the association between mediation practices and family dynamics. Nikken and Jansz (2014) found that parents with a positive outlook on technology often mediate technology usage and frequently engage in co-using practices with their children. The caregiver’s role is to help their children find the balance within digital media usage as well as provide and restrict access that limits children’s usage by implementing rules (Livingstone et al., 2015). However, caregiver mediation of technology can look different depending on the cultural context. For example, research reveals evidence of white middle-class families experiencing low parental engagement when their children use digital media, instead caregivers use technology as a means to occupy children’s attention while they complete other tasks (Geurts et al., 2022). Conversely, emerging evidence around technology use in Latine families suggests co-usage as a tool to increase family time and interaction (Connell et al., 2015). Unfortunately, mediation research has predominantly focused on white middle-class families (Geurts et al., 2022; Livingstone & Helsper, 2008; Nikken & Jansz, 2014; Smahelova et al., 2017), thus providing little information surrounding co-usage among minoritized populations (Connell et al., 2015; Nathanson, 2010). Given technology’s prevalence, researchers should explore the unique ways that minoritized caregivers mediate technology usage to reinforce cultural values and practices.

Latine families and cultural values

Many cultural groups hold similar core values with the intent to raise their children to become responsible members of society (Phinney et al., 2000). However, values differ across groups (Kluckhohn & Strodtbeck, 1961; Phinney et al., 2000). This research focuses on Latine families that revere *familismo*, resilience, and *educación* as prominent cultural values.

Familismo is theorized as a core value that stresses the interconnectedness between family members (V. N. Bermudez et al., 2023; Calzada et al., 2013; Piña-Watson et al., 2013) and how family members collectively support each other (Smith-Morris et al., 2012). Child-rearing Latine families that face poverty, acculturation, and discrimination often use *familismo* as a safeguard for children's development through a strong family and community network (Calzada et al., 2013). Given that many Latine families report higher levels of family cohesion than Euro-Americans, *familismo* remains consistently high across generations, regardless of their country of origin or level of acculturation (Halgunseth et al., 2006).

Cardoso and Thompson (2010) define resilience as positive adaptation to threatening environments. J. M. Bermudez and Mancini (2013) highlight that resilience is often expressed through culturally embedded saying or *dichos*, such as “*échale ganas*” (“give it your all”) and “*si se puede*” (“yes you can”) which serve as forms of encouragement (Jabbar et al., 2019). Studies like Jabbar et al. (2019) present examples of where Latine caregivers use *dichos* like “*échale ganas*” to encourage their children to pursue higher education (Jabbar et al., 2019).

Lastly, *educación* holds an important value to Latine families, encompassing more than just academic learning but gaining the ability to navigate relationships and social systems (Marrero, 2016). Through the value of *educación*, caregivers and families emphasize the importance of building moral development in their children inside and outside of the home, including *respeto* (respect) for elders and other prosocial behaviors referred to as being *bien educado* (well-mannered or well-educated; Borrego et al., 2006; Carlo & Pierotti, 2020; Espino, 2016).

Understanding these cultural values is crucial for developing culturally sustaining technology that resonates with Latine families. By embedding *familismo*, resilience, and *educación* into the design and functionality of educational tools, developers can create culturally sustaining technologies that support and enhance the learning experiences of Latine children. This approach not only promotes engagement and success but also validates and respects the cultural heritage of Latine communities, ensuring that technology serves as an inclusive and empowering resource.

Theoretical framework

For this study we pulled from Yosso's (2005) Cultural Wealth framework and Moll et al. (1992) Funds of Knowledge (FoK) theory to create a more comprehensive lens to understand the cultural values and practices that inform Latine families' technological mediation practices.

Latine families hold a cultural wealth, as described by Yosso (2005), characterized by the array of knowledge, skills, and abilities utilized by communities of color. This study examines the familial, social, and linguistic capital of Latine families as strengths that support their technological mediation practices and contribute to the development of their children. Familial capital refers to the cultural knowledge that is shared amongst family members, which models lessons of caring and providing (*familismo*) and informs children's moral and emotional consciousness (*educación*; Yosso, 2005). Social capital is viewed as the network of people that surrounds the individual (Stanton-Salazar & Spina, 2000; Yosso, 2005) which, in a child's life, includes familial support, networks with resources and supervision for youth, and norms surrounding education (Denner et al., 2001). Meanwhile, linguistic capital examines the intellectual and social skills obtained through communication, such as familial responsibility and social maturity (Yosso, 2005). Linguistic capital helps Latine students in many ways, including an understanding of different cultures, the ability to teach and help others, and various cognitive and language benefits

associated with bilingualism (Bialystok et al., 2014; Rios-Ellis et al., 2015). Lastly, navigational capital captures how community members navigate the system using their knowledge and resources (Vesely et al., 2013; Yosso, 2005). In Latine families, children often take on navigating English-only systems (e.g., DMV, doctors' offices) from a young age as they serve as language brokers for their families (Roldan et al., 2019). By recognizing Latine families' cultural wealth, we can inform the development of educational technologies that not only support but also sustain their cultural values and practices.

Funds of Knowledge (FoK) are the historical and cultural values, beliefs, practices, and skills accumulated through time that assists with the functioning and well-being of minoritized communities (Moll et al., 1992; Vélez-Ibáñez & Greenberg, 1989). Funds of Knowledge serve as a protective factor for marginalized communities against societal inequities like racism and xenophobia (Coll et al., 1996). In Latine families, FoK are related to warmer caregiver-child relationships, as well as better learning and development outcomes (Denmark et al., 2014; Gamble & Modry-Mandell, 2008). Recent research has used the FoK framework to develop learning environments that reflect Latine families practices and values (Belgrave et al., 2022; V. N. Bermudez et al., 2023) and has even begun to integrate these values and practices into the development of educational technology (Andreson-Coto et al., 2024). However, to design these experiences and applications more effectively, we need additional research into how Latine families think about, utilize, and mediate technology to sustain their cultural values.

Methodology

This study explored Latine families' values and practices with technology and how they sustain their culture through technology mediation. In order to gain a deeper insight into Latine families mediation practices, we used the following research question to guide our study: *How do Latine caregivers sustain their cultural values through technology mediation practices?*

Participants

Recruitment was conducted through our community partner, Santa Ana Early Learning Initiative (SAELI), a nonprofit organization that works with caregivers with young children to promote positive development. Directors from SAELI assisted participant recruitment by promoting the opportunity to families who are actively involved with the nonprofit. Participants were then selected using the following criteria: identified as Latine, had at least one child between the ages of 0–9 years old, and lived in Santa Ana, CA.

Our analysis consisted of individual semi-structured interviews ($N = 10$). The participants in our study were Latine caregivers, all of whom were mothers and born outside of the U.S. (e.g., in Mexico and Guatemala). Their ages ranged from 30 to 47 years old, and they had 2 to 7 children, with an average age of 11.13. The homes of these caregivers were equipped with an average of four cell phones, three tablets, and two laptops/Chromebooks, reflecting the prevalence of technology in their daily lives (see Table 1).

Interview procedures

Caregivers were recruited in 2021 and gave informed consent in accordance with the University of California IRB protocol 2818. This study focused on caregiver interviews to gain an insight into their unique perspective on co-using and mediating technology in formal (at home) and informal spaces (community) that were approximately 30 minutes each. The virtual interviews were conducted in Spanish and used a semi-structured format with open-ended questions that allowed for additional probing to obtain in-depth responses from caregivers. Questions from the scripts captured how caregivers co-use technology with their children, how they mediate technology usage within their

Table 1. Caregivers' self-identified demographics.

Participant	Gender	Ethnicity	Birthplace	Age	Children	Cellphones	Tablets	Computers
Nancy	Female	Latina	Mexico	43	3	4	3	2
Ruby	Female	Latina	Mexico	44	4	4	1	1
Victoria	Female	Latina	Mexico	42	2	4	4	1
Alena	Female	Latina	Mexico	30	2	2	1	1
Laura	Female	Latina	Mexico	46	3	4	2	1
Valeria	Female	Latina	Mexico	44	3	3	0	4
Nena	Female	Latina	Mexico	47	3	4	4	2
Renee	Female	Latina	Mexico	36	2	3	3	0
Erica	Female	Latina	Mexico	38	7	5	6	1
Sandy	Female	Latina	Guatemala	36	3	3	3	3

home, and lastly, how they would want their community to mediate technology in playful learning environments.

Prior to interviewing, three bilingual Latina research assistants (undergraduate, graduate student, and postdoc) attended three training sessions hosted by the first author. At these training sessions, research assistants were familiarized with the protocol and participated in peer-to-peer interviews to practice probing techniques. To obtain in-depth responses from participants, interviewers used open-ended probing techniques tailored to specific experiences (e.g., *¿Me puede contar más sobre su experiencia?* Can you tell me more about your experience?). All participants were compensated for their time.

During data collection, the team met weekly to discuss any issues or concerns that arose from the interview or script. The interviewers video and audio recorded each session and transcribed them using *Happy Scribe*. After the initial automated transcription, two research assistants proofread each transcript of the interviews. All interviews were transcribed and analyzed in the original Spanish language. Lastly, each participant was given a pseudonym to protect their anonymity.

Analysis

Coding analysis was conducted using MAXQDA, a qualitative coding software, to identify patterns through emergent themes using an inductive approach (Saldana, 2016). In the first stage of coding, the coding team read all ten interviews, thereby identifying examples of the three caregiver mediation practices (active mediation, co-viewing/co-using, and restrictive mediation) through a deductive approach. In the second round of coding, an inductive approach was taken to analyze excerpts from the first round of coding to highlight caregivers' values and their normative family interactions around digital media. In addition, the authors kept analytic memos to capture any themes or patterns that arose during the coding process and held weekly meetings to discuss codes.

Results

In our findings, we identified several cultural values and practices that are sustained through the three caregiver mediation practices: active mediation, co-viewing/co-using, and restrictive mediation.

Sustaining cultural values through active mediation

Active mediation is centered around the caregivers' conversations involving media usage. In our interviews, Latine mothers expressed talking to their children about their safety concerns surrounding media usage. Laura shares how she closely monitors games that involve interacting with others online, ". . .les digo que yo no sé quiénes son, ni con quiénes están jugando o con quién se están conectando . . ." (I tell them that I don't know who they are, or who they're playing with or

connecting with). She shares how her children would have an open dialogue about whom they are playing with online, “*Ellos dicen – Ah, mira, aquí está, es el niño de tu amiga.—*” (They say, “Oh, look, here he is, he’s your friend’s child.) This example ties into the cultural value of *respeto* because Laura’s and other caregivers’ children hold the value of keeping an open line of communication when it comes to online play by advising their parents whom they are interacting with and asking permission before they play online.

Caregivers also shared about the open communication they had with their children about media content, such as what they may or may not have access to. Valeria shares that her children know they have access to the “Kid’s Profile” on a popular streaming service, but there are restrictions. In Valeria’s interview she states “. . .ellos ya saben, a pesar de que está dentro del área de los niños [. . .] ellos ya saben que hay cosas que no pueden ver porque no me gusta el contenido.” (They already know, even though it is within the children’s area they already know that there are things that they cannot see because I do not like the content.) This demonstrates that the family had previous conversations about what content is appropriate for their children, thus respecting their caregiver’s wishes to avoid certain content.

Another way caregivers have reinforced the cultural value of respect is by having consequences when they do not communicate with their caregiver regarding technology usage. For example, Nancy shared that she mediated when her child did not show respect toward her: “*Hay veces que no me hacen caso, pero como lo digo, hay consecuencias. Les quitó los privilegios de poderlo usar [la tableta o playstation].*” (There are times when they don’t listen to me, but as I say, there are consequences. I take away their privileges of being able to use [the tablet or playstation].) Nancy was reinforcing the importance of being *bien educado*, by implementing consequences when the child does not respect the caregiver’s wishes.

Sustaining cultural values through co-viewing/co-using

When doing homework on educational apps like *Lexia Reading* and *ST-Math Jiji*, Nancy mediates her child’s screen time by engaging with them and scaffolds the experience through co-viewing/co-using. She shares how she learns from her children when they use educational apps together. For instance, her child will model how to solve a math problem and Nancy shares, “*así es como yo aprendo con ellos juntos también.*” (That’s how I learn with them together as well.) She then expressed that when she joins her children during homework time (co-using/viewing), her children become motivated to do their homework, “. . .yo al sentarme con ellos a hacer la tarea y yo a un lado con ellos, los motiva.” (. . . when I sit down with them to do homework, and I’m there beside them, it motivates them.) She feels that co-viewing impacts her children, making them more determined to complete their tasks than if she let them complete digital homework on their own. Here we see two cultural values arise, the first one being *familismo*, where the child is finding the support they need through their mother and second, the child feeling motivated to do their homework, which represents the value of *echandole ganas*, or working hard.

Other caregivers also shared experiences of learning new concepts from their children. Sandy shared how her older son initiates knowledge sharing through technology, “*me pone con el YouTube y me dice – mira mamá, esto pasó en las guerras— [. . .] Y se pone a contarme que quien invadió Rusia y todo eso*” (He puts me on YouTube and says, ‘look mom, this happened in the wars’ [. . .] And he starts telling me who invaded Russia and all that). By implementing co-using practices, Latine families practice *familismo* by engaging in these co-learning opportunities using technology.

Through this co-learning, caregivers model navigating the challenges of learning something new and dispositions of persistence in the face of challenges. Ruby finds technology to be a helpful tool for her child’s education but expresses her challenge with navigating technology due to her lack of English proficiency. Ruby shares, “. . .yo no hablo ingles, pero creo que no es la excusa como para decir – pues yo no puedo ayudar a mi hijo.—” (I don’t speak English, but I don’t think that’s an excuse to say, “Well, I can’t help my child.”) This example shows the cultural value of resilience. Ruby migrated from

Mexico in her early 20s and expressed not knowing the dominant language but is determined to help her child succeed by having a *sí se puede* (yes you can) attitude, which is a common saying to model a disposition of persistence in the face of challenges.

In Victoria's case, she shares a similar challenge when it comes to using digital tools for her child's learning. Victoria shares how her child was working on a project regarding the Buena Vista mission, and was having a hard time finding books related to the subject, "*Entonces nos pusimos ahí en la computadora. Pero como todo viene en inglés, este yo nada más miro ahí con él y él —[hace sonidos de teclear]—, está agarrando la información que necesita. . .*" (So we got on the computer. But since everything comes in English, I just watch him and he—[makes typing noises]— is grabbing the information he needs) Although Victoria and her child were able to get the information they needed, they encountered a language barrier as the information was only available in English. Victoria empowered her child to take the lead in their effort and use their English language skills to get the information they needed. Here Victoria models a *sí se puede* (yes you can) attitude and the humility to let her child lead when they have skills or expertise that she does not have.

Sustaining cultural values through restrictive mediation

Restrictive mediation refers to the guidelines and boundaries caregivers establish regarding their children's media usage, primarily aimed at preventing any adverse effect it may have on a child. In our interviews, Latine mothers discussed implementing time limits and boundaries for their children's media usage, as well as assigning additional responsibilities before allowing any tech time. They also mentioned how their children ask permission prior to initiating tech usage.

Ruby shares her experience of restricting media usage with her children by setting time limits. She shares how her child asks before using any media, such as a game console. Ruby allowed her child to play for 40 minutes on their game console, then noticed they did not put away their clothes or toys. Ruby described the importance of family contributions as "*—no es un quehacer, es un deber.— Le digo [. . .] todos vivimos en casa, todos debemos de tratar de mantenerla en orden lo mejor arreglada posible.*" ("It's not a chore, it's a duty," I tell him [. . .] we all live in the house, we all should try to keep it as tidy as possible.) She follows with, "*Y fue de esa manera [. . .] como he tratado de que ellos entiendan, de que si hacen algo bueno, algo bueno van a obtener.*" (And it was in this way [. . .] that I've tried to make them understand that if they do something good, they will get something good in return.) While using restrictive mediation practices, Ruby sets the foundation for teaching the importance of family contributions which align with cultural values such as *familismo*, *respeto*, and *educación*. Contributing to the household sets the foundation for *familismo* by placing children in a position to contribute and reinforcing the idea that everyone needs to do their part, which aligns with *educación* and *respeto*.

Valeria holds her children to a similar standard to Ruby. She expressed "*. . . si en toda la semana hicieron todo lo que tenían que hacer, sin yo estarles diciendo . . . si ellos lo hacen como parte de sus deberes que tienen que hacer entonces ellos ya saben que el fin de semana tienen free time.*" (. . . if they did everything they had to do all week, without me telling them . . . if they do it as part of their chores that they have to do, then they already know that they have free time on the weekend.) This quote demonstrates her expectation that children self-monitor and complete their responsibilities to the family before they get access to media. Through this mediation practice Valeria is sustaining the values of *respeto* and *familismo*, by setting the expectation that children are honoring their responsibility to their family and contributing to household goals.

Lastly, caregivers mentioned restricting time for the sake of having quality time with the family. Laura shares how she tells her children, "*. . . cuando tenemos reunión familiar o tenemos una visita, olvidense de eso, atiendan la visita y conversen más, hablen más*" (. . . when we have a family gathering, or we have visitors, forget about that, pay attention to the visitors and talk more, converse more), so they can be more present and interact with their family. This practice fosters good manners, represented by the value of *educación* and showing respect to guests by giving them one's full attention.

Discussion

This study explored how Latine caregivers' sustain their cultural values through various technology mediation practices: active mediation, co-viewing/co-using, and restrictive mediation. While referring to the three mediation practices, we highlighted the type of practices taken by the Latine caregivers and cultural values that interplay with their mediation styles. Findings suggest that cultural values are embedded within the mediation practices of Latine families. Three core cultural values arose from the interviews: *familismo*, resilience, and *educación*.

When Latine caregivers practiced active mediation, examples emerged showcasing the explicit requirement for children to communicate with those with whom they intended to interact online and ask for permission before using any form of technology. This practice sustained the cultural value of *educación*, which includes *respeto*, having a deep respect for their elders. Caregivers prioritize online safety and encourage their child to keep them informed about their online interactions. Secondly, caregivers reform these cultural values by having consequences when rules are broken. Keeping an open line of communication between caregiver and child during active mediation aligns with the literature on linguistic and familial capital because it relates to the child's communication skills to maintain healthy relationships with family members (Yosso, 2005).

During co-viewing and co-using, Latine caregivers shared how they used this practice as an opportunity to scaffold learning and use technology to spend quality time with their children. Caregivers shared how partaking in digital activities together, such as homework, would not only motivate the child but also create a learning opportunity for both caregivers and children. Through these experiences, caregivers gave their children a sense of familial support, as seen in *familismo*, which has been linked to child motivation toward academic achievement (Calzada et al., 2013; Esparza & Sánchez, 2008; La Roche & Shriberg, 2004). Additionally, co-learning also aligns with *familismo*; here, caregivers use this as an opportunity to spend time with their children, whether working on homework or watching digital media (e.g., YouTube videos). This example aligns with what Geurts et al. (2022) saw in their study of Latine caregivers using technology as a way to spend quality time with their children in contrast to white middle-class caregivers using technology as a distractor. From this finding, technology designers can sustain Latine families' value of *familismo* by designing collaborative games that enable multiple players or explicitly ask for children and families to converse or work together on a challenge; this way, families learn while playing together, leading to stronger family bonds and communication (De La Hera et al., 2017).

Additionally, when practicing co-viewing and co-using mediation, Latine caregivers shared their challenges with technology, such as navigating novel digital tools and language barriers. They used these challenges as opportunities to model positive dispositions toward learning and persistence. Caregivers highlighted the value of resilience in helping them overcome adversity. While navigating language barriers like English language activities for Spanish monolingual caregivers, they did not let those barriers hinder their ability to assist their children with learning through technology. Not only does this align with the literature on the resilience of Latine families (Cardoso & Thompson, 2010), but it also aligns with navigational capital as it refers to characteristics like determination to maneuver within new systems and institutions that were not designed for them (Vesely et al., 2013; Yosso, 2005), in this case, personal technology. Designers can also leverage cultural references to invoke family values and assets. For example, they could promote resilience by using *dichos* (i.e., cultural sayings; J. M. Bermudez & Mancini, 2013) like *si se puede* (i.e., yes you can). Additionally, digital media, such as homework apps, can be made more accessible by enabling them to switch between English and Spanish so both children and caregivers can learn and support each other's language skills.

Lastly, through restrictive mediation, we observed how caregivers used household chores to sustain the value of *educación*. By having tasks that contributed to the household, Latine caregivers enabled their children to contribute to the family and earn time playing with technology; this aligns with extant literature on familial capital and their moral consciousness (Yosso, 2005). By practicing this form of mediation, caregivers can develop their child's prosocial behaviors and raise children who are seen as

bien educados and contribute to their households (Carlo & Pierotti, 2020). Through understanding values like *educación*, technology designers can create prosocial games where children help others, further reinforcing prosocial behaviors and traits in children (Gentile et al., 2009). Additionally, designers should create characters that are influenced by Latine families' values to promote not only values like *educación* and *familismo*, but create scenarios where family contribution is taking place (Anderson-Coto et al., 2024).

Conclusion and future direction

This study explored how Latine caregivers utilize mediation practices – active mediation, co-using/co-viewing, and restrictive mediation – to reinforce cultural values such as *familismo*, resilience, and *educación*. By gaining insight into how Latine families mediate technology usage, designers can develop educational tools that allow families to sustain their cultural practices. Educational media should be co-designed with Latine families to ensure that their values and practices are embedded in the design process. Involving Latine families in design allows for educational technology to be more relevant, accessible, and responsive to their unique needs and strengths.

Additional research is needed to study the effectiveness of educational tools that are designed to sustain cultural values. For example, are families using the tools more, engaging in more cultural practices, and does improved learning take place when they use a tool that takes this approach? Mixed methods researchers can lend insights into these questions through interviews to assure that tools are representing family and community values, observational studies that document the cultural practices that the tools were designed for, and experimental studies to measure the impact on frequency and duration of usage and child learning.

Designers and researchers should develop frameworks to co-create technologies with historically marginalized communities that are both flexible, adaptable, and reinforcing community cultural assets and learning practices. Developing educational technology that sustains culture requires a holistic approach, where designers not only consider academic outcomes but also prioritize community engagement to promote the development of cultural values. By centering the voices of Latine families in the design process, educational technologies can strengthen cultural values and practices to promote powerful learning.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The work was supported by the Heising-Simons Foundation [2021-2810]; National Science Foundation [2005776]; This material is based upon work supported by the National Science Foundation Graduate Research Fellowship Program under Grant No. [DGE-1839285]. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

ORCID

Julie Salazar  <http://orcid.org/0000-0002-8275-4644>

References

Anderson-Coto, M. J., Salazar, J., Lopez, J. L.-S., Sedas, R. M., Campos, F., Bustamante, A. S., & Ahn, J. (2024). Towards culturally sustaining design: Centering community's voices for learning through participatory design. *International Journal of Child-Computer Interaction*, 39, 100621. <https://doi.org/10.1016/j.ijcci.2023.100621>

- Belgrave, A. B., Bermudez, V. N., Chew, P., Lin, Y., Ahn, J., & Bustamante, A. S. (2022). Using a participatory design approach for co-creating culturally situated STEM enrichment activities. *Journal of Applied Developmental Psychology*, 82, 101451. <https://doi.org/10.1016/j.appdev.2022.101451>
- Bermudez, J. M., & Mancini, J. A. (2013). Familias Fuertes: Family resilience among latinos. In D. S. Becvar (Ed.), *Handbook of family resilience* (pp. 215–227). Springer New York. https://doi.org/10.1007/978-1-4614-3917-2_13
- Bermudez, V. N., Salazar, J., Garcia, L., Ochoa, K. D., Pesch, A., Roldan, W., Soto-Lara, S., Gomez, W., Rodriguez, R., Hirsh-Pasek, K., Ahn, J., & Bustamante, A. S. (2023). Designing culturally situated playful environments for early STEM learning with a latine community. *Early Childhood Research Quarterly*, 65, 205–216. <https://doi.org/10.1016/j.ecresq.2023.06.003>
- Bialystok, E., Poarch, G., Luo, L., & Craik, F. I. (2014). Effects of bilingualism and aging on executive function and working memory. *Psychology and Aging*, 29(3), 696. <https://doi.org/10.1037/a0037254>
- Borrego, J., Anhalt, K., Terao, S. Y., Vargas, E. C., & Urquiza, A. J. (2006). Parent-child interaction therapy with a Spanish-speaking family. *Cognitive and Behavioral Practice*, 13(2), 121–133. <https://doi.org/10.1016/j.cbpra.2005.09.001>
- Calzada, E. J., Tamis LeMonda, C. S., & Yoshikawa, H. (2013). *Familismo* in Mexican and Dominican families from low-income, urban communities. *Journal of Family Issues*, 34(12), 1696–1724. <https://doi.org/10.1177/0192513X12460218>
- Cardoso, J. B., & Thompson, S. J. (2010). Common themes of resilience among Latino immigrant families: A systematic review of the literature. *Families in Society: The Journal of Contemporary Social Services*, 91(3), 257–265. <https://doi.org/10.1606/1044-3894.4003>
- Carlo, G., & Pierotti, S. L. (2020). The development of prosocial motives. In L. Arnett Jensen (Ed.), *The Oxford Handbook of Moral Development: An Interdisciplinary Perspective* (pp. 27–51). Oxford University Press.
- Chaudron, S., Marsh, J., Donoso Navarette, V., Ribbens, W., Mascheroni, G., Smahel, D., Cernikova, M., Dreier, M., Korkeamäki, R.-L., Livingstone, S., Ottovordemgentschenfelde, S., Plowman, L., Fletcher-Watson, B., Richardson, J., Shlyapnikov, V., & Soldatova, G. (2018). Rules of engagement: Family rules on young children's access to and use of technologies. In S. J. Danby, M. Fleer, C. Davidson, & M. Hatzigianni (Eds.), *Digital childhoods* (Vol. 22, pp. 131–145). Springer Singapore. https://doi.org/10.1007/978-981-10-6484-5_9
- Clark, L. S. (2011). Parental mediation theory for the digital age. *Communication Theory*, 21(4), 323–343. <https://doi.org/10.1111/j.1468-2885.2011.01391.x>
- Coll, C. G., Lambert, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Garcia, H. V. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67(5), 1891. <https://doi.org/10.2307/1131600>
- Connell, S. L., Lauricella, A. R., & Wartella, E. (2015). Parental co-use of media technology with their young children in the USA. *Journal of Children and Media*, 9(1), 5–21. <https://doi.org/10.1080/17482798.2015.997440>
- Creamer, J. (2021, December 9). *Inequalities persist despite decline in poverty for all major race and hispanic origin groups*. Census.gov. <https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html>
- De La Hera, T., Loos, E., Simons, M., & Blom, J. (2017). Benefits and factors influencing the design of intergenerational digital games: A systematic literature review. *Societies*, 7(3), 18. <https://doi.org/10.3390/soc7030018>
- Denmark, N. M., Harden, B. J., & Gonzalez, M. (2014). Low-income central American immigrant mothers' goals and their children's classroom competencies in preschool. *Early Education & Development*, 25(5), 723–745. <https://doi.org/10.1080/10409289.2013.848501>
- Denner, J., Kirby, D., Coyle, K., & Brindis, C. (2001). The protective role of social capital and cultural norms in Latino communities: A study of adolescent births. *Hispanic Journal of Behavioral Sciences*, 23(1), 3–21. <https://doi.org/10.1177/0739986301231001>
- Esparza, P., & Sánchez, B. (2008). The role of attitudinal familism in academic outcomes: A study of urban, Latino high school seniors. *Cultural Diversity & Ethnic Minority Psychology*, 14(3), 193–200. <https://doi.org/10.1037/1099-9809.14.3.193>
- Espino, M. M. (2016). The value of education and *Educación*: Nurturing Mexican American children's educational aspirations to the doctorate. *Journal of Latinos and Education*, 15(2), 73–90. <https://doi.org/10.1080/15348431.2015.1066250>
- Gamble, W. C., & Modry-Mandell, K. (2008). Family relations and the adjustment of young children of Mexican descent: Do family cultural values moderate these associations? *Social Development*, 17(2), 358–379. <https://doi.org/10.1111/j.1467-9507.2007.00429.x>
- Gentile, D. A., Anderson, C. A., Yukawa, S., Ihori, N., Saleem, M., Ming, L. K., Shibuya, A., Liau, A. K., Khoo, A., Bushman, B. J., Rowell Huesmann, L., & Sakamoto, A. (2009). The effects of prosocial video games on prosocial behaviors: International evidence from correlational, longitudinal, and experimental studies. *Personality & Social Psychology Bulletin*, 35(6), 752–763. <https://doi.org/10.1177/0146167209333045>
- Geurts, S. M., Koning, I. M., Vossen, H., & Van den Eijnden, R. J. J. M. (2022). A qualitative study on children's digital media use and parents' self-interest. *Journal of Child & Family Studies*, 31(7), 2015–2026. <https://doi.org/10.1007/s10826-021-02074-3>

- Halgunseth, L. C., Ispa, J. M., & Rudy, D. (2006). Parental control in Latino families: An integrated review of the literature. *Child Development*, 77(5), 1282–1297. <https://doi.org/10.1111/j.1467-8624.2006.00934.x>
- Jabbar, H., Serrata, C., Epstein, E., & Sánchez, J. (2019). “*échale ganas*”: Family support of Latino/a community college students’ transfer to four-year universities. *Journal of Latinos and Education*, 18(3), 258–276. <https://doi.org/10.1080/15348431.2017.1390462>
- Kluckhohn, F., & Strodtbeck, F. (1961). *Variations in value orientations*. Row, Peterson.
- La Roche, M., & Shriberg, D. (2004). High stakes exams and Latino students: Toward a culturally sensitive education for Latino children in the United States. *Journal of Educational & Psychological Consultation*, 15(2), 205–223. https://doi.org/10.1207/s1532768xjepc1502_8
- Livingstone, S., & Helsper, E. J. (2008). Parental mediation of children’s internet use. *Journal of Broadcasting & Electronic Media*, 52(4), 581–599. <https://doi.org/10.1080/08838150802437396>
- Livingstone, S., Mascheroni, G., Dreier, M., Chaudron, S., & Lagae, K. (2015). *How parents of young children manage digital devices at home: The role of income, education and parental style*. EU Kids Online, LSE.
- Marrero, F. A. (2016). Barriers to school success for Latino students. *Journal of Education & Learning*, 5(2), 180–186. <https://doi.org/10.5539/jel.v5n2p180>
- Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice*, 31(2), 132–141. <https://doi.org/10.1080/00405849209543534>
- Nathanson, A. I. (2010). Using television mediation to stimulate nontraditional gender roles among caucasian and African American children in the US. *Journal of Children and Media*, 4(2), 174–190. <https://doi.org/10.1080/17482791003629644>
- Nikken, P., & Jansz, J. (2006). Parental mediation of children’s videogame playing: A comparison of the reports by parents and children. *Learning, Media and Technology*, 31(2), 181–202. <https://doi.org/10.1080/17439880600756803>
- Nikken, P., & Jansz, J. (2014). Developing scales to measure parental mediation of young children’s internet use. *Learning, Media and Technology*, 39(2), 250–266. <https://doi.org/10.1080/17439884.2013.782038>
- Ochoa, W., & Reich, S. M. (2020). Parents’ beliefs about the benefits and detriments of mobile screen technologies for their young children’s learning: A focus on diverse Latine mothers and fathers. *Frontiers in Psychology*, 11, 570712. <https://doi.org/10.3389/fpsyg.2020.570712>
- Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, 41(3), 93–97. <https://doi.org/10.3102/0013189X12441244>
- Phinney, J. S., Ong, A., & Madden, T. (2000). Cultural values and intergenerational value discrepancies in immigrant and non-immigrant families. *Child Development*, 71(2), 528–539. <https://doi.org/10.1111/1467-8624.00162>
- Piña-Watson, B., Ojeda, L., Castellon, N. E., & Dornhecker, M. (2013). Familismo, ethnic identity, and bicultural stress as predictors of Mexican American adolescents’ positive psychological functioning. *Journal of Latina/O Psychology*, 1(4), 204–217. <https://doi.org/10.1037/lat0000006>
- Reid Chassiakos, Y. L., Radesky, J., Christakis, D., Moreno, M. A., Cross, C., Hill, D., Ameenuddin, N., Hutchinson, J., Levine, A., Boyd, R., Mendelson, R., & Swanson, W. S. (2016). Children and adolescents and digital media. *Pediatrics*, 138(5), e20162593. <https://doi.org/10.1542/peds.2016-2593>
- Rios-Ellis, B., Rascón, M., Galvez, G., Inzunza-Franco, G., Bellamy, L., & Torres, A. (2015). Creating a model of latino peer education: Weaving cultural capital into the fabric of academic services in an urban university setting. *Education & Urban Society*, 47(1), 33–55. <https://doi.org/10.1177/00131245124512468006>
- Roldan, W., Vanegas, P., Pina, L., Gonzalez, C., & Yip, J. (2019). The role of funds of knowledge in online search and brokering.
- Saldana, J. (2016). *The coding manual for qualitative researchers*. Sage.
- Smahelova, M., Juhová, D., Cermak, I., & Smahel, D. (2017). Mediation of young children’s digital technology use: The parents’ perspective. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 11(3). <https://doi.org/10.5817/CP2017-3-4>
- Smith-Morris, C., Morales-Campos, D., Alvarez, E. A. C., & Turner, M. (2012). An anthropology of familismo: On narratives and descriptions fo Mexican/immigrants. *Hispanic Journal of Behavioral Sciences*, 35(1), 35–60.
- Sobel, K., Bhattacharya, A., Hiniker, A., Lee, J. H., Kientz, J. A., & Yip, J. C. (2017). It wasn’t really about the Pokémon: Parents’ perspectives on a location-based mobile game. *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 1483–1496). <https://doi.org/10.1145/3025453.3025761>
- Stanton-Salazar, R. D., & Spina, S. U. (2000). The network orientations of highly resilient urban minority youth: A network-analytic account of minority socialization and its educational implications. *Urban Review*, 32(3), 227–261. <https://doi.org/10.1023/A:1005122211864>
- Valkenburg, P. M., Krcmar, M., Peeters, A. L., & Marseille, N. M. (1999). Developing a scale to assess three styles of television mediation: “Instructive mediation,” “restrictive mediation,” and “social covieing”. *Journal of Broadcasting & Electronic Media*, 43(1), 52–66. <https://doi.org/10.1080/08838159909364474>
- Vélez-Ibáñez, C. G., & Greenberg, J. B. (1989). *Formation and transformation of funds of knowledge among US Mexican households in the context of the borderlands*. In annual meeting of the American Anthropological Association, Washington, DC.

- Vesely, C. K., Ewaida, M., & Kearney, K. B. (2013). Capitalizing on early childhood education: Low-income immigrant mothers' use of early childhood education to build human, social, and navigational capital. *Early Education & Development, 24*(5), 744–765. <https://doi.org/10.1080/10409289.2012.725382>
- Wood, E., Petkovski, M., De Pasquale, D., Gottardo, A., Evans, M. A., & Savage, R. S. (2016). Parent scaffolding of young children when engaged with mobile technology. *Frontiers in Psychology, 7*. <https://doi.org/10.3389/fpsyg.2016.00690>
- Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race Ethnicity and Education, 8*(1), 69–91. <https://doi.org/10.1080/1361332052000341006>
- Yu, J., DeVore, A., & Roque, R. (2021). Parental mediation for young children's use of educational media: A case study with computational toys and kits. *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (pp. 1–12). <https://doi.org/10.1145/3411764.3445427>