

## Engaging Latino families in transformative home technology pedagogy and practices

## Involucramiento de familias Latinas en prácticas y pedagogía tecnológica transformadora en el hogar

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### ABSTRACT

In this article, we discuss the importance of engaging Latino families in digital literacy. Technology as a tool can make a difference in the lives of marginalize populations. We note that latino families realize the value of technology, but often do not have access or the skills to engage with technology. To address this digital gap, we report the findings of a five-year mix-methods study in which *La ClaseMágica Familiar* offers families

opportunities to engage in digital literacy. One major theme emerged from the data, the idea of technology as an agentic tool in both at home and when interacting with schools. Agency flourished as families engaged as participatory members in identifying their needs. As a result, the program helped parents forge connections with their children, assisted their communication with the school, and also facilitated their successful participation in a globalized world.

**Key Words:** Digital literacy; Family Engagement; Technology access; Latino families

## RESUMEN

En este artículo discutimos la importancia del uso de la alfabetización digital al trabajar con familias latinas en Estados Unidos. La tecnología es una herramienta que puede hacer la diferencia en la vida y realidades de comunidades marginalizadas. Como punto de encuentro clarificamos que las familias latinas en Estados Unidos entienden la importancia de la tecnología, aunque muchas veces no tienen acceso o las destrezas para utilizar la tecnología.

Con el fin de investigar la brecha digital que existe entre familias latinas en Estados Unidos, reportamos los resultados de este estudio de cinco años de métodos mixtos el cual tiene por

nombre *La Clase Mágica Familia (LCMF)*. Dicho programa ofrece a las familias latinas la oportunidad de participar en la alfabetización digital. El uso de la tecnología en casa y en las escuelas como una herramienta para agenciar a los participantes es uno de los temas cruciales de los resultados de este programa.

Como resultado, el programa ayudó a familias involucradas a identificar sus necesidades en relación con el uso de la tecnología digital. Además, el programa ayudó a padres de familia a mejorar la comunicación con sus hijos, las escuelas y a utilizar tecnología que es esencial para participar en nuestro mundo global.

**Palabras claves:** Alfabetización digital; Acceso a la tecnología; Familias latinas.

## Engaging Latino Families in Transformative Home Technology Pedagogy and Practices

Technology has changed the way we interact and communicate both at home and work. New faster and smarter technologies such as iPods, iPhones, tablets, play a major role in our everyday social interactions. Most interactions/transactions in today's world involve the use of technological and/or digital media. There is a growing recognition of the impact of technology in the social world, and the ramifications of such technology on shaping learning, dispositions, and attitudes of young learners (Zevenbergen, 2007). Yet for low income families and many families of color using technology sometimes becomes another hurdle to surpass—it (un)globalizes and disenfranchises Latino families making the digital divide even wider (Machado-Casas, 2013).

The digital divide among family members is not only seen at school where these technological changes have become critical for the academic success of students. Teachers use Skype and emails as pedagogical tools, while SMART Boards and YouTube videos often replace static tools (e.g. chalkboards and worksheets). With these current and ongoing changes in technology, many students learn by and through mediating technological tools (Machado-Casas & Alaníz, in press; Flores, Vásquez, Clark, 2014). Therefore, it is reasonable to assume that students of the digital generation, also known as digital natives (Prensky, 2001), learn differently than their parents who did not grow up with the same technology (Zevenbergen, 2007). These differences may lead to differences in thinking learning, and in the way families interact with each other.

This study draws from the larger corpus of data related to the impact of *La Clase Mágica (LCM)* located at a large Hispanic serving state institution in central Texas (Ek, Machado-Casas, Sánchez, & Alaníz, 2010; Flores, Vásquez, Clark, 2014). *La Clase Mágica* is an after school technology-based project designed to promote the academic achievement of bilingual Latin@ elementary-aged students, particularly in the areas of bilingualism, biliteracy, and technology (see Vásquez, 2003 for a detailed description of *La Clase Mágica*: Flores, Vásquez, Clark, 2014). *La Clase Mágica* also has *La Clase Mágica Familia* program (LCMFP) which serves the parents and *guardians* of the children enrolled in the LCM afterschool program. Thus, this article will discuss the ways in which LCM and LCMF can serve as a model for successful afterschool projects that impacts underserved and marginalized students and families in the US and internationally. Finally, it will highlight the importance of engaging Latino families in digital literacy based on study results.

### **Technology schools and Families**

It is reality that families are often ignored when considering technology use in schools (Machado-Casas, 2013). Yet research has consistently shown that children learn well when their parents are actively involved in their learning (Delgado Gaitán, 1990; 2004; 2012; Further as stated by Duran (2001), using technology with families in schools is imperative to family development. Further, parental support and modeling helps to enhance and secure student achievement and provides long-lasting educational gains (Darling-Hammond, 1997; Epstein, 2001; 2011).

In contrast to cited research suggesting that Latino parents' have little or no involvement in their children's schools (Ferrer, 2007; Costa, 1991; Bauch, 1992, Latino parents do desire to be engaged in their children's schoolwork (Quíocho&Daoud, 2006: Riojas-Cortez & Flores, 2011). Moreover, teachers may perceive that Latino parents do value education, yet. Smith, Stern, and Shatrova (2008) counter that indeed Latino parents do care about their children's education. Often the school's concept of parental involvement or expectations may contradict the parent's understanding (Valdes, 1996). Bauch (1992) confirms other obstacles that Latino parents often times find when attempting to get involved with their children's schools, for example, the lack of professionals with bilingual capacity, thus creating language barrier; a lack of understanding of the school's operation, and a lack of education of the parents themselves. Furthermore, Machado-Casas (2013) explains that often time the types of involvement practices schools enact may not be in aligned with what parents need to know about their children's education and about their own daily survival— *conocimientoútil* (utility knowledge). The author clarifies that, it is not just about what the school thinks about the families role, but also about what families need to know in order to make their lives more manageable. Machado-Casas suggests that when knowledge has utility, then it has an intrinsic connection to the families' needs, desires,

and/or a way to make life easier for them. Often times, if knowledge does not have utility then, given other basic needs and concerns, it is difficult for families to give it priority, to connect, and consistently follow it.

We propose that technology is a tool that has high utility and one that could make the difference in the lives of many families—yet it is often not part of the elements included in in parental engagement training. Further, when schools employ technology to disseminate information these tools often become obstacles. Computer and digital literacy challenges make school involvement further difficult for Latino parents.

### **Technology as a Multigenerational Bridge among Families**

No longer a concept but a fact, the *digital divide*, the gap that exists between people who have access to digital and smart technology and those who do not exists at work, in schools, and most importantly, at home (Rivera, 2008). This gap creates a multigenerational rift between parents and their children, a border that children have crossed and their families have not (Machado-Casas, 2014). A family not having the opportunity to co-learn with their children exacerbates this digital divide. As technology natives, children have more access than ever to technology regardless of their socio-economic status because they are exposed to these technologies at school. Having a teacher that uses technology as a way to engage and teach is critical in helping students bridge some of these technological gaps that exist, particularly among low-income Latino children and families in the 21<sup>st</sup> Century (Gorski, 2003). Yet at home, many do not have the same access to technology or simply do not have a digital literate person at home to guide them to the process of using technology at home. As Latino children become more digital literate, many Latino immigrant parents sense the unraveling of the family unit leading to decreased family communication and closeness, loss of cultural practices, and anxiety about child-rearing practices (Machado-Casas,

2009). Although understanding the impacts of this divide is important, it is even more beneficial to explore how it can be bridged, so families can begin to see technology as a resource, not an obstacle.

### **Latino Parental Involvement in Afterschool Technology Programs**

Afterschool technology programs have been shown to be efficient when looking at family digital engagement and computer literacy (Vásquez, 2003 & 2008; Machado-Casas, 2009a, 2009b, & 2014). As part of a pilot program for after-school learning called Learning Together, three university professors and teacher educators recruited seven elementary school students and their parents. The participants were low-income families of various ethnic backgrounds including Latinos. By engaging parents, the aim of the program was to improve literacy and technology skills. Parents involved in this program committed to actively engage in the literacy programs with their children. Results of the program indicated student perceptions of increased self-efficacy concerning their computer skills. All students also reported being excited to be able to work independently on the computers and experiment with new programs (Tartakov & Phillips, 2003).

In a study conducted by Duran (2001), the researchers assessed an after-school technology program for low-income Latino immigrant families. The assessment areas were computer awareness, computer basics, basic word processing skills, multi-media and telecommunications familiarity. Latino parents engaged in the program showed significant gains in every area of assessment over the course of the project. Gains were greatest with regard to knowledge of the internet in the area of multimedia and telecommunications familiarity. In contrast, no gains were found in the area of downloading files from the internet and how to use bookmarks to store web page addresses. For those parents involved in this program, computer literacy rose from

32% to 73%. These findings show that computer literacy is still a mayor issue among families which then influences results when looking at technology use. If families are not computer literate, they cannot engage in digital engagement activities—First literacy, then engagement.

The interaction between Latino parents and their children in this program was instrumental in acquiring computer literacy. As parents and children wrote together using computers, they engaged in focused problem-solving about language content, language organization, and language form as mediated by the computer and its software. Further, through working together with their children, parents began to show evidence that they understood that desktop publishing was central to their communication via computers. By exchanging the role of expert and novice, parents and children were able to explore a range of dimensions relevant to literacy and literacy practice (Duran, 2001).

Overall, the study conducted by Duran (2001) determined that after-school computer learning for immigrant Latino parents and children is beneficial as it interconnects family members, teachers, university students and faculty, and others from the community. Similarly, Valdes (1996) suggested that Latino immigrant families may benefit from exposure to school personnel who might be able to assist parents in understanding schooling practices and expectations. Involvement in after-school technology programs would allow Latino parents such exposure. Finally, after school programs help familiarize parents with the use of computers and information communication technology by utilizing children's knowledge of computers and information technology (Duran, 2001).

Overall, the research consistently demonstrates lower computer use by Latinos stemming from their negative attitudes and unfamiliarity associated with computers (Flores, Vasquez, Riojas-Clark, 2014). Latinos' lower rates of computer use could be detrimental to this group of individuals as computers are central facets of today's academic and professional requirements. Such considerations lead to the importance of after school technology programs for Latino parents and children. After school technology programs allow Latinos to become familiarized with computers. Further, the interaction between Latino parents and children is instrumental in developing computer literacy as they both contribute to each other's development of computer skills.

### **Methodology**

Over the last five years, two courses for undergraduate bilingual teacher candidates (*aspirantes*) at the University of Texas at San Antonio (UTSA) are fused to create a *La Clase Mágica* (LCM@UTSA) cohort. The content of these courses vary including children's literature, play, literacy or methods, and are taught primarily in Spanish. As part of LCM@UTSA, *aspirantes* are asked to take both designated courses simultaneously to ensure information consistency, thus maintaining the validity of studies. That is, every LCM@UTSA student takes the same two courses every semester. *Aspirantes* take the university classes together one day of the week and spent another day at Los Palmas Elementary School in the afterschool LCM program.

UTSA *aspirantes* participated in LCM at Los Palmas Elementary every Tuesday afternoon for three hours over a 14-week period. Each UTSA *aspirante* was paired with a young elementary student (*protégé*) in grades K through 5. Funded through the Academy for Teaching Excellence (ATE), UTSA *aspirantes* are provided with netbooks



and iPhones/iPods to use with their protégé. *Aspirante*-protégé dyads are organized to create an opportunity structure in which learners engage in meditated and expansive learning with a more experienced peer (Engeström, 2001; Vygotsky, 1978; see also Flores, Vásquez, and Clark, 2014). This approach provided the researchers and participants alike with opportunities to test technology's potential to create innovative learning environments and to study its effect on language, literacy, and cultural development.

As UTSA *aspirantes* and their protégés worked together during LCM, families were invited to be part of the LCM family on the third Tuesday of every month in technology workshops called *talleres*. Instead of workshops that simply convey a direct top-down teaching approach, the Spanish term *talleres* signifies a participatory approach to parental training (Vásquez, 2003) in which researchers mediated and engaged parents fully in the learning process. Through mutual engagement *los padres/guardians* determined what they would like to learn to how they would like learn it.

In the case of this current study, given that all participants were immigrants, during the *talleres* families were invited to reflect on their own journeys as immigrants in the US and how using technology would help them in their new lives. Families worked on a series of technology activities ranging from the most basic to more difficult tasks while taking a communal approach to learning, sharing, and teaching based on the knowledge they found most useful and necessary for their everyday lives (Machado-Casas, 2010). Families were asked about the importance of technology in school, at work, and with their families. Once there was consensus on the desire to learn about technology, they were asked which specific skills they would like to learn. First, they wanted to learn

computer and iPod basics, because those were the technologies being used by their children in the LCM afterschool program. In addition, participants created *utility knowledge lists* (Machado-Casas, 2009a) of skills that would be useful in their everyday lives, such as sending money home online. Through this activity, LCM families were asked to become researchers, observers, and users of technology in multisituational spaces in everyday life.

In addition to participating in the LCM afterschool technology and literacy program, the families were engaged in monthly in-site discussions. These discussions focused on their experiences, and their thoughts about the need to include families in the development of a globalized population. Fifteen to twenty parents were given a pre- and post- open-ended survey and were interviewed twice about their thoughts about the afterschool program but most importantly what an afterschool program for families entails. All of the data, including interviews, researcher field notes and in-site discussion transcriptions were coded and analyzed for themes and patterns.

As in previous research (Machado-Casas, 2013), the term *family members* was used to represent the reality of Latino students who are often raised by parents, extended family and friends and are considered *familia* (tío y tía) even when there is no blood relationship. Between 18 and 30 family members participated in the LCM technology *talleres*. Most were Mexican nationals and Mexican Americans, but one family was from Honduras and one was from El Salvador. Each family had one or two children enrolled in the program whose ages ranged from five to ten years old. Family members ranged in age from 18 to 80 years old, and included young mothers and fathers as well as grandparents. In an effort to increase family participation, free childcare was

provided during the LCM technology *talleres*. One major theme emerged from the data, the idea of technology as an agentic tool in both at home and when interacting with schools.

### **Findings**

Technology is no longer a luxury, but a basic need (Machado-Casas, 2009; Sánchez, & Salazar, 2012), and increasingly, educators need to find innovative ways of working with students and their families to enhance their technology skills, so that it benefits the entire family—not just the students. Although these programs are necessary in order to enhance and better educate our marginalized populations, often they do not consider the issue of technology literacy among Latino families. As part of a series of interviews and meetings, our findings reveal that while schools work toward globalizing students, many home environments, due to digital inequities, continue to be disconnected creating a wider gap between schools and families.

### **Technology as an Agentic Tool**

#### **Technology as Agentic tool in the Community**

As noted above, technology has been a multigenerational divisive tool. One that leaves families without a necessary tool in today's society. Without this tool families felt that they were missing their ability to fully participate in today's society. "Thus, families have become global invisibles who are not taken into consideration in academic educational settings" (Machado-Casas, 2013). Without digital literacy and access, families lack the ability to have digital agency which we define as the ability to use technology as a global gateway that allows those who use it an ability to engage in today's global world. Onemother, María, illuminates:

*Sin saber de la tecnología en verdad estamos afuera de casi todo. Ahora toda la comunicación e las escuelas son casi todas por computadora y hasta los*

*pagos los quieren en computadora. Si saber como usarlas—no podemos avanzar porque estamos siempre un paso para atrás y nunca llegamos a hacer personas que están al tanto. Perdemos el poder de hacer las cosas cuando no sabemos las maneras de hacerlas nuevas. Y como le dije hasta para pagar una cuenta se necesita la tecnología.*

Echoing these thoughts, Isabela, a mother from Mexico, reflects:

*Creo que la tecnología es necesaria. Ahora se ve el uso de la tecnología por todas partes. Si vas a la marketa, al doctor, en los coches. Bueno es ya como parte de nuestra vida. Y a mis niños en la escuela ahora con este programa de La Clase Mágica le enseñan mucho de la tecnología. Pero pues cuando llegan a la casa yo no les puedo ayudar. Porque a mi no se me había enseñado. Se nos ha ignorado. Como que no existimos. Y por eso como que perdimos algún poder o manera de poder hacer las cosas que es muy importante. Porque nos ahora tiempo, y nos incluye con las cosas que pasar alrededor.*

Bernarda agrees with others but also adds that for her as a stay-at-home mom learning about technology has allowed her to be a contributing member of her community:

*Como yo trabajo en casa cuidando niños y tengo los míos también, muchas veces no tengo el tiempo para comunicarme con otras madres o con la escuela. Ahora que aprendí a ocupar la computadora les mando correos a las maestras, miro las noticias en mi pueblo y pude reconectarme con mucha gente que ya tenía tiempo de hablar con ellos. Ahora ya me siento un poco más comunicada y puedo ya sentirme más integrada y como parte de ese mundo social que no tenía antes.*

The ability to engage with a social structure is an ability that allowed these families to stay connected to interact with a social structure that was not only present in their community, but also when engaging with the school.

### **Technology as an agentic School Engagement Tool**

For families learning about technology is not only about helping their children academically but also about them being able to hold on to their agency as parent who can help their children. Because what children are learning at schools is advanced technologically, when at home, family member may feel at odds, in conflict or disempowered by not being able to help, as Bernarda elucidates.

*En la escuela le enseñaron a mis hijos a hacer absolutamente todo. Hasta se pueden comunicar con otros países ocupando una aplicación que se llama esquipe [Skype]. Mi hijos se pueden comunicar con cualquier parte del mundo en la escuela pero al llegar a la casa siento que estamos limitados porque ni yo su papa podemos hacer eso. Y pues me gusta que aprendan pero—ya en la casa como que nos quedamos atrás.*

Bernarda's inner turmoil, as a parent, is evident in her expression of, "quedarse atrás" (staying behind); this conflict can be resolved through teaching families to use technology at schools. Attesting to this notion, Marielin reveals

*Desde que yo comencé con la clase mágica he aprendido mucho. Ahora cuando mis hijas van a casa ya yo puedo seguir lo que me dicen mucho mejor que antes. Como que me ha conectado un poco más con la maestra, el trabajo y mis hijas. Como que me siento como más con coraje para aprender más. Y seguirle.*

Justina concurred with Marielina, but also added that not being able to have these technological tools affected her so very much in that she did not feel comfortable going to school. Now feeling empowered through her acquisition of digital literacy, she can communicate and express her concerns with the teacher without leaving her house.

*Oiga yo soy bien tímida. Y a mí me daba miedo ir a la escuela. Primero porque no hablo inglés pero también porque no me sentía bien cuando iba a la escuela. Cuando vine a la clase mágica, comencé a aprender y ahora lo que hago es que le mando un mensaje a la maestra y listo. Pero también como que me ha dado mucho valor para poder discutir y decir lo que no me parece. Como que en escrito me salen mejor las cosas y así no me quedo callada. Y ahora ya se lo que está pasando y aunque no tengo computadora me enseñaron a hacerlo en mi nuevo teléfono y así ya puedo ser parte de todo lo que pasa en las escuelas. Yo le digo a mis amigas que venga y aprendan también porque muchas nos quedamos calladas por el miedo. Pero ahora ya que puedo hacerlo pues no me da tanto miedo.*

## **Conclusion**

Today, technology skills are critical for survival and success; it is crucial for education to give learners the opportunity and competences to reflect and share their own point of view and role within a global, interconnected society, as well as to understand and discuss complex relationships of common social, ecological, political and economic issues, so as to derive new ways of thinking and acting (Maastricht Global Education Declaration, 2002). Suarez-Orozco and Baolian Qin-Hilliard (2004) declare that, particularly in schools, two domains must be considered as the greatest challenges for education and globalization: “the domain of difference, and the domain of complexity” (p. 3). The differences and complexities of technology knowledge also must be considered as factors influencing education. As children in schools continue to build technology skills, they become more global. Their worlds open to possibilities, both

present and local, and future and global. In this way, children nurture the skills necessary to “fully engage the larger world and master its greatest challenges, transforming it for the betterment of humanity – regardless of national origin or cultural upbringing” (Suarez-Orozco and Baolian Qin-Hilliard, 2004, p. 6). Yet, students’ families often are not provided with the same opportunities to learn about technology, which creates a digital divide between technology savvy children and their less knowledgeable family members.

Often times less technology/digital savvy family members need agency in order to become active participants in schools and in their local and international communities. We must also consider the cultural conflict that occurs as the parent (or family member) as the elder can no longer guide the child:

Education can make a difference. Making a difference requires an education Perspective which arises from the fact that contemporary people live and interact in an increasingly globalized world. Bridging the digital divide requires more than helping parents recognize the importance of technology or providing access to technology training. Here, we presented findings from a study of the LCM technology literacy program, in which *talleres* were used to explore the technology needs of family members to create a program that was culturally, linguistically, and technologically supportive and diverse. The program not only helped parents forge connections with their children, assisted their communication with the school, and also facilitated their successful participation in a globalized world.

## References

- Darling-Hammond, L. (1997). *The Right to Learn: A Blueprint for creating schools that work*. San Francisco: Jossey-Bass.
- Delgado-Gaitán, C. (1990). *Literacy for empowerment: The role of parents in Children's education*. Bristol, PA: Falmer.
- Delgado-Gaitán, C. (2001). *The power of community: Mobilizing for family and schooling*. Lanham, MD: Rowman and Littlefield
- Duran, R. (2001). Latino immigrant parents and children learning and publishing together in an after-school setting. *Journal of Education for Students Placed at Risk*, 6 (1 & 2), 95-113.
- Delgado-Gaitán, C. (2004). *Involving Latino families in schools: Raising student achievement through home-school partnerships*. Thousand Oaks, CA: Corwin Press.
- Delgado Gaitán, C. (2012). Culture, literacy, and power in family-community-school relationships. *Theory into Practice*, 51(4), 305-311. DOI: 10.1080/0040505841.2012.72606m
- Duran, R.P. (2001). *Technology, education, and at risk students*. Santa Barbara, CA: University of California at Santa Barbara, Gevirtz Graduate School of Education.
- Ferrer, L. (2007). *Why is Hispanic parental involvement a serious issue?* Washington, DC: National Education Association.



- Flores, B. B., Vásquez, O. A., & Clark, E. R. (2014). *Generating Transworld Pedagogy: Reimagining La ClaseMágica*. Lexington Publishers, Rowman Littlefield Publishing Group.
- Fox, J. (2006). Reframing Mexican migration as a multi-ethnic process. *Latino Studies*, (4): 39-61.
- Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14(1), 133–156.
- Ek, L. D., Machado-Casas, M., Sanchez, P. & Alanis, I. (2010). Crossing cultural borders: *La ClaseMágica* as a university-school partnership. *Journal of School Leadership*, 20(6), 820-849.
- Epstein, J.L. (2001/2011). *School, family, and community partnerships: Preparing educators and improving schools*, 2<sup>nd</sup> Edition. Boulder, CO: Westview Press.
- Machado-Casas, M. (2006). *Narrating Education of New Indigenous/Latino Transnational Communities in the South*. Unpublished dissertation. University of North Carolina at Chapel Hill.
- Machado-Casas, M. (2009a). "Coyotes" tecnológicos: Sobrevivencia transnacional de comunidades Indígenas Latinas en los estados unidos. *DIDAC*, 53. <Peer reviewed journal published by Universidad IberoAmericana, México>

Machado-Casas, M. (2009b). The Politics of Organic Phylogeny: The Art of Parenting and Surviving as Transnational Multilingual Latino Indigenous Immigrants in the US. *High School Journal*, 92(4), 82-99.

Machado-Casas, M. (2010). The new global transnational citizen: The role of multilingualism in the lives of Latino/s indigenous immigrants in the U.S. *CIMEXUS: Revista de Investigaciones México Estados Unidos*, 2(7), 99-123.

Machado-Casas, M., Ek, L., Sánchez, P. (2014). The Digital Literacy Practices of Latina/o Immigrant Parents in an After-School Technology Partnership. *Multicultural Education*. 21(3), 28-34.

National Center for Education Statistics. (2002). *Status and trends in the education of Hispanics*. Washington, DC: Author.

Tartakov, C.C., Leigh, P.R., & Phillips, C.B. (2003). More than Access: Using Technology to Support a Culturally Relevant Literacy Program for Historically Underserved Inner-City Children. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2003* (pp. 601-602). Chesapeake, VA: AACE.

Pew Hispanic Center. (2009). *Latinos Online. Narrowing the Gap*. Washington, D.C.

Lingston, G., Parker, K., & Fox, S.

Pew Hispanic Center. (2010). *Census 2010: 50 million Latinos: Hispanics account for more than half of the nation's growth in the past decade*. Washington, D.C.:

Passel, J., Cohn, D., and Lopez, M.

Riojas-Cortez, M., & Flores, B. B. (2009). *Sin Olvidar a los Padres: Families as collaborators within the school and university partnership. Journal of Latinos and Education, 8*(3), 231-239.

Rivera, H. (2008). Bridging the technology gap for low-income Spanish-speaking immigrant families. *Association for the Advancement of Computing in Education Journal, 16* (3), 307-325.

Smith, J., Stern, K., & Shatrova, Z. (2008). Factors Inhibiting Hispanic Parents' School Involvement. *The Rural Educator, P8-13*.

Tseng, T. 2001. *Ethnicity in the Electronic Age: Looking at the Internet through a Multicultural Lens*. Cultural Access Group, LA, CA

Valdes, G. (1996). *Con respeto: Bridging the distance between culturally diverse families and schools: An ethnographic portrait*. New York: Teachers College Press.

Vásquez, O. A. (2003). "*La Clase Mágica*": *Imagining Optimal Possibilities in a bilingual learning community*. Lawrence Erlbaum.

Vásquez, O. A., (2008). [Reflection-Rules of engagement for achieving educational futures](#). In L.L. Parker (Ed.), *Technology-mediated learning environments for young English learners: Connections in and out of school* (pp. 99-110). New York: Erlbaum.

Vygotsky, L.S. (1978). *Thought and language*. Cambridge, MA: MIT Press. Wilhelm, A. (1998). Buying into the computer age: A look at Hispanic families. In:

Proceedings of the Families, Technology, and Education Conference (Chicago, IL, October 30-November 1, 1997).

Wong Fillmore, L. (1991). When learning a second language means losing the first. *Early Childhood Research Quarterly*, 6, 323-346.

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