Early Childhood Research Quarterly 28 (2013) 593–607

Contents lists available at SciVerse ScienceDirect

Early Childhood Research Quarterly

Defining family engagement among Latino Head Start parents: A mixed-methods measurement development study

Christine M. McWayne[a,*], Gigliana Melzi[b], Adina R. Schick[b], Joy L. Kennedy[b], Kevin Mundt[c]

[a] Tufts University, Eliot-Pearson Department of Child Development, 105 College Avenue, Medford, MA 02148, United States
[b] New York University, Department of Applied Psychology, New York, NY, United States
[c] Rutgers University, Graduate School of Applied and Professional Psychology, Piscataway, NJ, United States

ARTICLE INFO

Article history:
Received 7 January 2013
Received in revised form 5 March 2013
Accepted 15 March 2013

Keywords:
Mixed methods
Family engagement
Latino
Early childhood education
Measurement

ABSTRACT

Given the increasing numbers of Latino children and, specifically, of dual-language learning Latino children, entering the U.S. educational system, culturally contextualized models are needed to understand how parents construct their involvement roles and support their children's educational experiences. Current measures of parenting and family engagement have been developed primarily with European American families and, thus, might not capture engagement behaviors unique to other ethnic groups. Lacking culture-appropriate measurement limits our ability to construct programs that adequately incorporate protective factors to promote children's successful development. The present mixed-methods investigation employed an emic approach to understand family engagement conceptualizations for a pan-Latino population. One hundred thirteen parents from 14 Head Start programs in a large, northeastern city participated in the first study, in which domains of family engagement were identified and specific items were co-constructed to capture family engagement behaviors. Then, 650 caregivers participated in a second study examining the construct validity of the resulting 65-item measure across two language versions: ***Parental Engagement of Families from Latino*** *Backgrounds* **(PEFL-English)** and *Participación Educativa de Familias Latinas* (PEFL-Spanish). Four theoretically meaningful dimensions of family engagement among Latino Head Start families were identified empirically. The measure was then validated with teacher report of family involvement and parent report of satisfaction with their experiences in Head Start.

Our nation's changing demographics have important implications for how we prepare young children to succeed in school. Currently, Latino children are among the fastest growing population of children in the United States (National Research Council, 2006; U.S. Census Bureau, 2000, 2011). The Latino population in the U.S. is disproportionately likely to be low-income and to live in our nation's urban centers, where poverty is concentrated and social problems associated with poverty are more prevalent. As a result, Latino children, in comparison to children from other groups, are more likely to experience learning difficulties and poor academic performance throughout their school years (Duncan & Magnuson, 2005; National Research Council [NRC], 2006; U.S. Census Bureau, 2004). Nationally, for instance, Latino youth have one of the highest school dropout rates among ethnic minority youth (41%, compared with 23% for Black youth; Fry, 2010). For Latinos, struggles related to cultural and linguistic incongruence between their home and school lives undoubtedly compound the associated challenges of low-income, urban-residing status (García-Coll et al., 2002).

Nevertheless, despite the disproportionate risk for school problems among ethnic minority children growing up in urban poverty, and especially for children from Latino backgrounds, there is heterogeneity in their educational outcomes (Gándara & Contreras, 2009). The search for protective factors to explain this variability reveals that family engagement in children's education is a buffering factor (Jeynes, 2003, 2007). Research suggests that promoting positive family engagement might, in fact, help to address the broad achievement gap between European American and ethnic minority children in the United States (Jeynes, 2005; Wong & Hughes, 2006).

Through everyday interactions within the family context, parents socialize children in ways that promote internalization of specific social and educational goals (Weisner, 2005; Wentzel, 1999). The limited research on child socialization has shown that child-rearing values and goals, as well as daily interactions, vary widely across cultural groups (Goldenberg, 1987; Heath, 1983). Ecocultural theory (Weisner, 2002) provides a framework to understand child development within the culturally diverse context of

* Corresponding author. Tel.: +1 617 627 0478.
E-mail address: christine.mcwayne@tufts.edu (C.M. McWayne).

0885-2006/$ – see front matter © 2013 Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.ecresq.2013.03.008

low-income, ethnic minority families. This theoretical perspective highlights the interplay between individual-level characteristics and developmental processes, as well as the socio-contextual conditions that influence such processes. Specifically, this theory posits that the nature of, and the ways in which families organize, daily routines and activities are strongly tied to cultural values and community norms. Therefore, within-group study among different cultural groups is deemed essential in order to obtain an accurate portrayal of children's development in context (Aber, Gephart, Brooks-Gunn, & Connell, 1997).

Even though the importance of culture as a context shaping human development is widely recognized and acknowledged, the existing empirical knowledge base available to inform educational policies and practices is still quite sparse (NRCIM, 2000). Studies focusing on Latino families, specifically, are even less common. There is an urgent need to understand the ways in which low-income, Latino parents support children's educational participation to inform intervention. Recent work in the field of school psychology has introduced the use of mixed-methods approaches for identifying and validating culturally specific constructs. Nastasi and colleagues (Hitchcock et al., 2005; Nastasi et al., 2007), through their work in international contexts, have gone about the task of defining constructs in partnership with members of the populations they serve. They have presented an exciting approach for new scale development that is sorely needed.

Using an emic approach and a mixed-methods design, the present study examined the family engagement behaviors used to support Latino children's educational experiences. In contrast to etic (i.e., comparative) approaches, emic (i.e., within-group) approaches assume that beliefs, values, and behaviors, are situated in, and reflective of, the particular cultural and psychosocial realities of individuals and groups. In addition, emic approaches insist that cultural systems and the social actors they produce must be understood on their own merits before they are compared to others (Jahoda, 1990). Finally, emic approaches recognize that social actors within any given cultural group are experts in their own experience and, as such, their voices and experiences must be given a preeminent place in social scientific investigations about their lives (Jahoda, 1990).

1. Family engagement as a protective factor for low-income children

Family engagement, or the ways in which parents support their children's education, is a multidimensional construct that encompasses parents' activities at home, at school, and in the community (Epstein, 1995). Family engagement has been linked to both academic and socio-emotional outcomes across different ages (Barnard, 2004; Rimm-Kaufman, Pianta, Cox, & Bradley, 2003). When parents are involved in their children's education both at home and school, children demonstrate greater levels of academic success in an array of areas, such as school attendance, motivation toward learning, and overall academic performance (Fan & Chen, 2001; Jeynes, 2003), including reading, writing, and mathematical skills (Ginsburg-Block, Manz, & McWayne, 2010; Sheridan, Knoche, Kupzyk, Edwards, & Marvin, 2011). When parents engage in educational activities with their children at home (such as supporting homework and modeling reading behavior), they communicate clear expectations for achievement and integrate school curriculum goals within home routines (Christenson & Sheridan, 2001). Parents who evidence high levels of school contact (e.g., volunteering in the classroom, attending school meetings) tend to have children who demonstrate greater social competence than children of parents with lower levels of school contact (Parker, Boak, Griffin, Ripple, & Peay, 1999). Benefits of family engagement during the preschool and elementary school years seem to have long-lasting effects and continue to lead to positive outcomes not only in high school, but also during early adulthood (Barnard, 2004).

As noted above, family engagement is a protective factor for children and youth at high risk for school failure. In fact, in a series of meta-analyses, Jeynes (2003, 2005, 2007) demonstrated the benefits of family engagement on children's academic outcomes across a variety of socio-cultural populations. Jeynes' findings further highlighted that particular aspects of family engagement were differentially beneficial across socio-cultural groups. For example, more subtle aspects of parental engagement, such as parental expectations for school success, seemed to influence the academic achievement of urban youth during both elementary and high school more so than engagement in specific activities, such as going to school events or monitoring children's homework (Jeynes, 2005, 2007). In addition, findings suggested that parental engagement might be a more powerful influence for the academic success of African American and Latino children than for children from Asian American backgrounds (Jeynes, 2003).

Broader ecological theories of development recognize that the family and school contexts are among the most important, proximal, and dynamic influences on young children's emergent competencies (Weisner, 2002). However, because socio-cultural and linguistic differences often exist between early childhood educators and low-income families, tremendous discontinuities persist (Fuller, Eggers-Pierola, Holloway, Liang, & Rambaud, 1996; Goldenberg, 1987; Slaughter-Defoe & Brown, 1998). Qualitative evidence from Fuller et al. (1996), for instance, suggested that conflict over language differences, shared values in socialization, and differing conceptualizations of what makes children successful in school contribute to these discontinuities. These findings were corroborated in a more recent study by Martínez, DeGarmo, and Eddy (2004), who found that Latino parents reported less welcoming experiences at their child's school than did their non-Latino parent counterparts. Moreover, a national study found that families of Latino Head Start children reported engaging in fewer educational activities with their children than African American or White families (U.S. Department of Health and Human Services [USDHHS], 2003). However, traditional parent engagement activities, such as reading to children or helping them with homework, might be difficult for low-income Spanish-speaking immigrant Latino parents, who might not be familiar with the U.S. educational system, might not speak or read English, and might have limited financial resources to provide stimulating materials in Spanish or English (Sosa, 1997). Thus, understanding the specific engagement behaviors that could help to explain achievement variability among Latino children becomes important as practitioners seek to create bridges with families from diverse socio-cultural backgrounds.

Overall, however, little research is currently available to guide program efforts to seek culturally and contextually appropriate ways of engaging families from low-income, Latino backgrounds, especially those whose primary language is Spanish. The majority of family engagement studies do not document the differential efficacy of engagement activities for ethnically, linguistically, and culturally heterogeneous groups (Hall & Schaverien, 2001; McBride, Bae, & Wright, 2002). This literature is even more scant among preschool populations. A few existing studies with low-income, ethnic minority preschool children corroborate what we know from studies with older children from diverse backgrounds, that family engagement contributes to academic success. Among these, Fagan and Iglesias (1999) demonstrated positive associations between Latino and African American Head Start fathers' participation in a father engagement program and children's early numeracy skills. Similarly, Mendez (2010) found a positive relation between family engagement and African American Head Start children's receptive vocabulary and social competence skills. In

addition, Fantuzzo, McWayne, Perry, and Childs (2004), using the first multidimensional measure of family engagement validated for use primarily with African American Head Start families, documented relations between family engagement activities at home and at school and children's motivation to learn, attention, task persistence, receptive vocabulary skills, and conduct problems. In this study, home-based involvement proved to be the most salient in relation to African American preschool children's learning outcomes (Fantuzzo et al., 2004). However, findings from a more recent set of studies, with both English-speaking and Spanish-speaking Latino Head Start families, demonstrated that school-based involvement was the strongest predictor of children's school readiness. Moreover, results showed that the way home-based involvement was measured was not fully representative of the Latino family practices and, therefore, not surprisingly were not related as strongly to Latino children's school readiness (McWayne, Manz, & Ginsburg-Block, 2007).

Findings such as these suggest that family engagement might look different for Latino families than for those from other ethnic minority backgrounds (Hill, 2010; Niemeyer, Wong, & Westerhaus, 2009; Okagaki & Bingham, 2010). In fact, ethnographic research suggests that, for Latino families, family engagement might involve higher levels of and a more diverse set of activities in the home and less involvement in the school (De Gaetano, 2007; López, Scribner, & Mahitivanichcha, 2001). Researchers posit that this is, in part, because Latino parents believe it is the school's responsibility to educate children (Goldenberg, Gallimore, Reese, & Garnier, 2002); thus, to become involved in ways typical of mainstream U.S. parents (i.e., in the formal teaching of the child) would disrespect the teachers' knowledge and expertise (Reese, 2002).

Although past research has shown the importance of parental engagement on children's achievement in school, few have focused on identifying the specific goals and behaviors unique to Latino families. Given the increasing numbers of Latino children entering the public education system, culture-contextualized models are needed to understand the factors influencing Latino children's educational success (Fiigueroa & García, 1994). This knowledge is essential as it can offer schools an expanded and inclusive definition of family engagement, as well as provide a framework for understanding cultural continuities and discontinuities across children's home and school contexts. Finally, much of the work on family engagement and children's academic outcomes has focused on school-aged children; less is known about the role of family engagement in the preschool years (Arnold, Zeljo, Doctoroff, & Ortiz, 2008). Investigating family engagement during the preschool years is important for Latino families, and in particular for immigrant families, as this developmental period represents not only a critical time to prepare children for school success, but also the first time parents will be engaging with U.S. schools (McWayne, Campos, & Owsianik, 2008).

2. Engagement in families from Latino backgrounds

After an early era of studies that asserted cultural factors were the cause of Latino children's school problems, the recent literature on Latino family engagement has shifted toward forming a more culturally valid picture of engagement for this population (Seginer, 2006). This portrayal takes into account aspects of the home culture that might support children's academic success (Goldenberg et al., 2002), as well as barriers to the more traditional forms of school participation expected in mainstream U.S. culture. Most of this work has relied on ethnographic and small-scale qualitative studies documenting that Latino family engagement practices manifest in culturally specific ways and are distinct from those of other cultural groups (De Gaetano, 2007; Delgado-Gaitán, 1991; López et al., 2001; Villanueva, 1996). These practices include, for instance, encouragement and guidance through narratives around personal hardships and life experiences (Villanueva, 1996), and organization of formal and informal parental networks to support children's educational success, especially among non-English-speaking families (Aspiazu, Bauer, & Spillett, 1998; De Gaetano, 2007; Delgado-Gaitán, 1991; Durand, 2011; Torres-Guzmán, 1991). Villanueva (1996), for example, reports how second-generation Latinos overcame the odds and attended college because of their interactions with "mediators," people outside of the family who imparted their knowledge of the mainstream culture and its expectations. Moreover, in a recent study of over 2000 Latino kindergarteners, Durand (2011) found that the strongest predictor of Latino parent engagement in schools was the number of other parents with whom they felt comfortable and with whom they interacted on a regular basis. Since these forms of emotional and moral support are typically invisible to school personnel (Torres-Guzmán, 1991), their value is rarely documented.

Qualitative researchers have also sought to identify barriers to the type of family engagement expected by the mainstream school culture (Bermúdez & Márquez, 1996; Sosa, 1997; Tinkler, 2002). Barriers typically include English language difficulties, schools' misunderstanding of family culture, logistical constraints which arise with poverty and/or immigrant status, attitudinal incongruence between home and school cultures regarding the most important aspects of child development, and institutional or individual discriminatory practices (Bohon, Macpherson, & Atiles, 2005; Marschall, 2006; Sosa, 1997; Tinkler, 2002). Other barriers arise from the lack of knowledge and experience immigrant Latinos might have with the U.S. educational system (Villanueva, 1996). In an effort to understand how schools overcome these barriers, a few investigations have explored practices of schools and programs nominated as successful at incorporating Latino families (Delgado-Gaitán, 1991; Lucas, Henze, & Donato, 1990; Sosa, 1997). For example, schools that employed staff who spoke Spanish, held neighborhood meetings, and offered ESL classes for parents were more successful based on students' attendance rates, standardized test results, and percentage of English-language learning Latino students who went on to post-secondary educational settings (Lucas et al., 1990; Sosa, 1997). In addition, Latino parents' engagement is influenced by specific invitations from teachers to become involved (Walker, Ice, Hoover-Dempsey, & Sandler, 2011), and school family engagement programs are most successful when they ensure that parents feel respected, and treat them as valuable holders of knowledge (De Gaetano, 2007).

Qualitative and ethnographic studies, thus, have advanced our understanding of distinct cultural issues that impact Latino family engagement behaviors within specific communities. However, the numbers of participants in these studies have been too small to represent adequately the diverse cultural practices across Latino communities in the United States. For example, past research has suggested that there might be differences in Latino family engagement practices based on home language and immigration status (Wong & Hughes, 2006). Spanish-speaking Latino immigrant parents, as an illustration, are more likely to help their children with their schoolwork, volunteer at school, and attend meetings and conferences at the school than are U.S.-born Latino mothers (López, Sánchez, & Hamilton, 2000). Nevertheless, these differences have not been fully explored. To date, no culturally relevant, multidimensional measure exists for use with Latino families and, more specifically, with Spanish-speaking Latino families of preschool children. Measures of family engagement used in existing studies have been developed primarily with English-speaking European American and to a lesser extent, African American samples, as noted previously. Thus, these measures have not been informed by conceptualizations of family engagement or by specific engagement

behaviors that may manifest uniquely among Latinos, in particular those for whom Spanish is a primary language.

In conclusion, there is a dire need for new family engagement measures that are informed by cultural norms and expectations and that also capture the multidimensionality of Latino family engagement. Lacking linguistically and culturally sensitive measurement among this pan-cultural group limits our ability to construct interventions that incorporate protective factors promoting children's school success. Given the increasing numbers of English-learning Latino children entering the public education system, culture-contextualized research is needed to understand the factors influencing Latino children's educational success.

The present study addressed these limitations by seeking to understand family engagement from the perspectives of Latino families of preschool children. Our study integrated qualitative and quantitative methodologies using an *emic* approach (Hitchcock et al., 2005) to foster culturally sensitive research by using detailed, inductively derived descriptions of naturally occurring behaviors, rather than relying on existing theory and taxonomic systems that generally exclude non-mainstream cultural groups (Gaskins, 1994). Guided by this framework, our initial data were gathered from structured conversations with Latino families about the ways in which they, directly and indirectly, supported their preschool children's education, learning and development. Based on qualitative analyses of these conversations, items for a self-report scale were generated and vetted through an iterative process. The resulting questionnaire was distributed to a larger sample of Latino Head Start parents and validated using both teacher and parent-report measures.

3. Study 1: qualitative examination of family engagement behaviors method

3.1. Participants

Participants for qualitative focus groups ($N = 113$) were recruited from 14 Head Start centers across three boroughs of New York City (Manhattan, Brooklyn, and the Bronx) serving a high proportion of Latino children and families (i.e., at least 65%). Almost all respondents (94.7%) were women. On average, participants were 30.4 years old ($SD = 7.2$ years) and had between two and three children. A majority (64.2%) did not work outside the home and spoke primarily Spanish (60.2%). More than half (54%) indicated they were married, with 41% reporting that they were either single or unmarried and living with the child's father. Half of the respondents reported having received a high school diploma or GED and having some college experience, while 16% had at least a bachelor's degree. Another 34% had not finished high school. A large minority of participants identified Mexico as their country of origin (44.6%), followed by the United States (18.8%), Dominican Republic and Ecuador (12.5% each), Puerto Rico (8%), and Peru (1.8%). Not surprisingly, there were significant differences between participants in English and Spanish-speaking focus groups in terms of years in the U.S. and birth country (see Table 1); participants in Spanish-speaking groups were less often born in the U.S. and had immigrated more recently if born outside the U.S. In addition, participants in Spanish-speaking groups, on average, had less education and more often reported being married or to be living with their Head Start child's father.

Table 1
Demographic data for English- and Spanish-speaking focus group participants ($N = 113$).

Demographic variable	Spanish focus groups ($n = 75$)	English focus groups ($n = 38$)
Mean # per focus group	8.22	4.75
Mean age of participants	30.31	30.50
Mean # of children	2.6	2.34
Marital status[a]		
Single	**24.0%**	**47.4%**
Married	60.0%	42.1%
Living with father	12.0%	2.6%
Widowed/Separated/Divorced	4.0%	7.9%
Education[b]		
<High school	38.0%	26.3%
High school or GED	33.7%	28.9%
>High school	28.3%	44.7%
Mean # years in U.S.[b]	11.50	24.34
Birth country[c]		
U.S.	**8.0%**	**43.2%**
Mexico	**54.7%**	**24.3%**
Spanish-speaking Caribbean (PR or DR)	16.0%	29.7%
Central or South America	**21.3%**	**2.7%**

[a] Significant difference between groups, $\chi^2 = 28.99$, $p < .001$.
[b] Significant difference between groups, $F(1, 107) = 41.28$, $p < .001$, $R^2 = .28$.
[c] Significant difference between groups, $\chi^2 = 38.14$, $p < .001$.

3.2. Procedures

The first two authors conducted a total of 17 focus groups (nine in Spanish, eight in English) in their respective native languages (English for the first author and Spanish for the second author). The researchers guided semi-structured conversations, using a set of prompting questions designed to elicit specific aspirations, attitudes, and practices regarding the ways that parents and other family members are involved in the development and education of preschool Latino children. Parents were also asked to talk about their own educational experiences, the challenges they have in supporting their children's education, and the similarities and differences between their experiences and their own children's education. Two Spanish–English bilingual doctoral students acted as assistant moderators, taking detailed field notes and operating the audiovisual equipment. All focus groups took place in a confidential setting at the Head Start centers over 2-h sessions, and were both audio and video-recorded.

Focus group data were transcribed verbatim in either Spanish or English (based on the language(s) used during the focus group session) from audio recordings. All transcripts were then verified from video recordings, by volunteer undergraduate and graduate students under the supervision of a bilingual doctoral student. A representative sample of Spanish transcripts ($n = 3$) was translated by a native Spanish speaker into English to assist the English-speaking investigator (first author) with creating initial codes for the qualitative analysis phase of the study.

3.3. Qualitative coding and analysis

All coding and analyses were performed by the authors in the language spoken during the focus group. Analyses were guided by a grounded theory approach (Glaser & Strauss, 1967; Strauss & Corbin, 1998), using inductive, open-coding procedures, and were designed to answer our focal research question: *What do parents and families do to support, directly and indirectly, their children's education, development, and learning?* Using the Atlas.ti (version 5.1) qualitative data analysis software, all transcripts were first "chunked" by tagging the smallest meaningful units that answered our research question for coding. Each chunk was then coded using an iterative process, designed to maximize rigor while studying individual experiences and their meaning (Hill et al., 2005). Team members read three randomly selected transcripts from Spanish and English focus groups for initial discussion, and generated an extensive list of potential codes. A Spanish/English bilingual

doctoral student, who did not participate in the initial coding to maintain objectivity, served as an auditor after the initial coding round to ensure that codes reflected accurate representations of the data and were consistent in level across languages. The first and second authors then generated an initial coding manual, which was used to code a sample of transcripts and then further modified by group consensus. This iterative modification process continued until saturation was reached, that is, until no new concepts were obtained from additional transcripts (approximately half of the transcripts; Glaser & Strauss, 1967). The last two authors then recoded all transcripts using the final coding manual. Reliability was established on all chunked segments both within and across languages using percentage of agreement; reliability ranged from 80% to 100%, depending on the code (mean agreement = 87.2%).

We then used a variable-concept-indicator coding model (as per LaRossa, 2005) and Atlas.ti's networking capabilities to extract higher-level conceptual units from the data. Applying LaRossa's model to our data, an indicator is a word, phrase or sentence (i.e., "chunk," or direct quotation) from a focus group transcript; a concept is a first-level label (i.e., code); and, a variable is a classification of concepts into higher-level groups. To develop a conceptual map of how the concepts fit together, we again used an iterative process, grouping concepts into variables and then using Atlas.ti to determine if our groupings were supported by co-occurrence analyses.

4. Results

A total of 27 concepts emerged from the focus group data, which we grouped into two domains: the developmental skills parents sought to develop in their children, and the responsibilities and behaviors that parents mentioned as necessary to develop those skills (see Fig. 1). These two general domains of family engagement were composed of several different variables. Parents talked about developmental skills in terms of *school readiness skills*, proficiencies like reading, writing, and sharing that are important for children at this age to ease the transition into school; and *life skills*, pragmatic skills such as how to cook, clean, shop, and use money, as well as other real-world knowledge about moral values, nutrition, and the importance of education that children need to be functional adult members of the community. Parent responsibilities and behaviors fell into four variables: *school-focused activities*, such as talking to the teacher, volunteering at the program, attending events that take place or relate to the school setting; *home-focused activities*, including encouraging the child, spending time together, structuring a learning environment in and outside the home, and engaging the child in conversations to help them learn; taking care of children's *basic needs*, such as providing food and ensuring physical safety; and *self-improvement*, activities such as learning more about effective parenting and learning English. See Appendix A for a sample of indicators (or quotes) representing various concepts found in the data.

While all of the concepts underlying these variables were important in caregivers' discussions, some concepts were mentioned more frequently than others. Each concept captured between 0.7% and 11.9% of all indicators (2224 total indicators). Overall, 68.1% of indicators (i.e., transcript segments, or chunks, tagged for coding) were captured by only 12 of the 27 concepts, all of which were attached to at least 3.0% of indicators (or approximately 67 chunks each; see Fig. 2). Three of the 12 most common concepts involved fostering children's school readiness skills: of the total coded segments, 11.9% of the indicators (265 chunks) involved parents talking about the ways they support children's *cognitive/linguistic* development; 6.1% (136 chunks) involved stimulating children's *motor skills*; and 3.7% (82 chunks) involved supporting *social/emotional* development. In terms of life skills, caregivers often mentioned *community learning*, the intentional use of resources available in the community as a means of teaching their children (6.1% of all indicators; 136 chunks). This could be as simple as going to the park or reading signs on the subway, but also included trips to the museum or library.

Parents also mentioned general school-based activities, such as a physical presence at the school, including dropping off and picking up the child regularly, volunteering (3.2% of indicators; 71 chunks). Overall, though, parents most often conceptualized family engagement in terms of home-focused activities. Parents frequently (9.9% of indicators; 220 chunks) discussed general *time/attention* activities, including listening to the child, showing patience, playing with the child, and monitoring the child's activities. Another topic parents frequently mentioned (4.0% of all indicators; 89 chunks) was *child initiative*, or encouraging and supporting the child's individuality and purpose by following the child's lead and allowing the child to direct the course of activities and play. Parents also talked about providing age-appropriate *developmental materials* (e.g., books, flashcards, and desks) that support children's learning (4.0% of indicators; 89 chunks). This concept sometimes co-occurred with *environmental structuring*, or parents' intentionally constructing the child's home life both spatially (e.g., creating learning spaces) and temporally (e.g., establishing routines) in a way that facilitates learning; however, environmental structuring was less frequently discussed (2.8% of indicators; 62 chunks). Parents also commonly discussed ways to shape children's behavior, including *discipline* (6.0% of indicators; 133 chunks) and *modeling* of desired behaviors (3.8% of indicators; 85 chunks).

Although similar concepts were mentioned across all focus groups, there was some variability in the relative importance of each concept across language groups. For example, caregivers in our Spanish-speaking groups mentioned activities that develop motor skills more often (7.9% vs. 3.6% of indicators), whereas social/emotional development was a more salient topic in our English-speaking focus groups (5.7% vs. 2.4%). Providing for children's basic needs, particularly their physical safety, was more salient in the English-speaking groups (6.5% vs. 3.6%). Discipline-focused activities were a more common topic in our English-speaking focus groups (8.2% vs. 4.4%). Although it was not among the 12 most common concepts, parents in Spanish-speaking focus groups discussed *homework* more frequently than did parents in English-speaking groups (3.7% vs. 0.9%). Interestingly, parents did speak about encouraging the child to do work the school sent home, but it was also common that parents created their own "homework" for the child – activities similar to the things older siblings were doing, or similar to school activities.

Among less frequently used codes, several nonetheless stood out as important for our population. For example, *manners/respect* (2.2% of indicators; 49 chunks) and *responsibility* (1.2%; 27 chunks) were particularly interesting concepts, as they tended to overlap equally with social–emotional skills, such as learning to get along with people, and with life skills, such as moral values and the importance of education. In addition, parents talked about the direct and purposeful teaching of how to obtain *future goals*, including the importance of education, and the steps needed to achieve a future goal (2.0% of indicators; 44 chunks).

5. Study 2: measurement construction and validation method

5.1. Participants

Six-hundred fifty additional Head Start family members participated in the quantitative portion of this study 2 years later. Caregiver participants were recruited from Head Start programs

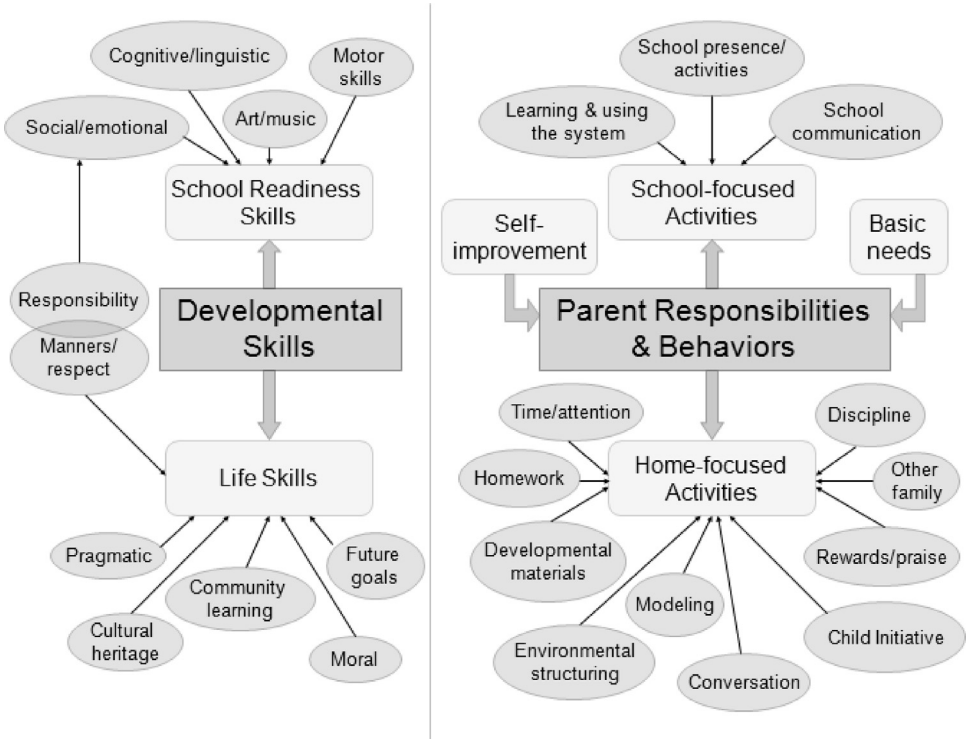

Fig. 1. Conceptual map showing higher-level variable grouping of concepts (codes) into two main domains of parental focus: Developmental Skills and Parental Responsibilities & Behaviors.

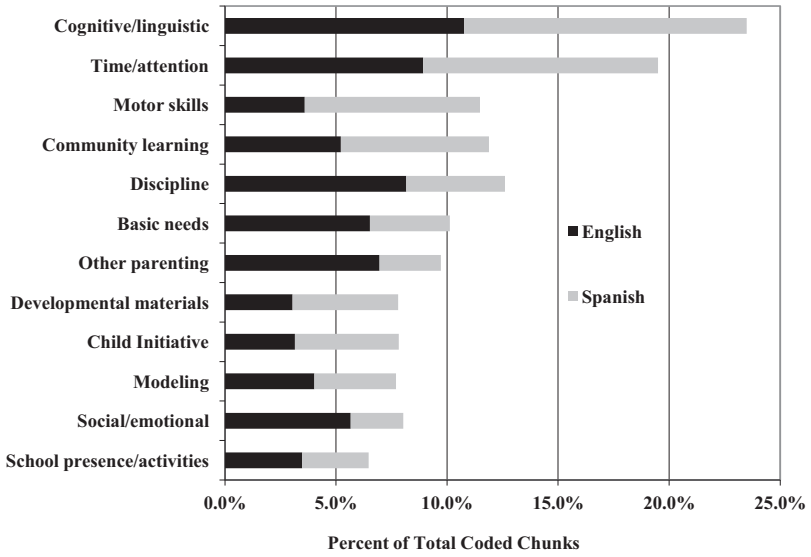

Fig. 2. Percentage of chunked segments in both English and Spanish focus group transcripts captured by each of the 12 most frequently used codes.

in three boroughs of New York City (i.e., Brooklyn, Bronx, and Manhattan). Again, programs were invited to participate if at least 65% of the children served were of Latino background. Of 11 programs invited to participate in this second phase, nine consented (82% program participation rate). All nine programs had participated in the prior phase of the project. Primary caregivers of children in the programs were then invited to participate if they and their child self-identified as Latino. Participation rates varied between 60% and 90% of eligible parents in each program ($M = 67.9\%$). Among the 650 primary caregivers, 468 (72%) completed the measure in Spanish, and 182 (28%) completed the questionnaire in English. Participants ranged in age from 18 and 75 years ($M = 31.83$, $SD = 8.51$), and 88% were female. Eighty-one percent of participants were mothers, 11% were fathers, and the remaining 8% were other family members (e.g., grandparents, step-parents, aunts). The majority of participating caregivers (58%) did not work outside the home, with 22% working full time, and 19% working part time. In addition, most of the caregivers (58%) reported Spanish to be their primary home language, with 11% of homes identifying English as their primary language, and 31% reporting both Spanish and English as their primary home language. There was a wide range in the educational background of the participants, with approximately half of the participants either not having completed an elementary school (11%) or high school (42%) education, and roughly half of the participants

having either graduated from high school (22%) or having some college education (24%). Forty-nine percent of the participating families had immigrated to the United States from Mexico, with the remaining participants having been born in the United States (20%), the Dominican Republic (16%), Ecuador (8%), or another Central or South American country (7%). Participants reported living in the United States, on average, for a period of 15.6 years (SD = 10.9). Children ranged in age from 30 to 66 months (M = 52.72, SD = 6.84), and 49% were female.

The 650 children whose primary caregivers participated were served in 38 classrooms. Sixty-two percent of these classrooms were full day classrooms and 38% were half-day. Lead teachers in each classroom were, on average, 41 years old (M = 40.9, SD = 12.0), and 97% were female. Sixty-five percent identified as Latino, 14% as Black or African American, 16% as White, and 5% as Other. In addition, 43% held a graduate degree, 49% a bachelors degree, and 8% reported having some college. On average, teachers had 13.1 years of teaching experience (SD = 7.2, range 3–24 years). Forty-nine percent reported using both Spanish and English in the classroom, while 48% reported English as the primary language spoken, and only 3% reported Spanish as the primary language spoken within the classroom.

In addition to parent data, teacher report of family involvement was collected for a subsample of 296 children, randomly selected from the full sample of 650. Distribution of these assessments was relatively even across the three boroughs (n = 98/95/104), and there were no statistically significant differences between this subsample and the full sample on any demographic variables. See Sections 5.2 and 5.3 below for more detail.

5.2. Procedures

Following the extraction of higher-level variables via the Study 1 qualitative analyses, the item construction process began. The first and second authors were responsible for reading through all coded chunks (in their respective native languages) and identifying the main behaviors parents described as being supportive of their children's education under each concept (or code). Specific items were then constructed to capture these behaviors; approximately 120–130 items were created independently for each language. Of note, the process of initial item generation was simultaneous but independent across English and Spanish languages to ensure the activity was being driven by the data from both sets of focus groups. All item generation was conducted by the first two authors, the first a monolingual English speaker and the second a bilingual, native Spanish speaker. These authors then compared the items across languages. When a particular parent behavior was endorsed in one language group and not another, the item was generated in the language of origin first and then translated into the other language. Because there was so much overlap among the behaviors explicitly mentioned by parents across the language groups, the goal became to create a measure that could be conceptually equivalent in both languages. Items were retained if they had emerged in both languages or if they appeared in only one language but were deemed particularly salient or important. Items that appeared in only one language were then translated as appropriate to yield conceptually equivalent Spanish and English versions of the measure. The result of this process was 132 drafted items for the measure in Spanish and English versions that represented the 27 codes (concepts) that had emerged from the qualitative data analyses (Discussed under Study 1). For instance, for the concept of socio-emotional development, comments such as: "I teach my kids, "When you come to see Grandma, you zip it, you sit, that's it. No jumping, no squirming around." was captured by "I teach my child how to behave in different situations."

The next phase involved culling the items for redundancies, correcting poor wording (e.g., double-barreled items, double negatives, etc.), and eliminating other factors that could potentially impinge on validity. At this stage, parent member-checking groups and an expert review panel were employed as checks on the integrity and validity of the evolving measure (Hill et al., 2005; Worthington & Whittaker, 2006). Each item was assessed for: (a) content appropriateness, that is whether items were clear, taking into consideration socio-demographic characteristics of future respondents including literacy levels and language varieties of the Spanish language (e.g., Parents were asked: "Do you understand this item? Is it clear?"), (b) content representativeness, that is whether the items captured the heart of the overarching research question and the dimension under which they were organized (e.g., Parents were asked: "Do you think this item is capturing something meaningful about family involvement?") and (c) variability, that is whether items would yield a wide range of responses (e.g., Parents were asked: "Do you think there will be some parents who will say 'yes' and others who will say 'no' to this item?). The first two authors conducted three member-checking groups with Head Start parents who had not participated in the original focus groups (N = 18, of whom 12 completed the task in Spanish and 6 in English). Parents were asked to assess the draft items using a Q-sort procedure. Then, three experts in the field (all Spanish–English bilinguals, two native Spanish-speaking Latino) reviewed all 132 items, as well as the measures' anchors, to assess content representativeness, content appropriateness, and equivalence across languages. Items rated low by both parents and experts were eliminated; items rated low by parents but high by experts (or vice versa) were modified according to suggestions provided by experts. Based on these expert and parent reviews, 65 items were selected for the final measures, which we entitled the ***Parental Engagement of Families from Latino*** *Backgrounds* **(PEFL-English)** and the *Participación Educativa de Familias Latinas* (PEFL-Spanish), respectively.

This 65-item measure was then distributed in the late spring and throughout the summer (May–July) to 650 primary caregiver participants for purposes of construct validation, along with a satisfaction survey and family demographic questionnaire. Caregivers completed the measures individually or in groups at their centers. Research assistants were available to answer questions or clarify misunderstandings for the participants. For a small number of participants, who evidenced problems with completing the questionnaire, bilingual research team members offered to read the items to the parent in their native language and mark their responses. Occasionally, packets were sent home for a particular child, if the primary caregiver was not the person who dropped off or picked up the child at the center. Subsequent to obtaining primary caregiver consent, head teachers for each classroom gave their consent and were asked to complete a global rating of that caregiver's engagement in education, as well as to log their school-based involvement for the current month. For this subsample of 296 children, 37 teachers participated (97%).

5.3. Measures

5.3.1. Demographic questionnaires

A family background questionnaire was used to gather information, such as parents' age, level of education, employment status, marital and residence status, household size, birth order of target child, primary language spoken in the home, mother's and father's racial and ethnic group identification, country of origin, and number of years in the U.S. A teacher demographic questionnaire was used to gather information on teacher characteristics, such as age, level of education, years of teaching experience, primary language spoken in the classroom, and race/ethnicity.

Table 2
Exploratory factor structure for the ***Parental Engagement of Families from Latino*** Backgrounds **(PEFL)** questionnaire ($N = 650$).

Item	Varimax factor loading	Item-total r[a]
Foundational education		
I teach my child how to share	.592	.337
I encourage my child to be more independent (eating, dressing him/herself)	.548	.289
I teach my child how to take care of his/her things	.540	.403
I teach my child to ask for help when he/she needs it	.475	.299
I spend time working with my child on numbers (for example, counting)	.465	.319
I allow my child time to play and have fun	.430	.321
I teach my child who his/her family members are	.405	.274
I make sure that my child has a place for learning and school materials at home	.398	.458
I ask my child questions so that he/she will learn	.393	.431
I teach my child how to behave in different situations	.383	.314
I teach my child about my family's country's traditions, food, and music	.378	.392
I help my child to learn in everyday places (such as the subway, playground, supermarket)	.377	.368
I talk with my child about his/her daily experiences (at school, with friends)	.370	.283
I help my child follow rules	.368	.337
I help my child learn letters (ABCs)	.368	.386
I teach my child to respect other people' cultures	.363	.425
I spend one-on-one time with my child	.350	.391
I provide praise and encouragement to my child, so that he/she will learn	.348	.283
I teach my child that his/her behavior has consequences	.339	.288
I teach my child to show respect to others	.317	.188
Supplemental Education		
I take my child to places in the community to learn (such as the library, museum, zoo, aquarium)	.559	.533
I tell stories to my child	.542	.507
I read with my child	.498	.511
I or someone in my household speaks to my child in English	.496	.318
My child sees me or other family members doing reading and writing activities	.496	.444
I watch educational television shows or play educational computer games with my child	.437	.397
I encourage other family members to do activities with my child	.401	.473
I encourage my child to work with his/her hands on building activities (legos, blocks)	.397	.449
I enroll my child in classes outside of school	.376	.357
I communicate with my child's teachers (in person, in writing, or by phone) about my child's learning and behavior at school	.347	.399
My child participates in activities I do around the house (cooking, cleaning, fixing things)	.333	.367
I bring home educational toys and learning materials for my child (like flashcards, books, videos, notebooks).	.309	.410
School Participation		
I help coordinate activities at my child's school	.668	.365
I attend workshops or meetings at my child's school	.612	.375
I attend school trips with my child	.576	.485
I volunteer at my child's school	.574	.425
I donate items or my own skills to support activities at my child's school	.508	.438
I am a member of the parent committee at my child's school	.499	.426
I seek help at my child's school so that my child receives what he/she needs	.362	.410
I attend classes to better myself, such as GED or ESL	.353	.250
Future-Oriented Teaching		
I talk with my child about what I would like him/her to be in the future	.586	.389
I tell stories about the lives of others to motivate my child to become someone in life	.513	.421
I talk with my child about how difficult it is not to have an education	.482	.380

Note. Forty-three of the original 65 items (66.2%) loaded appreciably on only one dimension.
[a] Pearson product-moment correlation between the respective item and the scale without it.

5.3.2. Parent involvement activity log

Teachers were asked to record parents' involvement in school-based activities for a 1-month period, including: attending field trips, workshops held at the center, parent committee meetings, other center-based special events, parent–teacher conferences, home visits, contacting their child's teacher via phone, talking with their child's teacher during or outside of center hours, communicating through notes sent back and forth, or volunteering in the classroom. For each week of the 1-month period, teachers were asked simply to check "yes," "no," or "Not Applicable" for each activity, such that a sum could be calculated across the activities for each primary caregiver to derive a total score of involvement at school.

5.3.3. Teachers' global rating of parent involvement

In addition, teachers provided global ratings of family engagement using a 4-item measure constructed for purposes of this project. Items asked, "How involved is/are the parents(s) in: (a) school-based-academic activities (e.g., school–parent meetings, volunteering in the classroom); (b) school-based social activities (e.g., birthday parties, plays, events, fundraising activities); (c) out-of-school academic activities (e.g., assisting with homework and school projects); and (d) initiating contact about their child's academic progress (e.g., via phone calls, notes, e-mail, conversation with teacher). Items were rated on a 3-point Likert-type scale (1 = Not at all involved, 2 = Somewhat involved, 3 = Very involved). Reliability for this measure was moderate (Cronbach's alpha = .80).

5.3.4. Parents' satisfaction with school contact and support

This construct was assessed using the Parent Satisfaction with Educational Experiences Scale (PSEE; Fantuzzo, Perry, & Childs, 2006), a 12-item parent-report measure of satisfaction with early childhood programs. Items of the scale include reports of satisfaction with: volunteering in the classroom, planning classroom activities, sending notes home, having conferences with the teacher regarding children's educational progress, having telephone conversations, attending parent workshops offered at the program, and having contact with school administrators. Items are rated on a 4-point Likert scale (Very Dissatisfied, Dissatisfied, Satisfied, and

Very Satisfied). The PSEE was developed with a sample of primary care-providers of 648 children enrolled in a northeastern school district's early childhood programs (e.g., Head Start, Comprehensive Early Learning Center, kindergarten, and first grade). Ninety percent of the respondents were mothers, 4.1% were fathers, and 6.7% were other family members. Sixty percent of the respondents were African American, 26% were White, and 14% represented other ethnic groups. For the current sample, the total sum score was employed in analyses and reliability was high across the 12 items ($\alpha = .92$), similar to what has been found in other immigrant Head Start samples (McWayne, Campos, & et al., 2008).

5.4. Construct validity analyses

Exploratory factor analyses were conducted through a series of common factor analytic procedures using SAS version 9.1, with squared multiple correlations serving as the initial communality estimates. Three to seven factors were rotated based upon results of tests for the number of factors, including minimum average partialling (MAP; Velicer, 1976; O'Connor, 2000) and Cattell's (1966) scree test, using both orthogonal (varimax) and oblique (promax, where $k = 2–5$) rotational methods (as per Gorsuch, 1983). Multiple criteria were applied to determine the most robust family engagement factor structure. These criteria specify that the most viable factor structure should: (a) satisfy tests for the number of factors; (b) hold simple structure (i.e., maximize the number of items loading saliently on only one factor); (c) yield reasonable internal consistency for a multidimensional instrument (Cronbach's alpha $\geq .70$) (Kline, 1993); (d) retain items with factor loadings $\geq .30$ (Boyle, 1985); (e) minimize inter-factor correlations; and (f) be psychologically meaningful (Wood, Tataryn, & Gorsuch, 1996). A minimum of 100 subjects is recommended for factor analysis, and a ratio of 10 subjects per variable is suggested (Gorsuch, 1983). Therefore, for the development of a 65-item scale, 650 participants provided a sufficient sample size.

In addition to these criteria, several steps were taken to further test the integrity of the final common factor solution. First, the specificity (i.e., the proportion of variance that is both reliable and unique) for each factor was calculated and compared to its error variance, to ensure that the reliable variance associated with each factor was higher than that attributable to error. Second, the final factor solution was substantiated through cross-validation of various subsamples' factor structure to that of the entire sample (e.g., language version). To assess the degree of congruence between the subgroup factor solutions, Wrigley–Newhaus coefficients were calculated (Guadagnoli & Velicer, 1991). Third, validity analyses were conducted with external criterion measures (i.e., with parent self-report of satisfaction and teacher report of parents' participation in their children's education), via bivariate correlations. We expected to observe small to moderate correlations among these constructs based on similar studies within Head Start communities (Fantuzzo, Tighe, & Childs, 2000; McWayne, Campos, & et al., 2008).

6. Results

Before commencing common factor analyses, tests were conducted to determine the factorability of the set of 65 items (as per Worthington & Whittaker, 2006). First, Bartlett's test of sphericity was statistically significant (χ^2 (2080) = 10,865.865, $p < .0001$), rejecting the likelihood of an identity matrix. Thus, we were able to safely assume that there was at least one factor present in these data. In addition, the Kaiser–Meyer value was found to be 0.90, and the diagonals of the anti-image correlation matrix were all >0.5, supporting the inclusion of each item in the factor analysis.

Next, item analyses were conducted to determine if all items should be included in the exploratory factor analyses. Inspection of the item correlation matrix indicated that no items correlated so highly with one another that they would suggest redundancy. Item alphas were all high, above .90. Item-total correlations were inspected and 60 of our items fell within the healthy range of .20 to .80, with the majority being in the range of .30 to .60. Moreover, no negative item-total correlations were found. However, five items had low correlations with the other items, ranging from .03 to .19. These items were: "I take my child to religious services," "I teach my child to show respect to others," "My child's school communicates in my home language," "I drop off or pick up my child from school," and "I or someone in my household speaks Spanish to my child." Finally, communalities were investigated to determine if each item shared some common variance with other items. Ideally, this value should be above .30. This analysis revealed that 21 of the 65 PEFL items had communalities below .30, suggesting that many did not share sufficient variance with the other items. However, only four were below .20 (i.e., "I teach my child to show respect to others," "I teach my child who his/her family members are," "I maintain regular routines for my child [for example, in the morning and at bedtime]," "I drop off or pick up my child from school"). The items that emerged as problematic during this phase of item analysis were flagged but not deleted. Only three of the items initially flagged above were retained on the final measure because they loaded appreciably on one and only one factor (i.e., "I teach my child to show respect to others," "I teach my child who his/her family members are," and "I maintain regular routines for my child [for example, in the morning and at bedtime]").

Common factor analyses revealed that the model retaining four orthogonal components best met the multiple criteria for determining the most parsimonious description of the data. Items that consistently hyperplaned (i.e., did not load sufficiently on any factors) were removed, yielding a factor solution retaining 43 of the original 65 items. In the final solution, 38 of the 43 items loaded above 0.35; all 43 items demonstrated factor loadings ≥ 0.30. The overall reliability of the scale was found to be high (i.e., Cronbach's alpha coefficient = 0.90). A description of each of the four factors and their alpha reliabilities follows.

Foundational Education ($\alpha = 0.73$) was comprised of 20 items reflecting parents' efforts to teach their children the basics concerning appropriate social interaction, academic knowledge, their family's culture, and included their efforts to spend time with their child and create a positive learning environment at home. Supplemental Education ($\alpha = 0.77$) was comprised of 12 items representing parents' efforts to provide stimulating experiences beyond the basics, including encouraging the involvement of other family members, enrolling their children in classes outside of Head Start, and taking them to places in the community to learn. School Participation ($\alpha = 0.77$) was comprised of eight items and reflected parents' active participation in school-based activities including attending workshops, donating time and skills to the Head Start program, serving in leadership and coordination roles, and advocating for their children at school. Future-Oriented Teaching ($\alpha = 0.63$) was comprised of three items representing parents' efforts to socialize children around a positive life and the importance of education. Table 2 presents the items, factor loadings, and item-total correlations for each of the four factors. Of note, only one item was found to cross-load (i.e., "I ask my child questions so that he or she can learn") on the Foundational (factor loading = 0.39) and Supplemental Education (factor loading = 0.29) factors, but was retained on the Foundational Education factor because its factor loading was substantively higher. In addition, Table 3 contains reliability information for the factors as well as the inter-factor correlations.

Table 3
Inter-factor correlations and alpha reliability of PEFL dimensions.

Factor	Foundational Education	Supplemental Education	School Participation	Future-Oriented Teaching
Foundational Education	.73			
Supplemental Education	.51	.77		
School Participation	.23	.42	.77	
Future-Oriented Teaching	.39	.38	.25	.63

Note. Factor reliabilities are presented in the diagonal and are Cronbach's alpha coefficients.

Additional evidence supported the viability of the Latino family engagement dimensions. The specific (unique and reliable) variance for three of the four dimensions was higher than its error variance. Though the error variance was slightly higher than the specific variance for the Future-Oriented Teaching factor, this factor was retained because the items comprising it consistently hung together as separate from the others, and it represented a phenomenon discussed in ethnographic study with Latino families. Table 4 presents the communality, specificity, and error variance for each factor. In addition, factorial congruence was investigated across language versions of the measure and national origin subgroups to determine the generalizability of the structure of the measure. These factor-matching analyses, using Wrigley–Neuhaus coefficients of congruence (Guadagnoli & Velicer, 1991), indicated a high degree of statistical congruence between the factor solutions for language version of the measure and the factor solutions derived for dominant country of origin subgroups (i.e., Mexico, Dominican Republic, and U.S.). This method yielded acceptable to high coefficients (.73 to .99, $M = .90$) for all like factors and relatively lower coefficients (.33 to .62, $M = .47$) for all unlike factors.

Analyses were run to determine whether the factors were related to family demographic variables. Foundational Education was negatively correlated with the number of adults ($r = -.13$, $p < .001$) and children ($r = -.10$, $p < .05$) residing in the home, but was positively correlated with caregivers' years in the United States ($r = .08$, $p < .05$), caregivers' years of education ($r = .19$, $p < .001$), and the language in which the LFIQ was completed ($r = .12$, $p < .01$), with English-speaking caregivers reporting more Foundational Education practices. Admittedly, these correlations are small, and only number of adults in the home and years of education remained significant after applying a Bonferroni correction. In addition, results of an ANOVA suggested that caregivers born in Mexico reported fewer Foundational Education practices than caregivers born in the U.S. ($F[2,629] = 6.34$, $p < .01$).

Similarly, Supplemental Education was negatively associated with the number of adults ($r = -.30$, $p < .001$) and children ($r = -.14$, $p < .001$) in the home, caregivers' age ($r = .10$, $p < .01$), years of education ($r = .19$, $p < .001$), years in the U.S. ($r = .37$, $p < .001$), and the language in which the LFIQ was completed ($r = .40$, $p < .001$), with English-speaking caregivers reporting more Supplemental Education practices. All but caregivers' age remained statistically significant after correcting for the number of tests. In addition, results of ANOVAs suggested that caregivers who worked (full time or part time) engaged in more Supplemental Education practices than those who do not work outside of the home, $F(2, 643) = 14.66$, $p < .001$, and that caregivers born in the U.S. reported more Supplemental Education practices than caregivers born in Mexico or other South or Central American countries, $F(2, 626) = 66.60$, $p < .001$.

The third factor, School Participation, was negatively correlated with the number of adults in the home ($r = -.11$, $p < .01$), and was positively correlated with caregivers' age ($r = .08$, $p < .05$), and years of education ($r = .13$, $p < .001$), the last of which remained statistically significant after applying a Bonferroni correction. Finally, the fourth factor, Future-Oriented Teaching, was positively correlated with children's age ($r = .11$, $p < .01$) and negatively correlated with the number of adults in the home ($r = -.13$, $p < .001$). The latter was the only relationship which remained statistically significant after correcting for the number of tests. Results of an ANOVA showed that caregivers who worked full time reported engaging in more Future-Oriented Teaching practices as compared to caregivers who did not work outside of the home, $F(2, 643) = 3.23$, $p < .05$.

Further validity analyses were conducted with teacher reports of family involvement and parent-reported satisfaction with school contact and support. The strongest associations were found between PEFL dimensions and teachers' global ratings of parent engagement. Teacher report of total involvement was positively correlated with the following factors: Foundational Education ($r = .23$, $p < .0001$), Supplemental Education ($r = .28$, $p < .0001$), and School Participation ($r = .34$, $p < .0001$). Future-Oriented Teaching was not correlated with teachers' global report of family involvement. Likewise, but to a lesser degree, teachers' logs of parent school contact were positively correlated with Foundational Education ($r = .14$, $p < .01$), Supplemental Education ($r = .17$, $p < .001$), School Participation ($r = .15$, $p < .005$), and Future-Oriented Teaching ($r = .10$, $p < .05$). However, when applying a Bonferroni correction for the number of tests, this last correlation was not statistically significant. Positive associations were found between all four PEFL dimensions and parent report of their own satisfaction with school contact and support (Foundational Education, $r = .20$, $p < .0001$; Supplemental Education, $r = .14$, $p < .0001$; School Participation, $r = .24$, $p < .0001$; Future-Oriented Teaching, $r = .10$, $p < .01$). Means and standard deviations for these variables are included in Table 5.

Table 4
Variance components of PEFL dimensions ($N = 650$).

Factor	Communality	Specificity	Error
Foundational Education	.40	**.34**	.27
Supplemental Education	.51	**.26**	.23
School Participation	.31	**.46**	.23
Future-Oriented Teaching	.30	.33	.37

Note. Communality reflects the total proportion of common variance conveyed by a dimension. Specificity indicates the proportion of variance that is both reliable and unique to a particular dimension. Specificity is calculated by subtracting communality for a dimension from its alpha coefficient. Specificity values that exceed error variance (where error variance = 1 − alpha) are considered significant and are in boldface type.

Table 5
Means, standard deviations, and ranges for family engagement variables.

Variable	Mean (SD)	Range	*N*
Foundational Education (parent – PEFL)	2.7 (.2)	1.2–2.8	650
Supplemental Education (parent – PEFL)	2.7 (.4)	1.4–3.3	650
School Participation (parent – PEFL)	2.7 (.7)	1.0–4.0	650
Future-Oriented Teaching (parent – PEFL)	3.5 (.6)	1.3–4.0	650
Global family involvement (teacher)	2.4 (0.8)	1–4	296
Frequency of school-based activities (teacher)	6.3 (4.0)	0–19	296
Satisfaction with school contact (parent)	40.4 (5.9)	12–48	650

Note. Mean values are in the original metric for all variables.

7. Discussion

This study helps to redress external validity shortcomings in the early childhood literature by taking an emic approach to identify culturally relevant dimensions of family engagement among Latino, Head Start families. The primary objectives of this inquiry were to determine whether: (a) culture-specific dimensions of family engagement in preschool children's education could be identified for this group and (b) a reliable and valid measure of Latino family engagement for use in Head Start programs could be developed. Once these two objectives were met, we explored whether the specific dimensions of Latino family engagement varied as a function of respondent characteristics.

Several key findings emerged from this mixed-methods investigation. First, results from the qualitative focus group data analyses revealed that participating Latino families characterized their engagement as clearly multidimensional. This finding corroborates predominant conceptualizations within the family involvement literature as a whole (Epstein, 1995; Fantuzzo et al., 2001; Hoover-Dempsey et al., 2005). The Latino Head Start caregivers in this study described their engagement as related to various child developmental skills (as the goals of engagement) and as encompassing myriad parental responsibilities/behaviors that were intended to support the development of children's skills. Within the domain of child development skills, family members spoke of their behaviors contributing to children's school readiness and general life skills. Both of these dimensions were critical to families, reflecting what research tells us about the multiple and often variable goals families may have for their children's early learning and development (Seginer, 2006). Within the domain of parent responsibilities and behaviors, family responses were marked by a wide range of parenting behaviors in the home, as well as engaging in school-based and community-based activities. These findings are consistent with the ethnographic literature on Latino families showing an emphasis on a broader, more inclusive definition of education as embodied in the Spanish term *educación*, which includes both socio-emotional and cognitive domains (Reese, Balzano, Gallimore, & Goldenberg, 1995).

Second, results from the quantitative phase of the study yielded four culturally salient and psychometrically defensible dimensions of family engagement, with initial evidence supporting the external validity of the measure. In other words, the PEFL is comprised of four reliable dimensions of family engagement, three of which are consistently related in meaningful ways to teacher reports of home and school involvement, and all of which are related to parents' reports of their satisfaction with their experiences at Head Start. Moreover, these factors may represent culture-specific distinctions.

For example, the home-based activities formed two distinct factors (Foundational and Supplemental). What is striking here is that low-income Latino parents' conceptions of what it means to be involved in children's education at home differed from that captured in prior measurement development work with other groups (e.g., with African American Head Start parents [Fantuzzo et al., 2001]). The first home-based dimension seemed to reflect the broader notion of *educación*. The term *educación* in Spanish has a dual focus. One the one hand, *educación* refers to socio-emotional/behavioral skills that are fostered in the home by parents, including training in responsibility, morality, and interpersonal relationships (Valenzuela, 1999). On the other hand, *educación* also includes cognitive/linguistic skills developed through schooling. Past ethnographic work has documented that Latino parents do not distinguish between both aspects of *educación* (see Okagaki & Bingham, 2010 for a review; Reese et al., 1995). Thus, this factor primarily reflected parents' efforts to socialize their children and included behaviors aimed at developing children's socially and behaviorally oriented skills, but also included teaching them their alphabet and numbers, as well as teaching them about their culture. Therefore, what caregivers deemed as important in supporting their children's education represented a broader set of home behaviors than what existing measures of family engagement have tended to capture, such as establishing routines and developing academic skills. In addition, whereas the literature has tended to view Latino parents in an all-or-nothing fashion (i.e., Latino parents are only interested in social–emotional development), this study shows us that there is much more nuance to what Latino parents view as fundamental education.

In contrast, the items comprising the Supplemental Education dimension represented, perhaps, more what we would associate with the family engagement behaviors of mainstream parents (e.g., enrolling the child in classes outside of school), or the more mainstream notions of how family engagement at home should look (e.g., reading to one's child, watching educational shows, or communicating with teachers). Work by Delgado-Gaitán (1991) demonstrates the importance of schools communicating expectations for involvement as well as creating the space for personally meaningful involvement, as a way of promoting higher levels of family engagement at home. Higher levels of endorsement of this dimension might also reflect parents who have more resources of time, money, and (because of the predominance of items dealing with literacy) education. Indeed, caregiver participants in this study who reported higher levels of education and being employed also reported higher levels of this form of involvement.

The Future-Oriented Teaching factor may reflect a dimension of family engagement that is more salient for low-income, immigrant families (Suárez-Orozco, Rhodes, & Milburn, 2009). Many immigrant families emphasize the importance of academic achievement as a means to achieve social mobility and immigrate to another country for the very purpose of providing better opportunities for their children than they will experience themselves (Phalet, Andriessen, & Lens, 2004; Suárez-Orozco & Suárez-Orozco, 1995). Work by López et al. (2001) documented practices common among low-income and migrant Latino families in explicitly impressing upon their children the importance of education for breaking out of the cycle of poverty, including talking with them about hard labor as well as taking them to work in the fields. Indeed, in the current sample, parents who were employed (compared with those who were not) demonstrated more of this type of teaching with their children, perhaps reflecting a keen desire for their children to understand the nature of the opportunity structures that will undoubtedly affect their own social mobility. That nativity and language use were not related to parents' responses on this scale seems to indicate that this factor represents a common perspective found across the low-income Latino community.

It was interesting that, of the four factors, Future-Oriented Teaching was the least reliable and least related to teacher report. There are statistically as well as conceptually plausible explanations for this. Statistically, it was the smallest factor in terms of the number of items loading on it, and factors become more reliable as more items comprise them. It also demonstrated moderate relationships with the home-based factors and, therefore, shared quite a bit of variance with them. Taken together, this lower reliability and shared variance with two other factors influenced the specificity values (See Table 4). Conceptually, teachers are not as likely to be aware of this type of parent engagement with their children, as it does not consist of activities about which teachers and parents typically exchange information. Thus, it makes sense that teacher report of family involvement would not be as strongly linked to it. However, it was marginally related to teachers' recording of parents' school contact, indicating some degree of relationship, however slight. Despite the lower reliability of this fourth factor and its lower associations with teacher report, it was retained because

in consultation with Head Start parents, our expert reviewers, and the extant literature, it seemed to capture something potentially unique about this population (Seginer, 2006). Future research will need to ferret this out.

Finally, findings from this study support the relationship between parental challenges and lower levels of engagement overall. More specifically, parents who were recent immigrants, spoke Spanish, had less education, and had more adults and children living with them in the home reported lower levels of involvement across the home-based dimensions. These results contrast with those of other studies that have found demographic characteristics tend not to be associated with levels of self-reported home-based involvement (Fantuzzo et al., 2004; McWayne, Campos, & et al., 2008). Perhaps the nature of the home-based items in the PEFL allowed for greater intra-cultural variability and, thus, for more nuanced relationships to emerge than in previous studies. Furthermore, caregivers who reported lower levels of education reported lower levels of school participation. This finding is highly consistent with other research among low-income preschool populations (Fantuzzo et al., 2001), as well as with recent work among immigrant Head Start populations (McWayne, Campos, & et al., 2008). In addition, being unemployed was associated with lower levels of providing Supplemental Education as well as teaching about the future. It is likely that families with a non-working parent have fewer monetary resources to provide for these additional activities (such as enrolling their child in classes, or taking them to places in the community to learn). With respect to the latter finding, as mentioned above, it could be that among employed parents, the value of education is visible in their workplace and, thus, they communicate this to their children more readily. Conversely, though only speculation, it could be that it is early for this practice to be evinced among Latino families (as evidenced by the correlation with children's age).

7.1. Limitations and future research

Qualifications of the present findings are warranted. First, this study was conducted with a Head Start sample in a large northeastern city, representing a very specific educational context for low-income children. These findings may not be generalizable to low-income children in other early care and education programs or representative of non-low-income, Latino populations. Despite this, it fulfilled a need in the literature for within-group studies of school readiness with a policy-relevant low-income group (Rouse & Fantuzzo, 2009). It also served to provide further empirical evidence for the promise of emic approaches leading to more culturally relevant measurement of parenting behaviors in diverse groups of families (McWayne, Owsianik, Green, & Fantuzzo, 2008). Additionally, the sample was limited in terms of primary home language. Specifically, the English-speaking subsample was relatively small and, therefore, any conclusions concerning low-income Latino families whose primary home language is English are considered preliminary. Future research with this measure will need to employ larger samples to cross-validate the latent factor structure across key subgroups via confirmatory multiple-group analyses (Brown, 2006).

In addition, future research should seek to confirm the 4-factor solution with an independent sample, as well as link these family engagement dimensions to academic and social outcomes for Latino preschool children. For example, is the level of engagement represented by the Supplemental Education factor a value-added dimension? In other words, all other things being equal, does a parent who engages in these behaviors have a child who is more successful socially and academically than a parent who engages in relatively fewer of these behaviors? Do different profiles of parents exist in a low-income, Latino population across these four dimensions, such that meaningful, differential relationships to child outcomes could be observed? Though much more work is needed for understanding the processes involved for this group, findings from this study represent a significant move in the direction of providing a more culturally relevant measure of a critically important independent variable influencing children's school readiness.

7.2. Implications for practice and policy

It was clear from this study that the dimensions of family engagement identified from focus groups with Latino Head Start parents provided for a more comprehensive operationalization of this construct for future measurement and, perhaps, program development. These findings certainly bolster the notion already held among many early childhood practitioners that a one-size-fits-all model of family engagement is not likely to meet the needs of the diverse families served by Head Start. However, with the behaviors of White, middle-class families and children naively used as the standard for developing measures' content and norms, our field is ill-informed to determine what is most culturally relevant for diverse groups of children and families (Sue, 1999).

It was also clear that by taking an emic approach, rather than imposing a theoretical framework a priori, nuanced dimensions emerged from the conversations with primary caregivers. The various ways that families engage with their young children at home broke out into two factors, suggesting that program efforts to understand home-based involvement are critical and confirming what other researchers have hypothesized about Latinos (Seginer, 2006) or found with other ethnic groups (Fantuzzo et al., 2004). Taken together with results from previous studies, the present findings suggest that low-income, Latino families are finding numerous ways to be involved in their young children's education at home (García-Coll et al., 2002; López et al., 2000). The first question for programs to ask is: how do we gain access to information, in culturally sensitive ways, about how individual families are already supporting their children at home and in the community? The second question programs should ask, then, is: what role can preschool programs play in fostering those home behaviors identified as most supportive of children's early school success?

Because Head Start's two-generational focus provides opportunities for intervening with family factors, an investigation of the relationships between these family engagement dimensions and family demographics seemed warranted. Indeed, findings revealed differential relationships with respect to several family variables (e.g., number of children, number of years in the U.S., education, employment, and home language). The nature of these findings underscore the need for a renewed attendance to equity with respect to inclusion of families considered more at-risk (e.g., those characterized by low maternal education, unemployment, and Spanish as the primary home language). A recent study has suggested that Head Start programming designed to improve parent–child interaction and maternal education could be worthwhile in terms of having lasting positive effects on children's school success over the transition to early elementary school (McWayne, Hahs-Vaughn, Cheung, & Wright, 2012). Job trainings, GED and English as a Second Language (ESL) classes should continue to be offered by Head Start programs. And, future researchers will need to attend to the possible moderating effects of family engagement in the relationship between these demographic risks and children's educational and social well-being (Seginer, 2006).

Establishing meaningful connections with families to promote children's school readiness is especially critical for low-income,

immigrant families, whose children face greater odds of academic failure. Economic and cultural differences between families and educators often translate into significant discontinuities between home and school contexts (García-Coll et al., 2002; Weisner, 2005). Conflicting values, socialization goals, role demands, and communication expectations and styles place young children at-risk for difficulties as they traverse between the two settings. These significant gaps between educators and families need to be better understood to inform our intervention efforts (Doucet, 2008). For this reason, Head Start, the largest federally funded early childhood intervention program serving families with young, low-income children, has prioritized family engagement within its core mission (H. R. 1429, 2007). The development and initial validation of family engagement dimensions for Latino Head Start parents (the largest ethnic group currently served in Head Start) represents a significant move in the direction of providing comprehensive child development programs with useful information that can stimulate dialogue about the many positive and potentially powerful ways that low-income, Latino families engage in their children's early development, learning, and education. Such dialogue holds great promise for advancing our understanding of the relationships between families and early childhood education programs in the diverse socio-cultural contexts that characterize the landscape of children, families, and schools across our nation today.

Acknowledgments

This study was supported by an NICHD R03 grant (5R03HD50363-2) and by an Administration for Children and Families (U. S. Department of Health and Human Services) Head Start University English Language Learners Partnership Grant (#90YR0043), both awarded to the first and second authors.

Appendix A. Example indicators for selected concepts

Variable	Concept	Indicator
DEVELOPMENTAL SKILLS	Cognitive/Linguistic	Les digo, "¿Tú quieres jugo? You want a juice? O sea todo, todo trato de hacérselo en los dos idiomas para ver si los tres crecen bilingües perfectos. (*I say to them, "¿Tú quieres jugo? You want a juice?" That is, everything, everything I try to do it in both languages to see if the three will become perfect bilinguals.*) – Male, born in the D.R.
		A veces ella me quiere tumbar las cosas, jugando. Ella sabe que eso xx cuatro, entonces dice, "Son dos." Y entonces le quita dos y las esconde. Le digo, "Y ¿dónde están las otras dos?" "Pues aquí." "¿Y las otras?" Dice, "Son tres ahí," y dice, "Son dos." Y ahí las junta y digo, "Ahora ¿cuántas son?" Y empieza a contar uno por uno a cuatro. (*Sometimes she wants me to knock things down playing. She knows that xx four, then she says, "There are two." And then she takes two and hides them. I say to her, "And where are the other two?" "Right here." "And the others?" She says, "There are three there," and she says, "There are two." And she puts them together there and I say, "Now how many are there?" And she starts counting one by one to four.*) – Female, born in Mexico
		We read books, and whenever I'm reading I'm pointing "I'm like what letter's this?" So she repeats and I read the word out loud so she repeats. – Female, born in Ecuador
	Social/Emotional	Y con los niños también a veces hay que dejarlos que sean independientes, que ellos mismos tomen sus propias decisiones. (*And with kids also sometimes you have to let them be independent* [*allow them*] *to make their own decisions.*) – Female, born in the D.R.
		I teach my kids, "When you come to see Grandma, you zip it, you sit, that's it. No jumping, no squirming around." – Female, born in the U.S.
	Motor skills	Yo ofrendé las manualidades para desarrollar la motricidad fina y ejercicios para estimular su cuerpo. (*I provided crafts to develop fine motor skills and exercises to stimulate his/her body.*) – Female, born in Mexico
		I know the motor skills are also important. Even, like, with cutting. We do cutting at home. – Female, born in the U.S.
	Community learning	Me gusta el Museo de los Niños. Y entonces ellos se divierten mucho. Ellos preguntan y ven que ahí en el Museo les van explicando [sobre] estos animalitos . . . Él dice, "Cómo trajeron esto aquí?" o ve que hay película que da vida a los animales. (*I like the Children's Museum. And then they have a lot of fun. They ask and see that there in the Museum they explain to them about these animals . . . He says, "How did they bring this here?" or he see that if there's a movie that brings the animals to life.*) – Female, born in Honduras
		Yo los ayudo a mis hijos. Los llevo a la biblioteca a traer libros. (*I help my kids. I bring them to the library to take out books.*) – Female, born in Mexico
	Responsibility	I always tell them "This is your work. This is your job. My job as a mom is to take care of you. Your job is to do well in school – Female, born in Mexico
	Manners/Respect	Enseñarles el respeto a los maestros, a las personas adultas, incluso a los hermanos mayores también. (*Teach them respect for the teachers, for adults, including for older siblings also.*) – Female, born in Ecuador
PARENT RESPONSIBILITIES & BEHAVIORS	Basic needs	Lo primero que yo le digo a ellos, [a] mis hijos no caminar solos . . . nunca. (*The first thing that I say to them, to my kids never walk alone.*) – Female, born in the U.S.
		Yo me levanto temprano, los baño, los llevo a la escuela, y mire, ya estoy aquí. A las dos ya salgo, los voy a recoger, llego a mi casa, les cocino, les doy de comer. (*I get up early, I bathe them, take them to school and look, I'm already here. At two, I leave, I come to pick them up, I get home, I cook for them, I give them food.*) – Female, born in Mexico
		I mean as a father, it's been hard for me (be)cause I'm so preoccupied trying to like, make money and trying be responsible with that, sometimes that overwhelms everything else. – Male, born in Ecuador
	School presence/Activities	Estoy ahí de voluntaria y trato de involucrarme lo más que puedo. (*I'm here as a volunteer and I try to involve myself as much as I can.*) – Female, born in Mexico
		I would show up at their school and pop up at any given time to just to see what's going on. – Female, born in the U.S.
	Time/Attention	Hay que dedicarle tiempo a sus hijos y hay que hacer un esfuerzo y estar pendiente de todas las cosas que ellos hacen. (*You have to dedicate time to your kids and you have to be a force and to be behind everything they do.*) – Female, born in the D.R.
		And that dinner time, even if it's 15 min, you will know what your kids are doing, you know, what's going on. You know, you get to talk, you get to communicate, even if it's for 15 min. And it's like sharing time. – Female, born in the D.R.

Variable	Concept	Indicator
	Developmental materials	Le compro todos los libros adecuados a la edad de él, todos. Cuando veo un libro que me gusta y que sé que es beneficio(so) para él, me lo compro. (*I buy him all the age-appropriate books, all of them. When I see a book that I like and that I know is good for him, I buy it.*) – Female, born in the D.R. Entonces también le hizo un pupitre para que escriba mejor así. (*I also made him a desk so that he could write better like that.*) – Female, born in Ecuador I buy my son a lot of flashing cards. They have like letters, numbers, like fruits all type of stuff. – Female, born in Puerto Rico
	Child initiative	They are really independent and you want to encourage that. But also, they still need you, so it's finding the balance in between both. So I guess one thing that would be good, a good idea would be, say they want to pour their milk, but they pick up a gallon. So you pour it into something smaller, so that way they know that when they want milk, they grab it from here. – Female, born in the U.S. Como él quiere, vamos a hacerlo. (*We're going to do it as he wants.*) – Female, born in the D.R.
	Discipline	A veces si el niño se porta mal . . . uno tiene que saber corregirlo. A ver yo le digo, "Tú vuelves a decir eso (y) no hay televisión, no hay juguetes." (*Sometimes if the boy behaves badly, . . . one has to know to correct him. So I say to him, "You say that again, there's no television, no toys."* – Female, born in Honduras Following the rules is huge. What I do with my daughter is, in the house she thinks she can just take out every single toy and make a mess. And then I am like, "No!" But I know in school, they have, it's really structured. So I know here, alright, you either play with a table toy. When you are done, you put it away and you play with another toy. So, I always bring that back to her. – Female, born in the U.S.
	Modeling	She saw these little kids playing in the sand, and she's like, "Mommy what's that?" I said, "That's sand. You want to go play?" She's like, "No, I don't want to get dirty." I said, "No, but it's OK." And I had to actually sit there and show her, and get dirty myself so she would be OK with it. – Female, born in the U.S. Entonces yo me acuesto con el libro y el chiquito coge su libro también de letras. Dice, "Mami, ¿tú vas a leer?" "Sí, yo voy a leer." Y también se acuesta conmigo y comienza a ver el libro. (*Then, I sit down with a book and the little one gets his letter book too. He says, "Mami, you're going to read?" "Yes, I'm going to read." And he sits with me and starts to look at the book.*) – Female, born in the U.S.

References

Aber, J. L., Gephart, M. A., Brooks-Gunn, J., & Connell, J. P. (1997). Development in context: Implications for studying neighborhood effects. In J. Brooks-Gunn, G. J. Duncan, & J. L. Aber (Eds.), *Neighborhood poverty. Context and consequences for children* (pp. 44–61). New York: Sage.

Arnold, D. H., Zeljo, A., Doctoroff, G. L., & Ortiz, C. (2008). Parent involvement in preschool: Predictors and the relation of involvement to preliteracy development. *School Psychology Review*, *37*, 74–90.

Aspiazu, G. G., Bauer, S. C., & Spillett, M. (1998). Improving the academic performance of hispanic youth: A community education model. *Bilingual Research Journal*, *22*(2–4), 127–147.

Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review Special Issue: Promoting Well being in Children and Youth: Findings from the Chicago Longitudinal Study*, *26*(1), 39–62.

Bermúdez, A. B., & Márquez, J. A. (1996). An examination of a four-way collaborative to increase parental involvement in the schools. *The Journal of Educational Issues of Language Minority Students*, *16*, 1–16.

Bohon, S. A., Macpherson, H., & Atiles, J. H. (2005). Educational barriers for new Latinos in Georgia. *Journal of Latinos and Education*, *4*, 43–58.

Boyle, G. J. (1985). A reanalysis of the higher-order factor structure of the motivation analysis test and the eight state questionnaire. *Personality and Individual Differences*, *6*(3), 367–374.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: Guilford.

Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*, *1*, 245–276.

Christenson, S. L., & Sheridan, S. M. (2001). *Schools and families: Creating essential connections for learning*. New York, NY: Guilford.

De Gaetano, Y. (2007). The role of culture in engaging Latino parents' involvement in school. *Urban Education*, *42*(2), 145–162.

Delgado-Gaitán, C. (1991). Involving parents in the schools: A process of empowerment. *American Journal of Education*, *100*(1), 20–46.

Doucet, F. (2008). How African American parents understand their and teachers' roles in children's schooling and what this means for preparing preservice teachers. *Journal of Early Childhood Teacher Education*, *29*, 108–139.

Duncan, G. J., & Magnuson, K. A. (2005). Can family socioeconomic resources account for racial and ethnic test score gaps? *The Future of Children*, *15*(1), 35–54.

Durand, T. M. (2011). Latino parental involvement in kindergarten: Findings from the early childhood longitudinal study. *Hispanic Journal of Behavioral Sciences*, *33*(4), 469–489.

Epstein, J. L. (1995). School/family/community partnerships: Caring for the children we share. *Phi Delta Kappan*, *76*(9), 701–712.

Fagan, J., & Iglesias, A. (1999). Father involvement program effects on fathers, father figures, and their head start children: A quasi-experimental study. *Early Childhood Research Quarterly*, *14*(2), 243–269.

Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review*, *13*(1), 1–22.

Fantuzzo, J., Grim, S., Mordell, M., McDermott, P., Miller, L., & Coolahan, K. (2001). A multivariate analysis of the revised Conners' Teacher Rating Scale with low-income urban preschool children. *Journal of Abnormal Child Psychology*, *29*, 141–152.

Fantuzzo, J., McWayne, C., Perry, M. A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, *33*(4), 467–480.

Fantuzzo, J., Perry, M. A., & Childs, S. (2006). Parent satisfaction with educational experiences scale: A multivariate examination of parent satisfaction with early childhood education programs. *Early Childhood Research Quarterly*, *21*(2), 142–152.

Fantuzzo, J., Tighe, E., & Childs, S. (2000). Family involvement questionnaire: A multivariate assessment of family participation in early childhood education. *Journal of Educational Psychology*, *92*(2), 367–376.

Figueroa, R. A., & García, E. (1994). Issues in testing students from culturally and linguistically diverse backgrounds. *Multicultural Education*, *2*(1), 10–19.

Fry, R. (2010). *Hispanics, high school dropouts and the GED*. Pew Research Center. Retrieved from. http://pewhispanic.org/files/reports/122.pdf

Fuller, B., Eggers-Pierola, C., Holloway, S. D., Liang, X., & Rambaud, M. F. (1996). Rich culture poor markets: Why do Latino parents forgo preschooling? *Teachers College Record*, *97*(3), 400–418.

Gándara, P., & Contreras, F. (2009). *The Latino education crisis: The consequences of failed social policies*. Cambridge, MA: Harvard University.

García-Coll, C., Akiba, D., Palacio, N., Bailey, B., Silver, R. D., Martino, L., et al. (2002). Parental involvement in children's education: Lessons from three immigrant groups. *Parenting: Science and Practice*, *2*(3), 303–324.

Gaskins, S. (1994). Integrating interpretive and quantitative methods in socialization research. *Merrill-Palmer Quarterly*, *40*(3), 313–333.

Ginsburg-Block, M., Manz, P., & McWayne, C. (2010). Partnering to foster achievements in reading and mathematics. In S. Christenson, & A. L. Reschluy (Eds.), *Handbook of school-family partnerships* (pp. 175–194). New York, NY: Routledge.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine Publications.

Goldenberg, C. (1987). Low-income Latino parents' contributions to their first-grade children's word-recognition skills. *Anthropology and Education Quarterly*, *18*, 149–179.

Goldenberg, C., Gallimore, R., Reese, L., & Garnier, H. (2002). Cause or effect? A longitudinal study of immigrant Latino parents' aspirations and expectations, and their children's school performance. *American Educational Research Journal*, *38*(3), 547–582.

Gorsuch, R. L. (1983). *Factor analysis* (2nd ed.). Hillsdale, NJ: Erlbaum.

Guadagnoli, E., & Velicer, W. F. (1991). A comparison of pattern matching indices. *Multivariate Behavioral Research*, *26*(2), 323–343.

Hall, R. L., & Schaverien, L. (2001). Families' engagement with young children's science and technology learning at home. *Science Education*, *85*(4), 454–481.

Heath, S. B. (1983). *Ways with words: Language, life and work in communities and classrooms*. New York: Cambridge University Press.

Hill, C. E., Knox, S., Thompson, B. J., Williams, E. N., Hess, S. A., & Ladany, N. (2005). Consensual qualitative research: An update. *Journal of Counseling Psychology Special Issue: Knowledge in Context: Qualitative Methods in Counseling Psychology Research*, *52*(2), 196–205.

Hill, N. E. (2010). Culturally-based worldviews, family processes, and family-school interactions. In S. L. Christenson, & A. L. Reschy (Eds.), *Handbook of school-family partnership* (pp. 101–127). New York, NY: Routledge.

Hitchcock, J. H., Nastasi, B. K., Dai, D. Y., Newman, J., Jayasena, A., Bernstein-Moore, R., et al. (2005). Illustrating a mixed-method approach for validating culturally specific constructs. *Journal of School Psychology*, *43*, 259–278.

Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., et al. (2005). Why do parents become involved? Research findings and implications. *Elementary School Journal*, *106*(2), 105–130.

Jahoda, G. (1990). Our forgotten ancestors. In J. J. Berman (Ed.), *Nebraska symposium on motivation: Vol. 37. Cultural perspectives* (pp. 1–40). Lincoln, Nebraska: University of Nebraska Press.

Jeynes, W. H. (2003). A meta-analysis: The effects of parental involvement on minority children's academic achievement. *Education and Urban Society*, *35*(2), 202–218.

Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, *40*(3), 237–269.

Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education*, *42*(1), 82–110.

Kline, P. (1993). *The handbook of psychological testing* (2nd ed.). Florence, KY: Taylor & Frances/Routledge.

LaRossa, R. (2005). Grounded theory methods and qualitative family research. *Journal of Marriage and Family*, *67*(4), 837–857.

López, L. C., Sánchez, V. V., & Hamilton, M. (2000). Immigrant and native-born Mexican-American parents' involvement in a public school: A preliminary study. *Psychological Reports*, *86*(2), 521–525.

López, G. R., Scribner, J. D., & Mahitivanichcha, K. (2001). Redefining parental involvement: Lessons from high-performing migrant-impacted schools. *American Educational Research Journal*, *38*(2), 253–288.

Lucas, T., Henze, R., & Donato, R. (1990). Promoting the success of Latino language-minority students: An explanatory study of six high schools. *Harvard Educational Review*, *60*(3), 315–340.

Marschall, M. (2006). Parent involvement and educational outcomes for Latino students. *Review of Policy Research*, *23*(5), 1053–1076.

Martínez, C. R., Jr., DeGarmo, D. S., & Eddy, J. M. (2004). Promoting academic success among Latino youths. *Hispanic Journal of Behavioral Sciences*, *26*(2), 128–151.

McBride, B. A., Bae, J., & Wright, M. S. (2002). An examination of family-school partnership initiatives in rural prekindergarten programs. *Early Education and Development*, *13*(1), 107–127.

McWayne, C., Campos, R., & Owsianik, M. (2008). A multidimensional, multilevel examination of mother and father involvement among culturally diverse Head Start families. *Journal of School Psychology*, *46*(5), 551–573.

McWayne, C. M., Hahs-Vaughn, D., Cheung, K., & Wright, L. G. (2012). National profiles of school readiness skills for Head Start children: An investigation of stability and change. *Early Childhood Research Quarterly*, *27*, 668–683.

McWayne, C. M., Manz, P. H., & Ginsburg-Block, M. (2007). A multi-site development approach: Examining family involvement dimensions for Latino low-income families of preschoolers. In *Paper presented at the Biennial meeting for society for research in child development* Boston, MA.

McWayne, C., Owsianik, M., Green, L., & Fantuzzo, J. (2008). Parenting behavior and preschool children's social and emotional skills: A question of the consequential validity of traditional parenting constructs for low-income African Americans. *Early Childhood Research Quarterly*, *23*, 173–192.

Mendez, J. L. (2010). How can parents get involved in preschool? Barriers and engagement in education by ethnic minority parents of children attending Head Start. *Cultural Diversity and Ethnic Minority Psychology*, *16*(1), 26–36.

Nastasi, B. K., Hitchcock, J., Sarkar, S., Burkholder, G., Varjas, K., & Jayasena, A. (2007). Mixed methods in intervention research: Theory to adaptation. *Journal of Mixed Methods Research*, *1*(2), 164–182.

National Research Council. (2006). Multiple origins, uncertain destinies: Hispanics and the American future. Panel on Hispanics in the United States. In M. Tienda, & F. Mitchell (Eds.), *Committee on population, division of behavioral and social sciences and education*. Washington, DC: National Academic Press.

National Research Council and Institute of Medicine (NRCIM). (2000). From neurons to neighborhoods: The science of early childhood development. In J. P. Shonkoff, & D. A. Phillips (Eds.), *Committee on integrating the science of early childhood development. Board on children, youth, and families, commission on behavioral and social sciences and education*. Washington, DC: The National Academies Press.

Niemeyer, A. E., Wong, M. M., & Westerhaus, K. J. (2009). Parental involvement, familismo, and academic performance in Hispanic and Caucasian adolescents. *North American Journal of Psychology*, *11*(3), 613–632.

O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instruments, and Computers*, *32*(3), 396–402.

Okagaki, L., & Bingham, G. E. (2010). Diversity in families: Parental socialization and children's development and learning. In S. L. Christenson, & A. L. Reschy (Eds.), *Handbook of school-family partnership* (pp. 80–100). New York, NY: Routledge.

Parker, F. L., Boak, A. Y., Griffin, K. W., Ripple, C., & Peay, L. (1999). Parent-child relationship, home learning environment, and school readiness. *School Psychology Review*, *28*(3), 413–425.

Phalet, K., Andriessen, I., & Lens, W. (2004). How future goals enhance motivation and learning in multicultural classrooms. *Educational Psychology Review*, *16*(1), 59–89.

Reese, L. (2002). Parental strategies in contrasting cultural settings: Families in México and El Norte. *Anthropology and Education Quarterly*, *33*(1), 30–59.

Reese, L., Balzano, S., Gallimore, R., & Goldenberg, C. (1995). The concept of educación: Latino family values and American schooling. *International Journal of Educational Research*, *23*, 57–81.

H. Res. 1429. (2007). 110th Cong.: Improving head start for school readiness act of 2007. (enacted).

Rimm-Kaufman, S. E., Pianta, R. C., Cox, M. J., & Bradley, R. H. (2003). Teacher-rated family involvement and children's social and academic outcomes in kindergarten. *Early Education and Development*, *14*(2), 179–198.

Rouse, H. L., & Fantuzzo, J. W. (2009). Multiple risks and educational well being: A population-based investigation of threats to early school success. *Early Childhood Research Quarterly*, *24*(1), 1–14.

Seginer, R. (2006). Parents' educational involvement: A developmental ecology perspective. *Parenting: Science and Practice*, *6*(1), 1–48.

Sheridan, S. M., Knoche, L. L., Kupzyk, K. A., Edwards, C. P., & Marvin, C. A. (2011). A randomized trial examining the effects of parent engagement on early language and literacy: The getting ready intervention. *Journal of School Psychology*, *49*(3), 361–383.

Slaughter-Defoe, D., & Brown, E. (1998). Educational intervention and the family: The Chicago tradition in policy and practice. *National Head Start Research Quarterly*, (Spring), 11–39.

Sosa, A. S. (1997). Involving Hispanic parents in educational activities through collaborative relationships. *Bilingual Research Journal*, *21*(2–3), 285–293.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Suárez-Orozco, C., & Suárez-Orozco, M. M. (1995). *Transformations: Immigration, family life, and achievement motivation among Latino adolescents*. Stanford, CA: Stanford University Press.

Suárez-Orozco, C., Rhodes, J., & Milburn, M. (2009). Unraveling the immigrant paradox: Academic engagement and disengagement among recently arrived immigrant youth. *Youth and Society*, *41*(2), 151–185.

Sue, S. (1999). Science, ethnicity, and bias: Where have we gone wrong? *American Psychologist*, *54*, 1070–1077.

Tinkler, B. (2002). *A review of literature on Hispanic/Latino parent involvement in K–12 education*. Denver, CO: Assets for Colorado Youth.

Torres-Guzmán, M. (1991). Recasting frames: Latino parent involvement. In M. E. McGoarty, & C. J. Faltis (Eds.), *Languages in school and society: Policy and pedagogy* (pp. 529–552). Berlin, Germany: Mouton de Gruyter.

U.S. Census Bureau. (2000). *The Hispanic population*. Retrieved from. www.census.gov/prod/2001pubs/c2kbr01-3.pdf

U.S. Census Bureau. (2004). *We the people: Hispanics in the United States*. Retrieved from. http://www.census.gov/prod/2004pubs/censr-18.pdf

U.S. Census Bureau. (2011). *The Hispanic population: 2010*. Retrieved from. http://2010.census.gov/2010census

U.S. Department of Health and Human Services. (2003). *Head start FACES (2000): A whole child perspective on program performance, fourth progress report*. Washington, DC: Author.

Velicer, W. F. (1976). Prediction and association for N-way classification tables. *Evaluation Review*, *6*, 247–266.

Valenzuela, A. (1999). *Subtractive schooling: U.S-Mexican youth and the politics of caring*. Albany: State University of New York Press.

Villanueva, I. (1996). Change in the educational life of Chicano families across three generations. *Education and Urban Society*, *29*(1), 13–34.

Walker, J. M. T., Ice, C. L., Hoover-Dempsey, K. V., & Sandler, H. M. (2011). Latino parents' motivations for involvement in their children's schooling. *The Elementary School Journal*, *111*(3), 409–429.

Weisner, T. S. (2002). Ecocultural understanding of children's developmental pathways. *Human Development*, *45*(4), 275–281.

Weisner, T. S. (Ed.). (2005). *Discovering successful pathways in children's development: Mixed methods in the study of childhood and family life*. Chicago: University of Chicago.

Wentzel, K. R. (1999). Social-motivational processes and interpersonal relationships: Implications for understanding motivation at school. *Journal of Educational Psychology*, *91*(1), 76–97.

Wong, S. W., & Hughes, J. N. (2006). Ethnicity and language contributions to dimensions of parent involvement. *School Psychology Review*, *35*(4), 645–662.

Wood, J. M., Tataryn, D. J., & Gorsuch, R. L. (1996). Effects of under- and over-extraction on principal axis factor analysis with varimax rotation. *Psychological Methods*, *1*(4), 354–365.

Worthington, R., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendation for best practices. *The Counseling Psychologist*, *34*(6), 806–838.