

Discovering successful pathways in children's development: Mixed Methods in the Study of
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Using Mixed Methods to Explore Latino Children's Literacy Development

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A Newtonian image of an inalterable, mechanical universe biased social scientists toward avoiding the messy aspects of humanity. “[It mentally prepared them] for a bold exploration of the icy depths of interplanetary space. Instead, they found themselves completely unprepared for the tropical nightmare of a Darwinian jungle: A steaming green Hell, where everything is alive and keenly aware of you, most things are venomous or poisonous or otherwise dangerous, and nothing waits passively to be acted upon by an external force . . . The sweltering space suits . . . had to come off.

(Sechrest and Figueredo, 1993: 647-48).

Introduction

Using less colorful metaphors but no less forceful arguments, Bronfenbrenner (1979) chided the developmental research community more than 20 years ago for neglecting the everyday contexts in which children develop and learn. As a result of this neglect, “our ability to address public policy concerns regarding contexts of child rearing is correspondingly limited” (p. 844). Much has changed since 1979, and attention to context is no longer a novelty. In addition to Bronfenbrenner’s “circle of influences” as a metaphor of contextual influence, other perspectives have also flourished, for example a “woven fabric” of ecological/cultural features (Cole, 1996; Weisner, 1984). From the work of many research communities, over the past four decades much has been learned about context and development, including effects of cultural, community, neighborhood, family, and school factors.

Taking account of the “steaming green Hell” of context effects demanded re-thinking of the methodologies that dominated the psychology and related disciplines for a half century (Cronbach, 1975). Since Bronfenbrenner’s admonitions, a wider range of methodological and conceptual tools have come into use, although much debate accompanied his challenge and continues to this day. Many remain uncomfortable because so much of the data generated by contextual studies does not live up to the traditional methodological requirements of their disciplines. Others argue for turning away from conventional methods toward interpretive branches of the social sciences and to humanities for methodological foundations (Cole, 1996, p. 4).

As epistemological debates continued, and dualistic rhetoric escalated, some concluded that the methodology wars were not likely to be ended in our lifetimes, and a purist approach would not get much research done (Miles & Huberman, 1985; Greene & Caracelli, 1997). A more ecumenical or “multiplist” approach suggested mixing methods from intense local

observation to random-assignment experiments (e.g. Campbell, 1974; Cook & Reichardt, 1979; Cronbach, 1975; Houts, Cook, & Shadish, 1986; Sechrest, Babcock, & Smith, 1993; Webb, et al, 1966). The multiplist approach rejects single methods in favor of juxtaposing multiple probes using heterogeneous methods to seek stable and convergent results and interpretations across contexts, times, populations, datasets, analytic strategies, and perspectives. It assumes all research is affected to varying degrees by values and preferences, and that “individual passion and intellectual commitments provide the life force of science,” which are best minimized by “trying to represent multiple preferences and values in a research program” (Houts, et al., 1986, p. 62-63).

Included in those individual preferences and values are methods choices. Multiple, competing approaches provide one way to estimate the degree convergence of findings and interpretations, as well as force out conflicting assumptions. Multiplist approaches are claimed to be especially helpful for problems where little is yet known or understood (Cook & Reichardt, 1979): They can reveal unsuspected relationships; suggest unanticipated variables and effects; provide a basis for more cost-effective prelude to more ambitious and expensive undertakings; and ground “defensible interpretations of what may be true about the world” (Houts, et al, 1986, p. 61).

Our research team has been influenced by Campbell, Sechrest, Cook, and others, and we have been purposefully ecumenical, mixing methods to study an under-studied population: Spanish-speaking children of immigrant Latino parents. We chose this approach also because the existing research literature seemed markedly inconsistent with our own professional and personal experiences in Latino communities. These inconsistencies were especially marked regarding Latino children’s literacy development and academic attainment.

Some inconsistencies directly related to questions of how to help Latino children succeed in American schools in general, and how to assist their literacy development in particular. The importance of the questions we confronted could hardly matter more to the children and their parents and to the school personnel who try to serve them. Latino children comprise a large and growing portion of the U.S. school-age population. Despite progress and the narrowing of gaps between majority- and minority-group students, Latinos continue to be at risk for poor school attainment (Goldenberg, 2001). In this paper we will focus on the family part of the equation and review some of what we have learned about factors that influence Latino children's educational outcomes, most especially in literacy. Over the past 15 years as we have tried many combinations of research methods to uncover family and school factors influencing the academic development of Latino children of immigrant parents.

What literature there was on this population often asserted that Latino parents de-value formal education either because of economic circumstances or because experiences with discrimination against Latinos have led them to conclude education will not help their children

get ahead (e.g., Ogbu & Matuti-Bianchi, 1986; Suárez-Orozco & Suárez-Orozco, 1996). Another perspective, no longer so common in the research literature (although still heard informally), attributed Latino children's school failure to traditional values--family ties, honor, masculinity, and immediate gratification (Heller, 1966, pp. 33-34). These perspectives, different as they are, have at least one thing in common: They attribute the difficulties Latino youngsters have in U.S. schools to discrepancies, or discontinuities, between family values and beliefs about schooling and the values and beliefs assumed to be important for school success in this country.

However, based on personal and professional experience, we were skeptical about the validity and comprehensiveness of these characterizations of Latino students and family. For example, we had observed that despite differences in cultures and outlook between Latino immigrant parents and educators in the schools their children attended, there were also considerable commonalities in their values and beliefs. Both parents and teachers want children to do well and succeed in school; both parents and teachers see formal schooling as important for economic and social mobility. Moreover, and despite attempts to maintain links with their native cultures, some immigrant parents made self-conscious attempts to move away from the educational values espoused by their parents and provide greater educational opportunities for their children than they felt they themselves had. At the same time, most of the children did not come from homes that afforded a wealth of literacy experiences. Although literacy (and other academic learning) opportunities were not non-existent, neither were they as plentiful as they tend to be in middle- or upper-middle class homes. The reality lay somewhere in between. In short, a complex portrait of commonalities and differences, continuities and discontinuities seemed more plausible than the widely held stereotypes about this population (Goldenberg & Gallimore, 1995).

Using several samples and mixed methods, our findings eventually converged on several broad ecocultural categories of contextual influence on children's literacy experiences and literacy development. These influences included family history and community demography, job-related constraints and enablers, domestic routines and roles, institutional influences, natal cultural schemas, and exposure to alternative cultural schemas. In the following, we summarize what we learned in our longitudinal studies about literacy learning opportunities in low income Spanish-speaking households, including some of the ecocultural factors that either constrain or enable those opportunities. We provide illustrations of how we have used quantitative and qualitative methods reflexively and interactively to pursue questions about home influences on Latino children's literacy development. Finally, we give a brief indication of how we are currently attempting to gain comparable understanding of home influences on these children's mathematics attainment.

Routines, settings, and ecocultural niches

An important theoretical assumption of our work is that influences on children's development (interactions with others, playing, watching television, reading, counting, etc.) are embedded in the routines of family life that themselves are embedded in a larger ecological and cultural (hereafter *ecocultural*) niche. Our qualitative studies therefore nearly always employ as a unit of analysis some variable that is directly or indirectly linked conceptually to the routines of family life.

Use of the daily routine as the unit of analysis results in the focus on whom a child is with during various times of the days, what they are doing, what kind of purposes organize and structure their interactions, and what kinds of rules govern their interactions. We have referred to these as the characteristics of “activity settings.” Activity settings are regular scenes (e.g., homework, watching TV, attending mass) that represent the playing out of the family's ecological and cultural milieu. They represent the way families can and do structure their time based on the traditions handed down to them, the orientations provided by culture, and the strictures of the socioeconomic system within which they live. Activity settings provide the diet of communication, activity, and structure that plays an all-important role in the child's cognitive development (Gallimore, Goldenberg, & Weisner 1993). Conceptualizing influences on children's development in terms of daily routines and ecocultural niches helps provide a measure of structure and predictability to what is naturally a complex and dynamic landscape.

The use of activity settings and daily routine as units of analysis is guided by a related consideration. For research findings to be of practical value in the design of effective interventions (a complementary aspect of our work), changes induced by interventions must be fitted to the context of the lives of the individuals involved. Otherwise the changes will not survive. A promising program of instruction can be identified, for example, but it is doomed if teachers do not have the materials, time, training, or support from other professionals--in other words, the appropriate settings--to carry it out. Similarly, mothers can be trained in innovative home reading practices, but if the assumed activity settings do not exist, nor are created, that permit these practices to take root (for example, if sibling child-minding is common), the intervention program faces a formidable implementation challenge. For these reasons, knowledge of family routines, settings, and niches is vital for the sort of applied social science research to which we aspire.

Ecocultural Context Enablers and Constraints on Literacy Opportunities and Development

Table 1 summarizes the results of more than a decade of studies of ecocultural features related to literacy experiences and development. The findings are organized using an “ecocultural framework” (ecological-cultural) of children's literacy development, which assumes that a wide range of social, cultural, and historical factors are distilled through children's

proximal experiences in the home and other developmental settings (Gallimore et al. , 1989; Gallimore et al., 1993; Goldenberg et al., 1992; Reese & Gallimore, 2000; Weisner, 1984). These dimensions and others sketched in Table 1 describe a child's "ecocultural niche"--the constellation of proximal influences in the child's day-to-day life that shape developmentally significant child experiences (Gallimore, et al, 1989, Weisner, 1984). "Eco-cultural niche" is a useful way of conceptualizing the context of the home, and organizing and interpreting diverse forms of empirical findings. It is one way to "unpack" proxy variables correlated with reading achievement, such as SES, which highlight problems, but offer limited information on specific, concrete remedial steps. The focus in this approach is on an empirical analysis to identify specific niche features that influence in everyday routines in family, school, and other settings that impact on child learning opportunities, such as exposure to literacy-learning activities. Such a model has guided our 15+ years of longitudinal studies of at-risk Spanish-speaking children and their families, and provides a useful means for organizing diverse and complex findings. It is an alternative way of studying "cultural effects" on development, in contrast, for example, to proxy research that compares the effects of culture- or ethnic-group membership on developmental processes and outcomes.

As Table 1 indicates, a number of contextual factors are perhaps multiply, redundantly influencing Latino children's home literacy experiences, literacy development, or both. Obviously, some co-vary, which is expected within an ecocultural perspective since it is assumed that the various dimensions of the niche are inter-related, mutually supportive, and redundant.

Table 1. Summary of Selected Contextual Factors Affecting Literacy Development and Achievement

Ecological/ Cultural Niche Features ¹	Selected Findings
<i>Family history & community demography</i> (family cultural & literacy background, neighborhood context)	<ol style="list-style-type: none"> 1. Grandparents & parents' literacy correlated with children's reading achievement (Reese, et al, 2000); 2. Family literacy practices predicted by grandparents' education in home culture (Reese & Gallimore, 2000) 3. Perception of neighborhood danger increases constraints on children's activities sometimes increasing frequency of literacy-learning opportunities (Reese, et al., 2000); 4. Commitment to the traditional cultural values correlated with teacher ratings at beginning of kindergarten, end of K & first grade (Reese, Balzano et al, 1995);
<i>Job-related constraints & enablers</i> (hours available for children, OTJ learning)	<ol style="list-style-type: none"> 5. Father's job-related literacy & education correlated with ratings of home literacy environment & child's reading achievement (Reese, et al, 1999). 6. Father's job-related literacy correlated with frequency of home literacy learning opportunities (Reese, et al, 2000; Reese, et al, 1999).
<i>Domestic routines, roles, & childcare</i>	<ol style="list-style-type: none"> 7. Frequency of reported reading by parents correlated with higher reading achievement (Reese, Goldenberg, et al, 1995); 8. Mother & father participating in literacy activities with the child in 1st grade correlated with home literacy use rating (Reese, et al, 1999) 9. Father's participation in home learning in family life in general significantly correlated with kindergarten teacher ratings (Project files) 10. Home literacy practices predicts early Spanish literacy development, which predicts 7th grade English reading scores (Reese, et. al, 2000)
<i>Institutional connections & familiarity</i> (e. g. home-school connections, home-church)	<ol style="list-style-type: none"> 11. Children's literacy experiences & literacy materials at home nearly doubled as a result of kindergarten entrance (Goldenberg et al., 1992); 12. Church attendance correlated with early reading achievement (Reese, Goldenbe et al, 1995); 13. Familiarity with the university system through the experience of relatives was correlated with kindergarten & first grade achievement & teacher ratings (Proje Files)

¹ Adapted from Weisner (1984), and Gallimore, Weisner, Kaufman, & Bernheimer (1989).

<p><i>Cultural Schema</i> (parents' literacy theories and beliefs, attitudes toward formal schooling)</p>	<p>14. <i>Educación</i> cultural schema child becoming “becoming a good person” as prerequisite to doing well in school (Reese, et al, 1995)</p> <p>15. Parents value formal schooling and aspire to high levels of education for children but believe attainment dependent on child's moral development (Reese, et al. , 1995).</p> <p>16. Parents see themselves as playing important supporting, but not leading, role in their children's academic development (Goldenberg, 1987)</p> <p>17. Parents see literacy development as beginning when children begin formal schooling; consequently they do not typically create preschool literacy opportunities for children</p> <p>18. Parents have "bottom-up" view of learning to read (Goldenberg, et al, 1992)</p> <p>19. Parents conduct home reading sessions by focusing on accurate reading of letter and words (Gallimore & Goldenberg, 1993)</p> <p>20. Parents expectations do not enable nor constrain children's achievement; rather expectations reflect child's school performance (Goldenberg, et al, in press).</p>
<p><i>Community heterogeneity</i> (exposure to alternative cultural schema, English, diverse groups)</p>	<p>21. Parents' incorporate into natal cultural schema new features as a result of contact with U.S. model of literacy development (Gallimore & Reese, 1999)</p> <p>22. Parents' years in U. S. predicts child's English proficiency at kindergarten entry which predicts 7th grade reading achievement (Reese, et al. , 2000);</p> <p>23. Children who had preschool had higher English proficiency, pre-kinder. Spanish literacy, & 7th grade English reading (Reese, et al, in press);</p> <p>24. Mother taking classes correlated with kindergarten achievement (Project Files)</p>

We elaborate a few findings from the table:

Home School Connections. School entry has a strong effect on children's home literacy experiences. While parents do not see promoting early literacy as part of their role during the preschool years (Reese, Balzano, Gallimore, & Goldenberg, 1995; Reese & Gallimore, 2000), once children enter school, parents are highly responsive to teachers' attempts to enlist their support to help children's literacy development. In one study, we found that children's literacy experiences and literacy materials at home nearly doubled as a result of kindergarten entrance (Goldenberg et al., 1992). One reason is that children's literacy experiences were relatively sparse before they began school. School entry therefore had a substantial positive effect--if teachers sent home literacy materials on a regular basis. In a separate analysis, we found a strong and direct link between teachers' explicit attempts to engage parents in promoting children's literacy growth and children's literacy development over kindergarten (Goldenberg & Arzubiaga, 1994). However, we also found that the type of material sent home made a difference--home use of code-oriented materials (sent from school) that focused on letters, sounds, and syllable reading was strongly associated with kindergarten literacy attainment,

whereas as home use of meaningful “little books” was not (Goldenberg et al., 1992). All materials were in Spanish since children were learning to read in Spanish in a transitional bilingual education program.

Community safety. Another important finding with a direct bearing on the role of family and community context is the effect of neighborhood safety on family childrearing practices. Reese, Balzano, et al. (1995) reported that neighborhoods with high rates of gang activity, delinquency and crime were considered by parents to be dangerous for their children in both the physical and moral sense. Parents often responded by keeping their children close to home and closely monitoring their activities and friendships. With young children, high levels of protectiveness sometimes resulted in higher levels of children’s involvement in literacy activities, as parents sought ways to keep their children entertained in reduced home areas (Reese, Kroesen, & Gallimore, 2000). Reese (2000) found that this “protective” strategy was seldom employed by relatives of families under study who resided and raised their children in Mexico. The rural and semi-rural towns and villages in which the sample’s relatives lived were unlikely to be perceived as dangerous, suggesting it was the U. S. context that produced the response.

In the U. S., as children grew older, they were occasionally prevented from participating in learning activities such as the school’s outdoor camp, extracurricular activities at school, or an accelerated math program at a nearby high school, because of parental concerns for their safety. Furstenberg (1993) noted a similar "lock up" strategy used by Puerto Rican parents in the high crime neighborhoods of Philadelphia, and Jarrett (1995) described "stringent parental monitoring strategies" used by African American parents in dangerous neighborhoods. Her findings also reveal the differential deployment of neighborhood services by families of different SES backgrounds: Middle income families are more likely to involve their children in activities (sports, classes, teams, clubs) outside of the neighborhood, whereas low income families are dependent to a much greater degree on the availability of these resources within their immediate communities.

Cultural schema about literacy and schooling. Another set of niche features we have explored has to do with cultural schema or models (Gallimore & Goldenberg, 2001) in the form of parental attitudes and beliefs about children's literacy development and, more generally, formal schooling.

The immigrant Latino parents in our studies share a "bottom up" cultural schema of literacy development--children learn to read by learning the letters, corresponding sounds, and how the letters combine to form words. Reading and writing is to be taught explicitly, in school; informal pre-school literacy experiences are not accorded great importance. Children's attempts at pretending to read and write are interpreted as "making things up" and "pure scribbling" ("*puros garabatos*"). This model probably has its origins in parents' native countries, where

reading and writing instruction followed a strict and linear sequence of learning vowels, consonants, consonant-vowel combinations, and finally learning to read words (Gallimore & Goldenberg, 1993; Goldenberg, 1987, 1988; Goldenberg & Gallimore, 1995; Goldenberg, Reese, & Gallimore, 1992; Reese & Gallimore, 2000).

Parents highly value literacy for moral, religious, personal, vocational, and economic reasons. Indeed, much of the literacy activity in the homes of the immigrant families that we have visited over the years centers around sharing stories based on the Bible or with a strong moral content. The importance of reading or retelling stories with a moral, and the advice (“*consejos*”) that stems from these, has been noted in other studies as well (Valdés, 1996). Parents also value their children's academic attainment, in part because they see it (along with English proficiency) as key to economic and social mobility. Although parents' understanding of the U.S. educational system and its "pipeline" to higher education vary considerably, virtually all parents aspire to children's obtaining at least some college education. But while parents' aspirations rarely diverged from hoping that their child would attend college, their expectations--what they thought was likely--varied considerably as children progressed through elementary school. We saw little evidence that expectations influenced children's achievement, however, as the traditional "expectancy model" suggests. To the contrary: Parents' expectations themselves were influenced by how well children were doing in school, in particular parents' perceptions of how interested and motivated children were.

Parents take a broad view of their children's education; indeed, the Spanish cognate--*educación*--includes moral and behavioral dimensions in addition to academic ones. Ultimately, parents want their children to stay on the "the good path" (*el buen camino*), meaning that they become responsible, respectful, morally-upright individuals. One indication of being on the good path is staying in and being successful school. But although highly desirable, formal degrees (high school, college) are not seen as absolute requirements for remaining on *el buen camino* (Figure 1).

insert figure 1 here

Examples of mixed-methods investigations

Our studies have employed a diverse set of methods--e.g., survey questionnaires, open-ended interviews, participant and ethnographic observations, literacy testing, standardized test results, teacher and parent ratings--to try and understand key aspects of Latino children's academic development, particularly in the area of literacy. Analytically, we have used quantitative and qualitative methods as complementary, each providing the basis for inferences

and conclusions the other could not. Quantitative methods permit the use of inferential statistics to test hypotheses about generalizable findings. Qualitative methods permit more nuanced exploration into what people say, do, and think and the meanings they ascribe to their words, deeds, and thoughts. We will illustrate this premise, and how we have used it to understand Latino children's literacy development, by describing in some detail some strands of our investigations.

Hypothesis generation from case study observations of home literacy. During the 1980's, many elementary schools in California were moving toward language- and literature-based approaches to literacy instruction (California Department of Education, 1987). In coordination with district teachers and administrators, Goldenberg (1990, 1994) developed a quasi-experimental design that included two types of classrooms. The first type were bilingual kindergarten classrooms that used and sent home language and meaning-based literacy materials ("Libros," literally "books"). The second type of classrooms used the readiness and phonics approach to Spanish literacy instruction employed at their schools. The readiness/phonics classrooms also sent home packets of phonics materials with the same frequency as the Libros were sent home in the first type of classes, approximately once every 3 weeks. The project was designed to answer two basic questions: (1) Will the children receiving the language- and meaning-based instruction and materials outperform those receiving the traditional readiness and phonics instruction? (2) When sent home, what is the influence of the contrasting literacy materials on children's home literacy experiences and literacy development?

In order to answer the first question, we conducted standard quantitative comparison of student performance in the two conditions (Libros v. readiness). At the end of the school year, randomly selected children from each group were given an individual battery of early literacy measures in Spanish (including concepts about print, letter/sound recognition, story comprehension, word recognition and ability to write words). The students in the Libros group outperformed their peers in the readiness/phonics group (Goldenberg, 1990; 1994).

To answer the second question--what was the influence of the materials sent home on children's literacy experiences and development?--Goldenberg, Reese, and Gallimore (1992) used a different set of methods that combined qualitative and quantitative techniques. Because of our focus on families' daily routine, we were interested specifically in the role of the home in children's reading performance. We wanted to know if and how parents made use of the different types of materials, and if home use was correlated with performance on end-of-year literacy measures. To this end, 5 students from each group were randomly selected to be observed both at home and in school. Each student was observed at home after school for 2 hours every other week, with approximately 12 visits over the course of the school year (for a total of about 220 hours of observation). Spanish-speaking observers described and timed all activities of the child, with particular focus on any activity that made use of literacy materials or skills.

Naturally-occurring use at home of school materials was of particular interest. The observations were coded using activity category and duration of activity. These categories were both theoretically-derived a priori (e.g., use of materials from school and activities involving use of print) and empirically-derived over the course of the study (e.g., children “playing church” and using the Bible in their play). In some cases, use of school materials had been observed only infrequently or fleetingly; therefore, on the final visit, parents were asked to demonstrate for the observer how they normally used the materials. This session was videotaped. Also during the final visit, parents were interviewed about their and their children’s literacy practices, in an effort to capture descriptions of activities which might take place in the home but not been observed. Finally, students were observed in their classrooms in order to detect any visible carry-over of home use of materials in the class setting. (For a more detailed description of the findings of this part of the study, see Reese, Goldenberg, Loucky, & Gallimore, 1995.)

Transforming qualitative data into quantitative data yielded findings that the team found surprising: The frequency and duration of Libros use at home was un-related to literacy achievement in kindergarten. In contrast, the use of phonics worksheets was strongly and positively associated with kindergarten literacy achievement (Goldenberg et al., 1992).

In order to tease out why this unexpected finding might be true (recall that in the classroom evaluation, the Libros classrooms had outperformed the readiness classes), field notes were analyzed qualitatively and interpretively. For example, all instances in which the children used Libros materials from the school were studied in terms of what parents and children were doing and saying as they used the materials. In the following field note excerpt Fernando is reading a Libro with his mother.

Fernando’s mother calls him over, “Ven a estudiar este libro.” (‘Come and study this book.’) He stands beside her as she sits on the bed with the baby on her lap. She reads a page and has Fernando repeat it. She is reading upside down, so when she reads “miles de melones” (‘thousands of melons’) as “melones de melones,” (‘melons of melons’) that is how he repeats it.

On the next page, Fernando reads what he knows. When he hesitates on a word, Mother tells him and he repeats it. This form of word-by-word repetition continues for the rest of the book.

They finish the book, and Mother says, “Otra vez.” (‘Again.’) She has him start again and they continue word-by-word as earlier. On one page, Fernando looks at the picture of the melons in the tree and asks, “Mamá, ¿por qué se metieron aquí los melones?” (‘Mama, why did they put the melons here?’) She responds, ¿Sabe?” (‘Who knows?’) and immediately says the next word to cue him to continue with the repetition.

Fernando's mother initiated the activity and referred to it as "study." Reading was practiced as a repetition of words. There is no reference to or discussion of the text of the story. On the single occasion when the boy tries to call attention to the text, his mother does not respond. The activity is rather lengthy, with the motivation to continue provided by the mother's prompting. When all of the episodes in which Fernando uses Libros are compared, they consistently share these traits.

A similar analysis of all instances of Libros use by the 5 children revealed overall patterns: Libros were used more frequently and for longer periods of time when the use was initiated by the parents rather than the children. When parents guided the use of the Libros, they tended to use them in ways which were similar to the ways that phonics worksheets were used. Children were encouraged to repeat or sound out words; sometimes they were told to copy sections of the books in order to practice them. Although each book had questions at the end for parents to ask children, these were never observed to be used, nor were parents observed to engage in discussion of the meaning of the text or pictures at all. On occasion parents did discuss texts with children. However, this interaction was not stimulated by reading homework, but rather tended to occur when parents shared Bible stories or stories with a moral with their children.

These qualitative findings suggested the hypothesis that parents may be more successful in their use of phonics materials because they conform more closely to the parents' beliefs about literacy development. Because they see the process of reading as a "bottom-up" activity, in which students are taught first letters, then syllables, then words (Goldenberg, 1988), they tended to convert the whole-text materials to this type of use. Because learning is believed to occur through repetition until the new information becomes "recorded" in the brain, parents had their children copy the books over and over when they were not given the phonics worksheets which essentially required this task. Since early reading is seen as learning to break the code of the syllables on the page, there is little attention to the meaning of the text when the purpose of the activity is perceived to be "learning to read." On other occasions, for example when the purpose of reading was to impart a moral, parents did discuss the meanings and implications of texts with children. This implies that inviting parents to participate in school-initiated literacy activity needs to take into account the parents' cultural model of what reading is and how it is taught.

Hypothesis confirmation with a larger sample. This "cultural model" explanation for our paradoxical findings provided a hypothesis for a subsequent study (Reese & Gallimore, 2000). Case studies of 10 families had suggested the hypothesis that parents' cultural view of reading influences how literacy materials are used at home, but to confirm it a study of more cases was undertaken

Reese and Gallimore (2000) made use of a randomly selected subset of case study families nested in the sample of 120 immigrant Latino families in our longitudinal study. These

families participated in 14 in-depth home interviews over the course of the first 4 years of the longitudinal study, corresponding to the children's kindergarten, first, second, and third grade years in school. The open-ended case study interviews took the form of guided conversations in which we sought information on family literacy activities. We probed for parents' understandings about how reading proficiency develops, about the age at which reading aloud to children is feasible, as well as how they reported reacting to children's early attempts at making meaning from print. Parents were not only asked to describe home learning experiences, activities and values, but were also asked on occasion to comment on the experiences and opinions of others.

Analysis of narrative interview data across the 32 cases confirmed the effect of parents' cultural models on home literacy practices. However, in confirming this hypothesis, we also made an additional unexpected discovery that linked parents' literacy beliefs and practices to their socio-historical origins: Literacy behaviors on the part of parents (e.g., reading aloud to preschool aged children) were associated with parents' home country experiences. Although most parents had initially shared a common cultural model of literacy, longitudinal evidence showed changes over time in some of the families. Parents reared in towns or cities were more likely to read or begin reading to children early (before formal schooling at age 5) after exposure to that practice through American schooling (through the school experiences of older siblings or through experience with American preschools). Nearly 2/3 (65%) of the town parents began reading before their child entered school. In contrast, only 1 of the 5 reared in *ranchos*, or rural hamlets, began reading to children at age 4 or earlier. A possible explanation for the differential is differences in parents' education levels: town mothers averaged 8.7 years of education, compared to 4.3 years for *rancho* mothers ($p < .003$).

Rancho or town life was also associated with different levels of schooling for the parents' own parents (the grandparent generation). Many of the grandparents had lived as children in *ranchos* and at that time had little access to education beyond the rudiments of reading and counting. Others, however, had moved to towns and cities and had access to formal schooling, at least through elementary school. These data suggest that parents (and grandparents) reared on *ranchos* employed practices consistent with a cultural model of reading that assumes that literacy develops after children enter school and that before that age they are not able to understand texts. Although parents in the sample shared a cultural model of how literacy develops, those with higher levels of education and urban life experiences tended to more quickly adopt the practices encouraged by American teachers. One key implication of these findings is that the school can have a substantial impact on literacy practices at home in the early school years, but this impact is likely to differ across the families. Even though all families were part of the same nominal "culture/ethnic" group, there is important variability within the group. This variability, in turn, influenced how families responded to school-based interventions. Findings also demonstrate the

flexibility of cultural belief systems. Cultural models guide behaviors, but they are not unchanging; they can be modified in response to demands of the environment.

Path analysis confirmation of qualitative findings. The findings that emerged from thematic coding of narrative case material generated hypotheses that could be tested statistically with the larger longitudinal sample. These findings prompted us to collect data from all 120 families on the place where parents were schooled (urban/rural) and on grandparent educational levels. In addition, because of evidence of the continuing effects of home country experiences on current literacy practices in the U.S., we adjusted our SES variable to include home country occupational status as well as U.S. occupational status (choosing whichever status was higher for the composite SES variable).

Reese, Garnier, Gallimore, & Goldenberg (2000) employed path analysis to confirm that grandparents' level of education (in the home country) predicted family socioeconomic background, which in turn predicted family literacy practices. Family literacy practices predicted both children's emergent Spanish literacy and oral English proficiency, which in turn predicted seventh grade English reading achievement. Grandparents' level of education also predicted the child's attendance in preschool, which in turn predicted oral English proficiency. Higher grandparent education directly predicted that children would attend preschool and indirectly predicted home literacy practices through higher family SES. Higher levels of both English proficiency and initial Spanish literacy performance uniquely and significantly predicted higher English reading achievement in grade 7.

These findings demonstrated variability in this population that had direct implications for children's home literacy experiences and attainment. Settings, routines, and ecocultural niches were all influenced by identifiable socio-historical factors going back to the children's grandparents' generation. Changes in parental literacy practices occurred over time. These changes were associated both with encouragement from the school to read to children at home and to help with homework, as well as with parents' own home country education and experiences. Taken as a whole, our findings illustrate why "one-shot" parent training sessions, in which parents are exhorted to read aloud to children or are taught how this reading should take place, are seldom successful. Without sustained activity as part of a daily routine (e.g., the school regularly requiring home reading as part of homework) and without a cultural model of literacy development that sees reading proficiency as beginning to emerge early on through repeated contact with texts, the teachings of these sessions can go unheeded by many parents.

Diverse and recursive mixing of methods: The case of mathematics. This series of studies illustrate a mixed and recursive process of qualitative and quantitative analysis, data collection, and hypothesis generation and testing. So far, we have illustrated a flow from the bottom up, as trends that emerge from "messy" and often contradictory qualitative data, rooted in the daily routines of a small number of families, are confirmed through quantitative analysis of the larger sample. However, this is only one of the ways in which qualitative and quantitative methods

have been combined in our work over the years. Currently, a new line of research essentially employs the sequence in reverse. In current studies of children's math performance through middle school, many of the variables constructed for the literacy analysis were utilized to develop path analyses. Correlations between early math performance and family literacy practices have led to a reexamination of case data to unravel the ways in which home literacy and numeracy practices play themselves out in children's lives in ways that have implications for their subsequent academic performance.

These data suggest that in some families numeracy activities are incorporated into children's daily routines that could be expected to better prepare them for formal instruction once they enter school. For example, the mother in one family is a cashier. Her children observe her making change and counting money at work. Because of their interest, the father bought a toy cash register and play money the children use to create activities that involve counting and making change. In another case, a mother responds to information from the school that her son may be retained by working with him at home on counting activities. She reported that when she sees him counting on his own, she steps back and observes. Current research plans include a reexamination of the "academic pipeline" model of the Latino achievement gap in mathematics using the ideas about connections between numeracy and literacy development that the analysis of quantitative and qualitative data have generated.

Concluding comments

The broad consensus that children's development occurs in a complex context, a mix of interpenetrated ecological and cultural factors that challenge even the most sophisticated and richly funded research design, provides the basis and justification for mixed-method investigations (Greene & Caracelli, 1997). We no longer have to argue, as Bronfenbrenner did a half-generation ago, that context matters. Nor do we have to argue that social research requires both qualitative and quantitative designs and methods. As Riggan (1997) observes, "The need to argue for the interdependence of qualitative and quantitative methods is over" (p. 87). Our investigations and those of others contributing to this volume demonstrate that developmental pathways are more likely to be illuminated if we use a combination of empirical methods. Our interpretivist methods, such as open ended interviews that are essentially guided conversations, led us to understand the role that formal schooling plays in the minds of Latino immigrant parents. They also helped us understand how *educación* is different from **education**, but then how the concepts relate to each other when parents talk about the developmental pathways they hope their children will follow. Our objectivist methods, such as surveys and structured observations, allowed us to test hypotheses probabilistically, and led us to discover that grandparents' education and origin had a significant impact on the literacy environment and the literacy development of their U.S.-born grandchildren, a clear instance of developmental influence across the generations. Table 1 summarizes some of our most significant findings

across the range of methodologies we have used; it illustrates the value of multiple methods for gaining insights into children's development and the factors influencing it.

Our research team has been enriched by multiple methodological and conceptual perspectives, but there have been times when some of us have wondered whether ecumenism was such a blessing. The following story illustrates both sides of the methodological coin.

One of the questions we posed at the outset of our longitudinal study was "What is the relationship between children's school achievement and parents' aspirations and expectations for children eventual school attainment?" It is an important question, not just for Latino children and families, but for the field of motivation more generally. The conventional wisdom is that performance is influenced by expectations (what someone thinks will happen) and aspirations (what someone hopes will happen). Numerous correlational investigations have shown a link between parents' expectations and/or aspirations and children's school performance (e.g., Coleman, 1988; Duran & Weffer, 1992). However, no one had ever studied the issue longitudinally throughout elementary school and on into middle school, observing aspirations and expectations over time and relating them to children's achievement. Our hypothesis was that children's school performance would influence parents' expectations and, possibly but not as strongly or as directly, parents' aspirations. We did not think that that aspirations and expectations would influence children's achievement. Based on our previous work with this population (e.g., Goldenberg, 1987) we expected aspirations to be uniformly high when children began formal schooling, so that there would be no correlations with attainment. Immigrant Latino parents very much want their children to attain high levels of formal schooling since they see schooling as key to social and economic stability and mobility. We also expected expectations to be consistently high, although not as high as aspirations (Laosa, 1982). Our prediction was that as patterns of school performance among the children began to emerge, parents would adjust their expectations: Parents of children who were doing well in school would adjust their expectations upward, whereas parents whose children were not doing very well would adjust them downward.

Testing these hypotheses required that we ask parents repeatedly (at least once a year) what their aspirations and expectations were for their children's eventual school attainment. This turned out to create some problems among members of our research team. Fieldworkers noticed that sometimes parents did not respond to the questions in ways that the interviewers had intended. For example, some parents did not seem to distinguish between expectations and aspirations. Parents were asked, "How far do you expect your child to go in school?" Some parents refused to answer, saying they were not sure. When pressed, most would make a selection from the set of choices presented, but some of the interviewers got the distinct impression that these did not represent highly meaningful answers. Indeed we always had a subset of parents who answered "don't know." Other parents answered the expectations question

using the same terminology as they had for the preceding aspirations question (“How far do you hope your child will go in school?”). For example, some said, “Well, as I already told you, I hope she’ll ...” This again suggested to some of the fieldworkers that these were not meaningful or comprehensible questions for the parents.

In order to represent our story's conclusion, we will borrow a device from John Fowles (1969). In the celebrated novel The French Lieutenant's Woman, Fowles wrote two conclusions, leaving the reader to decide which ending best fit the novel and, more likely, the reader's world view.

Ending 1

Aside from some heated discussions during project meetings (Are these meaningful questions? Do we have to ask them AGAIN?), we got an indication of how our mixed methodological perspectives created empirical turmoil when the number of “don't knows” spiked one year. It turned out that one of the fieldworkers, instead of trying to probe parents' thinking and trying to encourage them to select an answer to the expectations and aspirations questions, decided to offer “don't know” as a choice. From an anthropological perspective, it could be argued, she was being responsive to the parents' cultural schema, in which these questions did not seem to fit very neatly--or at all. From the more “objectivist” perspective, her attempt at responsiveness threatened the internal validity of this portion of the investigation. Nevertheless, we still collected sufficient data to test our hypothesis that children's school performance throughout elementary school is not influenced by parents' educational aspirations and expectations. Instead, the converse is true: school performance influences parents' expectations (but not their aspirations) for children's future educational attainment (Goldenberg et al., in press).

Ending 2

As a result of some heated discussions during project meetings (Are these meaningful questions? Do we have to ask them AGAIN?), we reexamined our data, with its increasing percentages of “no sé” (“I don't know”) answers to expectations questions. This analysis resulted in a more “emic” understanding of how immigrant parents were viewing their children's academic and occupational futures, not simply how they were responding to the aspirations/expectations protocol. What we termed more broadly parents' “future orientations” (Reese, Gallimore, et al. 1995) were interpreted using the path of life metaphor discussed above: Parents are clear about the path that they hope that their children will follow in life and try to orient their young children in ways that will keep them on the good path. However, the choice of paths is one that the children will

ultimately make for themselves, and parents are unsure of the choices their children will make, including how far they will go in school.

This story, with its ambiguous two-option ending, illustrates the outcome of a choice we made at the inception of this research program. Our methodological ecumenism led us to seek out colleagues and fieldworkers with diverse empirical perspectives, and we encouraged the intellectual diversity this produced. This choice both benefited our research and led to tensions that endangered portions of it.

Nonetheless, we remain committed to the belief that children's developmental pathways and the contexts of children's development require multiple and complementary methodologies. Our challenges now are to discern how context matters and to refine the conceptual, analytical, and methodological tools to permit further understanding of contextual influences on development. From our perspective, there is no alternative to mixing methods if we want to develop comprehensive understandings of complex social phenomena such as child development, childhood, and family life. We have no choice but to shed our space suits and wade into the steaming green hell.

Such pronouncements are easy to make but leave many questions dangling. We may declare a liberal and democratic open-mindedness where no approach or paradigm is presumptive king or queen, where we invite multiple methods to hack away at thorny and complex problems. But methodological pluralism surely has perils of its own, as our own experiences and those of others suggest (Houts, et al, 1986; Sechrest et al., 1993). What about standards? How do we evaluate the validity of one or another method or combinations of methods? Certainly, each methodological tradition has its canons of rigor and standards of practice. This is appropriate, but we suggest it would be fruitful to develop at least some unified standards and criteria, cutting across methods and paradigms. We will leave treatment of this topic for another occasion but would like to conclude by suggesting that one criterion must be what Gage (1989) called "old-fashioned pragmatism": A methodological or paradigmatic approach--purist or hybrid--is validated when it can be shown to lead to findings, insights, conclusions, or concepts that lead to social improvement of some sort. Conversely, we can be rightly skeptical of approaches that generate much data and ink, but little in the way of amelioration. While this might be simply seen as trading in one set of unanswered questions for another, we suggest that such an orientation will help us make progress in advancing and refining methods to permit greater understanding of complex social phenomena.

In his fanciful treatment of the "paradigm wars" in educational research, Gage (1989) imagined a pluralistic future where previously competing perspectives (and, of course, their attendant methods) declared a truce and vowed to judge the validity of their efforts on the basis of the good they could demonstrate:

Thus, from the jungle wars of the 1980s, educational researchers [e]merged onto a sunlit plain--a happy and productive arena in which the strengths of [various] paradigms were abundantly realized... (p. 9).

This volume can be seen as a validation of Gage's vision, the basic premise being that mixed methods, perhaps even multiple paradigms, are essential to advancing our respective fields. This is all to the good.

We must now go the next step and ask ourselves, "Why do the results of this investigation matter?" Herein lies methodological validation; this should be our standard, or at least one of them. Some might see this perspective as too "applied" or, worse, hopelessly naïve. We make no apologies, believing as we do that the legitimacy of social science partly depends on its contributions to social improvement.

More importantly, we reject the notion that basic and applied research are necessarily incompatible. Stokes (1997) identified an investigative environment he called Pasteur's Quadrant, a space where use-inspired ("applied") research is combined with the pursuit of generalized knowledge ("basic research"). Rather than pitting one against the other, Stokes proposed a two-dimensional alternative exemplified by the work of Louis Pasteur. In pursuit of solving real world problems, and superbly prepared to discover nature's secrets, Pasteur made fundamental contributions both to industry and medicine--applied fields--and biological science. If the legitimacy of social science partly depends on its contributions to social improvement, some must commit to work in Pasteur's Quadrant. Absent such a commitment, no method or mixture of methods will, in the end, much matter.

References

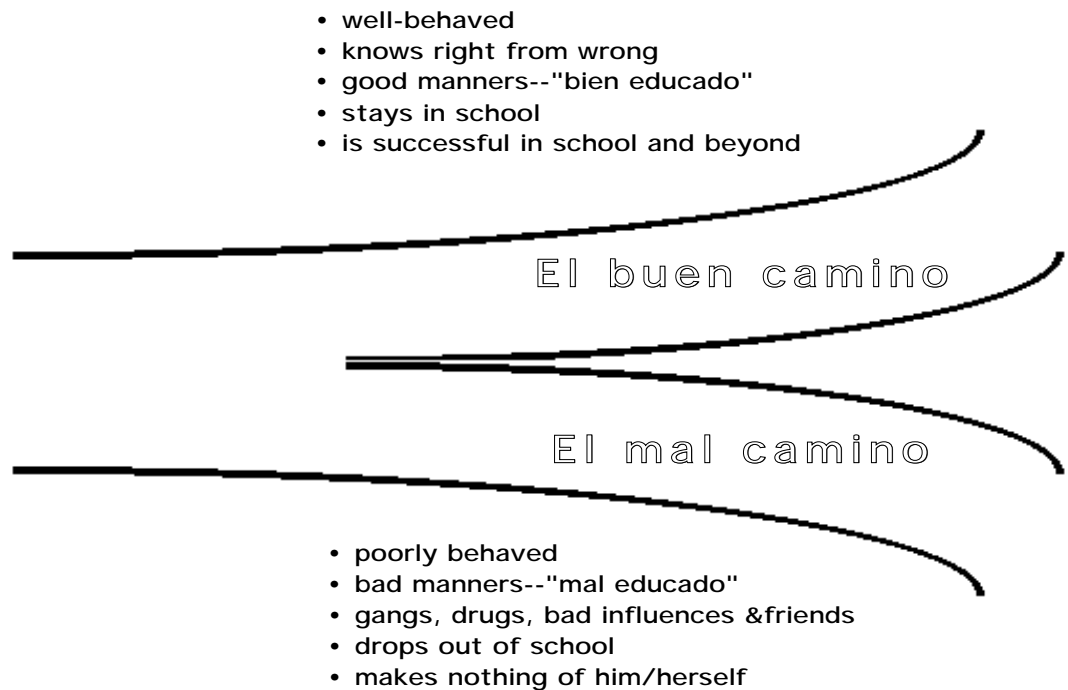
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. American Psychologist, 34, 844-850.
- California State Department of Education (1987). English-language arts model curriculum guide, kindergarten through grade eight. Sacramento, CA: California State Department of Education.
- Campbell, D. T. (1974). Qualitative knowing in action research. Kurt Lewin Award Address, Society for the Psychological Study of Social Issues, meeting with American Psychological Association, New Orleans. (Revised version: Campbell, D.T. (1978). Qualitative knowing in action research. In M. Brenner, P. Marsh, & M. Brenner (Eds.). *The social contexts of method*. New York: St. Martins).
- Cole, M. (1996). Cultural Psychology: A Once and Future Discipline. Cambridge: Harvard University Press.
- Coleman, J. (1988). Social capital in the creation of human capital. American Journal of Sociology, 94 (Supplement) S95-120.
- Cook, T. D. & Reichardt, C. S. (Eds.). (1979). *Qualitative and quantitative methods in evaluation research*. Beverly Hills, California: Sage Publications.
- Cronbach, L. J. (1975). Beyond the two disciplines of scientific psychology. American Psychologist, 30, 116-127. Cronbach, L. J. (1975). Beyond the two disciplines of scientific psychology. American Psychologist, 30, 116-127.
- Duran, B. & Weffer, R. (1992). Immigrants' aspirations, high school process, and academic outcomes. American Educational Research Journal, 29, 163-181.
- Fowles, J. (1969). The French Lieutenant's Woman. Boston: Little, Brown.
- Furstenberg, F. (1993). How families manage risk and opportunity in dangerous neighborhoods. In W. Wilson (Ed.). Sociology and the public agenda (pp. 231-258). Newbury Park, CA: SAGE Publications.
- Gage, N. L. (1989). The paradigm wars and their aftermath: A "historical" sketch of research on teaching since 1989. Educational Researcher, 18(7), 4-10.
- Gallimore, R. & Goldenberg, C. (2001). Analyzing cultural models and settings to connect minority achievement and school improvement research. Educational Psychologist, 36, 45-56.
- Gallimore, R., Goldenberg, C., & Weisner, T. (1993). The social construction and subjective reality of activity settings: Implications for community psychology. American Journal of Community Psychology, 4, 537-559.

- Gallimore, R., Weisner, T. S., Kaufman, S. Z. & Bernheimer, L. P. (1989). The Social Construction of ecocultural niches: Family accommodation of developmentally delayed children. American Journal of Mental Retardation, 94, 3, 216-230.
- Goldenberg, C. (1987). Low-income Hispanic parents' contributions to their first-grade children's word-recognition skills. Anthropology and Education Quarterly, 18, 149-179.
- Goldenberg, C. (1988). Methods, early literacy, and home-school compatibilities: A response to Sledge et al. Anthropology and Education Quarterly, 19, 425-432.
- Goldenberg, C. (1990, April). Evaluation of a balanced approach to literacy instruction for Spanish-speaking kindergartners. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.
- Goldenberg, C. (1994). Promoting early literacy achievement among Spanish-speaking children: Lessons from two studies. E. Hiebert (Ed.). Getting reading right from the start: Effective early literacy interventions (pp.171-199). Boston: Allyn and Bacon.
- Goldenberg, C. (2001). Making schools work for low-income families in the 21st century. In S. Neuman and D. Dickinson (Eds.). Handbook for Research in Early Literacy (pp. 211-231. New York: Guilford.
- Goldenberg, C. & Arzubiaga, A. (1994, April). The effects of teachers' attempts to involve Latino parents in children's early reading development. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Goldenberg, C. & Gallimore, R. (1995). Immigrant Latino parents' values and beliefs about their children's education: Continuities and discontinuities across cultures and generations. In Pintrich, P.R. & Maehr, M. (Eds.). Advances in motivation and achievement: Culture, ethnicity, and motivation, Vol 9 (pp. 183-228). Greenwich, CT: JAI Press.
- Goldenberg, C., Gallimore, R., Reese, L., & Garnier, H. (in press). Cause or effect? A longitudinal study of immigrant Latino parents' aspirations and expectations and their children's school performance. American Educational Research Association Journal.
- Goldenberg, C., Reese, L., and Gallimore, R. (1992). Effects of school literacy materials on Latino children's home experiences and early reading achievement. American Journal of Education, 100, 497-536.
- Greene, J. C. & Caracelli, V. J. (1997). Defining and describing the paradigm issue in mixed-method evaluation. New Directions for Program Evaluation, 74, 5-17.
- Heller, C. (1966). Mexican-American youth: Forgotten youth at the crossroads. NY: Random House.
- Houts, A. C., Cook, T. D. & Shadish, W. R. (1986). The person-situation debate: A critical multiplist perspective. In S. G. est, Ed. Journal of Personality, Special Issue, Methodological Developments in Personality Research, 54, 1, 52-105.

- Jarrett, R. (1995). Growing up poor: The family experiences of socially mobile youth in low-income african american neighborhoods. Journal of Adolescent Research, 10, 111-135.
- Kroesen, K, et al (1998). Qualitative Tools for Multimethod Research.
[Http://www.npi.ucla.edu/qualquant/](http://www.npi.ucla.edu/qualquant/). Neuropsychiatric Research Institute: UCLA.
- Laosa, L. (1982). Families as facilitators of children's intellectual development at 3 years of age: A causal analysis. In L. Laosa and I. Sigel (Eds.), Families as learning environments for children (pp. 1-45). New York: Plenum.
- Miles, M. B. & Huberman, A. M. (1985). Drawing valid meaning from qualitative data: Toward a shared craft. Educational Researcher, 13, 5, 20-30.
- Ogbu, J. & Matuti-Bianchi, M. (1986). Understanding sociocultural factors: Knowledge, identity, and school adjustment. In Beyond language: Social and cultural factors in schooling language minority students. (pp.73-142). Los Angeles: Evaluation, Dissemination and Assessment Center, California State University, Los Angeles.
- Reese, L. (1998). Parental Strategies in Contrasting Cultural Settings: Families in México and “el norte”. Paper presented at the annual conference of the American Anthropological Association, Philadelphia (December).
- Reese, L. J. & Gallimore, R. (2000). Immigrant Latinos' Cultural Model of Literacy Development: An Evolving Perspective on Home-School Discontinuities. American Journal of Education, 108, 2, 103-134.
- Reese, L., Gallimore, R., Goldenberg, C., & Balzano, S. (1995). Immigrant Latino Parents' Future Orientations for their Children. In R. Macias & R.G. Ramos (Eds.). Changing Schools for Changing Students. Regents of the University of California: UC Linguistic Minority Research Institute Publication.
- Reese, L., Garnier, H., Gallimore, R., & Goldenberg, C. (2000). A longitudinal analysis of the antecedents of emergent Spanish literacy and middle-school English reading achievement of Spanish-speaking students. American Educational Research Association Journal, 37, 633-662.
- Reese, L., Goldenberg, C., Loucky, J., & Gallimore, R. (1995). Ecocultural context, cultural activity, and emergent literacy of Spanish-speaking children. In S.W. Rothstein (ed.) Class, culture and race in American schools: A Handbook. Westport, CT: Greenwood Press, pps. 199-224.
- Reese, L., Kroesen, K. & Gallimore, R. (2000). Agency and School Performance among Urban Latino Youth. In Taylor, R. & Wang, M (Eds.). Resilience Across Contexts: Family, Work, Culture and Community. New Jersey: Erlbaum.

- Rogoff, B. (1981). Schooling and the development of cognitive skills. In H. Triandis & A. Heron (Eds.) Handbook of cross-cultural psychology, Vol. 4 (pps. 233-294). Boston: Allyn & Bacon.
- Rogoff, B. (1982). Integrating context and cognitive development. In M. E. Lamb & A. L. Brown (Eds.), Advances in Developmental Psychology, Vol. 2(pps. 125-170) , Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rogoff, B. (1990). Apprenticeship in thinking: Cognitive development in social context. Oxford: Oxford University Press.
- Sechrest, L., Babcock, J., & Smith, B. (1993). In invitation to methodological pluralism. Evaluation Practice, 14, 227-235.
- Sechrest, L. & Figueredo, A.J. (1993). Program evaluation. Annual Review of Psychology, 44, 645-74.
- Stokes, Donald E. (1997). Pasteur's Quadrant: Basic Science and Technological Innovation. Washington, D.C.: Brookings Institution Press.
- Suárez-Orozco, C. M & Suárez-Orozco, M. (1996). Transformations: Immigration, family life, and achievement motivation among Latino adolescents. Stanford: Stanford University Press.
- Valdés. G. (1996). Con Respeto: Bridging the Distances Between Culturally Diverse Families and Schools. New York: Teachers College Press.
- Webb, E. J. , Campbell, D. T. , Schwartz, R. D. , & Sechrest, L. (1966). Unobtrusive measures. Skokie, Il: Rand McNally.

Figure 1: *El camino de la vida*



Moral development is the basis for academic development. Morals support and encompass academics.