American Educational Research Journal

http://aerj.aera.net

Parent Involvement, Cultural Capital, and the Achievement Gap Among Elementary School Children

Jung-Sook Lee and Natasha K. Bowen Am Educ Res J 2006; 43; 193 DOI: 10.3102/00028312043002193

The online version of this article can be found at: http://aer.sagepub.com/cgi/content/abstract/43/2/193



By SAGE http://www.sagepublications.com

Additional services and information for American Educational Research Journal can be found at:

Email Alerts: http://aerj.aera.net/cgi/alerts

Subscriptions: http://aerj.aera.net/subscriptions

Reprints: http://www.aera.net/reprints

Permissions: http://www.aera.net/permissions

American Educational Research Journal Summer 2006, Vol. 43, No. 2, pp. 193–218

Parent Involvement, Cultural Capital, and the Achievement Gap Among Elementary School Children

Jung-Sook Lee and Natasha K. Bowen University of North Carolina at Chapel Hill

This study examined the level and impact of five types of parent involvement on elementary school children's academic achievement by race/ethnicity, poverty, and parent educational attainment. The sample comprised 415 third through fifth graders who completed the Elementary School Success Profile. Hypotheses from Bourdieu's theory of cultural capital were assessed with t tests, chi-square statistics, and hierarchical regressions. Consistent with the theory, parents with different demographic characteristics exhibited different types of involvement, and the types of involvement exhibited by parents from dominant groups had the strongest association with achievement. However, contrary to theoretical expectations, members of dominant and nondominant groups benefited similarly from certain types of involvement and differently from others. Implications for research and practice are discussed.

Keywords: Bourdieu, cultural capital, elementary school, habitus, parent involvement

In the United States, education is commonly perceived as a viable weapon against poverty and social inequality (Allen & Hood, 2000). However, the problem of inequality exists within the educational system itself (Lareau, 2001). Researchers have reported an achievement gap among schoolchildren that is associated with socioeconomic status and race/ethnicity. Poverty (Brooks-Gunn & Duncan, 1997; De Civita, Pagani, Vitaro, & Tremblay, 2004), low levels of

JUNG-SOOK LEE is a doctoral student, School of Social Work, University of North Carolina, 301 Pittsboro Street, CB# 3550, Chapel Hill, NC 27599-3550; e-mail: *jungsook@email.unc.edu*. Her interests are school social work, school-based mental health intervention, and child poverty.

NATASHA K. BOWEN is an Assistant Professor, School of Social Work, University of North Carolina, 301 Pittsboro Street, CB# 3550, Chapel Hill, NC 27599-3550; e-mail: *nbowen@email.unc.edu*. Her interests include developmental psychopathology and school-based mental health assessment and intervention.

parental educational attainment (Hakkinen, Kirjavainen, & Uusitalo, 2003), and African American and Hispanic/Latino race/ethnicity (Bali & Alvarez, 2004), for example, are associated with lower academic achievement.

Because parent involvement has been shown to be positively related to children's educational performance (Barnard, 2004; Fan & Chen, 2001; Feuerstein, 2000; Jeynes, 2003; McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004) and may mediate the effects of poverty, parents' educational attainment, and race/ethnicity on achievement (De Civita et al., 2004; Eamon, 2002; Schreiber, 2002), increasing parent involvement has been identified as a possible strategy for reducing the achievement gap. Parent involvement at school may include attending parent-teacher conferences, attending programs featuring students, and engaging in volunteer activities. Parent educational involvement at home may include providing help with homework, discussing the child's schoolwork and experiences at school, and structuring home activities.

Unfortunately, the effectiveness of efforts designed to eliminate the achievement gap through increasing parent involvement may be attenuated by two factors. First, some parents of children with low achievement may encounter barriers to their involvement (Heymann & Earle, 2000; Hill & Taylor, 2004; Pena, 2000), and, second, the positive influence of parent involvement on children's educational performance may be weaker in some families (Desimone, 1999; McNeal, 1999). Therefore, a major tool identified to reduce inequalities in achievement may have limited ability to do so because of inequalities in the opportunities for and benefits of parent involvement across demographic groups.

Parent Involvement, Family Characteristics, and Achievement

Measures of Parent Involvement

Findings about the nature and magnitude of the relationship between parent involvement and achievement vary on the basis of how involvement is measured (e.g., Barnard, 2004; McWayne et al., 2004). Parent involvement has been defined and measured in numerous ways in the literature. While some studies have combined various aspects of activities into single measures of parent involvement at home or at school (Barnard, 2004; McWayne et al., 2004; Miedel & Reynolds, 1999), others have identified and studied multiple types of parent involvement (Desimone, 1999; Fan, 2001; Fan & Chen, 2001; Feuerstein, 2000; McNeal, 1999) that are measured separately. For example, Desimone (1999) identified 12 types of parent involvement, and Epstein and Salinas (2004) described 6 types of such involvement.

Studies involving measures of parent involvement at school have generally revealed a relationship between parent involvement and academic achievement (Jimerson, Egeland, & Teo, 1999). However, in studies involving measures of home involvement, less consistent conclusions have been drawn about the effects of parent involvement on academic outcomes. For example, Barnard (2004) found that parents' reports of their involvement at

home, including reading, cooking, discussing, and going on outings with children, were not significantly associated with students' academic attainment. McWayne et al. (2004), however, showed that parent reports of educational involvement at home, defined as providing a supportive home learning environment, were positively associated with teachers' ratings of children's reading and mathematics achievement. Other researchers have found that parents' attitudes (e.g., their educational expectations and aspirations for their children) are associated with academic achievement (Fan, 2001; Fan & Chen, 2001; Feuerstein, 2000). Because of the multiple dimensions of parent educational involvement at home, it may be best to examine a number of separate measures of involvement (Desimone, 1999; Fan, 2001; Fan & Chen, 2001; Feuerstein, 2000; McNeal, 1999).

Effects of Parent Involvement in Different Populations

Findings about the relationship between parent involvement and achievement also vary according to the populations examined (e.g., Barnard, 2004; McWayne et al., 2004). Although the impact of parent involvement on academic achievement overall is significant among children from all racial/ethnic and income groups (Jeynes, 2003), some studies suggest that effects are moderated by demographic characteristics. McNeal (1999) found, for example, that parent involvement, defined as parent-teacher-organization involvement, monitoring, and educational support strategies, had more beneficial effects among affluent European American students than among African American, Hispanic, and Asian American students; students from families of low socioeconomic status; and students from single-parent households. Also, Desimone (1999) reported statistically significant differences in the relationships between 12 types of parent involvement and student achievement in mathematics and reading among students from different racial/ethnic and economic groups. For example, student-reported educational discussions with parents were significantly more predictive of gains in achievement among European American students; discussions about post-high school plans were significant only among middle-income students.

One author has suggested a mechanism to explain the moderation effects of race/ethnicity. According to McNeal (1999), the cultural capital possessed by affluent European American families magnifies the effects of parents' involvement on their children's achievement at school (McNeal, 1999). Moderation effects across nondominant groups have also been identified, however. In a meta-analysis of the effects of parent involvement on minority students' academic achievement, Jeynes (2003) presented evidence that parent involvement (e.g., communicating with the school, checking homework, encouraging outside reading, and participating in school activities) benefited African Americans and Hispanic/Latinos more than it did Asian Americans. The author's explanation was that parent involvement may have the greatest impact in the absence of other cultural factors that promote academic achievement, such as the strong emphasis on education found in many Asian

American cultures (Jeynes, 2003). As a result of inconsistent findings, moderation effects require additional systematic examination.

The studies just described revealed a variety of effects of parent involvement on achievement for various types of parent involvement and among children from different demographic backgrounds. However, these studies did not systematically test interactions between demographic characteristics and multiple types of school and home involvement. In addition, the primary source of data for studies of demographic differences in the amounts and benefits of parent involvement is the National Education Longitudinal Study of 1988 (National Center for Education Statistics, 1988), a national panel study of eighth-grade students. Although it has been shown that parent involvement is also positively associated with academic achievement in elementary school (Barnard, 2004; Heymann & Earle, 2000; Kohl, Lengua, & McMahon, 2000; Miedel & Reynolds, 1999), greater understanding of the effects of multiple types of involvement among different demographic groups at this school level may contribute to knowledge about how to use parent involvement efforts to address the achievement gap.

Social and Cultural Capital in the Parent-School Mesosystem

Parent educational involvement practices represent two central aspects of the mesosystem in Bronfenbrenner's (1986) ecological model of contextual influences on children's development: connections among the adults in children's microsystems and congruence in behaviors, values, and attitudes across settings. Parent involvement at school promotes connections between adults in two of the child's primary microsystems, the home and the school, while parent educational involvement at home conveys congruence in the attitudes and behaviors governing these two microsystems. In general, parent involvement at school has received more attention in the schools and in the literature than parent involvement at home, but both may be related to the achievement gap. Applying the concepts of social and cultural capital (Coleman, 1988; Bourdieu, cited in Lareau, 2001) to the home-school mesosystem may promote a greater understanding of the persistent achievement gap and, therefore, how schools can address it.

Coleman (1988) described three components of social capital: the obligations and expectations of reciprocity in social relationships, norms and social control, and information channels. Coleman viewed social capital as a means to an end, for example, a means by which parents can promote their children's school achievement and educational attainment. Social capital obtained through visits to the school may take the form of information (e.g., about upcoming events or available enrichment activities), skills (e.g., how to help with homework and home reading, parenting tips), access to resources (e.g., books, study aids, sources of assistance), and sources of social control (e.g., school-home agreement on behavior expectations and educational values), all of which can help parents promote their children's school achievement. Interactions with other parents while volunteering at

school or attending parent-teacher association meetings can also help parents gain access to beneficial information, parenting skills, or resources available in the social network represented by those parents. An additional aspect of social capital discussed by Coleman (1988) is the attention that parents provide children. The education-related social capital possessed by parents or obtained through their involvement at school promotes school achievement only if parents are able to devote time to supporting their children's education at home.

According to Lareau (2001), Bourdieu's concept of social capital also involves social relationships or networks that provide access to resources and must be actively maintained. Like Coleman (1988), therefore, Bourdieu views social capital as a means to gain socially desirable ends (Lareau, 2001). Unlike Coleman, however, Bourdieu emphasizes inequalities in the amounts of capital individuals have or are able to obtain. One source of inequality in access to relationships and resources of interest to Bourdieu is the fit between an individual's culture and the culture of the larger society or the institutions in that society. He uses the terms habitus and field to describe this fit. "Habitus" is "a system of dispositions" that results from social training and past experience (Brubaker, 2004; Lareau, 2001; Reed-Danahay, 2005). It is "the disposition to act in a certain way, to grasp experience in a certain way, to think in a certain way" (Grenfell & James, 1998, p. 15). A "field" is a "structured system of social relations at a micro and macro level" (Grenfell & James, 1998; Lareau & Horvat, 1999). When an individual's habitus is consistent with the field in which he or she is operating, that is, when the field is familiar to and understood by the individual, he or she enjoys a social advantage (Grenfell & James, 1998; Lareau & Horvat, 1999).

Cultural capital for parents related to the educational system exists in three forms: personal dispositions, attitudes, and knowledge gained from experience; connections to education-related objects (e.g., books, computers, academic credentials), and connections to education-related institutions (e.g., schools, universities, libraries) (Grenfell & James, 1998; Robbins, 2000). Because cultural capital involves a collection of "cultural dispositions" (Brubaker, 2004, p. 41), it may be difficult to distinguish it from habitus (Robbins, 2000). However, habitus can be thought of as a characteristic (or set of characteristics) pertaining to an individual. Although cultural capital is possessed by an individual or a family, it is more a function of the concordance of the educational aspects of the family's habitus with the values and practices of the educational system with which the family interacts.

The greater an individual's cultural capital, the greater his or her advantage in procuring additional capital that will benefit family members. Some individuals have inherited cultural capital in the process of "habitus" formation in their families, which makes them more successful players than others in the field of the education system (Grenfell & James, 1998). In contrast, individuals with less cultural capital encounter constraints that result in unequal access to institutional resources (Lareau, 2001). Just as economic capital represents the power to purchase products, cultural capital for parents in terms of their

children's education represents the power to promote their children's academic enhancement (Grenfell & James, 1998).

Parents with different backgrounds may display different types of involvement because they differ in regard to habitus (i.e., predispositions toward certain types of behaviors, attitudes, or perceptions). Variations in habitus in relation to parent involvement may derive from differences in financial resources, educational knowledge, and experiences with and confidence in the educational system (Grenfell & James, 1998). On the basis of their habitus, parents from nondominant groups may exhibit less parent involvement at school. Parents with low levels of education, for example, may be less involved at school because they feel less confident about communicating with school staff owing to a lack of knowledge of the school system, a lack of familiarity with educational jargon, or their own negative educational experiences. Or parents from different cultures may value home educational involvement more than involvement at school. While these variations in habitus may result in some parents having less cultural capital vis-à-vis the school, the same parents may still be actively involved at home in one or more ways consistent with the values and practices of the school system. According to Grenfell and James (1998), parents across social classes highly value education. For example, one study showed that working-class mothers valued education for their children in spite of their own negative experiences and misgivings about the educational system (Grenfell & James, 1998). Finding variations in the types of involvement exhibited by parents from different social backgrounds would lend support to Bourdieu's claim that families vary in terms of educational habitus.

In relation to the parent involvement mesosystem, cultural capital is the advantage gained by middle-class, educated European American parents from knowing, preferring, and experiencing a lifestyle congruent with the culture that is dominant in most American schools. Advantage accrues from enacting the types of involvement most valued by the school or most strongly associated with achievement. Advantage also accrues from having family and work situations that permit involvement at the school at the times and in the ways most valued by the school. In contrast, some working-class or low-income parents may be less able to visit the school for conferences, volunteering, or other activities as a result of inflexible work schedules, lack of child care, or lack of transportation. Hispanic/Latino parents may face the additional barrier of unavailability of translation services (Heymann & Earle, 2000; Hill & Taylor, 2004; Pena, 2000).

The disadvantages that may accrue to parents whose culture or lifestyle differs from that of the dominant culture take a number of forms. For example, parents who are less able to visit the school are less likely to gain the social, informational, and material rewards gained by parents who enact the school involvement roles valued and delineated by school staff. In addition, parents who are not able to be present at the school may be viewed as uncaring, an attitude that may have negative ramifications for their children. According to Hill and Craft (2003), for example, teachers perceive that parents

involved at the school value education, and this perception is associated with higher teacher ratings of students' academic achievement. It is likely that the opposite conclusion is drawn for some parents who are unable to volunteer or attend events at the school. Finding that the types of involvement exhibited by parents from dominant groups are more strongly associated with children's academic achievement than those preferred by or accessible to other parents would indicate that the former possess more cultural capital as a result of congruence between the educational "field" and their own habitus.

Differences in cultural capital may reduce the ability of parents to obtain social capital from the school even when they are able to come to the school. According to Lareau (2001): "When the habitus of the individual meshes with the habitus of the broader culture, it is often invisible" (p. 84). In contrast, when the habitus of parents visiting the school differs from that of the broader culture, or field in Bourdieu's terminology, they may feel less comfortable and welcome than other parents, perceive prejudicial treatment or attitudes on the part of school staff, or feel less able to tap the potential of the school's social and material resources. In addition, the effects of parents' educational involvement at home may differ among groups. First, restricted access to the educational social capital in schools may ultimately reduce the quality, or impact on achievement, of parents' home educational involvement. Parents who are unable to visit the school for events and activities, for example, may not obtain information about how best to help with homework, what schoolrelated topics to discuss with children, and the importance and methods of conveying high educational expectations. Second, factors associated with lower socioeconomic status may also reduce the effects of home involvement strategies. Reduced financial resources may limit families' ability to provide educational materials and opportunities and may influence parents' educational expectations for their children (De Civita et al., 2004). Low educational attainment may limit parents' ability to help their children with homework and their familiarity with educational resources available in the community. Because parents from nondominant groups possess less cultural capital, they may need to make more extensive efforts to ensure their children's academic success. Cultural capital "should be understood in terms of its practical consequences" (Grenfell & James, 1998, p. 22), and thus finding that involvement among parents from nondominant groups has a reduced impact on their children's academic achievement would support Bourdieu's theory that nondominant groups possess less cultural capital.

On the basis of Bourdieu's theory suggesting that different social groups differ in terms of educational habitus and cultural capital (Lareau, 2001), we sought to determine whether the levels and effects on achievement of five types of parent involvement differed among families of different social status. Race/ethnicity, socioeconomic status, and parental educational attainment were proxies for social status. Different *levels* of parent involvement may reflect differences in parents' habitus for educational involvement, while different *effects* of parent involvement may reflect differences in levels of cultural capital. We hypothesized that parents from different social backgrounds would

exhibit different types of parent involvement and that the types of parent involvement exhibited by European American parents, parents not living in poverty, and more educated parents would be more strongly associated with children's academic achievement. We also expected that African American, Hispanic/Latino, low-income, and less educated parents would benefit less from their involvement efforts than European American parents, more highly educated parents, and parents not living in poverty.

Method

Sample

The sample comprised 415 children from a representative sample of 497 third through fifth graders in a community bordering a major urban center in the southeastern United States. Data were collected in the spring of 2004 as part of a study designed to determine the psychometric properties of the Elementary School Success Profile (Bowen, 2006; Bowen, Bowen, & Woolley, 2004). The sampling frame for this psychometric study, which was funded by the National Institute on Drug Abuse, was all third- through fifth-grade students in the community's seven public elementary schools (N = 2.033). From the sampling frame, staff in the school district's research and evaluation department generated a random sample of 700 students (a number determined according to funding availability). As a means of increasing the representation of Hispanic/Latinos, an additional 70 Hispanic/Latino students were randomly sampled from the district's database and added to the original random sample. Without oversampling, a random sample would have included only about 80 Hispanic/Latinos, because they represented 11.7% of the population. After the parent consent process, this number would probably have been much smaller, making it difficult to conduct subgroup analyses. By increasing the original number of Hispanic/Latino parents from whom consent was sought, we were able to include 82 Hispanic/Latino children in the final sample. This number, while representing more than 17% of the final sample, was not significantly different from the population figure of 11.7%.

Parent consent packets with district-generated labels for the 770 students were distributed by school staff at the seven elementary schools. The 497 children whose parents provided consent represented 64.5% of the initial random sample and 24.4% of the community's third- through fifth-grade population. These 497 children were representative of the population in terms of gender, race/ethnicity, grade level, free or reduced-price lunch program participation, and participation in special programs. The percentages of students performing at or above grade level in mathematics and reading at the seven schools in the year of the assessment ranged from 85.4% to more than 95% (North Carolina Department of Public Instruction, 2004).

As mentioned, the sample analyzed in the present study comprised a subset of 415 children; all were African American, Hispanic/Latino, or European American and had complete data on the variables assessed. Eighty-two children were excluded as a result of missing values or because their parents did

not identify their race/ethnicity as African American, Hispanic/Latino, or European American. The 415 children included did not differ from the 82 children not included in regard to gender, grade level, participation in special programs, or parents' educational attainment; however, excluded children were more likely than included children to participate in the free/reduced-price lunch program, $\chi^2(1) = 10.37$, p = .001, and they had lower scores on the academic performance dependent variable, t(472) = 2.79, p = .006. The analyzed sample purposively differed from the community sample in terms of representation of children from racial/ethnic groups other than the three of interest in the current study—18 children whose parents reported that they were from other racial/ethnic backgrounds were excluded. Considering these differences, caution should be exercised in generalizing the results of this study to the original representative community sample.

Of the students included in the present analyses, 40% received free or reduced-price lunches at school; 15% were Hispanic/Latino, 34% were African American, and 51% were European American. The average parent educational attainment score was 3.52 (SD = 1.45), which corresponded to an educational attainment level between "some college or vocational training" and "completed a 2-year degree."

Measures

Our analyses included three demographic variables that have been shown to be predictive of school performance: race/ethnicity, participation in the free or reduced-price school lunch program, and parent educational attainment. Parent educational attainment, defined as the education level of the caregiver who had completed the highest level of education, was assessed on a 6-point ordinal scale with the following response options: *did not complete bigh school, received a high school diploma or equivalent, received some college or vocational training, completed a 2-year college degree, completed a 4-year college degree,* and *completed a graduate degree.* This variable was dichotomized at the mean for tests of group differences. Free or reduced-price school lunch program participation is a commonly used proxy for socioeconomic status. Lunch program participation. Dummy coding was also used to represent African American and Hispanic/Latino race/ethnicity, with European American as the reference group.

Five categories of parent educational involvement at home and school were examined. Parent involvement at the child's school was assessed with a composite of six items. Three items related to the parent physically visiting the school were assessed through both parent and teacher reports (six items in total). This type of parental involvement is a traditional measure of involvement (Barnard, 2004) and is an important predictor of children's academic achievement (Barnard, 2004; Miedel & Reynolds, 1999). The items were 4-point ordinal measures assessing the frequency with which the parent went to the school for parent-teacher conferences, volunteered at the school or in

the child's classroom, and went to the school for fun events. Response options were *never, sometimes, often,* and *always.* Higher scores represented greater involvement.

We assessed, through factor analyses, three types of parental involvement at home identified by Finn (1998): discussing educational topics with the child, helping with homework, and managing the child's time. Frequency of parentchild educational discussions was assessed via five parent-report items with response options of never, sometimes, often, and always. These items assessed the frequency with which the parent and child discussed "things [the] child learned at school," "things that happened during the school day," and "stories from the newspaper or TV news," and the frequency with which the parent encouraged the child to do well in school and praised or rewarded the child for working hard on schoolwork. Higher scores represented more frequent discussions and encouragement. Parent involvement related to homework help was measured via three ordinal items assessing the frequency with which the parent discussed homework with the child, checked on whether the child had completed his or her homework, and helped the child with homework. The four frequency options just described once again applied. Higher scores represented more homework help.

A fourth type of parent educational involvement at home was related to parent management of the child's time on literacy and nonliteracy activities. Using three items with the same frequency response options (i.e., *never*, *sometimes*, *often*, and *always*), parents reported on the frequency with which they limited the amount of time their children watched TV and played on school nights and made sure their children spent time on nonhomework reading. Higher scores represented more activity management on the part of the parent.

A final measure of parent educational involvement focused on parents' educational expectations for their children, that is, their attitudes or beliefs instead of their specific behaviors. Research has demonstrated that parents' educational aspirations are predictive of children's academic achievement (Fan, 2001; Fan & Chen, 2001; Feuerstein, 2000; Seginer & Vermulst, 2002; Smith-Maddox, 1999). One 6-point ordinal item assessed how far the parent expected the child to go in school; response options ranged from *will not complete high school* to *will complete a graduate degree*. Higher scores represented higher educational expectations.

The dependent academic achievement composite was created by standardizing scores on four teacher-report measures. Two of the measures were 5-point ordinal measures assessing children's grades in reading and math on their most recent report card. Options ranged from A to F. The other two measures were 3-point ordinal measures assessing whether children were at grade level in reading and math. Response options were *below grade level*, *at grade level*, and *above grade level*. Higher scores represented better academic performance.

Table 1 presents correlations among the five types of parent involvement and the academic dependent variable, along with descriptive data and

Table 1Bivariate Correlations and Descriptive Data on Measures (N = 415)

| Measure | 1 | 2 | 3 | 4 | 5 | 6 |
|--|-------|-------|-------|-------|-------|------------|
| 1. Parent involvement at school (6 items) | _ | | | | | |
| 2. Parent-child educational discussion (5 items) | .31** | _ | | | | |
| 3. Homework help | | | | | | |
| (3 items) 4. Time management | .21** | .52** | — | | | |
| (3 items) | .11* | .43** | .33** | _ | | |
| 5. Parent educational | | | | | | |
| expectations (1 item) | .30** | .30** | .09 | .15** | — | |
| 6. Academic | | | | | | |
| achievement (4 items) | .45** | .21** | .11* | .04 | .39** | |
| M | 15.32 | 16.93 | 10.56 | 9.43 | 4.65 | 0.17 |
| SD | 3.82 | 2.36 | 1.56 | 1.97 | 1.32 | 3.41 |
| Range | 6-24 | 8-20 | 5-12 | 4-12 | 1-6 | -8.35-5.72 |
| Internal consistency | | | | | | |
| reliability (a) | .78 | .77 | .69 | .74 | NA | .89 |

Note. Means and standard deviations are presented in the variables' original metric for better interpretation, but independent variables were centered around their means for the regression analyses. Centering makes interpretation of interactions clearer without affecting regression coefficients or model statistics. NA = not applicable. * $p \le .05$. ** $p \le .01$.

reliability coefficients for the composites. Parent involvement at school and parental educational expectations had the highest correlations with academic achievement, while time management and homework help had the lowest associations with achievement.

Data Analysis

Chi-square statistics and *t* tests were used to examine differences in parent involvement and school performance by demographic characteristics. Hierarchical regression analyses were used to examine the effects of demographics and different types of parent involvement on academic performance. Differences in the effects of parent involvement on achievement among children with different demographic characteristics (i.e., interactions between parent involvement and demographic variables) were examined in a stepwise hierarchical analysis of all Involvement × Demographics product terms. The false discovery rate criterion was used to adjust alpha levels for the multiple interaction tests (Benjamini, Drai, Elmer, Kafkafi, & Golani, 2001). Analyses were conducted with SPSS for Windows, Version 12.0 (SPSS, 2003). All independent

variables with the exception of the three dummy demographic variables were centered around their means in the regression analyses to facilitate interpretation of interaction effects.

Results

Levels of Parent Involvement

Table 2 presents the results of analyses of differences in levels of parent involvement and achievement among children with different demographic characteristics. It can be seen that levels of parent involvement and child achievement varied significantly across demographic groups. The achievement gap between children from families of different racial/ethnic, socioeconomic, and educational backgrounds is documented in the final column of the table: Teachers reported significantly higher academic achievement among European American children than among Hispanic/Latino and African American children. Teachers also reported higher academic achievement among African American students than Hispanic/Latino students. The mean academic achievement scores of students not living in poverty and students whose parents had more educational attainment were also significantly higher than the scores of their respective counterparts.

Race/ethnicity was associated with variability in scores on three of the five measures of parent involvement. European American parents reported *more* frequent involvement at school and *less* frequent efforts to manage their children's time use at home than both Hispanic/Latinos and African American parents. They also reported more frequent parent-child educational discussions than Hispanic/Latino parents. Educational expectations and frequency of homework help did not differ among the three racial/ethnic groups.

School lunch program participation was associated with different levels of four of the five measures of parent involvement. Relative to parents whose children did not take part in the lunch program, parents whose children received free or reduced-price lunches at school reported less frequent involvement at school and parent-child educational discussions at home, as well as lower educational expectations for their children. In contrast, parents of lunch program participants reported *more* frequent efforts to manage their children's time, limiting play and TV and making sure their children spent time on reading. School lunch program participation was not associated with different levels of parent-reported homework help.

Differences in levels of involvement were also found between parents who reported education levels above and below the mean level of educational attainment for the sample. Parents who had earned a 2-year college degree or a higher degree (or who lived with another caregiver who had completed this level of education) reported significantly more frequent involvement at school, more frequent parent-child educational discussions at home, and higher educational expectations for their children. Parent educational attainment was not associated with frequency of homework help or time management.

| | Pare | nt | Parent- | child | | | | | Pare | ent | | |
|--|-------------------|-------------|-------------------|--------------|-------------|------------|----------------------|-----------|-------------------|-----------------|------------------|-------------|
| | involve at sch | ment ool | educati discus | onal sion | Home hel | work lp | Tim manage | e ment | educat expecta | ional ations | Acade achieve | mic ment |
| Characteristic | W | SD | W | SD | Μ | SD | W | SD | Μ | SD | Μ | SD |
| Race/ethnicity | | | | | | | | | | | | |
| African American | 13.85_{a}^{**} | 3.35 | 16.80^{**} | 2.34 | 10.57 | 1.61 | 9.61_{a}^{**} | 1.93 | 4.51 | 1.42 | -0.70_{b}^{**} | 3.27 |
| Hispanic/Latino | 13.10_a | 3.59 | 16.19_a | 3.27 | 10.32 | 1.81 | 10.00_{a} | 1.88 | 4.49 | 1.76 | -1.69_{a} | 3.44 |
| European American | $16.99_{ m b}$ | 3.42 | $17.24_{ m b}$ | 1.97 | 10.63 | 1.44 | $9.13_{ m b}$ | 1.98 | 4.79 | 1.06 | $1.32_{ m c}$ | 3.06 |
| Receipt of free or reduced-price lunches | | | | | | | | | | | | |
| Yes | 13.22^{**} | 3.35 | 16.60^{*} | 2.69 | 10.57 | 1.63 | 9.70* | 1.92 | 4.15^{**} | 1.62 | -1.60^{**} | 3.04 |
| No | 16.70 | 3.46 | 17.15 | 2.10 | 10.56 | 1.52 | 9.25 | 1.98 | 4.98 | 0.95 | 1.33 | 3.13 |
| Parental educational attainment | | | | | | | | | | | | |
| Below sample mean | 13.99^{**} | 3.73 | 16.58^{**} | 2.54 | 10.57 | 1.50 | 9.42 | 1.92 | 4.23^{**} | 1.53 | -1.00^{**} | 3.40 |
| Above sample mean | 16.92 | 3.28 | 17.35 | 2.06 | 10.56 | 1.64 | 9.43 | 2.03 | 5.15 | 0.75 | 1.57 | 2.85 |

| Group Means for Parent Involvement and Academic Achie |
|---|
| sons of Grou |
| |

Association of Parent Involvement With Student Achievement

Table 3 presents results of the hierarchical regression analysis used to examine the effects of demographic characteristics and types of parent involvement on children's academic performance. Differences in the effects of five types of parent involvement among different demographic groups were examined through the inclusion of interaction terms. Model 1, which included only the demographic predictors, explained 24% of the variance in academic achievement. Participation in the lunch program and African American race/ethnicity (as compared with European American race/ethnicity) were significantly and negatively associated with achievement. Higher parent educational attainment was associated with higher academic achievement. These findings were consistent with the previous analysis of group differences with the exception of the nonsignificant coefficient for Hispanic/Latino race/ethnicity.

Model 2 included the demographic variables along with the main effects of the five parent involvement variables. The parent involvement variables explained about 9% of the variance in academic achievement beyond the effects of the demographic variables; the full model explained 33% of the variance. In this model, the coefficient for parent educational attainment was no longer significant, suggesting that the effects of parents' education level on children's academic achievement are mediated through the effects of this variable on parent involvement activities. School lunch program participation and African American and Hispanic/Latino race/ethnicity were negatively associated with achievement in relation to European American race/ethnicity. Only two types of parent involvement had significant effects on academic achievement in the main effects model: parents' involvement at school and parents' educational expectations for their children. According to their standardized coefficients, both of these variables had positive effects of similar magnitude on the outcome variable.

Model 3 included the demographic variables, the main effects of the parent involvement variables, and the significant interaction terms identified in a stepwise procedure. This step allowed us to determine whether the effects of different types of parent involvement varied according to demographic characteristics. The interaction terms explained an additional 5% of the variance in academic achievement. The full model, therefore, explained 38% of the variance in academic achievement. The final model allowed interpretation of the main effects of three variables with no interactive effects. Parents' educational attainment and parents' management of children's time use did not have significant effects on academic achievement. Parent involvement at school had a positive and significant association with achievement. The effects of each of the other three types of parent involvement on academic achievement were moderated by at least one demographic variable. Figure 1 illustrates how the effects of different types of parent involvement were moderated. Interaction effects were calculated for the means of all involvement scale scores and parent education and for the reference group of all dummy variables not included in the interaction.

| Table 3 | Predicting Academic Achievement (N = 415) |
|---------|---|
| | Hierarchical Multiple Regression |

| | | Model 1 | | | Model 2 | | | Model 3 | |
|---|---------------|--------------------------|--------------|-------------|----------------|---------------------------|--------------------|---------------|------------|
| Variable | В | SE B | β | В | SE B | β | В | SEB | β |
| Constant | 1.36 | 0.23 | | 1.02 | 0.23 | | 0.94 | 0.23 | |
| Demographics | | | | | | | | | |
| School lunch $(1 = recipient)$ | -1.68 | 0.37 | 24** | -1.08 | 0.37 | 15** | -0.98 | 0.35 | 14** |
| Parent education | 0.52 | 0.12 | .22** | 0.18 | 0.13 | .08 | 0.06 | 0.12 | .03 |
| Race/ethnicity (0 = European American) | | | | | | | | | |
| Hispanic/Latino | -0.93 | 0.50 | 10 | -1.04 | 0.50 | 11* | -1.39 | 0.49 | 15** |
| African American | -1.13 | 0.35 | 16^{**} | -0.77 | 0.35 | 11* | -0.96 | 0.34 | 13** |
| Parent involvement | | | | | | | | | |
| Involvement at school | | | | 0.19 | 0.05 | .21** | 0.18 | 0.05 | .20** |
| Educational discussions | | | | 0.02 | 0.08 | .01 | 0.16 | 0.09 | .11 |
| Homework help | | | | 0.05 | 0.11 | .03 | -0.39 | 0.14 | 18** |
| Time management | | | | 0.02 | 0.08 | .01 | -0.02 | 0.08 | 01 |
| Educational expectations | | | | 0.60 | 0.12 | .23** | 1.14 | 0.20 | .44** |
| Interactions | | | | | | | | | |
| Lunch × Educational Expectations | | | | | | | -0.72 | 0.23 | 22** |
| African American × Homework Help | | | | | | | 0.61 | 0.19 | $.17^{**}$ |
| Hispanic/Latino × Homework Help | | | | | | | 1.04 | 0.27 | .22** |
| Hispanic/Latino × Educational Discussion | | | | | | | -0.46 | 0.15 | 17** |
| R^2 or R^2 change | | .24 | | | 60. | | | .05 | |
| F for change in R^2 | | 32.19** | | | 11.01^{**} | | | 8.73** | |
| Moto Andre internet and the second | folo diocorro | diaction of the variable | | To two | inter the test | - realized of the company | officer on officer | officato | = |
| <i>Note.</i> Only interactions with p values below the 1 | raise discove | ry rate criterio | on are repoi | tea. 10 imp | rove the inter | pretability (| DI INTERACIIC | in ellects, a | III |

nondichotomous independent variables were centered at their means in the regression analysis. $*p \le .05$. $**p \le .01$.



group of the dummy-coded school lunch and race/ethnicity variables. On the x axis, 2 represents Four interaction effects involving types of parent involvement. The results shown are for the mean values of all nondichotomous independent variables and for the reference the mean for variable, and 1 and 3 represent -1 SD and +1 SD from the mean, respectively. Figure 1.

Figure 1A illustrates how the effects of parents' educational expectations for their children were moderated by lunch program participation. Low educational expectations were associated with low achievement in both socioeconomic groups, and higher expectations were associated with higher achievement in both groups. Among lunch program participants, however, the association of higher expectations with achievement was weaker. Figure 1B suggests that the effects on academic achievement of educational parent-child discussions were positive among European Americans but negative among Hispanic/Latinos. Academic achievement was similar in both groups at low levels of parent-child educational discussion. Increasing frequencies of discussions, however, were associated with declines in academic achievement among Hispanic/Latino children and increases among European Americans.

Figure 1C indicates that high levels of homework help were associated with similar achievement levels among Hispanic/Latinos and European Americans. However, lower levels of homework help were associated with high achievement among European Americans and with low achievement among Hispanic/Latinos. Increased levels of homework help, therefore, were associated with better achievement among Hispanic/Latinos but not European Americans. Figure 1D illustrates that the effects of homework help among African American children were similar to those among Hispanic/Latino children. More frequent homework help was associated with better academic performance in this group, while more frequent homework help was associated with lower academic achievement among European American children.

Discussion

We sought to determine whether the levels and effects on achievement of major types of parent involvement differed among families according to three demographic variables (race/ethnicity, socioeconomic status, and parental educational attainment). Demographic characteristics served as proxy variables for social status in a test of Bourdieu's cultural capital theory (Grenfell & James, 1998; Lareau, 2001). We hypothesized that parents from different social backgrounds would exhibit different types of involvement based on preferences and structural constraints, that the types of involvement exhibited by parents from the dominant cultural group (i.e., European American, not eligible for school lunch program, more highly educated) would have the strongest associations with achievement, and that parents from nondominant groups would reap fewer benefits from their involvement efforts in terms of their children's academic achievement.

As expected, the achievement gap was documented in the sample: Teachers reported significantly higher academic achievement among students not living in poverty, European American students, and students with more educated parents. Poverty and race/ethnicity consistently played a significant role in predicting children's academic achievement above and beyond the effects of parent involvement. However, as hypothesized, the academic achievement gap was partially explained by differences in the levels and effects of parent

involvement and the interaction between parent involvement and other demographic backgrounds.

Levels of Parent Involvement

As reported in other studies (Bempechat, 1998; Drummond & Stipek, 2004; Lopez, Scribner, & Mahitivanichcha, 2001), parents with diverse racial/ethnic, educational, and economic backgrounds are involved in their children's education regardless of whether they are formally involved in their children's school life. However, consistent with Bourdieu's notion of variations in educational habitus, we found group differences in levels of parent involvement. These differences across socioeconomic backgrounds may be due to different perceptions about parent involvement (Hill et al., 2004; Lopez et al., 2001; Scribner, Young, & Pedroza, 1999; Valdes, 1996) or different levels of access in regard to certain types of involvement (Heymann & Earle, 2000; Hill & Taylor, 2004; Pena, 2000).

The greatest differences were in levels of parent involvement at school. As would be expected from Bourdieu's theory of structural constraints among nondominant groups that result in unequal access to institutional resources (Lareau, 2001), involvement at school occurred most frequently for those parents whose culture and lifestyle were most likely to be congruent with the school's culture: parents who were European American, whose children did not take part in the school lunch program, and whose educational attainment was higher and more similar to that of school staff. In addition to structural barriers to being present at school, some parents from nondominant groups may encounter psychological barriers to involvement at school. According to McKay, Atkins, Hawkins, Brown, and Lynn (2003), for example, awareness of racism is negatively associated with parent involvement at school and positively associated with parent involvement at home. In other studies, less privileged parents have reported that they lack confidence in their interactions with the education system and usually defer to teachers' expertise (Lareau, 1994; Reav, 1999).

Regardless of the reasons that parents do not visit the school, teachers may interpret their lack of involvement as a general lack of interest in their children's education. Given the high levels of association between parent involvement at school and children's academic achievement observed in this study and previous work and the importance of close home-school relationships in general for children's academic achievement (Epstein, 1992), less involvement at school on the part of some parents may represent a significant disadvantage to their children.

Group differences in levels of parent involvement at home were less consistent. Parent-child discussion occurred more frequently in the homes most likely to be culturally similar to the school—in European American homes, nonpoor homes, and homes with more highly educated parents. Although educational expectations did not differ according to race/ethnicity, they were higher among parents of children who did not participate in the school lunch

program and parents who had completed more education. These results are consistent with other findings indicating that economically disadvantaged parents are less optimistic about their children's education (Crosnoe, Mistry, & Elder, 2002). No significant demographic group differences were found in the frequency of homework help provided to children. Also, differences in the frequency of parental management of children's activity time were in the opposite direction of other types of parent involvement. Specifically, African American and Hispanic/Latino parents and parents of school lunch program participants reported more frequent efforts to limit TV and play and to encourage nonhomework reading during the school week. No differences in time management efforts were found between parents at higher and lower levels of education.

The findings that African American, Hispanic/Latino, and low-income parents reported similar levels of homework help as European American and higher income parents and more frequent time management efforts could reflect a common problem encountered in cross-sectional studies of parent involvement: Findings on the effects of parent involvement are clouded by the fact that increased involvement may occur in response to children's academic difficulties. Another explanation, however, and one that is consistent with Bourdieu's notion of variations in habitus (Lareau, 2001), may be that some groups believe more strongly than others that it is important to help with homework and manage children's activity time regardless of their achievement level. These habits may represent strengths of African American, Hispanic/Latino, and low-income families that school staff should respect and consider in efforts to reduce the achievement gap. It appears that parents in all groups were willing and able to make time to support their children's education at home, but the emphasis of their efforts may have differed on the basis of habitus.

Association of Parent Involvement With Student Achievement

Similar to previous researchers (e.g., Hill et al., 2004; McNeal, 1999), we found a relationship between family demographic characteristics and achievement outcomes. Race/ethnicity and school lunch participation were significantly associated with achievement over and above the effects of parent involvement (Model 3). The positive effects of parent educational level on achievement (Model 1), however, appeared to be mediated by parent involvement (Models 2 and 3). This finding is consistent with Coleman's (1988) social capital theory, in that parents' human capital (parental educational attainment) is transmitted to their children in their own development of human capital (children's academic achievement) only if parents direct social capital (parent involvement) toward their children.

When demographic variables and types of parent involvement were modeled without interactions (Model 2), parent involvement at school and parent educational expectations demonstrated the strongest association with children's educational achievement. These types of parent involvement were also

the types of involvement that parents from the dominant group displayed more frequently. These findings support the notion of cultural capital as represented in the academic benefits for dominant groups that derive from congruence between family habitus and the educational field.

Parent involvement at school was similarly associated with higher academic achievement among all of the sample members. As predicted by Coleman (1988), but not by Bourdieu (Lareau, 2001), parents with different characteristics who visited the school appeared to derive the same benefits in terms of their children's achievement. The cultural disadvantage experienced by parents who are African American, Hispanic/Latino, low income, or less educated in relation to school-based involvement appears to occur through barriers faced by these parents in regard to *being present* at school rather than through accrual of fewer benefits when they are able to be present at school.

Parents' higher educational expectations for their children were associated with higher academic achievement across the demographic groups assessed. This result is consistent with other findings indicating the importance of high expectations (Fan, 2001; Fan & Chen, 2001; Feuerstein, 2000; Seginer & Vermulst, 2002; Smith-Maddox, 1999). However, our results indicated that the benefits of educational expectations were weaker among children who took part in the school lunch program (Figure 1A). The same high level of educational expectations in poor and nonpoor families was associated with lower achievement among school lunch program participants than among nonparticipants. This difference may reflect generally lower levels of human, cultural, and social capital in lower income homes. The interaction between educational expectations and poverty is more consistent with Bourdieu's notions of inequalities in access to capital than Coleman's notions of social capital.

Parents' management of children's activity time did not have a significant association with achievement. In the future, longitudinal studies examining the reciprocal effects of achievement and time management may shed light on this finding. In the current study, African American parents, Hispanic/Latino parents, and parents of school lunch program participants engaged significantly more often than their counterparts in time management activities. This finding represents the converse of our hypothesis that the activities enacted by parents from dominant groups would be most beneficial for children; the activities enacted by three nondominant groups were the least beneficial in relation to student outcomes.

The effects on achievement of parent-child educational discussions were positive among European Americans but negative among Hispanic/Latinos (Figure 1B). Not only did Hispanic/Latino parents report less frequent discussions, but the discussions they had were associated with lower achievement. It is unlikely that talking to children about school "causes" worse achievement; it is more likely that Hispanic/Latino parents engage in parent-child discussions of school primarily when their children are not doing well in school. In this context, the discussions may have a narrow focus on achievement problems. European American parents, in contrast, may talk frequently about edu-

cational topics with their children even when the children are doing well in school.

There were no significant differences in the levels of homework help across the demographic groups. However, in contrast to the findings for educational discussions, parental homework help was *negatively* associated with European American children's academic achievement and positively associated with African American and Latino/Hispanic children's achievement (Figure 1, Panels C and D). Again, it is unlikely that helping children with homework "causes" worse achievement; it is more likely that European American parents primarily help their children with homework when their children are not doing well academically. This difference may result from a perception more common among African American and Hispanic/Latino parents than among European American parents: Homework is a means of improving children's education regardless of children's current academic performance (Stevenson, Chen, & Uttal, 1990). However, this finding may also suggest that African American and Hispanic/Latino parents need to make extensive efforts to achieve the same academic benefits for their children. As a whole, their children's academic achievement was lower than that of European American children, regardless of level of homework help (Figure 1, Panels C and D). This disadvantage may result from less social and cultural capital, which in turn may be partially due to less frequent contacts with the school, limiting parents' access to information, encouragement, and resources for providing homework help.

In summary, Bourdieu's concepts of inequality in relation to the parent involvement mesosystem offered a useful framework for a systematic examination of the levels and effects of different types of involvement among parents with different demographic characteristics. Our findings lend partial support to Bourdieu's theory of habitus and cultural capital. Differences in levels of involvement among parents of different social status support Bourdieu's notion of habitus. The finding that parent involvement at school and high educational expectations, which were most common among parents from dominant groups, showed the strongest associations with achievement suggests the better fit of these parents' habitus to the field of education. Findings related to the impact of parent involvement did not provide consistent support for Bourdieu's theory. Dominant and nondominant groups benefited similarly from some types of involvement and differently from others.

Limitations

This study was based on correlational data, and therefore the results cannot support causal claims. In the absence of a longitudinal study design, it is not possible to determine whether some types of parent involvement preceded or occurred in response to children's academic achievement. Moreover, in the absence of an experimental study, it is not possible to rule out other possible causes of children's academic achievement.

Another potential limitation of this study was its reliance on ordinal frequency scales. Response choices on such scales may be biased to the extent that parents with higher expectations about appropriate levels of involvement may rate themselves lower than parents whose expectations are not as high for the same level of involvement. This potential limitation was attenuated to some extent by the fact that the measure of parent involvement at school included teacher-report items.

A further limitation of our study is that race/ethnicity was confounded with children's academic achievement, free/reduced-price lunch participation, and parents' educational attainment. Hispanic/Latino ethnicity was associated with lower parental education, higher lunch program participation, and lower academic achievement. European American parents had the highest education levels and the lowest frequencies of free/reduced-price lunch participation, and their children had the highest academic achievement. In spite of these characteristics of the sample, the results indicated that the effects of poverty and parents' educational attainment are different from the effects of race/ ethnicity on the relationship between parent involvement and children's academic achievement. Moreover, the clustering of demographic characteristics was consistent with theories of social capital suggesting that cultural capital, social capital, human capital, and economic capital are often interrelated.

Implications for Research and Practice

Continued study of how social status may moderate the effects of different types of parent involvement is needed. Multiple types of involvement at home and school and multiple cultural groups require further examination. In addition, samples with greater within-group diversity in terms of socioeconomic status and academic achievement are needed. Use of person-centered approaches, in which groups sharing combinations of forms of social status (e.g., race/ ethnicity, level of education, and socioeconomic status) are examined and compared, would also be a valuable addition to the research.

Parent educational involvement is associated with child achievement and should continue to be an important focus of school staff. Parents' involvement at school, according to our results, remains of central importance; existing inequalities in the levels of this type of involvement are likely to contribute to the achievement gap. Identifying and reducing barriers among African American, Latino/Hispanic, low-income, and less educated parents should be an emphasis of strategies to engage parents *at school* in their children's education. Creative strategies may be necessary to overcome barriers related to work schedules, transportation, negative interpretations of cultural differences on the part of school staff, and discomfort in the school setting on the part of parents. Creating opportunities for staff-parent contacts outside of school might lead to the same benefits as contacts at school and should be explored.

It is also important, however, for schools to recognize and exploit the existence of cultural variations in parent involvement. The findings of this study suggest that there are variations among parents with different background in terms of when, why, and how they are involved in their children's

education. They may be *more* involved in some activities considered desirable by the school than parents from dominant groups. It is reasonable for schools to attempt to increase parent involvement at school because increased levels of such involvement are associated with children's academic achievement. However, efforts to increase parent involvement at school should not be based on the assumption that parents who are not involved lack the capacity to provide adequate home learning environments for their children or that they are not involved in their children's schooling at home (Lopez et al., 2001). This kind of deficit perspective not only devalues the educational involvement exhibited by parents from nondominant groups but also takes attention away from the professional responsibility of schools to establish effective parent involvement programs for those families (Valencia, 1997).

Considering the fact that most parents are involved in their children's education in various ways and view the school as a viable source of information (Drummond & Stipek, 2004), it is critical for schools to understand the effects of cultural capital on the success of the family-school partnership (Christenson, 2003). Interventions designed to support parent involvement must begin by building on each family's unique strengths (Hill & Craft, 2003; Valdes, 1996). When schools understand, acknowledge, and reward all involvement efforts, their partnerships with parents are likely to become more productive. In the case of parents who are unable to visit the school, innovative methods of sharing information about how to help at home and showing appreciation for existing efforts may need to be developed.

Although there may be cultural differences in how and when parents choose to be involved in their children's education, our results suggest that there is more congruence than incongruence between the beliefs of school staff and parents from nondominant groups about the importance of parent involvement. Thus, addressing the achievement gap through parent involvement strategies need not involve radical changes in the culture of the school or of parents from nondominant cultural groups. Instead, it may involve recognizing the common values of parents and schools and modifying the ways in which opportunities and resources for parent involvement at school and at home are made available to all parents.

Notes

The Elementary School Success Profile (ESSP) is based on the School Success Profile (SSP) developed by Gary L. Bowen and Jack M. Richman for middle and high school students. The ESSP was developed through the collaboration of researchers at the University of North Carolina at Chapel Hill and Flying Bridge Technologies with funding from the National Institutes of Health (NIH) and the National Institute on Drug Abuse (NIDA) (Grants 1 R42 DA13865-01, 3 R41 DA13865-01S1, and 2 R42DA013865-02). The opinions and recommendations offered in this article are those of the authors and not necessarily those of Flying Bridge Technologies, NIH, or NIDA.

References

Allen, E. E., & Hood, L. (2000). Biotechnology, inquiry, and public education. *Trends in Biotechnology*, *18*, 329–330.

- Bali, V. A., & Alvarez, R. M. (2004). The race gap in student achievement scores: Longitudinal evidence from a racially diverse school district. *Policy Studies Journal*, 32, 393–415.
- Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review*, 26, 39–62.
- Bempechat, J. (1998). Against the odds: How "at-risk" students exceed expectations. San Francisco: Jossey-Bass.
- Benjamini, Y., Drai, D., Elmer, G., Kafkafi, N., & Golani, I. (2001). Controlling the false discovery rate in behavior genetics research. *Behavioral Brain Research*, 125, 279–284.
- Bowen, N. K. (2006). Psychometric properties of the Elementary School Success Profile for Children. Social Work Research, 30, 51–63.
- Bowen, N. K., Bowen, G. L., & Woolley, M. E. (2004). Constructing and validating assessment tools for school-based practitioners: The Elementary School Success Profile. In A. R. Roberts & K. R. Yeager (Eds.), *Evidence-based practice manual: Research and outcome measures in health and human services* (pp. 509–517). New York: Oxford University Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology*, 22, 723–742.
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *Future* of *Children*, 7, 55–71.
- Brubaker, R. (2004). Rethinking classical theory: The sociological vision of Pierre Bourdieu. In D. L. Swartz & V. L. Zolberg (Eds.), *After Bourdieu: Influence, critique, elaboration* (pp. 25–64). Dordrecht, the Netherlands: Kluwer.
- Christenson, S. L. (2003). The family-school partnership: An opportunity to promote the learning competence of all students. *School Psychology Quarterly*, 18, 454–482.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94* (Suppl.), 95–120.
- Crosnoe, R., Mistry, R. S., & Elder, G. H. (2002). Economic disadvantage, family dynamics, and adolescent enrollment in higher education. *Journal of Marriage and the Family*, 64, 690–702.
- De Civita, M., Pagani, L., Vitaro, F., & Tremblay, R. E. (2004). The role of maternal educational aspirations in mediating the risk of income source on academic failure in children from persistently poor families. *Children and Youth Services Review, 26,* 749–769.
- Desimone, L. (1999). Linking parent involvement with student achievement: Do race and income matter? *Journal of Educational Research*, *93*, 11–30.
- Drummond, K. V., & Stipek, D. (2004). Low-income parents' beliefs about their role in children's academic learning. *Elementary School Journal, 104,* 197–213.
- Eamon, M. K. (2002). Effects of poverty on mathematics and reading achievement of young adolescents. *Journal of Early Adolescence, 22,* 49–74.
- Epstein, J. L. (1992). School and family partnerships. In M. Alkin (Ed.), *Encyclopedia of educational research* (pp. 1139–1151). New York: Macmillan.
- Epstein, J. L., & Salinas, K. C. (2004). Partnering with families and communities. *Educational Leadership*, 61(8), 12–18.
- Fan, X. T. (2001). Parental involvement and students' academic achievement: A growth modeling analysis. *Journal of Experimental Education*, 70, 27–61.
- Fan, X. T., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review*, 13, 1–22.
- Feuerstein, A. (2000). School characteristics and parent involvement: Influences on participation in children's schools. *Journal of Educational Research*, 94, 29–39.
- Finn, J. D. (1998). Parental engagement that makes a difference. *Educational Leadership*, 55(8), 20–24.

- Grenfell, M., & James, D. (1998). *Bourdieu and education: Acts of practical theory.* Bristol, PA: Falmer.
- Hakkinen, F., Kirjavainen, T., & Uusitalo, R. (2003). School resources and student achievement revisited: New evidence from panel data. *Economics of Education Review*, 22, 329–335.
- Heymann, S. J., & Earle, A. (2000). Low-income parents: How do working conditions affect their opportunity to help school-age children at risk? *American Educational Research Journal*, 37, 833–848.
- Hill, N. E., Castellino, D. R., Lansford, J. E., Nowlin, P., Dodge, K. A., Bates, J. E., et al. (2004). Parent academic involvement as related to school behavior, achievement, and aspirations: Demographic variations across adolescence. *Child Development*, 75, 1491–1509.
- Hill, N. E., & Craft, S. A. (2003). Parent-school involvement and school performance: Mediated pathways among socioeconomically comparable African American and Euro-American families. *Journal of Educational Psychology*, 95, 74–83.
- Hill, N. E., & Taylor, L. C. (2004). Parental school involvement and children's academic achievement—Pragmatics and issues. *Current Directions in Psychological Science*, 13, 161–164.
- Jeynes, W. H. (2003). A meta-analysis—The effects of parental involvement on minority children's academic achievement. *Education and Urban Society*, 35, 202–218.
- Jimerson, S., Egeland, B., & Teo, A. (1999). A longitudinal study of achievement trajectories: Factors associated with change. *Journal of Educational Psychology*, 91, 116–126.
- Kohl, G. O., Lengua, L. J., & McMahon, R. J. (2000). Parent involvement in school: Conceptualizing multiple dimensions and their relations with family and demographic risk factors. *Journal of School Psychology*, 38, 501–523.
- Lareau, A. (1994). Parent involvement in schooling: A dissenting view. In C. Fagnano & B. Werber (Eds.), *School, family, and community interaction: A view from the firing lines* (pp. 61–73). Boulder, CO: Westview Press.
- Lareau, A. (2001). Linking Bourdieu's concept of capital to the broader field: The case of family-school relationships. In B. J. Biddle (Ed.), *Social class, poverty, and education: Policy and practice* (pp. 77–100). New York: Routlege/Falmer.
- Lareau, A., & Horvat, E. M. (1999). Moments of social inclusion and exclusion: Race, class, and cultural capital in family-school relationships. *Sociology of Education*, 72, 37–53.
- Lopez, G. R., Scribner, J. D., & Mahitivanichcha, K. (2001). Redefining parental involvement: Lessons from high-performing migrant-impacted schools. *American Educational Research Journal*, 38, 253–288.
- McKay, M. M., Atkins, M. S., Hawkins, T., Brown, C., & Lynn, C. J. (2003). Inner-city African American parental involvement in children's schooling: Racial socialization and social support from the parent community. *American Journal of Community Psychology*, 32, 107–114.
- McNeal, R. B. (1999). Parental involvement as social capital: Differential effectiveness on science achievement, truancy, and dropping out. *Social Forces*, *78*, 117–144.
- McWayne, C., Hampton, V., Fantuzzo, J., Cohen, H. L., & Sekino, Y. (2004). A multivariate examination of parent involvement and the social and academic competencies of urban kindergarten children. *Psychology in the Schools*, 41, 363–377.
- Miedel, W. T., & Reynolds, A. J. (1999). Parent involvement in early intervention for disadvantaged children: Does it matter? *Journal of School Psychology*, 37, 379–402.
- National Center for Education Statistics. (1988). *National Education Longitudinal Study* of 1988. Washington, DC: U.S. Department of Education.
- North Carolina Department of Public Instruction. (2004). *School report cards*. Retrieved December 15, 2004, from http://www.ncreportcards.org/src/

- Pena, D. C. (2000). Parent involvement: Influencing factors and implications. *Journal of Educational Research*, 94, 42–54.
- Reay, D. (1999). Linguistic capital and home-school relationships: Mothers' interactions with their children's primary school teachers. *Acta Sociologica, 42,* 159–168.
- Reed-Danahay, D. (2005). *Locating Bourdieu*. Bloomington: Indiana University Press. Robbins, D. (2000). *Bourdieu & culture*. Thousand Oaks, CA: Sage.
- Schreiber, J. B. (2002). Institutional and student factors and their influence on advanced mathematics achievement. *Journal of Educational Research*, *95*, 274–286.
- Scribner, J. D., Young, M. D., & Pedroza, A. (1999). Building collaborative relationships with parents. In P. Reyes, J. D. Scribner, & A. Paredes Scribner (Eds.), *Lessons from high-performing Hispanic schools: Creating learning communities* (pp. 36–60). New York: Teachers College Press.
- Seginer, R., & Vermulst, A. (2002). Family environment, educational aspirations, and academic achievement in two cultural settings. *Journal of Cross-Cultural Psychol*ogy, 33, 540–558.
- Smith-Maddox, R. (1999). The social networks and resources of African American eighth graders: Evidence from the National Education Longitudinal Study of 1988. *Adolescence*, 34, 169–183.
- SPSS. (2003). SPSS for Windows (Version 12.0). Chicago: Author.
- Stevenson, H. W., Chen, C. S., & Uttal, D. H. (1990). Beliefs and achievement—A study of Black, White, and Hispanic children. *Child Development*, 61, 508–523.
- Valdes, G. (1996). Con respeto: Bridging the distances between culturally diverse families and schools: An ethnographic portrait. New York: Teachers College Press.
- Valencia, R. R. (1997). Conceptualizing the notion of deficit thinking. In R. R. Valencia (Ed.), *The evolution of deficit thinking: Educational thought and practice* (pp. 1–12). Bristol, PA: Falmer.

Manuscript received August 8, 2005 Final revision received January 15, 2006 Accepted February 2, 2006