

# 8

## Effective Language Instruction for African American Children

Holly K. Craig

---

A black–white achievement gap characterizes the performances of African American students and their non-Hispanic white peers. Is the black–white achievement gap simply a poverty gap? The development of effective instructional strategies designed to eliminate the black–white achievement gap depends on the answer to this question. If the achievement gap is due to and synonymous with a racial poverty gap, then there is no imperative to develop instructional strategies specific to African Americans. Any instructional strategy designed to overcome the profoundly harmful effects of poverty on learning also should succeed in reducing the black–white achievement gap. If, however, poverty does not explain the achievement gap and unique factors are contributing to poorer academic outcomes for African American students, then the nature of these distinctive barriers must be understood and addressed.

This chapter discusses the role of poverty in underachievement by African American students. The thesis of this chapter is twofold. First, poverty has the potential to affect the academic achievement of any student in profoundly negative ways. Thus, poverty matters to the academic achievement of the nation's African American students because disproportionately high numbers of African American students live in low socioeconomic status (LSES) homes. Second, poverty alone

---

This work was supported by the Center for Improvement of Early Reading Achievement (CIERA) at the University of Michigan through the U.S. Department of Education, Office of Educational Research and Improvement, Grant R305R70004; the U.S. Department of Education, Office of Educational Research and Improvement, Grant R305T990368; and the National Institutes of Health, National Institute of Deafness and Other Communication Disorders, Grant 1 RO1 DC 02313-01A1. Stephanie Hensel, Erin Quinn, and Lingling Zhang are all actively involved in the program of research on which this chapter is based. Their contributions to the ideas represented here are gratefully acknowledged.

is not a sufficient explanation for the black–white achievement gap. A number of other potential influences must be considered. As discussed later in this chapter, oral language skills are an important new direction in this line of research, with critical implications for strategic instruction with many African American students.

### WHAT IS THE BLACK–WHITE ACHIEVEMENT GAP?

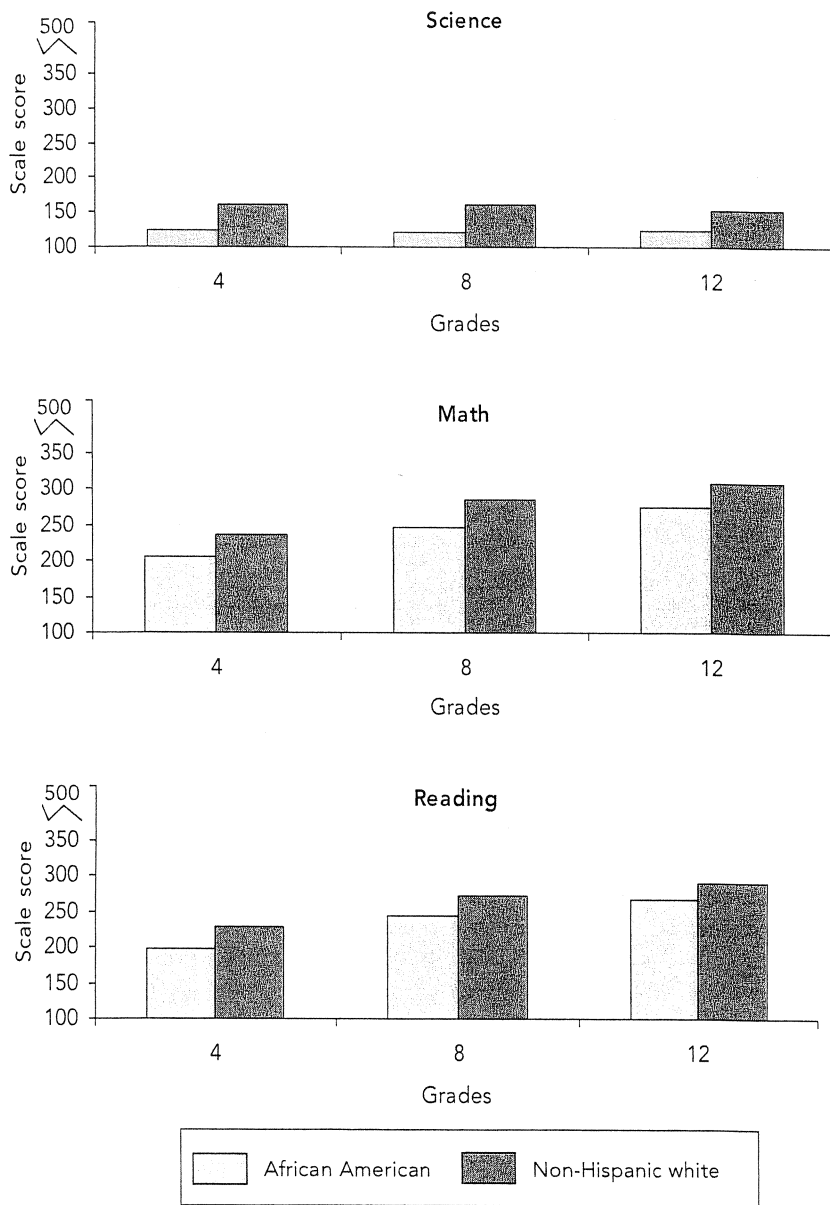
The black–white achievement gap is a term used to refer to the performance disparities between African American and non-Hispanic white students. The gap is long-standing. It was initially recorded in the early 1900s at a time when performance comparisons were first beginning to be made (Fishback & Baskin, 1991). The gap has spanned the many subsequent generations and continues essentially unabated today.

The black–white achievement gap includes a black–white test score gap (Jencks & Phillips, 1998), such that African American students are much less likely than their non-Hispanic white peers to perform at basic competency levels on major tests. For example, the prevalence of reading below basic levels in fourth grade is much greater for African American students than their non-Hispanic white peers—58% compared with 24% on the 2005 administration of the National Assessment of Educational Progress (NAEP; Perie, Grigg, & Donahue, 2005). The black–white test score gap is observable at school entry, continues through high school, and characterizes performances across all major content areas. To illustrate, Figure 8.1 displays performance disparities in three major academic content areas, for elementary grades through high school, on administrations of the NAEP (Braswell et al., 2001; Grigg, Daane, Jin, & Campbell, 2003; O’Sullivan, Lauko, Grigg, Qian, & Zhang, 2003). Regardless of grade or academic content area African Americans score lower than their non-Hispanic white peers.

The achievement gap is not limited to test score differences. Disparities are observable on almost any measure of achievement used to compare African American and non-Hispanic white students. Further, the achievement gap continues into adulthood. On many major benchmarks of adult success, African Americans attain lower levels than non-Hispanic whites. Table 8.1 provides some critical examples for children and adults.

### WHAT IS THE BLACK–WHITE POVERTY GAP?

A black–white poverty gap also exists. Poverty is often defined operationally in terms of family income. Family income determines access to a variety of important fundamentals such as food, shelter, clothing, and medical care. When these necessities are inadequate, a child’s health can be compromised with deleterious effects on a wide-ranging array of learning factors, including school attendance (Rooney et al., 2006) and cognitive development (Bradley & Corwyn, 2002). Homes where parents cannot provide financially for their children are characterized by high levels of stress and can create a context ripe for the emergence of be-



**Figure 8.1.** Average scale scores on the National Assessment of Educational Progress across three subjects. (Sources: Braswell et al., 2001; Grigg, Daane, Jin, & Campbell, 2003; O'Sullivan, Lauko, Grigg, Qian, & Zhang, 2003.)

avior and socioemotional difficulties (McLoyd, 1990), which impede learning. Students from low-income homes often attend lower-quality schools and are taught by poorer-quality teachers with lower expectations for achievement,

**Table 8.1.** Important achievement indicators for African Americans and non-Hispanic whites

Indicator	African American	Non-Hispanic white
<b>Students</b>		
Grade retention for elementary and secondary students	18%	9%
Suspensions/expulsions for elementary and secondary students	35%	15%
High school drop-outs	13%	7%
Number of students per 1,000 taking Advanced Placement exams	53	185
18- to 24-year-olds in college or universities	31%	39%
Children living in poverty	31%	9%
<b>Adults</b>		
Median earnings (in year 2000) for adult males 25 years and over	\$28,167	\$36,668
25- to 29-year-olds who have a bachelor's degree or higher	18%	34%
Unemployment for 16- to 24-year-olds	18.5%	7.4%
Births per 1,000 15- to 19-year-old females	82	33

Note: Data taken from Hoffman & Llagas (2003).

thereby perpetuating inequalities at the “starting gate” (Lee & Burkham, 2002). Children living in low-income homes also have access to fewer community resources, and those that are available tend to be of poorer quality. Further, students from low-income families live in communities where libraries, museums, and other educationally enriching resources are scarce (Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993; Hoffman & Llagas, 2003).

The rates of child poverty for African American children are far greater than for non-Hispanic whites. African American students are three times as likely to be living in poverty as non-Hispanic white students; 31% of African American children live in poverty compared with approximately 9% of non-Hispanic white children (see Table 8.1). Overall and compared with their non-Hispanic white peers, therefore, the population of African American children is at risk for being affected acutely and negatively by poverty and its covariates.

## MEASURING POVERTY

In any discussion of the black–white gaps in achievement and poverty, it is important to acknowledge the many measurement issues that complicate poverty research and exercise appropriate caution when interpreting results. (See, for example, Duncan & Magnuson (2005) for a fuller discussion of measurement issues.) There is no single, best measure of socioeconomic status (SES; Liberatos, Link, & Kelsey, 1988). Poverty is a complex and multidimensional concept, often result-

ing in combined effects across a number of more discrete variables. Many scholars adopt the term *SES* to represent social stratification. In their research they compare low- and middle socioeconomic status (LSES [as stated previously] and MSES, respectively) homes, in part as a better way to capture the multiplicity of variables and covariates affecting a child living in impoverished circumstances.

For more than a decade at the University of Michigan, we have been examining language and literacy relationships for African American students. Our approach to measuring poverty and its covariates has been to create a binary variable and designate families as either LSES or MSES. Some students qualified for the free or reduced-price lunch program, meeting the federal qualifications for the program, and therefore, were designated LSES. Most students were classified as LSES or MSES based on the Hollingshead Four Factor Index of Social Status (HI; Hollingshead, 1975) using self-reported family data. Rather than determining poverty status based on income, the HI considers four types of information: caregiver education, caregiver occupation, gender, and marital status. The HI uses weighted scores from these factors to identify five social strata, the lowest level being unskilled labor and menial service work and the highest level being major business and professional-level work. This scale has the advantage, therefore, of not depending on a single measure but of being the composite of a set of potentially influential variables, including the maternal/caregiver education variable. Maternal education is known to be an important predictor of reading achievement (Chall, Jacobs, & Baldwin, 1990; Entwisle, Alexander, & Olson, 1997) and of foundational reading skills, such as vocabulary breadth (Washington & Craig, 1999). Further, the scale is scored from information provided fairly readily by families, avoiding more sensitive reporting about household income, which may yield high no-response rates (Entwisle & Astone, 1994). In addition, the occupation factor is tied to the titles and codes in the U.S. Census; therefore, new employment categories (e.g., software programmer) can be fit fairly readily into the 9-point occupation scale, thereby maintaining its currency.

Unfortunately, there is little guidance in the extant literature about how to apply the specifics of the HI to African American families, and it may be appropriate to develop more precise guidelines. Assignment of the same social strata score to African Americans and non-Hispanic whites may not capture real differences that exist between the two groups. For example, African American male adults earn about 25% less than their non-Hispanic white peers (see Table 8.1). Earning differentials persist even when controlling for years of education (Hoffman & Llagas, 2003). Accumulated assets and overall wealth are other significant financial differences that distinguish the two populations. African Americans are less likely than their non-Hispanic white peers to inherit money from the prior generation, and when inheritances are received, they are smaller. African Americans are less likely than non-Hispanic whites to be gifted sizeable amounts of money at times representing significant life events, for example, receiving family financial assistance toward the purchase of a first home (Darity & Nicholson, 2005).

In this context of unknown measurement guidelines, we adopted a fairly pragmatic approach to the problem of defining SES within our sample. We designated families as LSES when their scores fell within the two lowest levels of the HI strata and as MSES when their scores fell within the two highest strata. The middle stratum was less clear, and designations were made on a case-by-case basis that considered occupation and gender. In particular, if the HI for a female head of household in one family and a male head of household in another both fell in the middle stratum, the female was considered LSES and the male MSES because of differential wages for males and females performing the same jobs (Spraggins, 2000). This binary SES variable has been informative in a number of studies (Craig & Washington, 1994; Craig, Washington, & Thompson, 2005; Washington & Craig, 1998).

### **IS THE BLACK-WHITE ACHIEVEMENT GAP JUST ANOTHER MANIFESTATION OF THE BLACK-WHITE POVERTY GAP?**

Are the poverty and achievement gaps between African American and non-Hispanic white Americans simply the same thing? This question has merit because so many African American children are impoverished, and poverty disadvantages children for learning. The historical literature on achievement shows that the knowledge base on this topic was built in part on the faulty practice of comparing LSES African Americans to MSES non-Hispanic whites so that past research designs often confounded race and socioeconomic status (Graham, 1992; Hill, Murry, & Anderson, 2005; McLoyd & Randolph, 1985). It would be unfortunate if improving our understanding of the methodological flaws of past research results in a dismissive assumption that the achievement gap has no validity apart from the poverty gap. As Meier (2002) observed, the assumption that the black-white achievement gap is really a poverty gap is more comfortable for many Americans. Poverty is a broad societal problem rather than a specific educational one; therefore, if we believe that underachievement by African Americans is a result of poverty, as educators we may feel little specific responsibility to address the problem. If, however, poverty is only part of the cause and other factors are involved, then we must rally our resources and find any education-based solutions with potential to ameliorate the full set of problems causing underachievement.

The limited research on the language and literacy development of African American children provides remarkably little focused inquiry on the impact of SES. Socioeconomic status may be included as a sample descriptor for the African American participants, but it is not often included as a control variable nor is it examined for its potential as a predictor or covariate. This is unfortunate because, when considered as part of the research design, SES has been quite revealing. To illustrate, Craig, Connor, and Washington (2003) followed two cohorts of young African American students across the early elementary grades and found that their performance trajectories differed by SES. At the time of project entry, Cohort 1

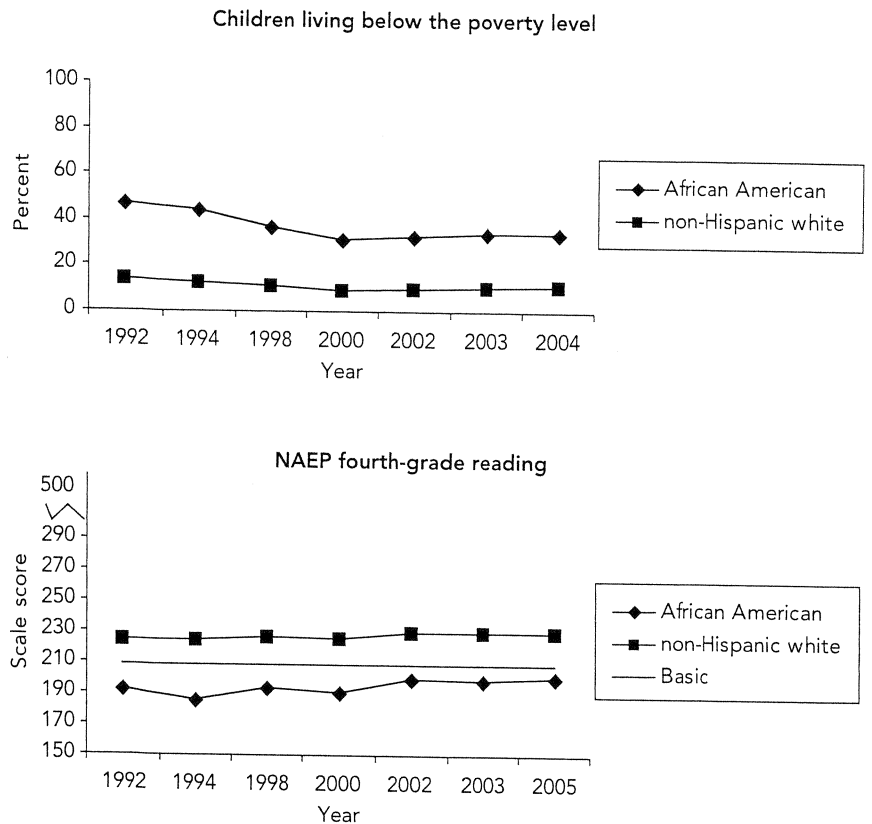
was comprised of preschoolers from LSES homes enrolled in a state-funded program for children at risk, which emphasized early language and literacy learning. Cohort 2 was comprised of kindergartners from MSES homes. All resided in the same community and attended the same schools. Despite differences in SES at the outset, by first grade, the LSES cohort was performing as well as the MSES cohort, and by second and third grades, the LSES cohort was outperforming the MSES cohort on standardized tests of reading. It appeared that the high-quality early childhood program experienced by the LSES preschoolers yielded measurable and durable benefits, which mitigated at least in part the effects of their economic disadvantage.

In addressing this question of explanatory overlap between the achievement and poverty gaps, I draw from two data sources and focus specifically on achievement in reading. First, insights can be gleaned from published reports of national databases. Second, I discuss trends apparent in data gathered during the last decade as a part of my own research program at the University of Michigan. I draw on these sources to lay out the case that poverty alone is an insufficient explanation for the black–white achievement gap.

### National Trends Based on Family Income

Figure 8.2 displays data gathered from national sources on the percentage of children younger than 18 years living in poverty (U.S. Census Bureau, n.d.) and on reading achievement (Perie et al., 2005) for approximately the same time frame, disaggregated by race. In 1992, 46% of African American children lived in poverty compared with 13% of non-Hispanic whites, a gap of 33%. In 2000, the childhood poverty gap narrowed from 33% to 22% (the difference between 31% for African American children and 9% for non-Hispanic whites). It is noteworthy that although 4% fewer non-Hispanic whites were living in poverty, a remarkable 15% fewer African American children were living in poverty during this time frame. Most of this narrowing in the gap occurred between 1992 and 2000, during a period of strong economic growth in the United States. Since then, there has been a leveling off of the poverty differences between black and non-Hispanic white Americans, corresponding to a time of slower economic growth. Whereas African American families have less accumulated wealth to buffer them in times of financial need (Darity & Nicholson, 2005), they are particularly dependent on the health of the U.S. economy for their own financial well-being (Lamb, Land, Meadows, & Traylor, 2005). By implication, when the U.S. economy rebounds, progress in closing the black–white poverty gap should resume. If the economy then remains healthy, even though poverty per se will not be eliminated, we might hope to see an end to the childhood poverty gap between the races within our lifetimes.

Did this considerable improvement in childhood well-being for African American students correspond to an appreciable narrowing of the black–white



**Figure 8.2.** The percentages of African American and non-Hispanic white children younger than 18 years living in poverty in the United States (U.S. Census, n.d.) from 1992 to 2004 and National Assessment of Educational Progress (NAEP; Perie, Grigg, & Donahue, 2005) scale scores for fourth-grade reading from 1992 to 2005.

test score gap for reading? Examination of NAEP 4th-, 8th-, and 12th-grade data indicates that this was not the case. By way of example, during approximately the same time span, from 1992 to 2005, an examination of 4th-grade reading scores from the NAEP for African American students revealed a gain of 8 scale score points. As a group, therefore, African American students were performing closer to the basic level (score of 208 out of 500), one of three achievement levels on the NAEP indicating partial mastery of prerequisite knowledge and skills for reading. Non-Hispanic whites, however, improved as well, up 5 scale score points. These improvements for both populations, therefore, netted only a very small narrowing of the reading gap, by 3 points. Overall, as the poverty gap decreased, the reading test score gap also decreased, but negligibly. See Figure 8.2 for the 4th-grade data. By implication, if this rate of progress were to continue in the forth-



coming decades, it could take approximately 150 years to close the black–white test score gap in reading! Overall, there is regrettably little evidence from these national trends that a significant decrease in poverty levels will yield a measurable improvement in reading levels. Based on these national data, it seems unlikely that eliminating the black–white poverty gap will eliminate the black–white achievement gap for reading.

### The University of Michigan Data

Approximately 270 of the African American students enrolled in the elementary grades in public schools in southeast lower Michigan who have participated in studies within our research program have scores available from standardized reading tests. The performances of these students constituted the basis for these analyses. Communities within southeast lower Michigan varied in the sample, although most of the students ( $n = 155$ , 76%) were residents of an urban-fringe community of Detroit. Approximately half of the students were male, and half were female. Forty-six percent of the children were from LSES homes, and fifty-four percent were from MSES homes. When interpreting their reading performances, it is noteworthy that students in the LSES and MSES groups showed no significant performance differences on a nondiscriminatory measure of general cognitive skill, the Triangles subtest of the Kaufman Assessment Battery for Children (K-ABC, Kaufman & Kaufman, 1983). Therefore, any achievement differences observed between the two groups were not due to significant differences in cognitive skill. Reading tests were administered by the schools and included the Metropolitan Achievement Test (MAT; 1993) for second and third graders and the Michigan Educational Assessment Program (MEAP; 1999–2001) for fourth graders. Test scores were converted to  $z$ -scores for analysis purposes.

When the data were collected, the research questions focused specifically on the language and literacy development of typically developing African American students. Although the focus of this research was not on the role of poverty, information about SES has been collected consistently. Therefore, this data set situates us very well to ask how African American students from LSES homes are faring academically compared with other members of the same population, particularly African American students living in the same communities and attending the same schools but from MSES homes.

Oral language comprehension and production and standardized scores of reading achievement were available for all students. See Table 8.2 for the oral language measures. Examination of the data using factor analysis revealed a fairly clear pattern in which there were two oral language skill components (see Table 8.3). Component I was labeled a Comprehension Factor (COMP) representing the common unobserved variable that was strongly related to standard scores on the Peabody Picture Vocabulary Test–Third Edition (PPVT-III; Dunn & Dunn, 1997) and the number of correct responses on a *wh*-question (Wh-q; Craig &

**Table 8.2.** The oral language comprehension and production measures

Domain	Skill	Performance measure
Oral language comprehension (COMP)	Vocabulary size and diversity	Standard scores, Peabody Picture Vocabulary Test—Third Edition (PPVT-III; Dunn & Dunn, 1997) <sup>a</sup>
	Understanding requests	Number of targeted responses on a <i>wh</i> -questions task (Wh-q; Craig & Washington, 2000)
Oral language production (PROD)	Narrative sentence production (Craig et al., 2005)	Complex syntax rates (Csyn) Mean length of communication units, in words (MLCU) Number of different words in sample (NDW)

<sup>a</sup>PPVT-III, a nondiscriminatory revision of the earlier versions of the Peabody Picture Vocabulary Test, Third Edition (Dunn & Dunn, 1997).

Washington, 2000) task. Component II was labeled a Production Factor (PROD), representing the common latent variable that was strongly related to complex syntax rates (Csyn); mean lengths, in words, of communication units (MLCU); and the number of different words (NDW) in the sample. Component I explained 29%; Component II, 44%; and the two components together explained 73% of the total variation among the five performance measures.

### Direct Effects of Socioeconomic Status on Reading Achievement

For the purposes of the present discussion, structural equation modeling (SEM) was adopted because of its utility in examining the relative strengths of potential interrelationships among variables, especially when latent factors are involved (Kline, 2005). The SEM was tested with the covariance matrix of 269 partici-

**Table 8.3.** Varimax-Rotation Principal components analysis

Performance measure	Component I	Component II	Communalities
PPVT-III	.834	.105	.707
Wh-q	.828	.119	.700
Csyn	.066	.858	.740
MLCU	.056	.939	.884
NDW	.245	.739	.606
Percent total variance	28.99%	43.76%	72.75%

Key: Csyn, percentage frequencies of complex syntactic forms; MLCU, mean length of communication units in words; NDW, numbers of different words; PPVT-III, Peabody Picture Vocabulary Test—Third Edition (Dunn & Dunn, 1997); Wh-q, frequency of correct responses on *wh*-questions task.

pants, using Amos 6.0 statistical software (Arbuckle, 2005). Using SEM, relationships among our binary LSES and MSES groupings, oral language skills (COMP and PROD), and reading (READ) were examined. See Table 8.4 for results. The model was a good fit to the data:  $\chi^2(9) = 14.949$ ,  $p = .092$ , RMSEA = 0.050, 90% CI = (0, 0.093).<sup>1</sup>

The SES model showed a statistically significant direct effect of SES group on READ after controlling for COMP and PROD (see Figure 8.3). Although the direct pathway was statistically significant, the effect was not a strong one (unstandardized coefficient = .247;  $p = .044$ ). The finding that SES exerted a direct effect on reading achievement for African American students is consistent with a study by Nievar and Luster (2006), which examined the reading recognition skills of African American students in one of the very few studies of SES and reading with this population. Their measurement of SES was an income-to-poverty ratio, and when a variety of other variables were controlled that related to family processes, family income in early childhood was found to exert a significant direct effect on later reading recognition scores.

### Comparison of Reading Outcomes by Socioeconomic Status Group

Whereas SES exerted a direct, although not strong, influence on reading, differences in reading performances between the two groups were probed further. Within our larger data set, we have standardized reading achievement scores for 155 first- through fourth-grade boys and girls from LSES and MSES homes, all residing in the same urban-fringe community. I draw from this subset in the discussion that follows.

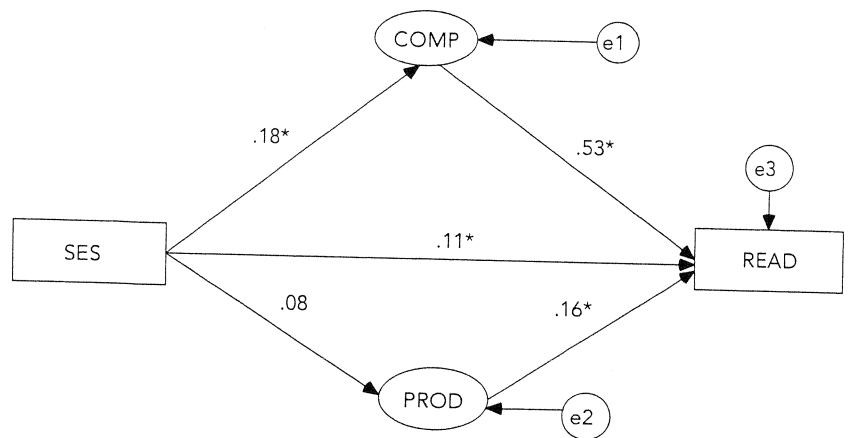
Regardless of SES, second, third, and fourth graders all performed below the expected standard  $z$ -score mean ( $M = 0$ ) (see Table 8.5). The reading tests were

**Table 8.4.** Regression weights estimates for the model

	Estimate	Standard error	Standardized estimate	Critical ratio	$p$
SES → COMP	4.034	1.728	0.178	2.335	.020
SES → PROD	0.023	0.021	0.078	1.098	.272
COMP → READ	0.051	0.012	0.535	4.414	***
PROD → READ	1.177	0.552	0.161	2.131	.033
SES → READ	0.247	0.123	0.114	2.017	.044

Note:\*\*\*  $p < .001$ ; COMP, Comprehension Factor; PROD, Production Factor; READ, Reading Standard Scores; SES, socioeconomic status.

<sup>1</sup>For RMSEA (root mean square error of approximation):  $\leq 0.05$ , close approximate fit;  $> 0.05$  and  $< 0.08$ , reasonable error of approximation, good fit (McDonald & Ho, 2002).



**Figure 8.3.** The relationships among socioeconomic status (SES) based on the low SES (LSES) and middle SES (MSES) groupings; the oral language factors (Comprehension Factor [COMP], Production Factor [PROD]); and reading outcomes (READ). (\*Statistically significant, see Table 8.4 for  $p$  values.)

normed on the general population, and as such the test means ( $M$ ) and standard deviations ( $SD$ ) provide an estimate of the performance of the Michigan urban-fringe sample of African American students compared with state and national samples of students. Accordingly, the Michigan African American students were not performing at test levels expected for the general population. Their performance was within normal expectations but fell in the lower half of the expected performance distribution, consistent with national trends for African American students.

We expected SES to contribute to the reading outcomes of African American students, and this was observed. In our Michigan data set, however, the effects were grade-sensitive (see Table 8.5). In first grade, significant differences were observed between groups, with the MSES students performing close ( $M = .02$ ) to the expected  $z$ -score mean ( $M = 0$ ), whereas the LSES students performed considerably lower ( $M = -.69$ ). After first grade, performance differences by SES group largely disappeared. For students in Grades 2–4, most students performed below the standard  $z$ -score mean, regardless of SES group membership (73% of LSES and 69% of MSES). The mean  $z$ -scores were not significantly different by SES [ $t(99) = .810, p = .420$ ], and the amount of score dispersion was comparable by group as well. Figure 8.4 displays these relationships as box plots.

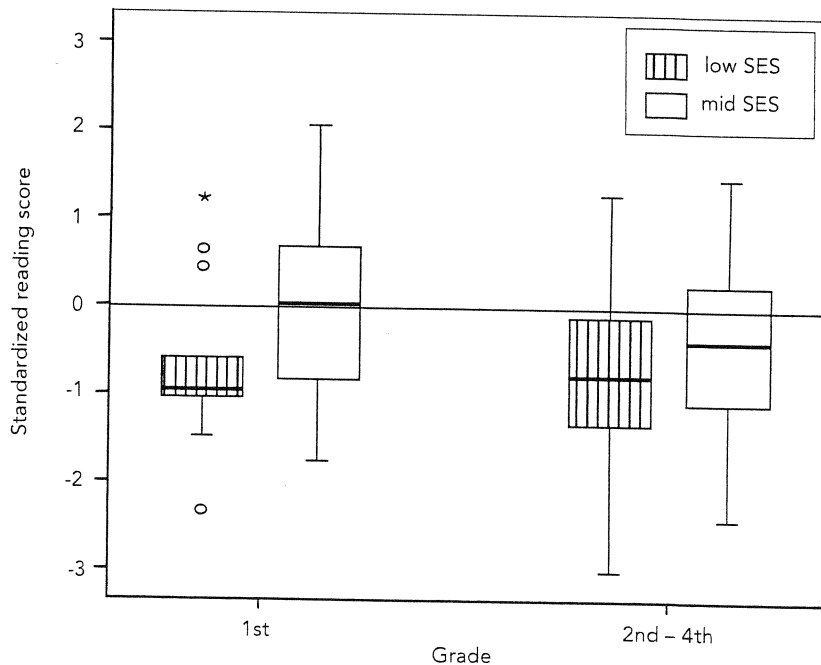
It is not surprising that children are most similar to their families early in the school years, when the potential influences of schooling have not yet had an opportunity to take effect. These trends are consistent with the observations of Lee and Burkham (2002) that poverty exerts its greatest impact at the time of school entry. For African American children, schooling seems to level the effects of

**Table 8.5.** Mean (*M*) and standard deviation (*SD*) reading achievement z-scores for African Americans in Grades 1–4 by socioeconomic status

	Grade 1	Grade 2	Grade 3	Grade 4
<b>LSES <i>M</i></b>	-0.69	-0.62	-0.74	-0.65
<i>SD</i>	0.90	1.00	0.88	1.04
<i>n</i>	15	13	16	4
<b>MSES <i>M</i></b>	0.02	-0.46	-0.49	-0.66
<i>SD</i>	0.99	0.90	0.86	1.01
<i>n</i>	39	28	21	19
<b>Difference</b>	0.71	0.16	0.25	0.01
<i>p</i>	.019*	.608	.397	.993

Key: \* $p < .05$ ; LSES, low socioeconomic status; *M*, mean; MSES, middle socioeconomic status; *n*, number in subsample; *p*, probability; *SD*, standard deviation.

poverty and close the performance gap between LSES and MSES African American students. It appears that this is accomplished by having the MSES students lose ground the longer they attend school, in terms of their relative position to the expected test score means. Unfortunately, the leveling effect is not accomplished by having the LSES students make substantial gains.



**Figure 8.4.** Box plot of reading achievement z-scores for first graders and for second to fourth graders by socioeconomic status (SES).

## Role of Oral Language in Early Literacy Experiences

When searching for potential factors contributing to the black–white achievement gap, linguistic differences between African American and non-Hispanic white children are important considerations because early oral language skills lay the foundation for literacy growth (Snow, Burns, & Griffin, 1998). Although often framed in educational contexts as an emergent reading skill, for African American students it is also important to consider the oral language processes that underlie introductions to literacy.

Prior to school entry, many African American students have early language–literacy experiences that differ from those of their non-Hispanic white peers. Early exposure to stories in African American homes often takes the form of oral, collaborative, fictionalized narratives (Heath, 1983; Vernon-Feagans, 1996). This oral tradition differs from the storybook reading that characterizes early language–literacy linkages for non-Hispanic whites, which is so predictive of later reading skills in the general population (Bus, van IJzendoorn, & Pelligrini, 1995; Scarborough & Dobrich, 1994). Furthermore, compared with their non-Hispanic white peers, African American preschoolers own fewer books and may not be read to on a daily basis (Federal Interagency Forum on Child and Family Statistics [FIFCFS], 2003; Nettles & Perna, 1997). First experiences with print may arise from environmental exposures, for example, learning to recognize trademarks or signage (Craig & Washington, 2004b; Purcell-Gates, 1996), and these environmental forms may not present conventional sound–symbol correspondences.

Although all children experience environmental print at an early age, the primacy of this exposure for urban African American children is noteworthy because of the lack of balance with storybook reading. Early grade teachers, therefore, may play a particularly critical role for African American students by helping these children disentangle the variations adopted for public and commercial purposes (e.g., the pronunciation of *Nike* versus *came*) and the rules underlying conventional sound–letter associations found in books. Parents can become important allies in this process. For example, African American parents can read to their children the books that are sent home by teachers (Connor, 2002; Robinson, Larsen, & Haupt, 1996). In the context of increasing adult literacy levels among African American adults, home book programs may be of special importance for African American families. Home book programs are designed to increase the number of books in the home, thereby supporting increased frequencies of daily book-reading activities (Robinson et al., 1996) and the forging of stronger associations between conventional sound–symbol correspondences that are so important to early reading acquisition.

## Role of Oral Language for Elementary-Grade Students

Since the 1990s, the oral language skills of African American elementary-grade students have been the focus of intensive inquiry, motivated in part by the recog-

dition that oral language skills play an important role in reading acquisition; yet, tools for examining the oral language skills of African American students were biased (Arnold & Reed, 1976; Taylor & Payne, 1983; Wiener, Lewnau, & Erway, 1983). For example, an early and widely used version of the Peabody Picture Vocabulary Test-Revised (PPVT-R, Dunn & Dunn, 1981) has consistently been shown to discriminate against African American students (Adler & Birdsong, 1983; Kresheck & Nicolosi, 1973; Washington & Craig, 1992) but continues to be used as a major measure of their oral language skill (National Institute of Child Health and Human Development Early Child Care Research Network, 2005).

Oral language reference profiles for syntax and semantics in the form of both expressive and receptive skills, as well as culture-fair tools for their assessment, are now available for African American preschoolers through fifth graders (Craig & Washington, 2006; Craig et al., 2005; Jackson & Roberts, 2001; Seymour, Bland-Stewart, & Green, 1998; Seymour, Roeper, & de Villiers, 2003; Thomas-Tate, Washington, Craig, & Packard, 2006). Although studies of the interrelationships among specific oral language skills and reading in this population are scarce, those available are promising. They show that early preschool syntax and phonological knowledge predict second- and third-grade reading skills of African American students (Craig, Connor, et al., 2003; Poe, Burchinal, & Roberts, 2004), and it is well-established that both of these aspects of language are amenable to change (Castles & Coltheart, 2004; Fey, Cleave, Long, & Hughes, 1993).

Our Michigan data set reveals some important relationships between SES, oral language skills, and reading achievement. Although in the Michigan data set SES made a statistically significant contribution to reading achievement scores, oral language skills contributed more (see Figure 8.3). Both of the language factors were significantly related to READ (COMP:  $p < .001$ ; PROD:  $p = .033$ ).

Socioeconomic status was significantly related to one of the language factors, COMP ( $p = .020$ ), but not to PROD ( $p = .272$ ). COMP had a higher prediction power (.53) on reading than SES (.11). For every one standard deviation increase in COMP, READ increased by approximately one half of a standard deviation. The predictive power of PROD was much lower (.16). There was a statistically significant indirect effect of SES on READ through COMP (Sobel test,  $z = 2.046$ ,  $p = .041$ ), but there was no indirect effect through PROD (Sobel test,  $z = 0.974$ ,  $p = .330$ ). This indirect effect of SES on READ through COMP appeared to be of approximately the same magnitude (.18) as the direct effect of SES on READ (.11). Furthermore, the total effect of SES on READ (sum of direct and indirect effects = .29) was less than the effect of the oral language factor COMP (.53) on READ.

The model outcomes underscore the importance of oral language skills for reading achievement and further indicate that SES exerted both direct and indirect effects on these reading outcomes of African American students. The indirect effects of SES exerted their influence through oral language comprehension, and overall, oral language comprehension skills were the strongest predictor of reading achievement in the model.

## Contribution of Dialect to Reading Outcomes

Not considered in this model is the potential impact of another important language characteristic: the student's status as a dialect speaker. The heritage language of many African American students is African American English (AAE), a rule-governed variety of English associated with African American culture. AAE is not an inferior form of Standard American English (SAE), and the legitimacy of this language variation is no longer debatable (Green, 2002). Despite its validity as a linguistic form, however, many educators have not, and do not, value AAE. Uninformed prejudices against the legitimacy of AAE perpetuate negative stereotypes. Negative stereotypes can undercut more constructive attempts to improve understanding of this heritage language form and to build literacy skills in students who are AAE speakers. This is no longer a question of linguistic validity; it is a question of values. Educational leaders should find ways to eliminate linguistic prejudice. Teachers must value the cultural backgrounds of all of their students and equip African American students for the language demands of the classroom and curriculum.

In our northern U.S. sample of African American students living in Michigan, we observed approximately 40 different AAE features characterizing the spontaneous discourse of school-age children (Craig, Thompson, Washington, & Potter, 2003; Washington & Craig, 1994). These features evidenced systematic morphological and phonological variations from other varieties of English. For children from LSES homes, greater AAE feature production rates were positively correlated with more sophisticated syntactic and semantic skills at the time of school entry (Craig & Washington, 1994, 1995). In other words, for young, urban LSES African American students, being a heavy dialect user was not a deficiency; it was a sign of greater linguistic skill.

A number of scholars have proposed that African American students shift away from AAE toward SAE with increased exposure to the mainstream dialect, particularly during schooling (Adler, 1992; Battle, 1996; Fishman, 1991; Ratusnik & Koenigsknecht, 1975). Several studies (Charity, Scarborough, & Griffin, 2004; Connor & Craig, 2006; Craig & Washington, 2004a) have demonstrated that AAE feature production rates bear an important relationship to reading achievement. In these studies, African American students who shifted away from their heritage dialect forms in school contexts and adopted the SAE forms of classrooms and the curriculum scored better on standardized tests of reading achievement.

Specifically, Charity et al. (2004) observed that greater linguistic familiarity with SAE as measured by exact repetition of SAE sentences correlated with higher scores on the Woodcock Reading Mastery Tests-Revised (WRMT-R; Woodcock, 1987) for kindergarten- to second-grade African American students. In the Michigan data, we observed that AAE feature production rates underwent two shifts and have proposed that the significance of the shifting process is not circumscribed to the spoken linguistic domain but has an important impact on

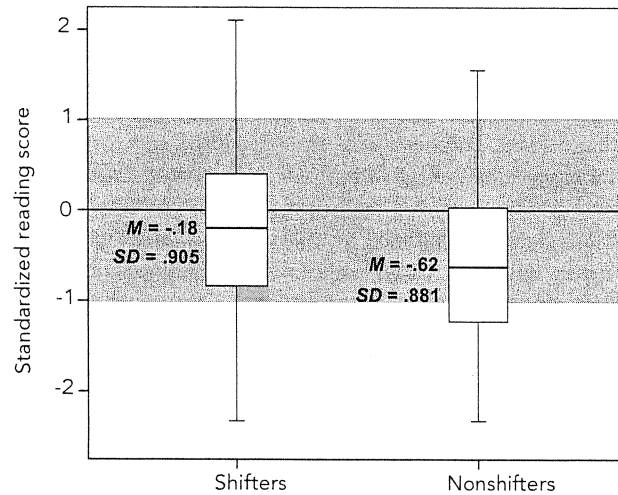


reading success. We found that students who were speakers of AAE demonstrated a significant downward rate of AAE feature production during oral discourse between the middle to end of kindergarten and the middle to end of first grade (Craig & Washington, 2004a). We observed a second shift, in third grade, during oral reading (Craig, Thompson, Washington, & Potter, 2004). The first shift substantially reduced the rate of morphological types of AAE features, and the second shift substantially reduced the rate of phonological features. It is noteworthy that the first shift corresponded to the transition to full-day instruction and the second to the curricular transition away from emphasizing the decoding of text to a focus on comprehension.

This pattern of linguistic adaptation characterized the discourse of approximately two thirds of the African American first to fifth graders in our sample of African American students; however, approximately one third of the students showed no evidence of dialect shifting (Craig & Washington, 2004a). Students who shifted away from their heritage language forms toward the SAE of classrooms and text did so in the absence of direct instruction in SAE. Of particular importance for the present discussion, the shifters scored better on standardized tests of reading achievement than those who did not make this shift (Craig & Washington, 2004a). As can be seen in Figure 8.5, most of the dialect shifters scored within one standard deviation of the expected reading *z*-score mean, and their average group score was considerably better than that of the students who did not shift: independent  $t(197) = 3.21, p = .002$ , effect size  $d = 0.72$ .

A major limitation in much of this research is the cross-sectional nature of the research designs. Lower dialect production levels across grades and differences in dialect production rates with language and literacy contexts have been interpreted as evidence that individual students are shifting their morphological and phonological forms away from AAE toward SAE. In the Michigan data, we do have repeated measures on 22 typically developing African American students assessed first as preschoolers or kindergartners and a second time between first and fifth grades. Dialect production rates decreased over time again for most students (approximately two thirds), confirming the relationship observed in our cross-sectional data between grade and dialect shifting (Craig, Hensel, & Quinn, 2005).

African American elementary-grade students also showed differences in their feature production rates by context, providing further support for the view that many African American students undergo a process of linguistic adaptation as part of early schooling. Thompson, Craig, and Washington (2004) compared the feature production of third-grade students in three different language-literacy contexts, using repeated measures analyses. Every student produced AAE features during oral narratives, most did so when reading aloud text written in SAE (92%), but only 62% produced AAE features during a spontaneous writing task involving the generation of a brief story. In other work, Connor and Craig (2006) observed that more linguistically skilled preschoolers showed evidence of dialect shifting between production contexts even at this early grade. Preschoolers who



**Figure 8.5.** Box plots of z-scores for first through fifth graders who shifted toward Standard American English in their discourse and those who did not (the shaded areas correspond to  $\pm 1$  standard deviation, the expected performance range).

used AAE features with greater frequencies during oral narrative production generally demonstrated better knowledge of SAE compared with students who were lower feature producers, as evidenced by better imitation of SAE sentences. For many of these children, we found that heavy AAE use in preschool was related to greater linguistic flexibility and metalinguistic awareness, placing these children at lower risk for later reading difficulties.

Together, these language studies indicate that African American students who beat the odds, regardless of early economic disadvantage, are children with strong oral language skills. Better oral language skills at school entry include being strong dialect speakers. AAE is not a problem; it is lack of additional skill in SAE and in oral language comprehension that is problematic. Across the elementary grades, African American children with strong language skills are dialect speakers who have the linguistic flexibility to learn to adapt to the discourse practices of the curriculum and text, which is advantageous in their performance on standardized tests of reading achievement. Language sophistication is a key variable to the school success of African American students. African American students who speak AAE and also learn to speak SAE have the potential to do well in school. Instructional strategies for AAE-speaking students should embrace their skill in their heritage language and find ways to build connections to text through SAE.

## CONCLUSION

The black–white achievement gap is not well explained by poverty. It is the case that a black–white poverty gap also exists, but as discussed in this chapter, poverty

and, more generally, SES do not account for the magnitude or the durability across grades of the disparities between African American and non-Hispanic white students.

With a focus on reading achievement, this chapter examined published research reports on language–reading linkages for African American students, trends in national data sets, and multiple subsets of data within the Michigan project on African American language and literacy development. Together, these research sources demonstrated that although SES exerted statistically significant direct and indirect effects on reading, oral language skills—especially oral language comprehension skills—were a much stronger influence on reading achievement outcomes. A student’s status as a dialect speaker appears to be an important piece to this puzzle.

African American students with broad linguistic repertoires that include both AAE and SAE are more linguistically skilled and more academically successful. By implication, early strategic instruction in oral language skills designed to develop linguistic flexibility and adaptation abilities has particular potential to improve the reading outcomes of African American students. The extant literature already provides teachers with important foundational principles for designing effective reading instruction for African American students (Rickford, 2005). If the theses proposed in this chapter are valid, however, then additional new information is needed to design constructive approaches specific to the teaching of SAE for curricular purposes, particularly the reading of conventional texts, when the students are AAE speakers. Contrastive analysis, in which teachers make explicit comparisons between SAE and AAE forms and help African American students learn to dialect shift (Sweetland, 2006; Wheeler & Swords, 2006), represents an intuitively sound but as yet largely untested instructional approach. Resolution of the black–white achievement gap needs education-based solutions, and research about how to provide early language instruction with this population should be a priority.

## REFERENCES

- Adler, S. (1992). *Multicultural communication skills in the classroom*. Boston: Allyn & Bacon.
- Adler, S., & Birdsong, S. (1983). Reliability and validity of standardized testing tools used with poor children. *Topics in Language Disorders*, 3(3), 76–87.
- Arbuckle, J.L. (2005). *Amos 6.0* [Computer software]. Spring House, PA: Amos Development Corporation.
- Arnold, K.S., & Reed L. (1976). The Grammatic Closure subtest of the ITPA: A comparative study of black and white children. *Journal of Speech and Hearing Disorders*, 41, 477–485.
- Battle, D.E. (1996). Language learning and use by African American children. *Topics in Language Disorders*, 16, 22–37.
- Bradley, R.H., & Corwyn, R.F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53, 371–399.
- Braswell, J.S., Lutkus, A.D., Grigg, W.S., Santapau, S.L., Tay-Lim, B.S.-H., & Johnson, M.S. (2001). *The nation’s report card: Mathematics 2000* (NCES 2001-517).

- Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.
- Brooks-Gunn, J., Duncan, G.J., Klebanov, P.K., & Sealand, N. (1993). Do neighborhoods influence child and adolescent development? *American Journal of Sociology*, *99*, 353-395.
- Bus, A.G., van IJzendoorn, M.H., & Pelligrini, A.D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research*, *65*, 1-21.
- Castles, A., & Coltheart, M. (2004). Is there a causal link from phonological awareness to success in learning to read? *Cognition*, *91*, 77-111.
- Chall, J.S., Jacobs, V.A., & Baldwin, L.E. (1990). *The reading crisis: Why poor children fall behind*. Cambridge, MA: Harvard University Press.
- Charity, A.H., Scarborough, H.S., & Griffin, D.M. (2004). Familiarity with School English in African American children and its relation to early reading achievement. *Child Development*, *75*, 1340-1356.
- Connor, C.M. (2002). Preschool children and teachers talking together: The influence of child, family, teacher, and classroom characteristics on children's developing literacy. *Dissertation Abstracts International*, *63*(07), 2452 (UMI No. 3057929).
- Connor, C.M., & Craig, H.K. (2006). African American preschoolers' language, emergent literacy skills, and use of African American English: A complex relation. *Journal of Speech, Language, and Hearing Research*, *49*, 771-792.
- Craig, H.K., Connor, C.M., & Washington, J.A. (2003). Early positive predictors of later reading comprehension for African American students: A preliminary investigation. *Language, Speech, and Hearing Services in Schools*, *34*, 31-43.
- Craig, H.K., Hensel, S.L., & Quinn, E.J. (2005). *Dialect shifting by African American students in the elementary grades: Evidence from longitudinal data*. Unpublished manuscript.
- Craig, H.K., Thompson, C.A., Washington, J.A., & Potter, S.L. (2003). Phonological features of child African American English. *Journal of Speech, Language, and Hearing Research*, *46*, 623-635.
- Craig, H.K., Thompson, C.A., Washington, J.A., & Potter, S.L. (2004). Performance of elementary grade African American students on the Gray Oral Reading Tests. *Language, Speech, and Hearing Services in Schools*, *35*, 141-154.
- Craig, H.K., & Washington, J.A. (1994). The complex syntax skills of poor, urban, African American preschoolers at school entry. *Language, Speech, and Hearing Services in Schools*, *25*, 181-190.
- Craig, H.K., & Washington, J.A. (1995). African American English and linguistic complexity in preschool discourse: A second look. *Language, Speech, and Hearing Services in Schools*, *26*, 87-93.
- Craig, H.K., & Washington, J.A. (2000). An assessment battery for identifying language impairments in African American children. *Journal of Speech, Language, and Hearing Research*, *43*, 366-379.
- Craig, H.K., & Washington, J.A. (2004a). Grade-related changes in the production of African American English. *Journal of Speech, Language, and Hearing Research*, *47*, 450-463.
- Craig, H.K., & Washington, J.A. (2004b). Language variation and literacy learning. In C.A. Stone, E.R. Silliman, B.J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 228-247). New York: Guilford Press.
- Craig, H.K., & Washington, J.A. (2006). *Malik goes to school: Examining the language skills of African American students from preschool to 5th grade*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Craig, H.K., Washington, J.A., & Thompson, C.A. (2005). Oral language expectations for African American children in grades 1 through 5. *American Journal of Speech-Language Pathology*, *14*, 119-130.

- Darity, W.A., Jr., & Nicholson, M.J. (2005). Racial wealth inequality and the black family. In V.C. McLoyd, N.E. Hill, & K.A. Dodge (Eds.), *African American family life: Ecological and cultural diversity* (pp. 78–85). New York: Guilford Press.
- Duncan, G.J., & Magnuson, K.A. (2005). Can family socioeconomic resources account for racial and ethnic test score gaps? *Future of Children*, 15, 35–54.
- Dunn, L., & Dunn, L. (1981). *Peabody Picture Vocabulary Test—Revised*. Circle Pines, MN: American Guidance Service.
- Dunn, L., & Dunn, L. (1997). *Peabody Picture Vocabulary Test—Third Edition*. Circle Pines, MN: American Guidance Service.
- Entwisle, D.R., Alexander, K.L., & Olson, L.S. (1997). *Children, schools, and inequality*. Boulder, CO: Westview Press.
- Entwisle, D.R., & Astone, N.M. (1994). Some practical guidelines for measuring youth's race-ethnicity and socioeconomic status. *Child Development*, 65, 1521–1540.
- Federal Interagency Forum on Child and Family Statistics. (2003). *America's children: Key national indicators of well-being*. Washington, DC: U.S. Government Printing Office.
- Fey, M.E., Cleave, P.L., Long, S.H., & Hughes, D.L. (1993). Two approaches to the facilitation of grammar in children with language impairment: An experimental evaluation. *Journal of Speech and Hearing Research*, 36, 141–157.
- Fishback, P.V., & Baskin, J.H. (1991). Narrowing the black-white gap in child literacy in 1910: The roles of school inputs and family inputs. *Review of Economics and Statistics*, 73, 725–728.
- Fishman, J.A. (1991). *Reversing language shift: Theoretical and empirical foundations of assistance to threatened languages*. New York: Multilingual Matters.
- Graham, S. (1992). Most of the subjects were white and middle class. *American Psychologist*, 47(5), 629–639.
- Green, L.J. (2002). *African American English: A linguistic introduction*. Cambridge, UK: Cambridge University Press.
- Grigg, W.S., Daane, M.C., Jin, Y., & Campbell, J.R. (2003). *The nation's report card: Reading 2002* (NCES 2003-521). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.
- Heath, S.B. (1983). *Ways with words*. Cambridge, UK: Cambridge University Press.
- Hill, N.E., Murry, V.M., & Anderson, V.D. (2005). Sociocultural contexts of African American families. In V.C. McLoyd, N.E. Hill, & K.A. Dodge (Eds.), *African American family life: Ecological and cultural diversity* (pp. 21–44). New York: Guilford Press.
- Hoffman, K., & Llagas, C. (2003). *Status and trends in the education of blacks* (NCES 2003-034). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Hollingshead, A.B. (1975). *Four factor index of social status*. New Haven, CT: Yale University, Department of Sociology.
- Jackson, S.C., & Roberts, J.E. (2001). Complex syntax production of African American preschoolers. *Journal of Speech, Language, and Hearing Research*, 44, 1083–1096.
- Jencks, C., & Phillips, M. (Eds.). (1998). *The black-white test score gap*. Washington, DC: Brookings Institution Press.
- Kaufman, A., & Kaufman, N. (1983). *Kaufman Assessment Battery for Children*. Circle Pines, MN: American Guidance Service.
- Kline, R.B. (2005). *Principles and practice of structural equation modeling*. New York: Guilford Press.
- Kresheck, J.D., & Nicolosi, L. (1973). A comparison of black and white children's scores on the Peabody Picture Vocabulary Test. *Language, Speech, and Hearing Services in Schools*, 4, 37–40.

- Lamb, V.L., Land, K.C., Meadows, S.O., & Traylor, F. (2005). Trends in African American child well-being, 1985–2001. In V.C. McLoyd, N.E. Hill, & K.A. Dodge (Eds.), *African American family life: Ecological and cultural diversity* (pp. 45–77). New York: Guilford Press.
- Lee, V.E., & Burkham, D.T. (2002). *Inequality at the starting gate: Social background differences in achievement as children begin school*. Washington, DC: Economic Policy Institute.
- Liberatos, P., Link, B.G., & Kelsey, J.L. (1988). The measurement of social class in epidemiology. *Epidemiologic Reviews*, 10, 87–121.
- McDonald, R.P., & Ho, M.H. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7, 64–82.
- McLoyd, V.C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61, 311–346.
- McLoyd, V.C., & Randolph, S.M. (1985). Secular trends in the study of Afro-American children: A review of child development, 1936–1980. In A.B. Smuts & J.W. Hagen (Eds.), *Monographs of the Society for Research in Child Development*, 50(Serial No. 211), 4–5.
- Meier, D. (2002). *In schools we trust: Creating communities of learning in an era of testing and standardization*. Boston: Beacon Press.
- Metropolitan Achievement Tests*. (7th ed.). (1993). San Antonio, TX: Harcourt Brace.
- Michigan Educational Assessment Program, State Summary Essential Skills Reading Grade 4*. (1999–2001). Lansing: State of Michigan.
- National Institute of Child Health and Human Development Early Child Care Research Network. (2005). Pathways to reading: The role of oral language in the transition to reading. *Developmental Psychology*, 41, 428–442.
- Nettles, M.T., & Perna, L.W. (1997). *The African American education data book: Volume II. Preschool through high school*. Ann Arbor, MI: Frederick D. Patterson Research Institute of College Fund/UNCF.
- Nievar, M.A., & Luster, T. (2006). Developmental processes in African American families: An application of McLoyd's theoretical model. *Journal of Marriage and Family*, 68, 320–331.
- O'Sullivan, C.Y., Lauko, M.A., Grigg, W.S., Qian, J., & Zhang, J. (2003). *The nation's report card: Science 2000* (NCES 2003-453). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.
- Perie, M., Grigg, W.S., & Donahue, P.L. (2005). *The nation's report card: Reading 2005* (NCES 2006-451). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Poe, M.D., Burchinal, M.R., & Roberts, J.E. (2004). Early language and the development of children's reading skills. *Journal of School Psychology*, 42, 315–332.
- Purcell-Gates, V. (1996). Stories, coupons, and the TV Guide: Relationships between home literacy experiences and emergent literacy knowledge. *Reading Research Quarterly*, 31, 406–428.
- Ratusnik, D.L., & Koenigsnecht, R.A. (1975). Influence of certain clinical variables on black preschoolers' nonstandard phonological and grammatical performance. *Journal of Communication Disorders*, 8, 281–297.
- Rickford, A.E. (2005). Everything I needed to know about teaching I learned from my children: Six deep teaching principles for today's reading teachers. *Reading Improvement*, 42, 112–128.
- Robinson, C.C., Larsen, J.M., & Haupt, J.H. (1996). The influence of selecting and taking picture books home on the at-home reading behaviors of kindergarten children. *Reading Research and Instruction*, 35, 249–259.

- Rooney, P., Hussar, W., Planty, M., Choy, S., Hampden-Thompson, G., Provasnik, S., et al. (Eds.). (2006). *The condition of education 2006* (NCES 2006-071). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Scarborough, H.S., & Dobrich, W. (1994). On the efficacy of reading to preschoolers. *Developmental Review, 14*, 245-302.
- Seymour, H.N., Bland-Stewart, L., & Green, L.J. (1998). Difference versus deficit in child African American English. *Language, Speech and Hearing Services in Schools, 29*, 96-108.
- Seymour, H.N., Roeper, T.W., & de Villiers, J. (2003). *Diagnostic Evaluation of Language Variation—Criterion-Referenced edition*. San Antonio, TX: Psychological Corporation.
- Snow, C., Burns, S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academies Press.
- Spraggins, R.E. (2000). *Census brief: Women in the United States: A profile*. Washington, DC: U.S. Census Bureau.
- Sweetland, J. (2006, November). *A sociolinguistic approach to teaching Standard English*. Paper presented at NWAV 35, The Ohio State University, Columbus.
- Taylor, O.L., & Payne, K.T. (1983). Culturally valid testing: A proactive approach. *Topics in Language Disorders, 3*, 8-20.
- Thomas-Tate, S.R., Washington, J.A., Craig, H.K., & Packard, M.E.W. (2006). Performance of African American preschool and kindergarten students on the Expressive Vocabulary Test. *Language, Speech, and Hearing Services in Schools, 37*, 143-149.
- Thompson, C.A., Craig, H.K., & Washington, J.A. (2004). Variable production of African American English across oracy and literacy contexts. *Language, Speech, and Hearing Services in Schools, 35*, 269-282.
- U.S. Census Bureau. (n.d.). *Historical poverty tables*. Retrieved June 30, 2006, from <http://www.census.gov/hhes/www/poverty/histpov/hstpov3.html>
- Vernon-Feagans, L. (1996). *Children's talk in communities and classrooms*. Cambridge, MA: Blackwell.
- Washington, J.A., & Craig, H.K. (1992). Performances of low-income, African American preschool and kindergarten children on the Peabody Picture Vocabulary Test—Revised. *Language, Speech, and Hearing Services in Schools, 23*, 329-333.
- Washington, J.A., & Craig, H.K. (1994). Dialectal forms during discourse of urban, African American preschoolers living in poverty. *Journal of Speech and Hearing Research, 37*, 816-823.
- Washington, J.A., & Craig, H.K. (1998). Socioeconomic status and gender influences on children's dialectal variations. *Journal of Speech, Language, and Hearing Research, 41*, 618-626.
- Washington, J.A., & Craig, H.K. (1999). Performances of at-risk, African American preschoolers on the Peabody Picture Vocabulary Test—III. *Language, Speech, and Hearing Services in Schools, 30*, 75-82.
- Wheeler, R.S., & Swords, R. (2006). *Code-switching: Teaching Standard English in urban classrooms*. Urbana, IL: National Council of Teachers of English.
- Wiener, F.D., Lewnau, L.E., & Erway, E. (1983). Measuring language competency in speakers of black American English. *Journal of Speech and Hearing Disorders, 48*, 76-84.
- Woodcock, R.W. (1987). *Woodcock Reading Mastery Tests, Revised*. Circle Pines, MN: American Guidance Service.