The Challenge, Context, and Preconditions of Academic Development at High Levels

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THE CHALLENGES AND MAGNITUDE OF MINORITY HIGH ACADEMIC ACHIEVEMENT

It was about a century ago that W. E. B. Du Bois first called attention to the critical importance of giving consideration to the intellectual development of the "talented tenth" among people of color. Du Bois argued that no society could afford to neglect the nurturance of that segment of its population. Like Plato and others, he saw that pool of talented people as the source of cultural, economic, political, and social leadership. At the time that he was advancing this somewhat elitist notion, he was greatly influenced by the prevailing concep-
tion of what it meant to be an educated person. Du Bois was better educated than most people in his generation. He was among the very few African American persons to have the privilege of a liberal arts education at that time. Early in his life he had become convinced of the popularly held view that the German universities provided the best education in the world. He was so convinced that he went to the University of Heidelberg to pursue his PhD. Some think that early signs of the racism that was to consume that nation led to the refusal of the faculty to let him complete the degree. Du Bois had to settle for a PhD degree from Harvard, where his dissertation became the inaugural vol-
ume of the prestigious Harvard University History Series.

But it is not Du Bois's biography that is of concern now; our concern is with the Du Boisian notion of the talented tenth and their education. The edu-
cation that Du Bois advocated was the classical study of the liberal arts and sciences. He was later to call them the "liberating arts, humanities, and sciences" (Du Bois, personal communication with Gordon, 1958) because he was convinced that once the human intellect had been developed through such studies, people could never again be enslaved. Having so much respect for classical education, Du Bois was wedded to the encyclopedic mastery of knowledge and an understanding of the relatedness of the several knowledge domains; his own competence reflected this bias. He seemed to know everything about almost every subject and held his audiences spellbound with his erudition. However, in one of the last lectures he delivered in this country before resigning his U.S. citizenship to become a citizen of Ghana and to live there, he indicated that the exquisite knowledge that he once advocated for the talented tenth would some day become the universal expectation for all educated people. He predicted that modern societies would increasingly depend on the products of human intellect and that meaningful participation in such societies would require that we educate, not just train, all people.

It is by no means clear that Du Bois was so advanced in his thinking that he anticipated more recent developments in our understanding of what it means to be an educated person. But his conception of the educated person as one who has encyclopedic knowledge or even deep mastery of one or more disciplines is being displaced by more fluid conceptions of what Gordon calls intellec-
tive competence (2001). By intellec
tive competence, we refer to the metacognitive command of affective, cognitive, and situative processes to access, know, understand, interpret, and utilize knowledge and technique. Intellec
tive competence is apparent in such capacities as

- Critical literacy
- Critical numeracy
- Mastery of some knowledge domains and their related tacit understandings
- Analogical reasoning
- Problem identification and the formulation of researchable questions
- Accession and taxonomic ordering of information (bringing order to chaos in the service of problem solving)
- The capacity to conduct analysis, to achieve synthesis, and to create synergy; and
- Movement from knowing to understanding.

We like to think of the capacity to engage in and manipulate these processes as "sense-making." This concern for the achievement of intellec
tive competence brings us to the core of our problem: educating so as to enable the development of these intellec
tive capacities. The goal of education so conceived requires a pedagogy that goes beyond the simple transfer of knowl
dge and skill to the mediation of understandings and appreciations and the adjudication of values in the service of prosocial human ends. We recognize that the demand for such educational achievement is increasingly universal.
The problem is not that the know-how for the conduct of such pedagogy is scarce but that will to provide it is seemingly nonexistent. At the same time, we are painfully aware that there exist serious gaps between the achievement of these educational goals and social divisions such as class, ethnicity, gender, and language proficiency. It is in the context of this complex problem that the National Task Force on Minority High Achievement, which investigated the extent, nature, and causes of this problem, was created. The task force’s report, Reaching the Top: A Report of the National Task Force on Minority High Achievement (College Board 1999), presents some findings and recommendations for action. While little is new in this report, it is a codification of what is currently known about this problem. Specifically, Reaching the Top addressed:

1. The significance of academic underachievement in minority students;
2. The magnitude of the minority academic underachievement problem;
3. Sources of achievement disparities; and
4. Existing strategies for improving minority achievement.

The Significance of Academic Underachievement in Minority Students

The continuing shortage of African American, Hispanic American, and Native American students who achieve at very high levels academically is the national problem that guided the work of the National Task Force on Minority High Achievement (College Board 1999), a group of thirty-one prominent leaders from education and other sectors organized by the College Board in 1997. Its resulting report, Reaching the Top, (1) predicted that it will be “virtually impossible” to thoroughly “integrate the professional and leadership ranks of our society . . . until many more students from these underrepresented groups become high achievers”; (2) documented the variables associated with this shortage; and (3) recommended complementary strategies for redressing the imbalance underscored by the large number of European American and Asian American students who earn high grades in school, score highly on standardized tests, and earn bachelor’s and advanced degrees.

Specifically, African American, Hispanic American, and Native American students are underrepresented among the students who perform in the top 25th percentile of students in elementary, secondary, and postsecondary education in the United States. To address this problem, the task force focused on four categories of work: (1) the identification and creation of strategies in school reform that show promise for reversing this condition; (2) the identification and replication of those programs and strategies in higher education that are directed at enhancing the academic achievement of students of color;

(3) the exploration of current developments in, and the effects of, supplementary education as factors influencing the academic achievement of students of color; and (4) the development of a comprehensive program of research concerning the correlates of high achievement in a variety of ethnic groups.

Equally significant is the report’s finding that the pervasiveness of ethnic minority underachievement exists not just among low-income students but among students of color at all socioeconomic levels, including those students of color who are often unable to maintain the same high level of academic achievement in college despite having done very well in high school. Most problematic is the finding that the differentials in academic achievement increase as socioeconomic status (SES) increases. In other words, higher class status is not associated with smaller differences in achievement.

Magnitude of the Minority Academic Underachievement Problem

Given these important achievement differences between ethnic and SES groups. Some data sets such as the Scholastic Achievement Test (SAT) suggest that these differences are often substantial and may be larger among high-SES students than among low-SES students. For example, in 1993 the gap in average difference in the combined SAT math and verbal scores between white and black test takers, with at least one parent with a graduate degree, was 183 points (1024 for whites and 841 for blacks), while it was 137 points (796 and 659) between whites and blacks with no parent with a high school diploma. We are especially concerned that students of color are not only grossly underrepresented in the high end of the academic achievement distribution but that the quality of the contribution of this achieving group to the pool of relatively high academic achievers is lower than might otherwise be expected. It appears that the gap between majority and some ethnic minority students in their academic achievement cannot be narrowed unless we can reduce this gap in scores at the high end of the distribution.

It is sobering that African American, Hispanic American, and Native American students made up only 8 percent of the students nationally in 1995 with a combined math and verbal SAT score of 1400 or higher. These ethnic minority groups accounted for just 5 percent of the total number of students who scored 1200 or higher on the SAT, yet total 30 percent of all U.S. nationals under age eighteen. By contrast, Asian Americans account for 4 percent of the under-eighteen population, yet comprise 18 percent of those scoring 1400 or higher (Miller 1995).

These within-socioeconomic-group gaps are particularly costly from a high academic achievement standpoint. All racial/ethnic groups in the United
States draw a disproportionate number of their highest achieving students from their high-SES segments. Indeed, worldwide, high achievers are heavily drawn from high-SES students. However, if middle-class ethnic minority students are not doing nearly as well in relative terms as high-SES European and Asian American groups, it makes it very difficult to reduce the high achievement gaps that exist. For example, if all Puerto Rican SAT test takers with no parent with a high school diploma had scored as well in 1993 as those with at least one parent with a graduate degree, their average combined SAT math and verbal score would have increased from 686 to 861. Yet, 861 was still 163 points lower than the 1024 average for this segment of high-SES European American students.

At the elementary and middle school levels, the pervasive shortage of these groups among high-achieving students surfaces quickly in the early years of school and changes little thereafter (College Board 1999). For example, minority and majority test-score gaps on the federal government’s National Assessment of Educational Progress (NAEP) reading, math, and science tests in the fourth grade parallel those found on NAEP tests in the twelfth grade. Among high school seniors in 1998, blacks, Hispanics, and Native Americans comprised only about one-tenth of the students who scored at the highest level on NAEP tests and are represented by only one in twenty of the students who had very high scores on the SAT, scores typical of individuals admitted to first-tier colleges and universities (College Board 1999).

What is also distressing is that top black and Hispanic students enrolled at selective institutions do less well than their European American and Asian American peers. Indeed, the data clearly indicate that African Americans, Hispanic Americans, and Native Americans are considerably underrepresented among higher education degree recipients (College Board 1999). For instance, while comprising about 30 percent of the under-eighteen population in 1995, these minority groups received only 13 percent of the bachelor’s degrees, 11 percent of the professional degrees, and 6 percent of the doctoral degrees presented by U.S. colleges and universities. Clearly, it is important for these students to sustain their gains not just on the elementary and secondary levels but also on the graduate and undergraduate levels.

Sources of Achievement Disparities
The research continues to reinforce the idea that attempts at reducing achievement disparities among ethnic minority groups, especially as they relate to the near absence of high-achieving students of color, must seriously take into account the range of challenges that disadvantaged children, their families, and the schools that serve them constantly encounter. Family and school instabil-

ity, for example, ranks high among the research-based findings of poverty-related barriers. Indeed, disadvantaged families are (1) more likely to move often, especially in urban areas, and (2) may not be aware that these school changes may interfere with their children’s education. For students who are more settled, however, learning is disrupted by frequent student turnover, and effective teaching is compromised by the presence and high turnover rate of inexperienced and unqualified teachers. Given that Hispanic Americans (who now make up the largest minority group) and blacks make up a growing number of disadvantaged students, this issue becomes even more problematic because the effects of poverty on racial and ethnic achievement gaps will continue to be considerable (College Board 1999).

Another factor affecting the racial and ethnic achievement gap revolves around variation in the education levels of minority parents. Unlike parents with a high school education or less, most parents with college degrees understand and emphasize academic achievement by supplementing their children’s education with tutors and facilitating access to college preparatory classes. The research indicates that substantial numbers of European American and Asian American parents have college degrees, while large numbers of black, Hispanic American, and Native American parents are still without high school diplomas. Given the negative consequences of parental illiteracy, activities aimed at increasing the level of developed academic ability in parents need to be woven into multilevel efforts to increase the number of students of color among top-achieving students.

Racial and ethnic prejudice and discrimination continue to affect minority high achievement in a number of ways. First, African American, Hispanic American, and Native American students frequently encounter lower academic expectations. Second, the damaging effect ingrained stereotypes (which inaccurately posit that minority students are less intelligent than European American or Asian American students for genetic or cultural reasons) have on minority students’ confidence and performance in challenging academic situations (College Board 1999). Third, it is not inconceivable that some minority students deliberately minimize their academic efforts out of a perception that success in school is only for white or Asian students (College Board 1999) or that their performance may serve to confirm existing stereotypes.

In addition to the above sources of achievement disparities, some research findings have suggested that both school-related and family/community-related cultural differences contribute to the achievement gaps among minority and majority groups. School-related differences might involve a curriculum that does not effectively draw on students’ cultural experiences (College Board 1999). Similarly, family and community differences speak to the distressing
lack of economic and academic resources that families and communities need in order to facilitate their children’s academic development. Unlike most disadvantaged parents and communities, academically successful parents and communities draw on their personal resources to provide a broad range of activities and supports designed to supplement their children’s education. Taken together, these sources of academic disparities continue to impact, on a number of levels, the ubiquitous underrepresentation of students of color among high students.

Existing Strategies for Improving Minority Achievement

Several extant strategies focus on students at risk of failing to achieve acceptable academic success. These include initiating and reinforcing preschool and parent education programs; raising elementary and secondary school academic standards; and improving curriculum, instruction, teacher professional development, and home–school interaction. In the interest of raising academic standards and ultimately achievement, school districts in many states are now expected to disaggregate data by race and ethnicity. This monitoring effort by states, however, does not include an emphasis on interventions designed to increase minority representation among high-achieving students. The same can be said of current efforts at evaluations of preschool and parent education programs, curriculum, instruction, and teacher professional development, which largely gauge the number of low-performing students brought to acceptable achievement levels, and rarely on their capacity to increase the number of high-achieving students. This emphasis on the use of test data to drive accountability is understandable, but it does little to inform or enable more appropriate opportunities to learn.

Despite inherent weaknesses in the evaluation/accountability focus of these approaches, the following research-based approaches can support efforts to increase the number of students of color who perform at high achievement levels (College Board 1999). These strategies include:

- Academically rich and rigorous curricula;
- Instruction that provides the assessment and mediation opportunities that students need to grasp key knowledge, techniques, and understanding;
- The development of strong home–school relationships;
- Supporting the continual and differentiated professional development of teachers; and
- The enabling of adult support for the academic and personal development of students.

As detailed earlier, most academically promising black and Hispanic students are not performing as well as their European American and Asian American counterparts at the college/university level. Despite this reality, some higher education officials are not recognizing the need for diverse efforts geared at generating a critical mass of high-achieving minority students. These efforts should include personal support and advising, opportunities for knowledge and skill development, opportunities to develop strong academically oriented peer networks, and sufficient financial aid to reduce pervasive concerns about finances (College Board 1999).

Most initiatives, however, have followed the lead provided by efforts at general school reform, which tend to focus on raising student achievement across the board. These efforts have had little specific impact, however, on reducing the gap between low- and high-achieving students of color and more privileged students (Treisman and Surles 2001).

THE CONTEXT AND PRECONDITIONS FOR MINORITY HIGH ACHIEVEMENT

How is it possible to identify signs of improvement in academic achievement without sufficiently objective evidence that these initiatives have resulted in significant progress in reducing the academic achievement gap between high- and low-achieving groups? We argue that the in-school initiatives—school reforms—have not been sufficient to the general need and, in particular, have not been directed at the high-achieving end of the distribution. We argue further that the problem of the academic achievement gap is not a problem of schooling alone. Some of us are beginning to believe that without the capital to invest in human resource development, it is impossible to achieve meaningful participation in an advanced technological society. What is the nature of that capital? Several of us have included the following categories (Bourdieu 1986; Coleman 1987, 1990; Gordon and Meroe 1999; Miller 1995):

- Cultural capital
- Financial capital
- Health capital
- Human capital
- Personal capital
- Polity capital
- Social capital
Obviously, when we speak of capital, we are speaking of more than money and material resources. Capital is the accumulated accessibility and control of resources and power. Schools and other social institutions seem to work when persons served bring to these institutions the varieties of capital that enable and support human development.

The relationship between family income and academic achievement had become obvious by the middle of the twentieth century. Sexton's *Education and Income: Inequalities of Opportunity in Our Public Schools* (1961), the prodigious work of Cloward and Piven (1974), and the race-based studies of Kenneth Clarke have highlighted the tendency of academic achievement to rise with increases in family income. So noticeable were these associations that at least one investigator claimed that income is the best single predictor of academic achievement in the United States. However, mid-century United States was more concerned with the relationship between race and educational opportunity than with the impact of income. As a result, the great body of research from that period gave more attention to the impact of racial isolation and integration than to factors concerning income. However, if we are correct in assuming that the effectiveness of schools and other human resource development institutions is in part a function of the availability of wealth-derived capital for investment in human development, we may have in this relationship a catalyst for political and social intervention.

In the 1966 report *Equality of Educational Opportunity*, James Coleman and colleagues created some controversy when they asserted that variations in the quality of schooling did not adequately explain the variance in academic achievement. In fact, they argued that differences associated with families and family status accounted for the largest portion of the variance in school achievement. In a subsequent reanalysis of disaggregated data, Pettigrew (1967) reported that this relationship was not as strong for black and some other low-income children. For these less-advantaged children, quality of schooling appears to be more important. This may be the case because school is more likely to be the only place where they experience systematic supports for academic learning. The Coleman finding of family background as a primary correlate of academic achievement appeared to take the onus away from racial isolation and racial integration and the implicit differences in the quality of schooling available to blacks and whites in the schools of the nation. The finding also exacerbated the understandably negative reaction of minority groups and some liberal friends to the idea that something was wrong with black families that explained the relatively low level of academic achievement in that population. Some of us may recall that this report appeared at about the same time as the Moynihan report on black families (1965) and Lewis's work on Hispanic American families (1966).

The deflection of attention away from problems with the schools to problems with the victims of the school's failure and their families was met with a defense of the cultures and cultural identities of the victims. Neglected in this skirmish were factors related to the resources available to these families and the manner in which academic achievement was supported or not supported by the lifestyles that they experienced. It was almost as if the field was blind to any comprehensive sensitivity to or understanding of the broader context in which academic learning functions. For example, in the same period, a rather prominent historian of education was advancing the notion that our conception of education needed to be broadened to include the variety of institutions that provide education services or contribute to the effectiveness of education. Lawrence Cremin's (1976) list of educational institutions included families, faith-based institutions, museums, libraries, community centers, youth development organizations, recreation services, and so forth—the resources we are now calling *supplementary education*. Cremin saw schools as just one of the many institutions of learning, and thought that it was a mistake for professional educators to neglect these extra-school experiences and resources. Despite the prominence of the author and the logical consistency of the idea, Cremin's concern did not shake the centrality of the colloquial focus on schools as primary sources of education.

This overidentification of education with schooling is perhaps a function of our cultural history in which the school has played the central role educationally for most members of the society. As both the common socializing and nation-building influence and the primary source of exposure to formal didactic experience with the disciplines, most of us perhaps think of school when we think of academic learning. Despite this colloquially accepted notion, increasingly we are convinced that universal academic development and high achievement require more than schools can deliver. In fact, after reviewing the evidence, it is difficult to avoid the conclusion that the achievement of the optimal benefits of schooling, as reflected in high levels of developed academic ability, depends on factors outside of the control and influence of schools. In other words, while schools may be necessary to the achievement of intellectual competence in the general population, they may not be sufficiently enabling of this goal. Thus, schools alone cannot solve the ubiquitous underproductivity of schooling and some of the populations served (Comer 1997; Steinberg 1996; Berliner and Biddle 1995).
THE PRECONDITIONS FOR MINORITY HIGH ACHIEVEMENT

There is wide agreement of the characteristics of well-resourced schools and effective teaching and learning situations. These include:

- Effective leadership,
- Well-prepared staff,
- Clear sense of purpose and goals,
- Adequate human and material resources, and
- Sense of trust and security.

While these well-resourced schools may be necessary, the effectiveness of the teaching and learning situations may be a function of the requisite preconditions that provide the foundation and scaffolding for high levels of academic achievement. These foundations and scaffolds—supports for academic and personal development—provide the preconditions that enable good schooling to be effective. Perhaps best conceptualized by Schultz (1961), Bourdieu (1966), Coleman (1987, 1990), and more recently by Miller (1995), the preconditions of high levels of academic achievement are seen as the availability of education-relevant resources (Miller 1995, 88), which these authors refer to as "capital." They argue that the access some families have to various capital enables them to invest in their children’s education. It is this hidden curriculum (Strodbeck 1964) that accounts for the differential effectiveness of schools for children from well-resourced families.

According to Coleman, “The resources devoted by the family to the child’s education interact with the resources provided by the school—and there is greater variation in the former resources than in the latter” (1987, 35). Given this conceptualization, Miller (1995) suggests that:

1. To ensure academic success, the family or the school must provide children with a substantial quantity of resources.
2. In contemporary America, there are significant differences among families and schools in the amounts and forms of these resources that are available for the education of children. The differences among families are greater than the differences among schools.
3. Even the best-resourced school under existing arrangements is usually not able to compensate fully for a substantial shortfall on the family side.
4. Even when there is no resource-quantity problem on either side, there may be incompatibility of resource forms between the family and the school (for example, language or other cultural differences) that can adversely affect the educational experience of the child.

These non-school-based, education-relevant resources (varieties of capital) that are necessary for schooling to be effective in the development of high levels of academic ability are identified and elaborated here for emphasis.

Cultural Capital

Cultural capital is the accumulated beliefs, knowledge, techniques, technologies, ways of doing, being, and the identities and rituals of a people. The experience with the artifacts of one’s culture and the foci of one’s cultural identity not only influence the development of one’s attitudes and behaviors but also important developmental resources. Hirsch (1988) has argued eloquently (some may say too narrowly) for the importance of cultural capital. There is no question, however, about the validity of his claim that cultural knowledge is an important resource. In a multicultural society, familiarity with the central elements of the hegemonic culture may be difficult for some members of diverse cultural groups, but it is nonetheless an essential resource. Since schools are not typically organized to privilege these diverse cultures in routine teaching and learning transactions, students who do not have a command of the central elements of the hegemonic culture are placed at a disadvantage. But familiarity is not always sufficient. Culture is a ubiquitous phenomenon; simply knowing the custom or how to do it may not be sufficient. It is sometimes necessary that one identify with the culture in order to function in it with automaticity. Thus, culture is an essential capital with which to invest in the pursuit of one’s education (Gordon 1997a).

Financial Capital

Financial capital is so obvious a human need that it appears superfluous to isolate it. It refers to income, wealth, and the material resources necessary for survival and developmental investment in a society where commodification is privileged. This concern with financial capital must be approached at multiple levels. The society must have money to invest in education. The school must have the finances necessary to be adequately resourced. The family must have the money to access the material resources necessary for its existence and advancement. There are considerable research findings that document the relationship between family access to financial capital and school achievement (Bowles and Gintis 1976; Sexton 1961; Coleman 1990). The National Research Council’s report on school finance provides a definitive review of the relationships between societal and/or school-level finances and the quality of schooling (Ladd, Chalk, and Hansen 1999). However, the usual focus on available income is not sufficient to enable the understanding of the
complex relations between financial resources and school achievement. Jaynes and Williams (1989) have documented the same phenomenon, as well as differentials in the impact of wealth on black and white families when income or wealth is controlled as an independent variable. Even in the presence of income that is adequate to the comfortable existence of a family, the absence of wealth (accumulated assets) can leave the family that has achieved middle-class status one paycheck away from poverty. Almost half a century ago, E. Franklin Frazier (1966) described the ersatz character of the attempt to re-create the hegemonic culture in some middle-class black families. This strategy, however, seems to simply exacerbate the impact of differences in access to financial capital (income and wealth) as an education-relevant resource.

When Title I was established in 1965, it reflected a recognition among educators and government policymakers that poverty is strongly related to low academic achievement. Since that time, we have learned a great deal about poverty's multiple impacts on student achievement. Importantly, researchers have learned that children experiencing chronic long-term poverty are among the most at risk educationally. These youngsters frequently have health problems that undermine learning. As suggested earlier, their families also tend to move frequently, resulting in serious discontinuities in the children's education as they travel from one school to the next. Researchers have also found that a high concentration of poor youngsters in schools is associated with lower achievement for poor and well-off students alike. But poverty concentration need not be extreme to have a negative impact. Some research findings indicate that in schools with a 25 percent student poverty rate, both poor and well-off youngsters do less well academically than their counterparts in schools with very low student poverty rates (Miller 1995).

Health Capital

Clearly one of the prerequisites for high academic achievement, health capital is one of the categories of education investment capital that Bourdieu (1986) introduced. This conceptual framework highlights the critical relationships between health and academics that Birch and Gussow (1970) systematically describe in their book, *Disadvantaged Children: Health, Nutrition and School Failure*. Their central message concerns the importance of good health and adequate nutrition as resources for effective schooling. For children to succeed academically in school, they generally need to be in good health and adequately fed. The literature from the mid-twentieth century to the present clearly documents the fact that when children cannot bring good health into the classroom, attendance, attention, some aspects of learning, sustained learning, and task engagement suffer. In a modern industrialized nation, with a large middle class and a supposedly small number of poverty-stricken members, it may seem unnecessary to single out health as a major resource needed to ensure school success, because in such a society most children are thought to be in good health. But in less-developed countries in which the middle class is small and a large proportion of the population is poor, improving children's health may be an essential component of effective strategies for increasing the academic success of students.

Although the United States is an affluent nation, it has a relatively large number of children who are poor and who have health problems severe enough to undermine prospects for their academic success. A recent report (Proctor and Dalaker 2003) indicates that the United States has the largest number of children living in poverty of any of the industrialized nations. These children are also disproportionately members of racial/ethnic minority groups in the United States. They are consequently placed at risk of failure to thrive by the quality and nature of their economic, ethnic/cultural, politcal, and health capital. Consequently, health capital is included among the resources required when examining variations in family and school resources as they relate to academic achievement.

This is especially important since national health statistics continue to show significant disparities in the number of low-income people of color with poor health outcomes and limited access to health care compared to the general population in the United States (despite some progress in public policies regarding racial discrimination over the last century). For example, African Americans and Hispanic Americans comprise 56 percent of the more than 700,000 cases of AIDS reported to the U.S. Centers for Disease Control and Prevention (CDC) since the beginning of the epidemic in 1981 (CDC 2000). AIDS remains the leading killer of African Americans age twenty-five to forty-four (CDC 2001). In addition, approximately four million new cases of sexually transmitted diseases (STDs) each year occur in adolescents, with African Americans and Hispanics having higher rates of STDs than whites (U.S. Department of Health and Human Services 2000), while the prevalence of diabetes in African Americans is nearly 70 percent higher than in whites and the prevalence in Hispanics is almost double that of whites (U.S. Department of Health and Human Services, n.d.).

Birch and Gussow (1970) postulated that children who are better nourished perform better in school. Although there was a dearth of scientific evidence at the time, recent empirical evidence about the role of nutrition in cognitive development and intellectual performance confirms the accuracy of their assumption. The CDC’s *Guidelines for School Health Programs* (1996), for example, asserts that not having breakfast can affect children’s intellectual
performance. That is, hungry children are more likely to have behavioral, emotional, and academic problems at school (CDC 1996). Corroborating evidence of recent studies in developing countries have shown that improvement in nutrition among children results in periodic gains in mental tests and on motor development (Martorell 1998; Sigman and Whaley 1998).

The exposure to and impact of environmental pollutants on children’s cognitive abilities also need to be recognized. In the last thirty years, environmental chemicals and their potential effects on human health and children’s cognitive abilities have received considerable attention. Lead-based paint, for example, continues to be the main source of exposure for children who develop lead poisoning, and it is entirely preventable (Wasserman and Factor-Litvak 2001). According to the Centers for Disease Control, 890,000 children in the United States ages one to five had noticeable lead levels in their blood in 1991; by 1999–2000, the estimated number of children with elevated blood lead levels was 434,000 (CDC 2003a). Over one-fifth of African American children living in housing built before 1946 have elevated lead levels. Other common exposures include lead carried home on shoes or clothing, lead in water, consumption of imported foods, and folk medicines and practices. Over the years, research has increasingly recognized that lead affects nearly every system in the body. It is particularly harmful to the developing brain and the central nervous system and when ingested can cause learning disabilities and behavioral problems. If ingested at very high levels, it can result in seizures, coma, and even death (CDC 2003b).

Human Capital

Human capital refers to the developed abilities/expertise of those in one’s environment. Throughout history, novices have benefited from the guidance, examples, modeling, and shared experiences of more sophisticated learners. When one’s surroundings are rich in such persons, and novice learners have access and can participate in meaningful experiences, it can be said that one is rich in human capital. Human capital is represented in the intelligence, information, substantive knowledge, technical skills, tacit knowledge, social competence, and other education-derived abilities of the people in one’s social network. Thus the children of college-educated parents have more human capital than those of high school dropouts. For example, Aunt Evangeline, the college professor, is a part of the human capital available to her nephew John. One of the senior author’s students at Yale wrote her senior essay on the families of high-achieving Korean students. In the essay, she concluded that one of the factors influencing the achieve-

ments of these students was the presence of well-educated parents in the home, one of whom stayed at home to raise the children. She reasoned that the constant exposure of these children to adults with well-developed academic abilities gave them a human capital advantage that she associated with their academic competence. But it is not simply formal education and substantive knowledge that is important. Others who have lived the experience and have tacit knowledge of the problem or of the experiential phenomenon are examples of human capital. The “green-thumbed” farmer is a part of the human capital of the novice gardener. This definition so far gives emphasis to the characteristics of the valued person, but access to such persons is equally important and is related to another category of human resource development capital that we call social capital.

Personal Capital

Personal capital refers to resources that are intrinsic to the person—to characteristics of the learning person or the assets or resources that the person carries with the self. Here we refer to agency, attitudes, aspirations, developed abilities, dispositions, efficacy, and one’s sense of power. This domain of human behavior, sometimes associated with resilience, combines tangible developed abilities and skills with aspects of the affective domain that have to do with feelings about oneself and the targeted human activity. It involves intentionality and purpose. It is reflected in deliberately deployed effort and the willingness to exert it. Gordon (2001) has introduced the construct intellec
tive competence while Greeno (2001) prefers intellec
tive character to refer to the combination of developed ability and these existential affective characteristics of the person that form the context for human action. It is the capital intrinsic to the person that one brings to and continues to develop in learning situations.

Polity Capital

Polity capital references the reciprocal concern and respect, communal commitment, welcomed participation, and group affinity and inclusiveness that are associated with societal membership. The slogan for a major financial service corporation is “membership has its privileges.” Polity refers to sense of membership. If I sense that I belong to the group, I tend to identify with the goals and values of the group. If I sense that I do not belong, then the values, standards, and expectations of the group are less important and more easily ignored. If society recognizes me as a member, it is more likely to be concerned about my welfare and more willing to support the needs of other members who
are like me. For example, if the people who use the public schools are “like me,” it seems easier to raise tax-levied funds to support those schools. If the schools serve “those unlike me,” public school budgets are likely to suffer. Societies and other human groups tend to emerge to meet the needs of those who are thought to belong or share polity. Of all the human resource development capitals, polity capital may be the most important, since having it signals collective responsibility for my welfare.

Social Capital

Social capital refers to the access that one has to resources by virtue of social networks that exists within human groups. Being able to call a friend for a job or school application reference is a common example. A more pejorative example is “the old boys’ club.” Some teenage boys rely on loose networks of gang members to “protect their backs.” Some of the craft unions are said to require family, friendship, or ethnic connections for admission to membership. When schooling was being made needlessly difficult for one of his children, the senior author was able to call a highly placed school official to resolve the problem. Social capital refers to such networks and the capacity and freedom to tap into them. Social capital also refers to the tacit knowledge (1) that such networks exist; (2) of how one goes about accessing them; and (3) of the social norms, cultural styles, and the privileged values by which others recognize that one is eligible to participate. There is a third kind of social capital that is reflected in the traditional conceptions of polity. For most of the senior author’s life, he has functioned in social and professional settings where blacks were not expected. He has functioned remarkably well even without the social capital associated with being a white male. When women enter male-dominated fields, when English-language learners enter English-dominant groups, when lower-class and black students enter highly selective colleges or jobs, they do so without the social capital of the more privileged.

INTRODUCING SUPPLEMENTARY EDUCATION TO THOSE IN NEED

At this point, the question in our readers’ minds may be concerned with what those of us who are serious about raising high academic achievement for students of color. We can start by systematically introducing supplementary education activities for African American, Hispanic American, and Native American ethnic minority group students. These activities and strategies include:

Empowering Support

The empowerment of parents of color and other adults to support more adequately the academic and personal development of their children. This strategy is supported by Gordon and Wilkerson’s (1996) finding that parents can enable the academic aspirations for their children with access to the know-how to turn these aspirations into academic success. Parents need to receive instruction, guidance, hands-on technical assistance, and supported experience in the exercise of those behaviors and the creation of those conditions that are known to be supportive of academic achievement. In addition to more sustained parent involvement in the affairs of the school, parents need to be taught and encouraged to intervene at school on behalf of their children. Parents who are unfamiliar with the time demands for sustained engagement in serious study need to be oriented to the demands of modern academic pursuits. Parents need to be introduced to and guided in their interactions with the many networks by which higher educational and supplementary educational experiences are available.

Providing Comparable Supplementary Education

The provision of supplementary education activities comparable to those that many affluent and academically sophisticated parents make available to their children. There may be limits to what we can expect to achieve for students of color through the current efforts at school reform, which are primarily focused on accountability and high standards of educational achievement. It may be necessary that students, families, and communities be strengthened in their capacity to extract what they need from the schools as they exist. As evidenced in our earlier discussion of human resource capital, education appears to be more effective when it is built upon an adequate base of human resource capital—that is, health, material resources, social networks, tacit knowledge about how schooling works, polity as reflected in a sense of membership, cultural versatility, and political socialization. These resources are not equally distributed among members of the society. Supplementary education activities seek to provide some of this human resource capital that is naturally available to children from better-advantaged homes. Included are services related to health and nutrition, guidance, tutorials, mentoring, summer educational enrichment, travel, exposure to institutions of “high” culture, and the social networks through which opportunities for upward mobility are mediated.
Cooperative Learning Opportunities

The utilization of cooperative learning communities, peer group supports, and social climates. These types of opportunities privilege academic achievement behaviors, political socialization, and athletic-style academic coaching (Gordon 1986). One of the models examined in this volume (see chapter 10) is the recruitment of small groups of students who attend school together, study together, support each other, collectively understand that mastery of the tasks of schooling is a political as well as an academic endeavor, and are responsible to each other and for each other’s success (Gordon 1997b). Our own experiences and extant research indicate that students who sense cultural and political relevance in their learning experiences tend to sustain engagement and invest more time on tasks in the learning experiences so perceived (Gordon and Song 1994). Through purposive attention to political socialization, emphasis should be placed on making explicit the link between the integrity of one’s cultural identity, the exercise of political power (acting collectively to pursue common goals), and success in education. The models for cooperative learning (Fullilove and Treisman 1990; Lockhead and Clement 1979) need to be adapted to take advantage of collective approaches to academic study. This is in contrast to the colloquial notion that isolated study and individual approaches to learning are the secret to academic success.

Direct Instruction

Direct instruction to ensure the enhancement of cognitive and metacognitive competencies, effective teaching and learning experiences, diagnostic-targeted remediation, and academic socialization. The development and implementation of this strategy relates to Gordon’s (1986) ideas on learning about thinking and thinking about learning, in which students are enabled to better understand the operation of their own mental processes and to use this understanding to manage their intellectual pursuits. The theory holds that those who understand how they think and learn are better positioned to appropriately target their mental processes and self-correct. Similarly, the use of diagnostic strategies to identify specific aspects of academic dysfunction should inform remediation that is targeted to specific problems (Gordon 1986). The implementation effort needs to include state-of-the-art mediation of intensive teaching and learning transactions, such as AP courses, Pacesetter, and extended SAT-preparation types of tutorials. Through academic socialization, students need to be taught study skills, oriented to the conditions necessary for effective study, and influenced in the shaping of dispositions and behaviors that traditionally have proved to be effective in high-quality academic pursuits. The assumption is that many persons learn these competencies, dispositions, and strategies in the natural course of their lives with academically sophisticated adults and peers. For some students of color, this has not been the case. Consequently, the acquisition of these attitudes, skills, and competencies cannot be taken for granted, but must be taught directly or through specially orchestrated opportunities.

Access to Technology

The development and provision of ready access to advanced computer technology and telecommunications. The availability of such programs (1) provides access to a wide range of information sources and (2) enables students, teachers, parents, and sponsors to communicate with each other. We need to utilize such systems as the Internet or World Wide Web as vehicles to achieve the goals of this initiative. A “home page” (also known as a “website”) is a related mechanism through which online information and services can be widely distributed to targeted audiences. Through this system, these audiences can be provided with the following services:

- Online guidance and tutorial assistance
- Group or individual communication and consultation
- Access to data banks, directories, and library services
- Online discussion and conference participation
- Computer-mediated educational assessment and tutorial or self-evaluation via telecommunication
- Access to information concerning college admissions and institutions of higher or continuing education

The telecommunications system needs to function as an electronic hotline as well as a medium of general support for learning. The system needs to provide a web server, which would enable planners to design and maintain a tree of information pages, process instructional materials, and develop training programs for users of the system. Users would need access to a computer, modem, and telephone line. The development and implementation of this strategy also has to consider the problems of equipment and service cost to users with limited incomes. We suggest that organizations like churches, community centers, schools, libraries, and local sponsors can serve as viable sources through which interventions based in the domain of supplementary education can be promoted.
CULTURAL Hegemony, Identity, and Dissonance

In a society that, all too often has been ready to look for the causes of failure to thrive in the intrinsic and even genetic characteristics of learners, it is interesting that so little attention has been given to what learners actually do and feel about the academic learning experience. This may be due in part to the reluctance to place the blame for school failure at the doorstep of populations that are known to be underserved. Blaming the quality of their genetic material may be more acceptable because it means that neither they nor the society can do anything about it. Nonetheless, a discussion of the context and conditions that enable high academic achievement must include attention to such learner phenomena as one’s personal sense of agency or power, one’s sense of efficacy, and ultimately the quantity and quality of effort deployed in the service of the achievement of academic goals. The research literature is replete with relevant evidence. In Coleman’s report (1966), he and his associates conclude that a five-item probe of students’ sense of power (ability to do something about one’s life) enabled them to account for a proportion of the variance in academic achievement second only to the impact of family background. In other words, to the extent that students felt that they had the power to influence or control their environments and lives, differences between higher- and lower-status blacks and whites declined. Howard (1995) designed a curriculum intervention around findings that show effort and productivity increasing as sense of efficacy increases. Sullivan (1990) places human agency—the intentional orchestration and deployment of one’s energy and other resources on purposeful behavior directed at self-specified ends—at the center of his science of human behavior.

Behavioral scientists have been able to identify social psychological circumstances that influence agency, efficacy, sense of power, and effort. Katz (1967) and Steele (1997) respectively established associations between test takers’ perceptions of the ethnicity of test administrators or the ethnicity of the persons with whom they were to be compared, and the performance on the tests. More recently, Steele and his colleagues have determined that if test takers’ perceptions of what is being measured can be mapped onto contemporary stereotypes concerning one’s primary reference group, test scores go down (Steele and Aronson 2000). Steele calls this phenomenon fear of stereotype confirmation. Fordham and Ogbug (1986) have identified the phenomenon they call fear of acting white as a deterrent to serious academic pursuit on the part of some African American students. Gordon (1999) reports of African American students who have had to hide their books and other academic pursuits from peers to avoid being laughed at or “dissed” by their black youth peers. These af-

fective and existential phenomena are a part of the context in which academic development must occur for many of the children with whom we are concerned.

These structural, functional, and existential factors, in addition to other sets of contextual factors, are associated with the dissonance created by the coexistence of hegemonic and subordinated cultural groups in a modern, technologically advanced society like the United States.

CONCLUSION

Clearly, the referenced varieties of capital form the essential context and foundation for high levels of academic learning. As resources for human development, however, they are often taken for granted. Not surprisingly, too little attention is given to their importance for academic learning, and almost no attention is paid to the fact that these capitals are unevenly distributed among the majority and minority school population. It may well be that some of the variance that Coleman assigns to family background is accounted for by the strong association between family SES and access to the variety of education-related capital we regard as enabling of success in school. In the presence of these capitals, well-resourced and effective schools, coupled with appropriate family and community supports for academic development, are among the essential conditions for the development of academic excellence.

Given this broader context, the unequal distribution of these capitals severely limits the effectiveness of schools. The redistribution of access to such capitals may be beyond our immediate reach, but all may not be lost because concerned communities and families can find alternatives to the school-related benefits otherwise derived from access to such capital.

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The Challenge, Context, and Preconditions of Academic Development


