The school readiness goal of the America 2000 educational reform program admits that not all children start school ready to learn, but implies that with proper and adequate interventions, all children can start with the requisite cognitive and social adaptive skills that will enable them to learn. This paper discusses and analyzes critical skills related to the preparation and support of poor urban children in preschool and early school years. It is suggested that readiness does not reside in children as a fixed attribute, but is rather the result of the dynamic interaction between the child and the learning environment, in which each child's potential to succeed is mediated by significant adults and the supportive nature of the social and learning contexts in which children perform. The differences in support and environment faced by poor urban children are discussed, and the ways in which readiness is determined are reviewed. An ecological model of school readiness is proposed that suggests a dynamic process of reciprocal influence of several factors that influence children's school readiness. The model includes the six components: (1) individual potential; (2) the larger distal social context; (3) proximal social contexts; (4) developmental pathways; (5) readiness indicators; and (6) school progress and growth. One figure outlines the model. (Contains 23 references.) (SLD)
School Readiness And The Non-Mainstream Urban Child:

An Ecological Approach

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School readiness has long been of interest to educators and developmental psychologists. We have recognized that some children seem to enter school more prepared to learn and succeed than others. The new attention to school readiness from policy makers, including the Clinton administration in Washington has moved this issue more center stage in our thinking about educational reform and school success for all children and especially for children in poor urban communities.

One of the goals set forth in former President Bush's America 2000 education reform program, and now enshrined in President Clinton's Goals 2000 education initiative states that "by the year 2000, all children will start school ready to learn". This goal statement is significant because of what it admits and what it implies. The statement admits that not all children, at present, start school ready to learn. It implies that with proper, and adequate interventions, all children, six years from now, will begin their transition from being pre-schoolers to students, with the prerequisite cognitive and social adaptive skills which will enable them to learn. If my interpretation of this goal statement is correct, it promises to address a vexing problem confronting many of our nation's children in poor urban communities. Many of these children, if given the proper preparation and opportunities and with appropriate challenges and support, which they are often denied, can learn, achieve and succeed in school starting with kindergarten.

What Is School Readiness

Although there is general agreement that the more "ready" children are for school the more likely they are to succeed, the understanding of the concept of readiness itself has not been universally shared. There are at least three basic schools of thought about school readiness. The first perspective, the maturational transit view, follows in the tradition of the Gesell Institute
according to which readiness is defined as biological maturation. This perspective advances the notion that maturation results in the unfolding of psychoeducational and psychosocial attributes in children which make them ready or not. The second perspective is the environmentalist perspective which places emphasis on children's pre-school experiences at home and in other pre-school settings. Adult caretakers are viewed as having significant influence on children's preparedness for school by providing them with stimulating learning experiences and by creating environments that are challenging and supportive. This view notes that some children may come to school unprepared to learn due to a lack of strong developmental experiences and that the school's responsibility is to remedy these defects. The third perspective views readiness as a combination of both motivation and environment. This view was articulated by Ausubel (1963) who noted that: "readiness is a function of both general cognition maturity and of particularized learning experience." (p. 30)

This paper will explore, discuss and analyze critical issues related to the preparation and support of poor urban children during the pre and early school years. I posit that readiness does not reside in children as a fixed attribute but rather is the result of the dynamic interaction between the child and the learning environment, in which each child's potential to succeed is mediated by significant adults (Vygotsky, 1978), and the supportive nature of the social and learning contexts in which young children attempt to meet performance expectations.

Readiness For What

Kagan (1994) notes that "historically, two conceptions of readiness - readiness to learn and readiness for school - have coexisted and often been confused " (p. 5273). As an illustration of the former, readiness to learn, Gagne analyzed this idea of readiness as involving three
factors: attentional set, motivation, and developmental status (ibid). This conception applies to students of all ages (ibid). The second conception, readiness for school, suggests that the child who is deemed ready for school "has reached a fixed standard of physical, intellectual, social and emotional development. Readiness for school, then, often embraces specific cognitive, linguistic, and psychomotor skills" (ibid). Shepard and Graue (1993) note the confusion surrounding the use of the term readiness. They write:

Although parents, teachers, and policymakers use the term readiness as if it had a common meaning, the nature and causes of readiness can be thought about from vastly different perspectives. Some believe readiness is a biological trait that unfolds within the individual, much like the developmental processes that determine when a child first learns to crawl and to walk. Others believe that readiness is strongly influenced by previous learning experiences at home or in preschool. Some hold to a threshold model of school readiness in which a child is unable to learn in formal settings until all relevant aspects of development are fully in place; others see readiness to learn as a continuum that begins when a child first "learns" to smile and continues without interruption into the school context" (p. 293).
In response to (1) the confusion surrounding the term "school readiness" and (2) President Bush's and the nation's governors vow that "by the year 2000, all children will start school ready to learn," The National Association for the Education of Young Children (NAEYC) adopted in 1990 a Position Statement on School Readiness. This statement approaches the topic by noting that "The current construct of readiness unduly places the burden of proof on the child" (NAEYC, p. 21). In the words of the statement:

The National Association for the Education of Young Children (NAEYC) believes that those who are committed to promoting universal school readiness must also be committed to

1) addressing the inequities in early life experience so that all children have access to the opportunities which promote school success;

2) recognizing and supporting individual differences among children, and

3) establishing reasonable and appropriate expectations of children's capabilities upon school entry (ibid.).

In addition, the NAEYC notes that every child ("except in the most severe instances of abuse, neglect, and disability") enters school ready to learn, but not every child succeeds in school.
Factors that influence school success include a school climate unresponsive to the needs of the children, a lack of basic health care and economic security as well as family structures which lack emotional resources and support (ibid.) Thus the NAEYC deems it a public responsibility to ensure:

that all families have access to the services and support needed to provide the strong relationships and rich experiences that prepare children to succeed in school. At a minimum such services include basic health care, including prenatal care and childhood communications; economic security, basic nutrition, adequate housing, family support services; and high-quality early childhood programs (ibid.).

This position statements points to the phenomenon that especially urban, minority children face the challenge of being labeled "not ready" for school. Walker-Dalhouse (1993) observes that African American children, "more often than majority children, are labeled and classified as mentally retarded or emotionally disturbed and receive special education services" (Walker-Dalhouse citing the National Black Child Development Institute, p. 24). In addition, she notes that "Educational practices such as kindergarten retention, academic tracking, and ability grouping convey a message of limited worth to children who are economically disadvantaged" (Walker-Dalhouse citing Harriet Willis, p. 24).
Problem Analysis

The cultural deprivation paradigm or deficit model, popular in the 1950s and 1960s, understands that a child's home environment may negatively influence his or her intellectual growth (Bloom, 1964, quoted in Review of Research in Education, Vol. 20, 1994, p. 299). For example, in studies that may be considered representative of this approach:

Deutsch (1967), Hunt (1961), and Bloom (1964) believed that children from low-income and visible racial/ethnic homes suffered from deprived environments in which a lack of stimulation had negative effects on their intellectual and cognitive ability (ibid.).

The deficit model today encompasses factors relating to family life, health and nutrition, community conditions, and social status (Montgomery and Rossi, 1994). For example, Montgomery and Rossi (1994) note psychological problems in children stemming from physical and sexual abuse, poor health and untreated physical conditions, environmental risks such as lead levels, inadequate prenatal care or changes in mothers' lifestyle (e.g. drug use) during pregnancy, and the effects of growing up in poor and/or in a crime-ridden neighborhood. Bowman (1993) notes that "Until the age of 3 or 4, children are similar in their development of concepts and skills, subsequently, however, there is a steady erosion of the school-related performance of poor and some minority-group students in relation to nonpoor Whites" (Bowman citing Ginsburg, 1982, p. 105).

Comer identifies crucial factors that have an impact on preschool development and which may no longer be assumed to exist in urban, minority settings. For example, Comer (1989) notes:
The degree to which adequate preschool development takes place depends greatly on the skill, sense of well-being, and motivation of the primary caretaker or parent. The presence or absence of these conditions depends a great deal on the experiences and level of success of the caregiver. Also, the attitudes, values, childrearing patterns and other ways of parents are greatly influenced by the social network of friends and kin to which they belong (p. 115).

Due to the increase in teenage pregnancies and the breakdown of social networks, it is questioned whether young mothers have the skills, sense of well-being, and motivation to fulfill the responsibilities of the primary caretaker. As Burton, White, Director of the Harvard University Preschool Project, puts it, "You get more information with your new car than you do with your new baby" (quoted in Winter, 1985). Social networks that once guided young mothers in caring for their newborn children can no longer be assumed to exist in urban, minority settings. Comer (1994) notes that "Parents in a reasonably well functioning families, enmeshed in reasonably well functioning social networks of friends, kin, social and spiritual institutions have the best change of supporting the growth and development of their children to the level necessary for them to acquire an adequate level of cognitive skills and knowledge" (Comer, 1994, p. ii). The child whose primary social network is marginal to mainstream society is likely to be less developed along the six critical developmental pathways of the self. This situation may occur not because the child’s primary network is inferior to the more mainstream network, but because it may be significantly different. As Bowman (1993) observes, "The assumption that children who do not speak, act, and think in the same ways schools expect them to are deficient in their development is a long-standing one in social science research" (Bowman citing Gould, 1981, p. 105).

Children growing up in many urban, minority settings that are outside of the mainstream
network are facing a situation so bleak that an overwhelming majority (83%) of black adults consider it tough times (33%) or really bad times (50%) for black children, according to a recent study released by the Black Community Crusade for Children and the Children’s Defense Fund. As it has been put, "Some children are so isolated and alienated that, as one writer not so facetiously speculated, they might "kill for a pair of sneakers -- but would also settle for a little love and attention"(Higgins, 1990, quoted in Ferguson, 1990, p. 11). Ferguson (1990) adds:

Ideally, every child should have a least one adult who (a) loves and nurtures the child directly and (b) is an effective guide, broker, advocate, and disciplinarian, helping to connect that child with his neighborhood environment and to mediate his relationships. Many parents provide only (a) and many social service professionals provide most (b), but children need at least one adult that they trust who combines both (p. 12).

The problem of minority, urban children arriving at the threshold of school either developmentally different or underdeveloped is real. Consider the following review of pertinent statistics as an indicator of forces in American society that are having a negative impact on family structure, and in turn on child development:

{The following is an excerpt from Bruno, Joyner, Haynes, Comer, Maholmes, "Parent involvement and School Improvement"} Today, fewer than ten percent of the population fit the 1950's family stereotype of having two children, the father working, and the mother being a full-time housewife. The fact is, that even in that early period this "typical American family" was still more of an middle class ideal than the norm for most of the country's inhabitants. This is especially true for the Black population who in 1940 had 39.4 percent of their families with women working part-time or full-time compared with 25.6 percent for White women (U.S. Bureau of Census). By 1980, female labor force participation had increased to 49.4 percent for
Whites, and to 53.3 percent for Blacks. In 1984 according to Census data 43 percent of all Black families were headed by women, while for Whites the number was a smaller 13 percent.

The situation is not only different today, it is still changing rapidly. Consider the following statistics:

1) By 1995 more than three out of every four school-age children, and two out of every three preschoolers will have mothers in the work force.

2) 71 percent of the employed mothers with school age children, will work full-time.

3) 59 percent of the children born in 1983, will live with only one parent at some time before their 18th birthday.

4) Somewhere between 25 and 33 percent of children under age of 13 are left home alone to take care of themselves, during some part of the day.

5) Nearly one child in four lives below the poverty level, and children under five years of age constitute both the fastest growing, and highest percentage of those living poverty (Steinberg, 1988).

While these concerns apply to all of the U.S. populations, minorities (particularly Blacks) face a different set environmental forces. Take for example the fact that:

1) The Center for Disease Control reported that in 1990, 4,173 U.S. teenagers were killed by guns.

2) For Black males ages 15-19, the rate of gun-related death is 11 times higher than for White males of the same age range.

3) Poor children drop out of high school at over twice the rate of the non-poor. (Schiller, 1984).
4) In 1984, the average Black college graduate earned $18,677 which was less than a White high school graduate (Schiller, 1984).

5) In 1981 there were only 86 Black men for every 100 Black women in the 25 to 44 age group. For Whites the ratio was 100 to 100 (Darity and Myers, 1983).

6) With 80 percent of all Black families with incomes below $4,000 were headed by women, only 8 percent of the Black families with incomes above $25,000 were headed by women (Wilson, 1987).

7) Only a minority of non-institutionalized Black male youth are employed: 16 percent of 16-17 age group, 34 percent of 18-19 age group, and only 58 percent of the rest of the population are employed.

Hence, whether children live in a upper-middle-class suburb, or in the decaying inner city, most probably no one will be home to meet them at the front door when they return home from school. "Latch-key kids" are a ubiquitous phenomenon. Many parents may be busy toiling at increasingly tenuous job, and are frequently too focused on being able to pay the rent or mortgage to worry about the particulars of their child’s school day. Many assume (particularly minority parents) that if they deliver a healthy, loved, appropriately dressed child punctually to the school door, they have fulfilled their parental duties. It is then the federal, state, and local tax financed job of the teachers and principals to educate the children. Also, many Black children are busy raising the smaller children, cleaning the house, cooking and doing other adult work to help their parents make ends meet.

Comer (1994) observes that the families most adversely affected:

were least able to give their children the kinds of pre-school experiences that would prepare them for the expectations of
the school. As a result, a disproportionate number of such children enter school under-developed, and sometimes, simply developed in different ways. They have attitudes, values and ways that work successfully for them on the playground, the housing project and a variety of other areas in their neighborhood and social networks, but work to their disadvantage in school. Their social-interpersonal underdevelopment is often viewed a bad or troublesome behavior in school. Their linguistic and cognitive under-development is often viewed a evidence of limited intellectual ability" (Research Monograph, p. iii).

Research has noted that "Poverty is one of the most persistent predictors of school difficulties" (Bowman, 1993, p. 125).

It is of worth to pause here to emphasize that despite these tremendous societal factors that are having an impact on families and in turn on child development, preschool children will thrive providing that critical factors in the child's environment are present. For example, in rejection of the view that maturation occurs at a preset schedule, adult mediation and love, adequate nutrition, and opportunities to engage in play promote normal development. Barbara Rogoff (1993) expresses this well when she writes: "We regard children’s development as occurring through their active participation in culturally structured activity with the guidance, support, and challenge of companions who vary in skill and status" (p. 5) Consistent with the latter view, Comer (1989) notes:

Because of the extreme dependency on the child and the important role of the caretaker, the attitudes, values and ways of the caretaker greatly influence those of the young child. This allows the caretaker to mediate the child's experiences - to give them meaning and to establish their relative importance (p. 353).

The approach underlying this paper is that "school readiness" is a joint function of factors in the child's environment that "awaken" (Vygotskym, 1978, p. 90) development (eg. adult
mediation, nutrition, relationships) and constraints (eg. maturation, cognitive and psychosocial development, genetics). In addition, this paper emphasizes that a psychologically nourishing home environment would be a more accurate predictors of school success rather than the family's level of poverty per se.

_How is "readiness" determined?_

George Coleman, Chief of the Connecticut State Dept. of Education, Bureau of Early Childhood Education and Social Services, estimates that half of the children assessed for kindergarten placement are improperly placed. Improper placement, according to Coleman, stems from several factors: (1) teachers are not sophisticated enough with assessment instruments to place children, (2) teachers react to what their environment offers rather than to the developmental level of children, (3) an assessment method dependent upon observing a child for half-hour in a unfamiliar environment, (4) inconsistency among evaluators as to what constitutes a "ready" child, (5) irrelevant considerations such as whether the child had a preschool experience, and (6) "Escalating of curriculum expectations" (mandates and pressures from first grade teachers have transformed kindergarten from a learning through play environment to a more structured academic environment, in the words of kindergarten teachers in Virginia, kindergarten is "what first grade used to be" quoted in Freeman, 1990, p. 312).

Federal Law 9142, commonly referred to as IDEA (Individuals with Disabilities Act), mandates two areas of relevance to the topic of assessment of young children. Section H covers birth to age three. Children and their families are referred to support services by local agencies,
preschool programs, parents, and doctors. The referral is a two-step process to determine if children are eligible to qualify for services and an evaluation of the level of services needed. The focus is on the child's family: an Individual Family Service Plan is developed which may include family support services such as parent transportation cost and the cost of instructing the parents in intervention methodologies. Section B deals with age three to school entry age (age 5) and its focus is on educational services (i.e. the child's educational needs). An I.E.P. (Individualized Educational Plan) is developed that does not include social needs or medical needs. It should be emphasized that these preschool assessments are intended to screen whether a child has a special need (G. Coleman, personal communication).

In contrast, assessment for kindergarten placement or classroom placement is not required. A distinction needs to be drawn between development screening tests, designed to identify "children who may need early intervention or special education services" and between readiness tests designed "to measure prerequisite skills to determine a child's relative preparedness to benefit from a specific academic program" (Shepard & Graue, 1993, citing Meisels, p. 293). An example may be seen in a report from Chesterfield County, Virginia by Galloway and George (1986).

Testing for appropriate placement is crucial to the success of the junior kindergarten. In Chesterfield County, the placement process begins the spring preceding school entry, when children are administered the McGraw-Hill Cooperative Preschool Inventory and the "Draw a Person" test. During the first month of school, children are given SRA's Primary Mental Abilities test and assessed for fine and gross motor development. The results of these tests and teacher observations are then used to determine which kindergarten tier is most appropriate for the child (Shepard & Graue, 1993, citing Galloway and George, p. 294).
According to Coleman, two factors have accelerated preschool "readiness test" assessments: (1) Mechanisms to assess the progress of Chapter One students being served have developed and (2) Screening of preschool children to ensure homogeneous kindergarten classrooms or the "readiness" of the children for the kindergarten curriculum. For example, it is estimated that 92% of children [in Connecticut] enter kindergarten with some preschool experience (G. Coleman, personal communication). Preschool experience has come to be an expectation; the child unfamiliar with classroom norms such as turn-taking and sitting quietly during "circle" time is deemed to have a deficit regardless of his developmental level. In addition, teachers assess children according to what their environment offers rather than the developmental level of the child. For example, in April or May before the child enters kindergarten or first-grade, the child is assessed by the kindergarten teacher for his "readiness." One teacher may consider the child who cannot sit still as "immature" and thus "unready" for school, while another teacher may not be concerned about this issue and is prepared to work with the child on sitting still over the next nine months. In addition, due to our "accountability culture," teachers are driven to assess children according to a very narrow band of competencies. The teacher driven by a curriculum that expects the child to count by rote to fifty by a certain time frame will assess a child's "readiness" according to his or her ability to meet this curricular goal (Coleman, personal communication). It is of worth to pause here to emphasize that, in the words of Kagan (1994), "since the development of young children is rapid, episodic, and highly individualized, a measure taken at any given point, like a snapshot, reflects only that point in time" (p. 5274).
With all testing there is the potential for abuse and/or misuse. For example, *Diana v. State Board of Education* (1970) showed that Hispanic children had been improperly assigned to classes for the mentally retarded on the basis of IQ tests administered in English; on the same test administered in Spanish, most of the children placed out of these classes by gaining an average of 15 points (Encyclopedia of Educational Research, 1991, p. 1479). A second issue arises around the use of tests that have not been determined to be either reliable or valid. For example, one of the most widely used screening instrument is the Gesell School Readiness Test. Researchers have criticized this test on the grounds that "The low predictive validity does not support its use for school readiness assessment leading to placement decisions" (Graue & Shepard, 1989 cited in Freeman, 1990, p. 30). In addition, researchers have concluded that "None of the available tests are accurate enough to screen children into special programs without a 50 percent error rate" (Shepard & Smith, 1986, cited in Freeman, 1990, p. 29).

Thirdly, in a publication sponsored by the AERA, it was noted that:

> Testing is also abused when it leads to decisions that are harmful. For example, children might be placed in a special program on the basis of a reasonably reliable test, but the use of the test cannot be defended if the special program is ineffective or has negative side effects (Encyclopedia of Educational Research, 1992, p. 1479).

Bowman (1993) notes that studies on retention in kindergarten and first grade "show that it does not have a beneficial effect on academic and social outcomes" (p. 116). Shepard (1989) reviewed 15 controlled studies on extra-year programs - developmental kindergarten, kindergarten retention, or transition first grade - and found "no difference at the end of first grade or later grades between unready children who spent an extra year before first grade and unready children who went directly to the first grade" (Shepard and Graue, 1993, p. 302). In
addition, citing research, Shepard and Graue (1993) note "it has been demonstrated that poor and minority children are overrepresented in the group of children selected as unready by a variety of readiness measures" (p. 301). These children placed in "at-risk" kindergartens experience "dumbed-down" instruction and lowered expectations from teachers, themselves, and classmates (Shepard and Graue, 1993, citing Oakes, 1985, p. 302). After reviewing the research on children who had two years of kindergarten, Shepard and Smith (1986) concluded that "Children in these programs show virtually no academic advantage over equally at-risk children who have not had the extra year. There is often an emotional cost associated with staying back" (Shepard and Smith cited in Evelyn Freeman, 1990, p. 30).

*The impact of labeling on self-concept*

In a study conducted by the SDP on the relationship between children's self-concept and their teachers' assessments of their behavior, we observed that "Teachers' subjective assessments of how children related to them appeared to have significant influence on children's self-evaluations" (Haynes, Comer, Hamilton-Lee, Boger, Rollock, 1987, p.396). A child labeled "not up to par" is likely to internalize this assessment. Self-concept is an important and widely recognized central component of children's psychosocial development. "The failure of schools," we wrote, "to respond to the psychological and developmental needs of children, and in particular, non-mainstream minority children, may be contributing to the unacceptably high levels of school dropout and school failure among this group" (ibid.). In another study conducted by the SDP, we observed that:
as children begin to attend school, their peers, teachers, and other significant others within the school environment transmit messages that they assimilate and internalize. It is widely believed that these messages become integrated into the developing child's self-concept and help to shape his or her personality (Coopersmith, 1967; Sprigle, 1980; Haynes, ?; p. 199).

Children carry with them labels given to them throughout their school years, as evidenced by the likelihood of a child assigned to a low-track remaining in that track over the years. As Bowman (1993) puts it, "The forewarning of school failure in children is audible before the third grade" (p. 105). She cites Alexander and Entwhistle (1988) who wrote, "By the end of the third grade, children are launched into achievement trajectories that they follow the rest of their school years" (ibid.). We would contend that urban, minority children routed into inadequate programs or retained are launched into achievement trajectories far earlier than third grade.

This perpetuation of the child's low self-concept is especially poignant because, as Schorr (1988) notes, "For an astonishing high proportion of youngsters in serious trouble as adolescents.. Most had had many years of unrewarding and unhappy school experiences before they ever got to high school" (p. 221). It is becoming increasingly apparent that the school's mission needs to be reconceptualized. Schools need to insulate and fortify urban, minority children against the deleterious social experiences that many of them encounter daily. It is important to emphasize the need for direct enhancement of minority child instead of labeling them with labels that signify that they are not as "ready" as their mainstream peers.
"Despite the social isolation and economic deprivation faced by many of these children, they often come to school with a much potential, eagerness to learn, and willingness to please adults as other children. They are no less intelligent, capable, or teachable than their more privileged counterparts. The problem very often is that teachers and other staff may perceive them as being less able than they are" (Haynes, 1993, p. 11).

**what the school can do**

To meet the challenges of the national goals for education, "all children in America will start school ready to learn," early childhood programs have two major challenges, according to Bowman: "to provide good-quality programs for all children and to prepare poor and 'caste-like' minority children for school success" (Bowman, 1993, p. 123). Educational researchers concerned with the state of North American schools have advocated the view that in order for educational institutions to be effective, they must evolve into human resource development centers (Presseisen, Smey-Richman, Beyer, 1993, p. 3). However, in the national study conducted by the Black Community Crusade for Children referred to earlier, black adults were asked, "Who could do the most to really make a positive difference on problems for black youth?" It is informative that 58% responded parents but only 4% responded schools. In addition, it is especially informative that in the youths’ perceptions of who cares a lot only 30% indicated teachers - well behind the 67% who indicated national black leaders who are far more distant from the children then the teachers with them in the classrooms. Yet as (1991) relates:
It occurred to me that in a democratic society, the school is the first place that 'outsiders' have a right to make demands on families. The school is the first test of a family’s adequacy in nurturing a child. The school provides the single, common pathway for all children; and therefore no stigma is attached to helping children there is opposed help provided by mental health, welfare, or correctional agencies (p. 72).

Given the potential of schools to act as catalysts in the lives of children and their communities, we would ask are schools ready to promote development among all the children? By rephrasing the school readiness question, we clearly indicate that the burden of readiness should not be on five year old children, but rather on the education professionals within the schools.
Ecological Model of School Readiness

The recently published book: \textit{The Bell Curve: Intelligence and Class Structure in American Life, by Hernstein and Murray (1994)} has stirred considerable controversy over the role of environmental social factors in children's cognitive development. In arguing that genetic endowment plays a major role in determining cognitive ability as measured by IQ tests, the authors noted:

"new knowledge is likely to come from sharply focused investigations into the development of cognitive ability, conducted in an atmosphere that imposes no constraints on the researchers other than to seek and find useful knowledge within commonly accepted ethical constraints. The most promising leads may come from insights into the physiological basis of intelligence rather than from the cultural or educational variables that have been customary in educational research. (p. 413).

They further excoriate compensatory programs such as head start for having failed to significantly increase the cognitive abilities of mostly poor urban African-American children, essentially maintaining that the majority of poor urban African-American children are victims of an inferior genetic pool compared to their more affluent white counterparts. This line of reasoning is dangerous and insensitive because it uses limited data to attempt to condemn a significant portion of our citizens, our valued and precious resource, our children, to lives of poverty, hopelessness and despair. It seeks to remove the moral imperative of our nation, our communities, our schools, and our families for recognizing and developing to the fullest extent possible, the potential of each and every child. There is substantial data to show that early interventions which address the social context and developmental needs of children do significantly increase their cognitive and social skills and therefore, their school readiness.
According to what I call the ecological model of school readiness, there is a dynamic process of reciprocal influence of several factors which influence children's school readiness. The model includes six components: individual potential, the larger distal social context, the proximal social contexts, developmental pathways, readiness indicators and school progress and growth.

Potential

In this model, potential is a constant. I assume, unlike Hernstein and Murray that every child is born with as much potential to learn and achieve as any other child except in cases where there are specific identifiable physical, mental or cognitive deficits resulting from congenital illnesses or abnormalities. There is no natural genetic endowment that contributes to one child being more ready than the other. The potential to learn and succeed is a human endowment that all children come with into this world.

Social Contexts

The social contexts into which children are born and in which they are reared, nurtured, schooled and socialized significantly influence the development, maximization and realization of their potential. In the model there are two broad social contexts: distal larger national context and the proximal social contexts. The latter is nested in the former and is influenced by it.

A. Larger Distal National Social Context

In American society, racism, classism, sexism and policies and practices based on these, and on political considerations, all of which are part of the larger distal national social context,
influence how well families are able to function, how well children are prepared and taught in pre- and grade school and how well communities are able to respond to the needs of children and families. The power of the media is also significant influence on children’s self-perceptions and school readiness, as Jerome and Dorothy Singer continue to show. It is important therefore, for all of us who are concerned about the welfare and readiness of all children to learn to advocate for policies and programs at the national, state and local levels that are fair, equitable and supportive of all children. One good example is the support that Head Start has received from the present administration and some members of congress due to the efforts of many advocates who have seen the benefits of Head Start and the difference it has made in many children’s lives. Similarly the growing national support for Ed Zigler’s Schools of the 21st Century and James Comer’s School Development Program and the merging of the two initiatives into the COZI program has significant implications for social and educational policies that affect the school readiness and success of all children, and especially non-mainstream urban children. I will discuss the COZI initiative in more detail later.

B. Proximal Social Contexts

Despite the influence of the larger national context on families, schools and local communities, these elements of the more proximal and context are more directly influential in children’s lives, and have more power to impact their development. Therefore, they must assume primary and major responsibility for the day to day, on-going consistent shaping and nurturing of children’s potential. Our families, schools and communities must become more child-centered and responsive to the developmental needs of children. Parents or guardians must spend more quality time with their children, read with them more, play with them more, listen
to them more and become more involved in their learning. Schools must be more sensitive and responsive to individual differences, reach out more to families and children, provide more opportunities for children to demonstrate their special talents, challenge children more through high expectations and a caring sensitive climate and provide mechanisms to address the special needs of children living and growing up under stress. Schools can play a pivotal role in connecting families and children to needed services. Local communities must provide the support services families and children need, including health, recreation and educational services, in a manner that is accessible and affordable.

Together, these three elements of children's proximal social context help to shape and nurture children's development along critical developmental pathways and thereby their school readiness and success.

Developmental Pathways, Readiness Indicators and School Progress

James Comer postulates that there are six critical developmental pathways along which children must develop well to be ready for and be successful in school. There are: physical, speech and language, moral, social interactive, psychological and intellectual cognitive. Families, schools and local communities must engage children and serve them in ways that nurture and maximize their potential along each pathway. Good developmental along each pathway is manifested in the associated readiness indicator:

Physical: Health Status
Speech and language: Literacy and Numeracy Skills
Moral: Appropriate Behaviors
Social Interactive: Interpersonal Skills and Social Competence
Psychological: Self-Esteem and Motivation To Learn
Intellectual Cognitive: Knowledge and Problem Solving Skills
The readiness indicators are measurable and can be assessed over time. Assessment of these indicators should be undertaken not for the purpose of classifying or retaining children but for the purpose of intervening and feeding information back to families, schools and communities who may need to adjust or strengthen programs and activities. Readiness then is viewed within the framework of a dynamic process of change and growth over time, connected to comprehensive service delivery and access, with formative assessment, feedback and program adjustments, to better help children develop, learn and progress well in school.

Assessing Readiness in the Comer-Zigler (COZI) initiative.

COZI is an initiative that merges the ideas and work of two of the nation's foremost children's advocates, child development experts and educators: Drs. James P. Comer and Ed Zigler, both of whom are professors at Yale University. Zigler’s Schools of the 21st century advocates the utilization of public schools for the provision of carefully monitored day care and after school care for children from birth to the time they enter grade school. The care is provided by well trained providers who are certified by local authorities. Health screenings, good nutritional programs, parenting classes and adult educational services are integrated into the network of services available to parents and children. Schools are also utilized during evening hours until 9 p.m. and on weekends for a variety of educational and recreational activities, including child care services. Prenatal care is also provided to expecting mothers and the unborn child.

The School Development Program provides a caring, sensitive, responsive and challenging school climate to enable children to develop well along the six critical pathways outlined above. This is achieved through a nine element process which includes:
3 operations and 3 guiding principles which guide the behavior and interactions of all persons in the school. The program emphasizes the importance of good positive relationships, a positive and supportive school climate and collaborative planning and decision making in the development of the school’s comprehensive plan. The plan addresses the academic and social development needs of children as well as their needs along all of the other pathways. The meaningful and significant involvement of parents in their children’s schooling is a cornerstone element of the program as well as the provision of mental health support for teachers, parents and children. The program also recognizes the important role schools can and should play in connecting families and their children to services in the community.

In establishing COZI we are seeking to address the readiness needs of children in a continuous, seamless fashion by having the preschool components of the program feed right into the grade school component. Readiness is therefore recognized as a dynamic evolving process that does not begin or end with kindergarten but that begins before birth and continues through the school years.

**Tentative Research and Evaluation Plan**

The research and evaluation plan calls for a longitudinal study of cohorts of infants and preschoolers who participate in the COZI program and a comparative cohort who do not. We will examine the readiness indicators associated with the developmental pathways over the life of the project beginning from birth to 12th grade. Additionally we will assess the levels of functioning of the three elements of the proximal social contexts through questionnaires, interviews, observations and review of documents. Our hope is to be able to link the level and quality of functioning among the elements in the proximal social contexts with growth and
developmental along the pathways as operationalized through the readiness indicators.

Subjects for the study will include mothers and children who are identified prenatally as part of the COZI effort, and preschoolers and their families in COZI schools. Matched comparison groups of children and their parents/guardians who are not being served through COZI will be identified. A minimum of 200 children and families in New Haven Connecticut and Norfolk Virginia will be identified for inclusion in the study.

Measures to assess family, school and community functioning and support will be identified or developed. Some of these will include the Family Environment Scale to assess the family. The Haynes and Emmons School Climate Survey to assess the school and documentation of community services through interviews and review of documents to assess community services. Measures to assess the development along the six critical pathways will be linked to the readiness indicators, they will include: physical health reports to assess health status; tests and observations of speaking, writing and numerical skills to assess literacy and numeracy skills; recording of behavior to assess appropriate behavior; observations of interpersonal interactions using rating scales and the administration of the Social Competence Scale to assess interpersonal skills and social competence; Interviews and the administration of the Piers-Harris Self-Concept Scale to assess self-esteem and motivation to learn; and portfolios and standardized and teacher-made tests to assess knowledge and problem solving skills.

The time frame for conducting this study will be a minimum of six to twelve years beginning in the fall of 1995.
REFERENCES


