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The Influence of Selected Noncognitive Variables on the Academic Success of Urban Black High School Males in an Enrichment Pre-College Program

Leon Rouson
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THE INFLUENCE OF SELECTED NONCOGNITIVE VARIABLES ON THE
ACADEMIC SUCCESS OF URBAN BLACK HIGH SCHOOL MALES IN AN
ENRICHMENT PRE-COLLEGE PROGRAM

by

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ABSTRACT**THE INFLUENCE OF SELECTED NONCOGNITIVE VARIABLES ON THE
ACADEMIC SUCCESS OF URBAN BLACK HIGH SCHOOL MALES IN AN
ENRICHMENT PRE-COLLEGE PROGRAM**

**Leon Rouson
Old Dominion University, 2000
Director: Dr. Maurice R. Berube**

The thrust of this study was to examine the influence of selected noncognitive variables on the academic success of urban Black high school males in an enrichment Pre-College Program. The major research question was: Which of the selected noncognitive variables are most useful in predicting academic success for urban Black high school males?

This study reinvestigated Sedlacek and Brooks' (1976) proposed set of seven noncognitive variables related to academic success: (a) self-concept; (b) realistic self-appraisal; (c) understanding of and ability to deal with racism; (d) preference for long-term goals over more immediate, short-term needs; (e) availability of a strong support person; (f) successful leadership experience; and (g) demonstrated community service.

Participants were 102 urban Black high school males in an enrichment Pre-College Program in six urban school districts located in North Carolina. Of the 102 urban Black high school males, 60 were declared academically successful and 42 were academically unsuccessful (determined by cumulative grade point average and number of honors/advanced placement courses taken). Pearson Product-Moment Correlations were used to determine the relationship between academic success and the selected

noncognitive variables. In addition, a discriminant function analysis was used to determine the overall relationship between the selected noncognitive variables in predicting academic success. The results of the analyses permitted the researcher to conclude that all of the seven noncognitive variables influenced academic success. However, “self-concept”, had the greatest influence followed by “prefers long-term goals to short-term,” “demonstrated community service,” “successful leadership experience,” “understands and deals with racism,” “availability of a strong support person,” and lastly “realistic self-appraisal.” These findings support previous research findings and are consistent with the self-empowerment and resilience theories.

Dedication

This research project is dedicated to the most important influence in my life, my father, Mr. Joseph Rouson. Dad, although I no longer have your positive influence available to me in an earthly form, you are always with me. I am so happy that I was able to be near you the last year of your life. I know that you smile down from heaven as I complete this project.

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I wish to express my gratitude to the members of the committee: Chairperson, Dr. Maurice R. Berube, Dr. Jack Robinson, and Dr. Walter Kimbrough. Their patience in dealing with me during this process and keeping me on track are deeply appreciated. In addition, I would like to thank those persons who, through timely personal influence, set me on the path to complete this research endeavor and develop focus in my approach to the subject. In alphabetical order, they are: Ms. Melanie Baker, Ms. Maxine Baskerville, Dr. Helen Caldwell, Ms. Rita Fuller, Dr. Anne Henderson (deceased), Dr. Ronnie Hopkins, Dr. Carol Jones, Ms. Robin Joyner, Dr. Gerry Madrazo, Ms. Nancy Rowland (deceased), Ms. Jorice Williams, and the entire Elizabeth City State University Academic Community.

Primarily, I must thank my mother, Shirley Rouson, whose sacrifices were many and whose strength I called upon most often.

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**The Influence of Selected Noncognitive Variables on the Academic Success of Urban
Black High School Males in an Enrichment Pre-College Program**

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CHAPTER I

INTRODUCTION

Statement of Purpose

The purpose of this study was to examine the influence and relationship of selected noncognitive variables on the academic success of urban Black high school males in an enrichment Pre-College Program. Sedlacek and Brooks (1976) proposed a set of seven noncognitive variables that are related to academic success which were reinvestigated in this study. Those variables were (a) positive self-concept; (b) realistic self-appraisal; (c) understanding of and ability to deal with racism; (d) preference for long-term goals over more immediate, short-term needs; (e) availability of a strong support person, (f) successful leadership experience; and (g) demonstrated community service. This study determined the correlation and relative contribution of these seven selected noncognitive variables as it relates to academic success (defined as grade point average and number of honors/advanced placement courses taken) for urban Black high school males.

The study focused on adolescent, urban, Black, and male cultures, using the selected noncognitive indicators as a framework to predict their academic success. Clifford Geertz (1980) defines culture as the support of beliefs, expressive symbols, and values in terms of which individuals define their world, express feelings, and make judgments. Culture theory, based on this definition, was used to offer insight on how urban Black high school males interpret what occurs in their lives (for example, the part

played by personality, attitudes, and perceptions). These understandings were examined to reveal how they shape subsequent actions and interpretations. It is this conceptualization of culture that was central to this study.

Background

Historically, academic success (whether defined as academic achievement or educational persistence) has been explained in terms of purely academic dimensions, such as ability or its lack, or good or poor study habits (Pentatges & Creedon, 1978). But growing evidence has indicated that noncognitive dimensions may be as important and perhaps more important to academic success than many of the traditional cognitive and/or demographic dimensions (e.g. race, genetics, socioeconomic status, parents education level, or school environment) (Astin, 1975; Berry & Asamen, 1989; Ford, 1996; Gelso & Rowell, 1967; Messick, 1979; Pascarella & Chapman, 1983; Pascarella, Duby & Iverson, 1983; Scott & Byran, 1984; Sedlacek, 1992, 1991, 1989, 1988; Sedlacek & Brooks, 1976; Tinto, 1975; Tracey & Sedlacek, 1984, 1985, 1987).

Sedlacek (1984; 1988; 1991; 1992) and Sedlacek and Brooks (1976) hypothesized that noncognitive variables are more important than traditional academic measures to the academic success of minority students, prompting much debate within the academic community. These researchers therefore proposed and tested seven noncognitive variables that are related to academic success, especially for African American students (Sedlacek, 1987, 1989, 1991, 1992; Sedlacek and Brooks, 1976). These seven noncognitive variables are supported in the literature and most significantly by the self-

empowerment theory and the resilience model.

The literature suggests that cognitive, noncognitive, and demographic variables are all related to the academic success of students. The studies examined also indicated that the educational attainment process for African American students may be influenced much more by noncognitive dimensions than by cognitive factors. However, most of the studies that have used noncognitive variables as predictors of academic success have focused on college students as the population for analysis. Much less is known about the relationship between noncognitive variables and academic success among high school students.

The literature further suggests that the prediction of minority and/or Black male academic performance seems to be less reliable when traditional cognitive and/or demographic variables are the sole measures of success. Most studies conducted on academic success using minority student groups have been interpreted monolithically and/or race- comparative in nature. There was little research found on within- group analysis as it related to race and/or gender comparisons. Graham (1994) proposed that the educational attainment process may be very different for African American students. Fleming (1984) made a similar point by suggesting, for example, that African American students employ very different coping skills than those employed by White students in order to succeed academically. Clearly, more empirical research is needed to answer questions concerning the academic success of African American students in general and urban Black males in particular (Bempechat,1999; Graham, 1994).

According to Ladson-Billings (1994), no challenge has been more daunting than

that of improving the academic achievement of African American students. Burdened with a history that includes the denial of education, separate and unequal education, and relegation to unsafe, substandard inner-city schools, many urban African Americans still find the quest for a quality education a major challenge.

Theories of Failure

There are many theories in the literature that attempt to explain why minorities lag behind academically and are not as academically successful as their non-minority peers. Deficiency theories in the literature assume that Black children fail in school because they are deficient in the cognitive, linguistic, and other skills that promote a White middle-class type of school success (Bempechat, 1999). The reason for their lack of such skills, according to deficiency theories, is that Black parents do not raise their children the way that White middle-class parents do (Bempechat, 1999; Allen & Boykin, 1992). The cultural conflict theory, on the other hand, asserts that Black children fail to achieve White-middle class type of success because they possess different linguistic, cognitive, and other school-related skills that are not recognized by the schools for instructional purposes (Inkeles, 1968).

The institutional deficiency theory maintains that the failure of many Black children is attributable to the fact that schools are organized to promote success among White middle-class children and failure among Black children (Kohn, 1969). The educational inequality theory blames Black school failure on lack of sufficient remedial programs to counteract the negative educational influences of the home and community (Coleman, 1966). On the other hand, Jensen's (1969) theory of innate inadequacy

suggests that there may be a genetic or biological basis for the school failure of Black children. Ogbu (1978) theorized that an American caste system exists in which a child's academic achievement is greatly influenced by the race, class, and/or culture into which that child was born. Ogbu's theory asserts that schools are organized and embedded in the American castelike system. This paradigm suggests that Blacks are members of a caste due to a history of discrimination and exploitation. This past history led to a folk theory of unequal opportunity, which has affected the way that Blacks perceive, interpret, and respond to educational barriers (Ogbu, 1978;1988).

Theories of Success

Fortunately, some urban Black males manage to somehow avoid barriers and temptations awaiting them in the educational process. They go to class, learn, and are academically successful (Hrabowski, Maton, & Greif, 1998). It is important to examine such a group, because there is a paucity of literature on this population and their concerns (Bempechat, 1998; Fries-Britt, 1997; Lee, 1996).

An academic success theory coupled with a model of African American student success is supported in the literature and will serve as the scaffolding to support Sedlacek's selected noncognitive variables model. Tucker's (1999) self-empowerment theory postulates that academic success is significantly influenced by high levels of self-motivation, self-confidence, self-praise, self-reinforcement, adaptive skills, and engagement in success behaviors. Winfield's (1994) resilience model identifies such characteristics as positive peer and adult interaction, participation, cooperation, positive self-concept, sense of personal power, and sense of humor as ultimately leading to

academic success. Several aspects and concepts of the self-empowerment theory and the resilience model appear throughout the literature and provide support for Sedlacek's set of noncognitive variables that will be used to frame this study. The implicit premise of the study is that effective predictors of academic success for urban Black males are often related to self-empowerment and resilience.

Significance of Study

There was a need to investigate noncognitive variables and factors that contributed to the academic success of minorities in school settings (Astin, 1974; Bempechat, 1999; Berry and Asman, 1989 ; Ford, 1994; Sedlacek, 1992, 1991, 1989, 1991; Sedlacek and Brooks, 1976; Tinto, 1975). The rationale is that many of the social, cultural, socioeconomic, environmental, physical, school, teacher, family and cognitive variables that indirectly or directly influence the academic success of Black children will likely not change over the duration of their childhood (Tucker, 1999). Therefore, Sedlacek and Brooks' selected seven noncognitive variables that were analyzed in this study were variables centered around self-empowerment and resilience.

It may seem counterintuitive to examine the experiences of students who are achieving in school, since these students have already demonstrated that they are capable of excelling in academic settings. Bempechat (1998), however, believes that concentrating on why students fail rather than why they succeed is shortsighted and misses the point entirely. In fact, educators' and researchers' anxieties over school failure should be driving their efforts to understand academic *success* (Bempechat, 1999; Lee,

1996; Miller, 1995). Bempechat (1999) believes that a great deal could be learned about promoting school success by studying those students who seem to succeed academically despite many historical, socioculture, economic, and political barriers. The essential need to investigate those factors that contribute to the success or failure of African American males in school settings is evidenced by the increasing proliferation of local and national forums that address these issues (Rios, 1996). Nevertheless, despite the widespread attention that has been focused on the academic performance of urban Black males, little scholarly research has been conducted on the issues and concerns of academically successful Black males (Fries-Britt, 1994).

In addition, the generally race-comparative approach to the study of ethnicity and academic success has deprived teachers and researchers of the opportunity to understand what might distinguish academically successful students from academically challenged students within a particular subgroup or ethnic group. For example, while it is important to investigate the literature addressing why African American male students as a group tend to lag behind other male student populations in academic accomplishments, it is equally important to know why students within each group differ in their educational needs. As Bempechat & Drago-Severson (1998) have suggested, this knowledge would allow individuals to move beyond ethnic stereotypes, which can exert a devastating effect on a child's self-esteem and academic success.

Clearly, the many issues involved in understanding school success are not easy for any educator, researcher, or public policy-maker to address. There is little consensus over the ways in which we should go about increasing our understanding of academic success

(Bempechat, 1999). A goal of this study was to expand the findings of Sedlacek and others in predicting academic success using noncognitive variables. This analysis utilized urban Black adolescent males as its target population instead of traditional minority college students as was the case in Sedlacek's numerous studies. It is hoped that the research-based data from this study will provide a method of approaching policy, programming, and optimal conditions in which urban Black males may be educated. Empowering young Black males will require a comprehensive and systematic approach (Bempechat, 1999; Lee, 1996; Reed, 1989). The pressing academic and social changes which confront Black males in schools suggest a pressing need for programmed interventions on the part of educators, parents, policy makers and researchers (Bempechat, 1998; Comer, 1997; Ford, 1996; Fordham & Ogbu, 1986; Fries-Britt, 1997; Gibbs, 1998; Hopkins, 1997; Hrabowski, 1998; Kunjufu, 1986; Lee, 1991; Majors, 1991; Miller, 1995; Mincy, 1994; Tucker, 1999). It is hoped that the findings from this study can facilitate this process.

Problem Statement

Urban Black males face formidable challenges to their educational development. Statistics on educational attainment would suggest that many Black youth are at-risk in the nation's schools. A closer examination of the data indicates that out of all students, Black males suffer the greatest potential for risk. According to Reed (1998):

1. The overall mean achievement scores for Black male students are below those of other groups in the basic subject areas.

2. Black males are far more likely to be placed in classes for the educable mentally retarded or for students with learning disabilities than to be placed in gifted and talented classes.

3. Black males are far more likely to be placed in general education and vocational high school curricular tracks than in an academic track.

4. Black males are suspended from school more frequently and for longer periods of time than other student groups.

5. Black females complete high school at higher rates than Black males.

Such data are compounded by the fact that Black males are frequently the victims of negative attitudes and lower expectations from teachers, counselors, and administrators. Educators may expect to encounter academic and social problems from Black males, which often leads to a self-fulfilling prophecy (Ford, 1996; Gibbs, 1988; Hopkins, 1997; Kunjufu, 1986; Ladson-Billings, 1994; Washington & Lee, 1982).

It is critical to analyze the influences or possible variables that may help explain why some urban Black males are succeeding academically and others are not. First, as a nation, Americans are concerned with improving the educational prospects not only of those living in poverty and those whose parents have little education but also those who are middle-class minority students (Miller, 1995). Second, by focusing on the highest achieving young urban African American males, we can identify attitudes, habits, behaviors, perspectives, and strategies that may shed light on what schools need to do, and what parents in their homes need to do, to reverse current downward trends involving urban Black male behavior and academic performance (Bempechat, 1998; Britt-Fries

1997; Hrabowski, 1998; Lee, 1996; Sedlacek, 1985).

A survey of the literature did not yield quantitatively- based studies highlighting the influence and relationship of selected noncognitive variables on the academic success of urban Black high school males. Additionally, there was a paucity of literature related to academically successful Black males in urban high schools. Without this type of student data, it may be impossible to determine the impact of institutional settings and educational processes on this special population.

As chapter II will show, the literature review uncovered a significant void in the research relating noncognitive variables to the academic success of urban Black high school males. In view of this need for theoretical explanations for these students' academic success, this study was designed to analyze the influence and relationship of selected noncognitive variables on the academic success of urban Black high school males in an enrichment Pre-College Program.

Relevance to Urban Education

The academic success of urban minority students serves as a national concern at all levels of education (Ladson-Billings, 1994). Perhaps none is more pressing than the concern of urban Black males (Hopkins, 1997). Current statistics show that urban Black males are overrepresented in high school drop out rates, suspension rates, failure rates, and underachievement levels (Gibbs, 1988; Hopkins, 1997; ; Kunjufu, 1986; Ladson-Billings, 1994; Lee, 1996). The consequences of these negative educational experiences represent significant limitations on socioeconomic mobility, and are major factors in the

high rates of unemployment, crime, and incarceration of Black men (Gibbs, 1988; Hopkins, 1997; Kunjufu, 1986; Ladson-Billings, 1994; Lee, 1996; Wilson, 1996). The future of urban Black males in America will depend, in a large measure, on urban policy and program initiatives aimed at nurturing the development of this student population.

The majority of the students of our nation's urban schools today are minorities (Miron, 1996). The demographic change in cities during the last few decades is reflected in the changing student population served by urban schools (Miron, 1996). According to Caves (1995), only a few of the nation's large cities had a majority of White students. Most students were Black or Hispanic in school districts such as Boston, Buffalo, Cincinnati, Milwaukee, Norfolk, Pittsburgh, Rochester, and San Francisco. In some of our nation's largest cities such as New York, Los Angeles, Baltimore, Chicago, Cleveland, Dallas, Detroit, Atlanta, New Orleans, Philadelphia, St. Louis, and Washington, DC, very few of the public school students are White (Caves, 1995). Many of the students who attend urban schools today bring with them special needs (Ayers & Ford, 1996). Many of the students are poor, and are from single-parent households. For most urban youngsters, basic education is only acquired in public schools (Ladson-Billings, 1994).

The need for urban schools to be more effective for minorities and the poor is critical (Gibbs, 1988; Hopkins, 1997). Because of changing urban population statistics, the nation's future work force, as well as future leadership roles, will depend increasingly on these students (Wilson, 1996). Thus, the degree to which urban minorities and persons living in poverty are able to be academically successful both in school and in life, is

crucial to the social, economic, and political viability of urban America (Wilson, 1996). Further, the pressing academic and social changes which confront urban Black males in schools suggest a pressing need for programmed interventions and manipulations on the part of educators, parents, policy makers and researchers (Bempechat, 1998; Comer, 1997; Ford, 1996; Fries-Britt, 1997; Gibbs, 1988; Hopkins, 1997; Hrabowski, 1998; Kunjufu, 1986; Lee, 1991; Majors, 1991; Miller, 1995; Mincy, 1994; Tucker, 1999). The goal of this study was to examine and explain the influence of selected noncognitive variables on the academic success of urban high school Black males in an enrichment Pre-College Program and potentially a significant number of urban children in general.

Research Question

The following research question served as the basis for this study:

Which of the selected seven noncognitive variables are most useful in predicting academic success for urban Black high school males in an enrichment Pre-College Program? The predictive variables for academically successful urban Black males are expected to be different from those Black males identified as academically unsuccessful.

Research Hypothesis

The following research hypothesis, in seven parts, was tested:

1. Self-concept will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.
2. Understanding of and ability to deal with racism will be significantly related to

academic success for urban Black high school males in an enrichment Pre-College Program.

3. Availability of a strong support person will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

4. Realistic self-appraisal will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

5. Preference for long-term goals over more immediate, short-term needs will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

6. Successful leadership experience will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

7. Demonstrated community service will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

Assumptions

The following assumptions were implicit in this investigation:

1. The urban Black high school males that participated made an effort to provide honest and reliable responses when completing the noncognitive questionnaire used in this study to measure the seven specific characteristics.

2. The NCQ questionnaire was given to the students under semi-structured classroom conditions.

Limitations/Delimitations

The study had the following limitations/delimitations:

1. The size of the population of academically successful urban Black high school males was small.
2. The measurement tool required the self-reporting of personality characteristics, involvement in activities, and academic information. Researchers have documented the accuracy of students' reports of their own behaviors, perceptions, and attitudes (Sawyer, Laing, & Houston, 1989). Several researchers have documented the predictive validity of students' self-reported grades. Fetters, Stowe, and Owings (1984) found correlations ranging from .87 to .93 between student self-reported and school-reported grades.
4. The results of this study is viewed as only illustrative of the performance of urban Black high school males in grades 9-12 in a Pre-College Program.
5. Assessment of the noncognitive variables was limited due to the fact that only one questionnaire was used.
6. The participants for the study only included students who were in the North Carolina Mathematics and Science Education Network Pre-College Program, which included a cross section of six urban cities and school districts across the state of North Carolina.

Definition of Key Terms

The following definitions will make more explicit the meaning of terms used in this study:

1. *Academic success.* The term refers to “success” in school in the form of grades and number of college preparatory courses taken (Turk, 1997). For the purpose of this study, being academically successful refers to having a 3.00 (B) or higher cumulative grade point average (GPA) on the 4.00 scale and taking three or more college preparatory courses or a composite score of 4.50 or better. The numerical standard to define academic success for this study was determined by the minimum admissions requirements to enroll in any state university in North Carolina, which was set by the University of North Carolina System. Composite scores were computed by adding .50 to each participant’s unweighted GPA per college preparatory and/or advance place course(s) currently taking. The higher the GPA and the more college preparatory courses taken, the more “successful” the student is considered. In this study academically nonsuccessful students will be defined as those students with GPA’s below a 3.00 and/or taking fewer than three college preparatory courses or a composite score of less than 4.50.

2. *Grade point average (GPA).* Garland (1965) defines GPA as “a measure of scholastic success in all school subjects studied by a student during a specific term, or accumulated for several terms” (p.3). The high schools attended by the participants in this study use the 4.0 grading scale system.

3. *College preparatory courses.* A college preparatory course is any high school course that is specifically designed to prepare students to attend a college or university

(Kelly, 1979). This term includes any course that is deemed honors or advanced placement.

4. *Noncognitive variables*. A noncognitive variable is a measure of “personality characteristics as affect and motivation that predict response to instruction or, more generally, to the likelihood of success in a given learning environment” (Messick, 1979, p.281). Operationally, such variables will be measured by the Noncognitive Questionnaire (NCQ) scores.

5. *Urban Black high school males (UBHSM)*. This term refers to Black or African American males attending an urban high school located in an urban city, district, or system in grades 9-12.

6. *Urban high school*. The term refers to a public high school in an incorporated municipality with over 2,500 people with a core city population density exceeding 1,000 residents per square mile (US Census Bureau, 1995).

7. *“Black.”* This term is a racial descriptor which is used interchangeably with the term African American. African American refers to students or individuals born in America but of African decent.

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to discuss the literature that pertains to the factors that influence the academic success of urban Black males. It includes theoretical and empirical literature on adolescent and gender development, urban Black male culture and issues, and student academic success and failure among minority students.

Research on Adolescent and Gender Development

Theorists and researchers such as Erikson (1950), Havighurst (1972), Kohlberg (1966), and Piaget (1970) have suggested that major aspects of human development unfold in a series of life stages. As individuals progress through these life stages, they must achieve a series of developmental tasks. The successful engagement in these tasks at one stage of life influences the successful engagement with tasks in succeeding stages.

Adolescence is the developmental transition between childhood and adulthood, and is characterized by significant physical and psychological changes. It also marks personality changes designed to attain self-esteem and independence (Havighurst, 1971; Mincy, 1994 Piaget, 1970). According to Havighurst (1972) there are eight significant developmental tasks that must be accomplished during adolescence: (a) accepting one's physique and using the body effectively, (b) achieving emotional independence from parents and other adults, (c) achieving a masculine or feminine social role, (d) achieving new and more mature relations with peers of both sexes, (e) desiring and achieving socially responsible behavior, (f) acquiring a set of values and an ethical system as a guide

to behavior, (g) preparing for an economic career, and (h) preparing for marriage and family life.

Erikson (1950) linked adolescence with the development of a sense of personal identity, which involves discovering “who I am” and increasing understanding of one’s existence. He found that an adolescent’s failure or frustration in developing a personal identity will result in self-doubt and role confusion. Lee (1996) states that during the transitional years of adolescence, the development of a personal identity is greatly influenced by three important socializing institutions: the family, the secondary school, and the peer group. These three institutions contribute significantly to the mastery of adolescent development skills.

With the onset of universal secondary education in the United States, high school has become the central organizing experience in the lives of most male adolescents. Secondary school, through both academic and social activities, offers adolescents the opportunity to learn information and master skills important for later life (Banks & Finlayson 1973; Kelly, 1979; Mincy, 1994). Secondary schools play a diverse social and academic role. High schools are given considerable responsibility for helping students to develop attitudes, expectations, and skills that will prepare students for adult social and occupational roles. Considerable time is spent by schools –with schools acting *in loco parentis*—socializing students in a variety of ways (Banks & Finlayson, 1973; Kelly, 1979; Mincy, 1994; Spady, 1974). But the role of the American high school is not limited to either cognitive instruction or socialization. In addition, high schools sort students into social strata that determine or restrict social and career opportunities (Banks & Finlayson,

1973). The male adolescent entering high school should therefore expect that his years there will provide him with more than academic preparation for life.

Research has shown that males exhibit different psychosocial and developmental styles which lead teachers to perceive males differently from females; and without intervention, these differences can adversely affect the educative process and achievement of males (Soderman and Phillips, 1986). Soderman and Phillips (1986) analyzed a significant body of research on learning and gender differences and concluded that there are at least five areas of differences where young male students are concerned:

1. *Psychosexual differences.* Males across all observed cultures, exhibit greater aggressiveness, desire to explore, and vigorous rough-and tumble- behavior because of hormones that exist at or before birth. Increasingly, teachers are not willing or able to tolerate these behaviors. Males, in turn, are taking these attributes to extremes and turning them into daring behaviors that cost this society dearly (i.e. vandalism, violence, etc.).

2. *Structural differences in the brain.* Boys appear to experience slower growth in the left hemisphere of the brain. Though males perform better than girls on tasks that require mechanical and geometric skill, the delayed growth puts the young male at risk for language and speech problems, stuttering and even allergies.

3. *Developmental differences.* In terms of cognitive development, boys lag behind girls anywhere from 6 to 18 months. Their visual development is slower, and boys are physically less mature. Thus a boy who is 6.5 years of age may be developmentally as young as a girl 4.9 years of age.

4. *Academic achievement differences.* Sex difference have been strongly correlated

with academic achievement. For example, when compared with girls, kindergarten boys consistently score lower on tests designed to measure academic potential and language skills.

5. Differences in perceptions. Biases and expectations have a strong impact on educational and occupational outcomes. Instead of getting the attention, the positive reinforcement, and nurturing that promotes growth and success, males are often labeled slow learners or behavior problems. This is especially the case with urban males of color, who are often feared and perceived as dangerous and in need of control. They are suspended from school, locked up in juvenile detention facilities and adult jails far more often than females and their counterparts from other ethnic backgrounds (p. 67).

Akbar (1991), a psychologist, asserts that “maleness” is a mentality that operates with the same principles as biology, that is, it is a determined biological fact which is in no way subject to choice. Experts and researchers are finding that boys and girls are mentally, psychologically, and socially different (Kanrowitz & Kalb, 1998). Boys should be raised with special consideration for their distinct needs (Hopkins, 1997, Majors, 1991). Boys and girls have different “crisis points,” stages in their emotional and social development where things can go wrong (Akbar, 1991; Hopkins, 1997; Majors, 1991; Soderman & Phillips, 1986). Kalb (1998) notes that boys are much more likely than girls to have discipline problems at school and to be diagnosed with attention deficit disorder (ADD). Boys far outnumber girls in special education classes (Kanrowitz & Kalb, 1998; Hopkins, 1997; Kunjufu, 1986). They are also more likely to commit violent crimes and end up in jail (Gibbs, 1988).

Gilligan (1993) and others found that girls have an enormous capacity for establishing relationships and interpreting emotions. On the other hand, researchers have found that boys tend not to possess this skill as soon as their counterparts (Kantronitz, 1998). The demands placed on boys in the early years of elementary school can increase their overall stress levels. Scientists have known for years that boys and girls develop physically and intellectually at very different rates. Boys' fine motor skills considerably lag behind girls. They often learn to read later. At the same time, they are much more active-- not the best combination for academic success, notes Thompson (1992).

With the high rate of divorce, many boys are growing up without any adult men in their lives at all. Elium (1992) states that with troubled boys, there is often a common theme: distant, uninvolved fathers, on the one hand, and mothers who have taken on more responsibility to fill the gap, on the other. Black boys are especially vulnerable, since they are more likely than Whites to grow up in homes without fathers (Gibbs, 1988; Hopkins, 1997; Majors, 1991; Soderman & Phillips, 1991). Kunjufu (1986) and Fordham and Ogbu (1986) think mentoring programs will help this population overcome the common view that to be academically successful is to "act White."

For Black males, completing the tasks associated with being academically successful has been problematic due to a complex set of interacting historical and social factors that often inhibit success (Gibbs, 1988). This lack of opportunity can negatively influence Black adolescents' academic, professional, and social success in later life (Gibbs, 1988; Hopkins, 1997; Lee, 1996; Mincy, 1994; Ogbu, 1988).

Basic Points of Cultural Psychology

There are three commonly accepted notions in cultural psychology (Bempechat, 1998; Comer, 1999). First, child development is embedded in culture and context. It is simply not possible to understand how ethnic minority children grow and develop, both socially and academically without first understanding how different cultures and social contexts influence the ways in which people come to understand the world around them. Second, parents and teachers are the agents of their culture-- the ones who transmit cultural beliefs and practices to children. This implies that they are guided in their socialization practices by the very cultures they live in. Third, Bempechat (1998) states that in order to deepen our understanding of issues as complex as children's motivation to succeed in school, one must seriously consider what psychologists refer to as "meaning making in context." This means that one must pay very close attention to how children and parents shape their understanding of schooling and education in their own contexts. Researchers must give greater importance to the language that students use to describe their experiences with schooling, the perspectives they bring to bear on their experiences, and the beliefs that develop as a result of these experiences (Schurmans & Dasen, 1992).

Although cultural values are intertwined with many aspects of one's life, people are often unaware of their influence (Gee, 1990). Cultural psychology is central to this investigation because, in this research, many cultural interactions and interrelations are being examined. As researchers look at urban Black male culture and several related issues such as class, race, and gender, with each one of these categories having its own distinct culture, they find that through all of these issues yet another culture is created. In an

attempt to explore the issues of Black male culture, researchers and educators must recognize that academic success is tightly intertwined with the total social lives of individuals (as distinct from their “school lives”). Therefore, in this critical sense, urban Black male academic success or its lack needs to be seen not as only affecting culture but also as a source of culture (Wagner, 1995).

Factors Contributing to Problems Among Urban Black Males

Gibbs (1988) has proposed four major sets of factors that could account for the downward spiral of urban Black males: historical, socioculture, economic, and political. These factors are briefly discussed below.

Historical factors. Black youth today are the ultimate victims of a legacy of over 250 years of slavery, 100 years of legally enforced segregation, and decades of racial discrimination and prejudice in every facet of American life. Countless authors have documented the brutality of slavery, the cruelty of segregation, and the injustice of discrimination. Generations of Blacks have endured inferior schools, substandard housing, menial jobs, and the indignities of poverty. Yet, through all these travails, Blacks of each generation have continued to make progress and have held on to the belief that their children would eventually merge into the mainstream of American society (Gibbs, 1988).

Sociocultural factors. Certain recent historical and demographic developments have undoubtedly contributed to the sociocultural changes in the Black community. Many middle-class Blacks moved out of the inner city into integrated urban and suburban areas, leaving poor Blacks behind in blighted neighborhoods without effective leadership, successful role models, or the supportive institutions, and social networks that provided

social stability, economic diversity, and traditional values to the community (Clark, 1965; Glasgow, 1981).

Many Blacks in inner cities no longer feel connected to each other, responsible for each other, or concerned about each other (Gibbs, 1988). Rather than a sense of shared community and a common purpose, which once characterized Black neighborhoods, these inner cities now reflect a sense of hopelessness, alienation, and frustration. Gibbs (1988) and Wilson (1996) state that it is exactly this kind of frustration that exploded in the urban riots of the 1960s from Watts in California, to Detroit, Michigan, to Washington, D.C. The causes of these antisocial behaviors are sometimes ignored, denied, or blamed on the Black youth, who are written off as being intellectually deficient, culturally deprived, and pathologically deviant. Gibbs (1988) also states that short-term remedies are devised for the consequences of their behaviors, with little understanding that these Band-Aid solutions are very temporary, very perishable, and very ineffective to cure the underlying causes of frustration and anger in these Black male youth.

Economic factors. The post-World II economic revolution in the United States was a major factor contributing to the problems of Black youth. Two parallel developments created chronic unemployment among Black males, both young and old: (a) the structural change in the economy from a predominately manufacturing and industrial base to a predominantly high-technology and service base, and (b) the movement of these newer jobs from the central cities to the suburbs and peripheral areas (Gibbs, 1988; Kasarda, 1985; Sum, Harrington & Goedicke, 1987; Toffler, 1995; Wilson, 1996). Black youth, who once had the monopoly on menial service and domestic jobs in restaurants,

airports, and department stores, began increasingly being displaced by Asian and Hispanic youth (Gibbs, 1989). Although there is some controversy about the displacement theory, statistics indicate that Black youth employment rates decreased as the employment rates of other non-Whites were increasing (Sum, 1987). In their analysis of employment problems of poor youth in America, Gibbs (1988), Sum (1987), and Wilson (1996) conclude that it is poor Black teens who experience the most severe employment problems in both an absolute sense and relative to Whites and Hispanics in similar income positions. Gibbs (1988) refers to “non-economic” factors that have operated in the severe employment problems of young Black males—problems which reflect discriminatory hiring practices as much as they reflect economic and technological changes. There were signs of change, however, as the new millennium approached. Economists became aware that one effect of the economic boom and tight labor market of the 1990s was an opening of job opportunities to many young Black men who had previously been the least likely to be employed (Rodgers & Freeman, 1999).

Political Factors. Many political analysts interpret the growing conservatism as a backlash to the antipoverty programs and affirmative action policies of the Johnson and Carter administrations, a not-so-subtle protest of the “middle-American majority” to the civil rights and economic gains of minority groups (Berube, 1991; Gibbs, 1988; Omi & Winant, 1986). Gibbs (1988) notes that, by shifting the focus from society’s responsibility for its most vulnerable citizens to an emphasis on the “social pathology” of minorities and their families, some social critics, such as Murray (1984), have transformed the national debate from a proactive emphasis to one of retrogressive policies

and punitive programs. As a result, politicians who support cuts in social programs aimed primarily at disadvantaged and minority families have found increasing favor with the voters in the past 20 years. Thus programs with direct impact on Black youth, such as CETA, the Job Corps, subsidized loans for college, and youth employment programs, have been cut back or eliminated. Consequently, Black youth have responded by withdrawing from the labor market, reducing their applications to four-year colleges, and increasing their involvement in self-destructive and deviant behavior (Gibbs, 1988; Wilson, 1996).

Black Male Dilemmas and Achievement

Majors (1992) maintains that the central dilemma of the inner-city Black male is his quest to exhibit masculinity; he is too often grounded in “masking strategies” that require him to deny and suppress his feelings. Unfortunately, this challenge is interpreted by society as assertiveness, hostility, and anger. In short, the inner-city Black male is misunderstood. This misunderstanding, Majors contends, can explain the fact that the inner-city Black male dies earlier and faster than White males from suicide, homicide, accidents, and stress-related illnesses; he is more deeply involved in criminal and delinquent activities; and he drops out of school and is suspended more often than White youth.

It is difficult for the vast majority of Americans to understand that growing up young, Black, and male in our society often means hearing that it is not “cool” to be smart and seeing kids ridiculed and penalized by their peers for trying to achieve academically (Majors, Billson & Mancini, 1992). In fact, in one study of adolescents, researchers found that African Americans suffered in school because of the lack of peer support for academic

achievement, despite being influenced by authoritative parenting (Fordham & Ogbu, 1986; Steinberg, Dornbusch, & Brown, 1992).

There are a large number of urban young Black males who are avoiding the temptations awaiting them on their way to school, who go to class, learn, and are academically successful (Hrabowski, Maton & Greif, 1997). Some would suggest this group of high achievers, who show up in half the cases investigated, have college-educated parents and would succeed anyway. However, the data show that this simply is not the case. In 1995, for example, it was found that while 73.4% of Black males 25 years old and over had completed four or more years of high school (in contrast to 83.0% of White males), only 13.6% had completed four or more years of college (contrasted with 27.2% of White males) (Hrabowski, 1998). Also in 1995 the SAT average combined score of Black students in families where the highest level of parental education is a graduate degree is still only 844 (191) points below the national average of Whites in the same category (ETS, 1995).

A special issue of *Roper Review* (1991) focused on the socioemotional and academic needs of gifted males. The authors noted that gifted males contend with issues of bonding, emotionality, and maintaining a macho image (Alvina, 1991; Hebert, 1991; Kline & Short, 1991; Wolfle, 1991) often by channeling their efforts into sports rather than academics. The authors also noted that gifted males are more likely than females to be labeled hyperactive, and they are less likely recommended for acceleration, early school entrance, and grade skipping. More recently, Colangelo, Kerr, Christensen, and Maxey (1992) found that 90% of the underachievement in their large national study were White

males. One shortcoming of the study, however, is that “gifted males” were addressed as if they were a monolithic group; little attention was devoted to issues confronting gifted Black males. Although gifted Black and White males may share similar issues and barriers to achievement, gifted Black males have additional, distinct problems that can undermine their achievement and success (Ford, 1993).

National statistics help explain what many refer to as the “endangered Black male” (Kunjufu, 1986). The U.S. Department of Education (1990) and Sharpiro, Loeb, and Bowermaster (1993) reported that Black males continue to be referred to and placed disproportionately in special education programs—more than any other ethnic or racial group of adolescents. Such disproportionate placement in special education results in separate and unequal experiences. As a result, this mislabeling of students as behavior disordered or seriously emotionally impaired increases their probability of school failure (Ford, 1996).

Although Black males constitute 6% of the U.S. population, they are over represented among high school dropouts, school suspendees, prisoners, and students in special education classes; and they are underrepresented in gifted programs, college preparatory courses, and honor societies (Ford, 1996). Black males score lower than any other group on standardized tests (Governor’s Commission on Socially Disadvantaged Black Males, 1989). Although these data do not focus on academically successful Black males, one can reason by analogy that bright and highly capable Black males are represented in these alarming figures.

The literature is scarce regarding the interrelationship of race and gender among

academically successful students (Ford, 1996). As the preceding research findings indicate, minority students, regardless of their gender, face psychological, social, and cultural barriers to academic success. These factors have been explored relative to combined influence of race and/or gender on students' academic well being.

Traditional Theoretical Models to Explain Minority Academic Success or Failure

A wide range of theoretical models have guided research inquiries into "minority school failure." Traditional approaches to understanding the comparatively lower academic performance of many African American students have typically assigned blame to supposed deficiencies in the Black child, the child's culture, and alleged inadequacies of Black family life (Irvine, 1990). The most dominant of the theoretical frameworks have been the genetic deficit, cultural disadvantage, and difference theories, which generally have been grounded in a race-comparative approach.

Genetic Deficit Approach

The earliest explanations for the comparatively lower academic achievement among Black students assigned blame to "genetic deficits," in the child. This view emerged in the 1960s and has been reinvigorated in recent years with The Bell Curve (Herrnstein & Murray, 1994). Proponents of the intellectual deficit view argue that African American children experience school failure because of an intellectual deficit in their genetic makeup (Jencks, 1980; Jensen, 1969).

In spite of the popularity of these theories, Ryan (1971), recognized the need for an alternative framework to explain the achievement-related behaviors and outcomes for poor minority children. In *Blaming the Victim*, he argued, "we are dealing not so much with

culturally deprived children, as we are culturally deprived schools” (p. 38). Consequently, in recent years, researchers have begun searching for other explanations for “minority school failure.” As Ford (1996) argues, the deficit theories with their “blame the victim” orientation, have been largely responsible for Blacks and other minority groups still being labeled intellectually inferior. According to Murray and Fairchild (1989), the remnants of the genetic deficit perspective continue to reinforce “rumors of inferiority” and thereby maintain the lowered teacher expectations that many poor Black students are confronted with in schools and classrooms.

Cultural Disadvantage Theories

The cultural disadvantage theories emerged in the 1970s, as researchers were searching for more plausible explanations for school failure among African American and other children of color. They turned to theories about the environment rather than about the children’s supposed genetic makeup. These theories posit that Black children’s academic failure is relative to their presumed “inferior socialization experiences” (Jencks & Smith, 1972). The underlying premise of the cultural disadvantage theory is that Black children, because of environmental and social influences, lack the adaptations and knowledge necessary for school success (Jencks & Smith, 1972). Proponents of this view argue that Black children experience school failure because their home environments and lifestyles do not foster the types of cultural interactions necessary for the development of intellectual and social skills (Allen & Boykin, 1992). This approach assumes that Black children from impoverished backgrounds have not been adequately socialized to develop the personal and social characteristics thought to be critical determinants of achievement-

related behavior (Graham, 1994). For example, Moynihan (1965) attributed the “pathology” of Black family life to environmental handicaps that lead to self-perpetuating conditions (e.g. low self-concept, low achievement need, and an external locus of control).

Cultural Difference Models

More recently, there has been an increased attention to cultural difference models to explain school failure among students of color. The cultural difference models, in contrast to the deficit models, reject the assumption that Black children and their families are inferior, deficient, and pathological (Ford & Harris, 1986). Proponents of the cultural difference models posit that African American students bring unique sociocultural experiences to the school setting, but they emphasize that these are differences, not deficits (Murray & Fairchild, 1989).

Ogbu’s (1987) theory of cultural discontinuity has been one such theory. Ogbu posits that the major differences in the school experiences and outcomes of African American students lie in the discontinuities between their cultural backgrounds and the culture of the schools. He maintains that African Americans experience secondary discontinuities in school which are consistent with the situation of castelike or subordinate minorities who have been incorporated into the society involuntarily and permanently. He further argues that youth of “castelike” minorities have developed group identities and social relations geared to coping psychologically with experiences of institutionalized racism and discrimination.

Race Comparative Paradigms

Most of the research on African American students has focused on their failure to

achieve at the same academic levels as their White counterparts. Until recently, researchers have relied on race-comparative models, which have compared African American students to Whites and other ethnic minority groups (Connell, Spencer & Abner, 1994; Ford & Harris, 1996; Graham, 1994). Much less attention has been given to the variation that exists among African Americans. Consequently, studies grounded in race-comparative approaches fail to provide an accurate understanding of the determinants of African American students' success-related behaviors and outcomes.

According to Connell, Spencer, and Abner (1994), analysis within a group is necessary to understand why "some youth fail, some survive, and some thrive," in what are considered to be high risk environments (p. 118). Bempchat (1997) states there is not an overall understanding of success against the odds that is based on an explanatory theory. As noted earlier, very little of the existing research has taken a serious look at the numerous advances in current theories and models of why children succeed in school.

Recently a number of researchers (e.g. Anderson, 1984; Connell et al, 1994; Graham, 1994; Hale, 1994) have suggested that an appropriate framework for examining achievement patterns and behaviors of African American students should chart their in-group achievement patterns. These researchers assert that analyses of within-group differences or influences are necessary to understand why some African American students achieve in spite of overwhelming odds. Moreover, researchers have begun to shift their focus from the supposed deficiencies of the Black child to psychological, social, cultural, and structural barriers that impeded their academic success.

Contemporary Theoretical Explanations for African American School Success

Graham (1994), in her extensive review of the literature on motivation in African Americans, concluded that motivation is a pivotal construct in understanding the achievement strivings of minority populations. She notes that motivational psychology for African Americans must include a combination of cognitive and affective determinants of behavior. Specifically, African Americans' patterns of feeling, thinking, and behaving must be taken into consideration, as these variables have specific applications for understanding their achievement motives and broad implications for human behavior and motivational psychology in general (Graham, 1994).

Historically, academic success (either academic achievement or persistence) has been viewed as largely related to academic factors (e.g. lack of ability or poor study habits) (Pentages & Creedon, 1978). But growing findings indicate that noncognitive dimensions are as important or more important to academic success than are the traditional dimensions (Astin, 1975; Berry & Asamen, 1989; Ford, 1996; Gelso & Rowell, 1967; Messick, 1979; Pascarella & Chapman, 1983; Pascarella, Duby & Iverson, 1983; Scott & Bryan, 1984; Sedlacek, 1992, 1991, 1989, 1988; Sedlacek & Brooks, 1976; Tinto, 1975; Tracey & Sedlacek, 1984, 1985, 1987).

The idea of using noncognitive indicators to predict collegiate academic potential has been espoused most notably by Sedlacek and his associates in a variety of studies (Sedlacek & Brooks, 1976; Sedlacek, 1987; Sedlacek & Adams-Gaston, 1992; Tracey & Sedlacek, 1985, 1986). Their efforts have focused on the differential use of noncognitive variables for various ethnic and racial groups, and these studies have indicated the use of

noncognitive variables to be most valid for African-Americans and other campus groups who typically fare poorly on the SAT and ACT examinations. For these applicants, noncognitive variables have been shown to be effective indicators of academic potential. Sedlacek & Brooks (1976) established seven variables which they validated for African-American applicants. Their studies have determined that various combinations of these variables add significantly to the ability to predict academic success- particularly for students who do not align with traditional admissions criteria.

There is one new theory and one model in the literature that elucidates the premise of this study which connects self- empowerment and resilience to academic success.

Self-Empowerment Theory

Tucker (1999) proposes a new, culture-sensitive, socioeconomic-sensitive, research-based, practical approach to addressing academic problems of African American children. The self-empowerment theory postulates that academic success and academic failure are significantly influenced by levels of (a) self- motivation to achieve academic success, (b) self-praise about one's academic success, (c) self-reinforcement in academic success behaviors, (d) adaptive skills for life success, and (e) engagement in success behaviors. Tucker (1999) insists that it is these variables that African American youth must depend on when in situations where adults and others do not know how to (or do not choose to) motivate or encourage these youth.

The self-empowerment theory (SET) recognizes that social, economic, cultural, and home environment factors significantly influence the academic success of African American children and asserts that the nature and degree of these influence factors likely

differ across individual and/or groups of African American children (Tucker, 1999). SET also incorporates the reality that most social context variables that negatively influence the academic achievement of African American children are usually unyielding. SET is based on the assumption that ultimately the most direct and modifiable influences on African American children's academic success are most often self-empowerment variables (Tucker, 1999). SET advocates the realistic modification of social context variables, such as teacher and parent behaviors, toward the goal of facilitating self-motivation, self-confidence, self-reinforcement, self-praise, adaptive skills, and academic success behaviors of African American children (Tucker, 1999).

There has been a great deal of research conducted to identify factors in the lower academic performance of African American students. Ford (1993) states it is because of the very high school dropout rate among urban, low-income, and minority students, among whom African Americans are highly represented. Tucker (1999) found that most studies have focused on factors in academic success that are external to African American children themselves. These are factors such as socioeconomic status, parents' attitudes and education levels, teacher behaviors and attitudes, and learning methods used in the classroom.

Connell, Spencer, and Aber (1994) provided empirical support for self-empowering African American children when they showed that self-variables such as perceived competence and perceived control directly influenced the children's engagement in learning behaviors (e.g., studying), which in turn most directly influenced the children's grades and standardized test scores. Parental support (a social context variable) also had a significant but indirect influence on the children's grades and standardized achievement

scores.

Contrast between two basic models. Findings from five studies by Tucker and her research colleagues with samples of low-income African American families led to the self-empowerment theory. These research investigations utilized a Difference Model research approach (Oyemade & Rosser, 1980 from Tucker, 1999), which advocates identifying determinants of differences among African American students as a group rather than focusing on their deficits compared to European American students. In contrast, the more commonly used Deficit Model research approach compares the performance of African American and other nonmajority groups to the performance of European Americans. The performance of European Americans serves as a comparison standard, and views lower performance by African Americans as an indicator of inferiority or deficit performance. Tucker (1999) notes that the Deficit Model approach incorrectly assumes that there are equal opportunities available to both African Americans and European Americans. Such a model fails to consider the cultural, economic, and socialization factors that might have implications for understanding and positively impacting the performances of both African American and European Americans.

The children in Tucker's studies that contributed to her self-empowerment theory of academic success were first through twelfth graders with one or more low grades, a weakness in math or reading, and mild behavior problems. Over 90% of the children had below a 2.5 grade point average (GPA), and a weakness in math or reading. Following is a summary of each of the studies conducted and the major findings that are relevant to the self-empowerment theory.

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Overview of self-empowerment findings. In one study, researchers examined adaptive skills (ie., communication, socialization, and daily living skills) as predictors of African American children's grade point averages (Tucker, Chennault, Brady, Fraser, Gaskin-Butler, Dunn, & Frisby, 1995). Results revealed that all of the examined variables were significant predictors of grade point averages.

In another study, expressiveness, cohesion, and conflict in the family were investigated as predictors of children's maladaptive behavior and adaptive skills (Dunn & Tucker, 1993). The researchers found that only conflict in the family was a significant predictor of maladaptive behavior.

A third study focused on self-esteem as a possible predictor of African American children's grades, adaptive skills, and maladaptive behavior (Gaskin-Bulter, & Tucker, 1995). Results revealed that self-esteem was not a significant predictor of children's grades. However, for females, high self-esteem did predict high adaptive skills and low maladaptive behavior. Surprisingly, for males, the results were just the opposite; that is, high self-esteem predicted high maladaptive behavior and low adaptive skills. In other words, the African American males who were feeling good about themselves were those who were engaging in problem behavior and had low skills and grades.

A further study by Tucker and her associates investigated African American children's math achievement motivation, self-control, and perceived social support from their primary care giver as predictors of academic success and of maladaptive behavior (Tucker, Vogel, Keefer, & Reid, 1997). Results revealed that the issue of self-control was a significant predictor of maladaptive behavior, accounting for 55% of the variance in maladaptive behavior. The math achievement motivation scores were uniformly low and

thus may explain why this variable was not considered to be a significant predictor.

Studies by other researchers have shown academic motivation to be significantly associated with the academic success of low-income African American children (Jordan, 1981).

In 1997, Tucker and her colleagues published a structured interview study with African American elementary school students and high school students and their parents and a group of African American teachers to determine their views on the academic performance and school behaviors of African American students (Tucker, Herman, Pedersen, & Vogel, 1997). Among the questions asked of the two student groups was, What can African American students, African American parents, and teachers do to help prevent poor scores by African American children? The responses to this question were highly consistent across the elementary school student groups and the high school student groups who were interviewed. These student groups strongly agreed that to prevent poor grades, African American students can pay attention in class, follow instructions given by the teacher, and ask questions about what they do not understand. The student group also highly agreed that African American parents can help their children with their homework and studying, encourage them, and talk regularly with their teachers. Additionally, the students interviewed highly agreed that teachers can help prevent poor grades among African American children by giving them extra individual help, explaining what is taught in class in more detail, encouraging them, and not giving up on them.

Based on this self-empowerment theory, Tucker (1999) has concluded that prevention and modification of academic failure require interventions such as teaching children (a) to teach themselves through self-instruction-based learning, (b) motivate

themselves through establishing short-term and long-term goals and engaging in activities for achieving these goals, and (c) to praise themselves for learning adaptive skills and for engaging in success behaviors-- behaviors that are required for classroom success and future economic and social success for themselves and for their families and communities (Tucker,1999).

Resilience Research Model

Winfield (1994) and others have identified individual characteristics that have led to the success of students in large urban poverty areas who succeeded academically despite their disadvantaged circumstances. These characteristics of the resilience research model include a wide array of social skills, positive peer interactions, a high degree of social responsiveness and sensitivity, and a sense of humor. Additional characteristics of Winfield's (1994) resilience model include the following (a) positive peer and adult interactions, (b) low degrees of defensiveness and aggressiveness and high degrees of cooperation, (c) participation, (d) emotional stability (teachers' ratings), (e) a positive sense of self, and (f) a sense of personal power rather than powerlessness.

Another important characteristic of resilient children is having at least one significant adult in their lives. An intact family was not an identifiable and consistent correlate (Clark, 1983; Fine & Schwebel, 1991). Winfield (1994) states that protected processes have to be reinforced constantly so that the potential for young people to be resilient when faced with risk factors and vulnerabilities remains intact.

“Successful at-risk students who participated in positive engagement behaviors -- for example, coming to class and school on time, being prepared for and participating in class work, expending the effort needed to complete assignments in school and as

homework, and not being disruptive in class-- counteracted other influences to produce acceptable grades, test scores and on-time graduation”(Finn, 1997, p.90). Finn (1997) also found that involvement in school gives even high-risk students a good chance at academic success, independent of their family background and their own levels of self-esteem or beliefs about who is responsible for their academic success or failure.

A study conducted by Waxman & Huang (1996) examined resilient and nonresilient Black and Latino inner city students’ perceptions of their learning environment and motivation. Findings indicate that the instructional learning environment significantly differed between resilient and nonresilient students. Students from the same school environments and similar home environments experienced the environment differently, and some achieved and some did not. Findings indicated that resilient students were more motivated and much more satisfied with their classes. Multivariate analysis and univariate post hoc tests revealed that resilient students had significantly higher perceptions of involvement, task orientation, rule clarity, satisfaction, pacing, and feedback than nonresilient students. Resilient students also reported significantly higher social self-concept, achievement motivation, and academic self-concept than did nonresilient students.

Hebert (1993) focused exclusively on gifted Black males in an ethnographic study. He utilized participant observations, ethnography, and interviews to enter the lives of 12 inner-city minority adolescents, half of whom were identified as underachieving. A primary focus of the study was to explore resiliency among these males, examining why males in similar family and educational situations take alternative paths to achievement and academic success.

Several factors distinguished resilient and achieving gifted Black males from nonresilient and underachieving Black males. Achievers had a strong sense of self; they were sensitive and compassionate; and they had aspirations and an inner will to achieve. Further, successful minority males were nurtured by one or more adults, which often included a teacher or family member. In contrast, underachieving males often became filled with despair and confusion and eventually lost sight of their goals. These students had negative curricular and counseling experiences. According to Hebert (1992), they learned to dislike school and teachers who ignored their individual learning styles. Underachievers also faced social difficulties, such as problematic, complex family situations and negative peer environments. These findings clearly suggest that academic success for gifted Black males are centered around noncognitive variables. There were five noncognitive variables that were uncovered in this study related to academic success: strong self-concept, sensitivity and compassion, motivation to achieve, strong support person, and preference for long-term goals over more immediate, short-term needs.

Research by Sedlacek and Brooks (1976) also supports these noncognitive indicators used to predict academic success for minority students. Social scientists and educators have for a number of years explored those educational issues related to the academic achievement problems and lack of educational opportunities for some African American students. Most studies focused on lower income Black youth, since middle-class and affluent African Americans students are afforded the many opportunities thought to be denied to those individuals frequently referred to as the underclass. On the other hand, Asamen (1989) cautions against underestimating the profound effect of race and gender on how a person is received in our society, irrespective of that person's opportunity.

Sedlacek's Seven Noncognitive Variables Research Model

Sedlacek and Brooks (1976) proposed seven noncognitive variables which were developed further by Sedlacek. Sedlacek (1987) defines and describes the characteristics of high- and low-scoring on each of the seven noncognitive variables as follows.

1. *Positive Self-Concept or Confidence.* An individual with this characteristic possesses strong self-feelings, strength of character, determination, and independence. High scorers feel confident in their abilities to persist through graduation and in their self-appraisal.

Low scorers, on the other hand, express reasons why they might have to leave school and are not sure they have the ability to make it. They feel other students are more capable, and expect to receive marginal grades. They feel they will have trouble balancing personal and academic life. They avoid new challenges or situations.

2. *Realistic Self-Appraisal.* The individual who conducts a realistic self-appraisal recognizes and accepts any deficiencies and works hard at self-development. Such an individual also recognizes the need to broaden his or her individuality—especially in important academic areas. High scorers appreciate and accept rewards, as well as, the consequences of poor performance. They understand that reinforcement is imperfect and do not overreact to positive or negative feedback. They have developed a system for using feedback to alter behavior.

Low scorers are not sure how evaluations are implemented in school and overreact to most reinforcement (positive and negative), rather than seeing it in a larger context. They do not know how they are performing in their classes until their grades are acquired. They do not have a good idea of how peers would rate their performance.

3. Understands and Deals With Racism. A person characterized by this quality is realistic, based on personal experiences of racism. This person is not submissive to existing wrongs, nor hostile to society, nor a “cop out.” Such individuals are able to handle a racist system and will assert their position as an agent to fight racism. High scorers understand the role of the “system” in their lives and how it treats minority persons, often unintentionally. They have developed a method of assessing the cultural and racial demands of the system and act assertively—if the gain is worth it. But they respond passively if the gain is small or the situation ambiguous. They do not blame others for their problems nor are they oblivious to racism.

Low scorers, for their part, are not sure how the “system” works and are preoccupied with racism, or conversely, they do not feel racism exists. They blame others for their problems and react with the same intensity to large and small issues concerned with race. They are not able to handle racism in ways that do not interfere with their personal and academic development.

4. Prefers Long-Range Goals to Short-term or Immediate Needs. The individual displaying this preference is able to respond to deferred gratification. High scorers can set goals and proceed for some time without reinforcement. They show patience and can see partial fulfillment of a longer-term goal. They are future- and past-oriented and do not see only immediate issues or problems. They show evidence of planning in both academic and non-academic areas.

Such attitudes and behaviors are not true of low scorers. Low scorers show little ability to set and accomplish goals and are likely to proceed without clear direction. They rely on others to determine outcomes, and they live in the present. They do not have a plan

for approaching a course, school in general, an activity, and so on. The goals they have tend to be vague and unrealistic.

5. Availability of Strong Support Person. Having someone to turn to in crises is of great importance. High scorers have identified and received help, support, and encouragement from one or more specific individuals. They do not rely solely on their own resources to solve problems. They are not loners and are willing to admit they need help when it is appropriate.

Low scorers show no evidence of turning to others for help. They usually have no single support person, mentor, or close adviser. They do not talk about their problems and feel they can handle things on their own. Access to a previous support person may be reduced or eliminated, and they are not aware of the importance of a support person.

6. Successful Leadership Experience. An individual gains leadership experience through various areas pertinent to his or her background (e.g., gang leader, sports, noneducational groups). High scorers have shown evidence of influencing others in academic or nonacademic areas. They are comfortable providing advice and direction to others and have served as mediators in disputes or disagreements among peers. They are comfortable taking action where it is called for.

Low scorers show no evidence that others turn to them for advice or direction. They are nonassertive and do not take the initiative. They are overly cautious and avoid controversy. They are not well-known by their peers.

7. Demonstrated Community Service. By demonstrating community service, the individual demonstrates involvement in his or her cultural community. High scorers are identified with a group that is cultural, racial, or geographic. They have specific and long-

term relationships in a community and have been active in community activities over a period of time. They have accomplished specific goals in a community setting.

Low scorers tend to have no involvement in a cultural, racial, or geographical group or community. They have limited activities of any kind and are fringe members of any group to which they belong. They engage more in solitary than group activities (academic or nonacademic).

Sedlacek and Brooks (1976) hypothesized that these seven noncognitive variables are more important than traditional academic measures to the academic success of minority students. Tracey and Sedlacek (1984) developed an instrument, the Noncognitive Questionnaire (NCQ), to assess these dimensions. They found that many of the NCQ variables were found to be related to persistence and academic success for Blacks in college. Their studies also found that variables of positive self-concept and realistic self-appraisal were significantly related to persistence in college. According to Sedlacek, academic ability did not seem to be related to persistence, but he felt the picture was less clear for Whites. None of the variables assessed were found to be significantly related to persistence or academic success for Whites.

Related Comparative Research on Noncognitive Variables Models

In a comparison of cognitive and noncognitive predictors of academic success for African American college freshmen, Rogers (1984) found that high school GPA was the best cognitive predictor for both males and females, while SAT scores were not significant for either group. The significant noncognitive variables were showing pride in leadership, not getting easily discouraged, and expecting to have a difficult time at college. For the females in the study, having support for their college attendance from friends and relatives

was significantly correlated to first year success. In another study, Sedlacek's variables were found to be significant in predicting the college grade performance and persistence of African American college students (Trippi & Stewart, 1989).

Ford (1996) and Hilliard (1995) assert that measures of noncognitive variables provide more educationally relevant data than do standardized test scores of intelligence and achievement. Assessments of self-perceptions, attitudes toward school and courses, motivation, and learning styles further increase our understanding of the reasons why some Black students may be academically successful. The research of Diener and Dweck (1980) provides important information regarding the noncognitive variable self-perceptions and achievement. Poor achievers tend to have negative perceptions of their intelligence and ability compared to high achievers. Specifically, poor achievers (a) hold negative self-attributions-- they attribute failures to personal inadequacy, such as deficient intelligence; (b) rely heavily on emotion to explain away failures (e.g., they were bored, tired, worried); (c) avoid difficult tasks in order to "look smart"; and (d) become frustrated and do not persist in the face of failure.

When specific programs offer opportunities for students to acquire skills and invest in pro-social activities, they foster persistence. Nettles (1991) found that students who participated in activities sponsored by community-based programs displayed the following characteristics: (a) more certainty of graduating from high school, (b) increased sense of personal control, (c) heightened academic concept, and (d) increased efforts to achieve future goals. These characteristics relating to student participation in community-based programs (ie. church, special programs, and other types of organizations) seem to promote several of the noncognitive variables hypothesized by Tracey and Sedlacek for academic

success.

Berry & Asamen (1989) assert that the real linkage to academic success for African American children is academic self-concept. Academic self-concept is enhanced by pro-social strategies for coping with racism and overcoming the blocked opportunities that youngsters may encounter because of racism. The pro-social strategies for coping with racism provide a self-enhancing channel for anger and frustration and promote the use of psychic energy toward creating feelings of self-efficacy and self-worth. Most important, self-concept involves identification with others, interjection from others that projects into self-evaluation as well as interpersonal relationships. Self-esteem encompasses a sense of personal efficacy and personal worth which in turn leads to academic success.

In the search for more reliable methods of predicting academic success among minorities, researchers are turning increasingly toward the use of noncognitive variables. As has been shown, Tucker (1999) proposes the self-empowerment theory which postulates that academic success is significantly influenced by levels of self-motivation to achieve academically, namely, self-praise, self-reinforcement, adaptive skills for life success, and engagement in success behaviors. Winfield's (1994) model identified individual characteristics of resilient students who succeeded academically despite their disadvantaged circumstances. This model includes characteristics such as positive peer and adult interactions, a high degree of social responsiveness and sensitivity, positive sense of self, participation, and a sense of humor. It is a model that fits well with the model by Sedlacek and Brooks (1976) already discussed.

Tucker's (1999) theory of self-empowerment likewise supports Sedlacek's set of seven noncognitive variables. Both sets of variables emphasize individuals' participation

in their own success. The ability to be self-motivated and self-directed is extremely important in environments and situations such as those experienced by many urban Black high school males, where external motivating factors may be negative or even missing altogether. Whereas Sedlacek lists positive self-concept as one of his variables, Tucker uses the terminology, “ self-confidence about one’s academic success.” These seemingly separate variables actually represent two concomitant concepts. Both of these variables describe a student who has confidence in his or her ability to rise above external obstacles to achieve academic success.

Tucker (1999) also cites, as one of her variables, engagement in success behaviors. Sedlacek and Brooks (1976) are more specific in naming these success behaviors: preference for long-term goals over more immediate; short-term needs, successful leadership experience; and demonstrated community service. Sedlacek and colleagues and Tucker all found that the academically successful minority student is one who is goal-oriented and involved in leadership and service activities. Tucker (1999) also cites self-reinforcement for academic success behavior as an important variable. According to Tucker (1999), those children who value those behaviors which lead to academic success in the classroom and the achievement of career and social goals outside the classroom are children who are more likely to be academically successful. Sedlacek (1992; Sedlacek and Brooks, 1976) and Tucker (1999) use the word “self” repeatedly in stating their variables, and they state them in active rather than passive terms. The models suggest that academic success is the result of what a person does rather than what is done to him or her.

Winfield’s (1994) model of resilience has a high correlation with Tucker’s theory and Sedlacek’s models. A positive self-concept appears again as one of the success-

related variables. Winfield's model also lists a feeling of self-empowerment and self-control over the environment similar to Tucker and Sedlacek's finding. Winfield points to the engagement in success behaviors as a characteristic of successful students, specifically low degrees of defensiveness and aggressiveness and high degrees of cooperation, participation, and sensitivity. These variables are basic to Sedlacek's contention that academically successful African American students have an understanding of and ability to deal with racism, successful leadership experiences, and demonstrated community service. Both Sedlacek and Winfield see the presence of a strong support system or at least one significant adult in the lives of these students as an important component in their academic success. This adult does not have to be a parent, nor a member of a traditional, intact family unit.

Tucker's and Winfield's models support Sedlacek's set of noncognitive variables as being potentially influential predictors for academic success in minority students. The analysis of the variables indicates the most effective of those variables for this population relate to resilience and self-empowerment. (Refer to Figure 1 for content analysis and relationships of the three research academic success models).

| Sedlacek Set of Noncognitive Variables | Tucker Self-Empowerment Theory | Winfield Resilience Model |
|---|---|--|
| Self-Concept | Self-Confidence | Positive Sense of Self |
| Realistic Self-Appraisal | Self-Praise | |
| Understands and Deals With Racism | Adaptive Skills | Strong Sense of Personal Power and Sensitivity |
| Prefers Long-Range Goals to Short | Self-Motivation and Success Behaviors | |
| Availability of Strong Support Person | | Positive Peer and Adult Interactions and Significant Adult |
| Successful Leadership Experience | Success Behaviors and Self-Reinforcement | Participation and Cooperation |
| Demonstrated Community Service | | Participation and Cooperation |
| | | Sense of Humor |

Academic Success Research Variables Relationships

Figure 2. Relationship between Sedlacek's (1996; 1987; 1989; 1991; 1992) set of Noncognitive Variables, Tucker's (1999) Self-Empowerment Theory and Winfield's (1994) Resilience Research Model.

Summary

In summary, the research literature poses a multitude of hypotheses in the attempt to identify likely influences on academic success. A plethora of data exists related to family income, parental achievement, familial support for school success, self-perception, self-esteem, self-concept, school climate, race, genetics, school structure, and cultural factors. The studies, models and theories examined in this section offer considerable support to the premise that academic success for African Americans students may rely more heavily on noncognitive influences than on cognitive, environmental, or demographic variables. Further, the literature suggests that the prediction of academic performance for Black adolescent males is unclear and inconclusive using solely traditional cognitive variables as measures, and indicates a need to examine and measure selected noncognitive variables to gain a better understanding of academic success among this population.

Ogbu (1988) notes that examining the academic success of males of color is imperative. Thus, a need exists for research to test theoretical explanations for these students' success. There is a one major theory, coupled with a model that supports the importance and significance of noncognitive variables in predicting academic success. The theory is the self-empowerment theory (Tucker, 1999), which postulates that academic success is significantly influenced by levels of self-motivation, self-confidence, self-praise, self-reinforcement, adaptive skills, and engagement in success behaviors. The model is the resilience model (Winfield, 1994), which identifies such characteristics as positive peer and adult interactions, high degrees of cooperation, participation, sensitivity, sense of humor, positive self-concept, and sense of personal power and which ultimately

leads to academic success. Many aspects and factors of the theory and the model overwhelmingly appear in the literature. They support Sedlacek and Brooks' (1976) original set of selected noncognitive variables that have been used in this study to predict the academic success of urban Black high school males in an enrichment Pre-College Program.

Chapter III

Research Design and Methodology

This chapter describes the research design and methodology that was used to conduct the study. It includes the design, population and sample, along with the procedures, instrumentation, and statistical analysis.

Design

The study utilized a correlational and predictive design, affording a quantitative approach to determine the influence and relationship of selected noncognitive variables on the academic success of urban Black high school males. The criterion measured was academic success, which included both cumulative grade point average and the number of college preparatory courses taken. These two measures were combined mathematically to form a composite score. The student participants unweighted GPA on the 4.0 scale was adjusted by adding (.50) to that average per each honors or advanced placement (AP) courses the student is currently taking to form a composite score. The composite score range is from 0.00 to 7.00. For the purpose of this study, students with a composite score of 4.50 or better will be considered academically successful, and students scoring less than 4.50 will be deemed academically unsuccessful. The cut off composite score limit for the difference between academic successfulness and unsuccessfulness was determined by the minimum admissions requirements for all state universities in the University of North Carolina System. The predictor variables were the selected seven noncognitive questionnaire subscale scores.

Population and Sample

The study population consisted of Black males in grades nine through twelve attending an urban high school and enrolled in the North Carolina Mathematics and Science Education Network (MSEN) Pre-College Program. The mission of the University of North Carolina Mathematics and Science Education Network Pre-College Program is to increase the number of historically underrepresented students (minorities and females) who pursue mathematics and science fields at the university level and who then move into careers in science, mathematics, technology, engineering, and teaching.

There are a total of nearly 3000 students in the statewide MSEN Pre-College Program, including 761 students in grades 9 through 12. The MSEN Program has approximately 87% African American students, 31% of whom are African American males (1999 MSEN Status Report). There are approximately 197 Black males in grades 9 through 12 in the statewide Program.

Approximately 102 eligible urban Black high school males participated in this study for data analysis. The Black male students who were examined in the study were classified as either academically successful or nonsuccessful from the information they reported. Fetters, Stowe, and Owings (1984) found correlations ranging from .87 to .93 between students' self-reported and school-reported grades. Because only those Black male students in grades 9 through 12 who met the criterion of being academically successful or non-successful were used for central data analysis, all other students were excluded from the study. A description summary of the Mathematics and Science Education Network Pre-College Program can be found in Appendix C.

Procedures

A designee gave a brief explanation of the purpose of the study and introduced the seven noncognitive dimensions that were analyzed. The teacher then distributed the Noncognitive Questionnaire to all students in an organized and structured setting during a Saturday Academy session at a Mathematics and Science Pre-College site held on university campuses in six urban North Carolina cities. The six cities included were Durham, Chapel Hill, Greensboro, High-Point, Fayetteville, and Charlotte. Additionally, the designee asked the teacher to collect the NCQ questionnaires when they were completed by the students. To maintain anonymity, students were instructed not to put their names on the survey. Teachers were instructed not to look at students' surveys once they were completed, and all the surveys were collected at the same time to ensure confidentiality. Surveys were immediately turned in to the director's office in sealed envelopes. The completed survey forms were mailed to the researcher within seven days.

Instrumentation

The Noncognitive Questionnaire (NCQ) that was used in this research is included in Appendix A. The instrument was designed to assess seven noncognitive variables that have been tested by Sedlacek and Brooks (1976), Sedlacek and Tracey (1984), and Sedlacek (1988; 1989; 1990; 1991; 1992) and that have been found to be related to the academic success for students enrolled in college. These variables are: (a) global, positive self-concept as it relates to expectations for the coming years; (b) realistic self-appraisal, especially regarding academic abilities; (c) an understanding of racism (both personal and institutional) and ability to deal with it; (d) an ability to work toward long-term goals

rather toward more immediate, short-term ones ; (e) availability of people supportive of academic goals; (f) successful leadership experience in either organized or informal groups; and (g) demonstrated community service, as indicated by involvement in local community or church activities. This study was intended to expand Sedlacek's findings by examining the predictive validity of the NCQ for the academic success of urban Black high school males in an enrichment Pre-College Program. The instrument was slightly modified for a high school population.

The NCQ consisted of 29 items that were demographic, categorical, Likert- scaled, or open-ended in format. There were 4 demographic items, 2 categorical items on educational aspirations, and 2 items about the students' current academic record. The 18 Likert-type items assessed expectations regarding high school and self-assessment. The 3 open-ended items garnered information on present goals, past accomplishments, and other activities.

The Cronbach alpha procedure was used to determine an index of reliability for each of the selected noncognitive variables for the modified NCQ questionnaire. The reliability alpha coefficients for the seven noncognitive variables were: self-concept (.67), realistic self-appraisal (.64), understands and deals with racism (.46), prefers long-range goals (.56), availability of a strong support person (.55), successful leadership experience (.75), community service (.80), and overall (.75). The degree of reliability needed in a measure depends on the use that is to be made from the results. The measurements for this study will only be used for research purposes, and a lower reliability coefficient (in the range of .50 to .60) is acceptable (Ary, 1996).

There was only one variable with a reliability coefficient less than (.50) and that

was “understands and deals with racism”(46). The possible rationale for the low reliability coefficient of this variable was likely due to the small number of items on the instrument assessing this particular variable. The six other variables and the overall reliability were found to be acceptable.

All items of the NCQ have been found to have adequate test-retest reliabilities (2-week estimates ranging from .70 to .94 for each item with a median value of 0.85) (Tracey & Sedlacek, 1984). The open-ended items were rated by three judges, and interrater reliabilities included: long-range goals (.89), academic relatedness (the extent to which goals are related to participants) of goals (.83), the degree of accomplishments listed (.88), overall number of activities (1.00), leadership (.89), academic relatedness of activities (.98), and community involvement (.94). Sedlacek (1987; 1989; 1991) found good construct validity on the seven noncognitive dimensions using factor analysis.

The instrument was pilot tested on ten similar Mathematics and Science Pre-College high school students. The Noncognitive Questionnaire survey was adjusted for a high school population. The results were used to clarify and refine the instrument for more valid and reliable responses from the participants.

Statistical Analysis

The Statistical Package for the Social Sciences 8.0 (SPSS) was used for the data analyses. For all statistical analyses, the level of confidence was set at .05.

Frequency distributions were used to display demographic data on the sample. Means and standard deviations of the NCQ scores were compared between academically successful and non-successful urban Black high school males for statistical significance

with an independent samples group T-test. Product-Moment Correlation Coefficients were computed to establish the degree of relationship between academic success and the seven noncognitive variables through the NCQ subscores. The noncognitive variables that contributed independently and significantly to the prediction of academic success were determined through discriminate function analysis. The discriminate function analysis determined which noncognitive variables contributed the most unique explanation of variance in the academic success of urban Black high school males. The NCQ subscale scores were hand computed according to the worksheet for scoring (Sedlacek,1990). The worksheet for scoring is included in Appendix B.

Research Hypothesis

Pearson Product-Moment correlations were used to test each part of this central hypothesis: *A significant relationship exists between the selected seven noncognitive variables and academic success.*

The seven research subparts of the central hypothesis for this study were as follows:

1. Self-concept will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.
2. Understanding of and ability to deal with racism will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.
3. Availability of a strong support person will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

4. Realistic self-appraisal will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

5. Preference for long-term goals over more immediate, short-term needs will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

6. Successful leadership experience will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

7. Demonstrated community service will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

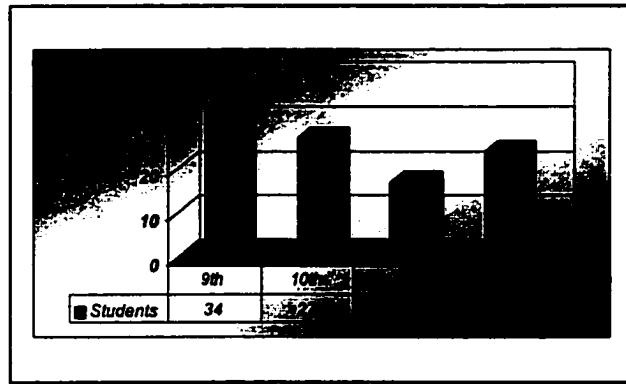
Chapter IV

Results, Analysis, and Interpretation of Data

This chapter presents an analysis and interpretation of the data. The first section presents demographic data regarding the sample of urban Black high school males in an enrichment Pre-College Program. Next, a discussion of the distribution of data obtained from the instrument will be examined. Then, the analysis of data for hypothesis testing will be discussed. Finally, the discriminate function analysis data will be discussed briefly.

Demographic Data

The sample consisted of 102 urban Black high school males in grades 9-12, from six urban school districts in North Carolina: Durham, Chapel Hill, Greensboro, High-Point, Fayetteville, and Charlotte. The participants were enrolled in one of four Pre-College Programs in the University of North Carolina Mathematics and Science Education Network. Males comprised 100% of the participants. In terms of race, 100% of the sample were African American. All of the participants were high school students in grades 9-12. As it relates to grade levels, 33% (N=34) were in the ninth grade, 27% (N=27) were in the tenth grade, 17% (N=17) were in the eleventh grade, 23% (N=24) were in the twelfth grade (See Figure 1).



Grade Level Breakdown

Figure 1. Grade level breakdown of the participants in the study.

Table 1 shows that in terms of type of occupations held by parent(s), 38% of the students were from homes where the father held a blue-collar job, and 46% came from homes where the father held a white-collar job. Slightly over one-fourth of the students had mothers with blue-collar jobs, and 62% reported that their mothers held white-collar jobs. Thus, in terms of grade levels and parental occupations, the sample represented different home backgrounds and educational levels of high school students, even though race and gender were not varied.

Table 1

Occupation Type Frequencies of Participants' Parents

| <i>Father's Occupation Type</i> | Frequency | Percent |
|---------------------------------|------------------|----------------|
| No response | 16 | 15.7 |
| Blue Collar | 39 | 38.2 |
| White Collar | 47 | 46.1 |
| Total | 102 | 100.0 |

Note: $N=86$

Table 1 (Continued)

| <i>Mother's Occupation Type</i> | Frequency | Percent |
|---|-----------|---------|
| No Response | 12 | 11.8 |
| Blue-Collar | 27 | 26.5 |
| White-Collar | 63 | 61.8 |
| Total | 102 | 100.0 |

Descriptive statistics for the participants minimum, maximum, mean and the standard deviation of overall grade point averages (GPA), number of honors and advanced placement (AP) courses, and composite scores are provided in Table 2. Table 2 also gives the mean GPA, number of honors/AP courses, and composite scores by grade level.

Table 2

Academic Profiles for Total Sample

Grade Point Average (GPA)

| | N | Minimum | Maximum | Mean | Std. Deviation |
|-----|-----|---------|---------|------|-------------------|
| GPA | 102 | 1.50 | 3.98 | 3.14 | .55 |

Number of Honors/AP Courses

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---------|-----|---------|---------|------|-------------------|
| Courses | 102 | .00 | 6.00 | 2.77 | 1.78 |

Table 2 (Continued)Composite Scores

| | N | Minimum | Maximum | Mean | Std. Deviation |
|------------------|-----|---------|---------|------|----------------|
| Composite Scores | 102 | 2.0 | 6.90 | 4.53 | 1.20 |

Academically Successful and NonSuccessful Students

| | Frequency | Percent |
|----------------|-----------|---------|
| Successful | 60 | 58.8 |
| Nonnsuccessful | 42 | 41.2 |
| Total | 102 | 100.0 |

Descriptive Statistics by Grade Level

| | 9 th Grade | 10 th Grade | 11 th Grade | 12 th Grade |
|--------------------------|-----------------------|------------------------|------------------------|------------------------|
| Mean GPA | 3.05 | 3.17 | 3.41 | 3.04 |
| Mean # of Honors Courses | 2.14 | 3.33 | 3.94 | 2.20 |
| Mean Composite Scores | 4.14 | 4.82 | 5.36 | 4.15 |

Note: N= 102

Table 3 shows a frequency breakdown of academically successful and nonsuccessful students. In terms of the number of academically successful and nonsuccessful students 59% (N=60) were deemed academically successful based on their composite scores, and 41% (N=42) were deemed academically non-successful from the total sample. There is a further breakdown by grade level shown in Table 3.

Table 3*Frequencies by Grade Levels: Academically Successful and NonSuccessful*

| 9th Grade | Frequency | Percent |
|-----------------------------|------------------|----------------|
| 1 | 15 | 44.1 |
| 2 | 19 | 55.9 |
| Total | 34 | 100.0 |

| 10th Grade | Frequency | Percent |
|------------------------------|------------------|----------------|
| 1 | 20 | 74.1 |
| 2 | 7 | 25.9 |
| Total | 27 | 100.0 |

| 11th Grade | Frequency | Percent |
|------------------------------|------------------|----------------|
| 1 | 15 | 88.2 |
| 2 | 2 | 11.8 |
| Total | 17 | 100.0 |

| 12th Grade | Frequency | Percent |
|------------------------------|------------------|----------------|
| 1 | 10 | 41.7 |
| 2 | 14 | 58.3 |
| Total | 24 | 100.0 |

Note: 1= Academically Successful, 2= Academically NonSuccessful

In Tables 4 and 5, a comparison of the mean differences between participant's parents with blue collar occupations versus participant's parents with white collar occupations for each of the seven noncognitive variables is provided. There were no statistically significant differences between subjects of blue-collar and/or white-collar parents for any of the seven noncognitive variables subscores.

Table 4

Independent Samples Comparing Participants' Fathers' Occupation Type and NCQ Subscales

| | Father's Job | N | Mean | Std. Deviation | Sig. |
|--|-----------------|----|-------|-------------------|------|
| Self-Concept | 1 | 39 | 19.38 | 3.54 | .59 |
| | 2 | 47 | 20.65 | 3.45 | |
| Realistic Self-Appraisal | 1 | 39 | 11.20 | 1.96 | .70 |
| | 2 | 47 | 11.06 | 1.96 | |
| Understands and Deals with Racism | 1 | 39 | 19.33 | 3.50 | .11 |
| | 2 | 47 | 20.17 | 2.64 | |
| Prefers Long-Term Goals over Short-Term | 1 | 39 | 9.28 | 1.86 | .15 |
| | 2 | 47 | 10.05 | 2.22 | |
| Availability of Strong Support Person | 1 | 39 | 13.46 | 2.06 | .09 |
| | 2 | 47 | 13.80 | 1.45 | |
| Successful Leadership Experience | 1 | 39 | 9.32 | 2.25 | .62 |
| | 2 | 47 | 8.89 | 2.40 | |
| Demonstrated Community Service | 1 | 39 | 4.24 | 1.69 | .55 |
| | 2 | 47 | 4.81 | 1.48 | |

Note: N= 90, * p= < .05

Job types are indicated thus: 1= Blue-Collar, 2= White-Collar.

Table 5

Independent Samples Comparing Participants' Mothers' Occupation Type and NCQ Subscores

| | Mother's Job | N | Mean | Std. Deviation | Sig. |
|--|-----------------|----|-------|-------------------|------|
| Self-Concept | 1 | 27 | 18.79 | 3.39 | .45 |
| | 2 | 63 | 20.48 | 3.32 | |
| Realistic Self-Appraisal | 1 | 27 | 10.74 | 2.08 | .99 |
| | 2 | 63 | 11.19 | 1.82 | |
| Understands and Deals with Racism | 1 | 27 | 19.96 | 3.16 | .76 |
| | 2 | 63 | 19.53 | 2.76 | |
| Prefers Long-Term Goals over Short-Term | 1 | 27 | 9.24 | 2.03 | .63 |
| | 2 | 63 | 9.88 | 2.14 | |
| Availability of Strong Support Person | 1 | 27 | 13.70 | 1.83 | .18 |
| | 2 | 63 | 13.58 | 1.71 | |
| Successful Leadership Experience | 1 | 27 | 9.05 | 2.25 | .58 |
| | 2 | 63 | 9.17 | 2.29 | |
| Demonstrated Community Service | 1 | 27 | 4.50 | 1.61 | .45 |
| | 2 | 63 | 4.60 | 1.65 | |

Note: N= 90, * p= < .05

Job types are indicated thus: 1= Blue-Collar, 2= White-Collar.

No hypotheses were adopted concerning the impact or influence of the demographic variable "parents occupation type or educational level" as it related to academic success. There was support in the literature, that "parents level of education" and a students' academic success would correlate; however that relationship was beyond the interest of the current study, and, as noted earlier and may be seen in Tables 4 and 5, it was determined that "parents type of occupation" was not statistically significant as it related to group differences based on NCQ subscores.

Tables 6 and 7 present a comparison of the mean differences between academically successful versus unsuccessful students for GPA, and composite scores. These data showed a statistically significant difference between the total sample's GPA for both

groups ($p = < 0.01$). There was also a statistically significant difference between the total sample's composite scores of the two groups ($p = < .05$). The data indicated that academically successful students had a significantly higher mean GPA and composite score.

Table 6

Independent Sample Comparing Academically Successful and NonSuccessful Participants by GPA

| GPA | Success | N | Mean | Std. Deviation | Mean Diff. |
|------------|--------------|----|------|----------------|--------------|
| Total | 1 | 60 | 3.44 | .37 | |
| Population | 2 | 42 | 2.75 | .54 | |
| | Total | | | | .69** |

Note: N= 102, 1= Academically Successful, 2= Academically NonSuccessful, * $p = < .05$, ** $p = < .01$

Table 7

Independent Samples Comparing Academically Successful and NonSuccessful Participants by Composite Scores

| Composite Score | Success | N | Mean | Std. Deviation | Mean Diff. |
|-----------------|--------------|----|------|----------------|--------------|
| Total | 1 | 60 | 5.35 | .63 | |
| Population | 2 | 42 | 3.36 | .79 | |
| | Total | | | | 1.99* |

Note: N= 102, * $p = < .05$

Distribution Data of Instrument

Six of the seven noncognitive variables were significantly related with each other. The only variables not significantly related to each other were “successful leadership experience” and “understands and deals with racism” (See Table 8). The variables “self-concept” and “prefers long-range goals to short-term needs” had the highest correlation with each other ($r=.574$, $p < .001$) (See Table 8). These data show that six of the seven noncognitive variables were significantly related to each other. These results also indicated that the selected noncognitive variables in this study were highly influenced by each other. At the same time, each of the noncognitive variables were significantly related to academic success as is noted in the next section. The discriminant function analysis gave further data on the relative contribution of each noncognitive variable to academic success (See Table 9).

Hypothesis Testing

The hypothesis tested in this study was: There will be a significant relationship between academic success and the selected seven noncognitive variables among urban Black high school males in an enrichment Pre-College Program. The findings for each of the seven parts of the hypothesis tested are presented below:

1. *Self-concept will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.*

Pearson Product-Moment Correlation analysis was used to examine the relationship between self-concept and academic success (composite score). In Table 8, Pearson Product-Moment Correlation coefficients are computed between the criterion variable and the predictor variables using the total sample ($N = 102$). From these data, the

noncognitive dimension “self-concept” was interpreted as having a statistically significant relationship to academic success ($r = .570, p < .01$). This noncognitive variable accounted for 32% of the explained variance for academic success.

Table 8

Pearson Correlations Matrix of NCQ Subscores and Composite Scores

| Variables | Composite Score | Self Concept | Understands and Deals with Racism | Realistic Self Appraisal |
|---|-----------------|--------------|-----------------------------------|--------------------------|
| Composite Score | 1.000 | .570*** | .332*** | .283** |
| Self Concept | .570** | 1.000 | .299** | .436*** |
| Realistic Self Appraisal | .283** | .299** | 1.000 | .290** |
| Understands and Deals with Racism | .332** | .436*** | .290** | 1.000 |
| Prefers Long-Term Goals over Short-Term | .421*** | .574*** | .388*** | .359*** |
| Availability of Strong Support Person | .217* | .335** | .445*** | .378*** |
| Successful Leadership Experience | .460*** | .430*** | .172 | .448*** |
| Demonstrated Community Service | .428** | .430*** | .219* | .313** |

Note: N= 102, ***p= < .001, **p = < .01, *p= < .05

Table 8 (continued)

| | Prefers Long-Range Goals to Short | Availability of Strong Support Person | Successful Leadership Experience | Demonstrated Community Service |
|---|-----------------------------------|---------------------------------------|----------------------------------|--------------------------------|
| Composite Score | .421*** | .217* | .460*** | .428*** |
| Self Concept | .574*** | .335** | .430*** | .430*** |
| Realistic Self Appraisal | .388*** | .445** | .172 | .219* |
| Understands and Deals with Racism | .359*** | .378*** | .448*** | .313** |
| Prefers Long-Term Goals over Short-Term | 1.000 | .488*** | .365*** | .400*** |
| Availability of Strong Support Person | .488*** | 1.000 | .245*** | .295** |
| Successful Leadership Experience | .365*** | .245* | 1.000 | .403*** |
| Demonstrated Community Service | .400*** | .295** | .403*** | 1.000 |

Note: N= 102, *** p= < .001, **p= < .01, *p= < .05

2. *Realistic-appraisal will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.*

The Pearson Product-Moment was used to examine the relationship between “realistic appraisal” and academic success (composite score). From these data, the dimension “realistic appraisal” and academic success was statistically significant ($r = .283, p = < .01$) (See Table 8). This noncognitive variable accounted for 8% of the explained variance for academic success.

3. *Understanding of, and ability to deal with racism will be significantly related to*

academic success for urban Black high school males in an enrichment Pre-College Program.

The Pearson Product-Moment was used to examine the relationship between “understanding of, and ability to deal with racism” and academic success (composite score). These data show the dimension “understanding and dealing with racism” to be statistically significant ($r = .332, p = < .01$) (See Table 8). This noncognitive variable accounted for 11% of the explained variance for academic success.

4. Preference for long-term goals over more immediate, short-term needs will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

The Pearson Product-Moment was used to examine the relationship between “preference for long-term goals over short-term needs” and academic success (composite score). From these data, the dimension “preference for long-term goals over short-term needs” was statistically significant ($r = .421, p = < .001$) (See Table 8). This noncognitive variable accounted for 18% of the explained variance for academic success.

5. Availability of a strong support person will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

The Pearson Product-Moment was used to examine the relationship between “availability of a strong support person” and academic success (composite score). From these data, the relationship of the dimension, “availability of a strong support person,” to academic success was found to be statistically significant ($r = .217, p = < .01$) (See Table 8). This noncognitive variable accounted for 4% of the explained variance for academic success.

6. Successful leadership experiences will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

The Pearson Product-Moment was used to examine the relationship between “successful leadership experiences” and academic success (composite score). From these data, the dimension “successful leadership experiences” and academic success was statistically significant ($r = .460$, $p = < .001$) (See Table 8). This noncognitive variable accounted for 21% of the explained variance for academic success.

7. Demonstrated community service will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.

The Pearson Product-Moment was used to examine the relationship between “demonstrated community service” and academic success (composite score). From these data, the dimension “demonstrated community service” and academic success was statistically significant ($r = .428$, $p = < .01$) (See Table 8). This noncognitive variable accounted for 19% of the explained variance for academic success.

These data indicate that the set of selected seven noncognitive variables examined were all significantly related to academic success and the hypothesis in all its composite parts was supported.

Discriminant Function Analysis Discussion

The discriminant function analysis was conducted using the identified significant predictor variables (seven noncognitive variables). Discriminate function was suited for the dichotomous prediction of academic success or nonsuccess and allowed the researcher to statistically examine the different variables' weight or contribution to the prediction. The derived cutoff score was then used to assign subjects to one of two groups—academically successful or nonsuccessful..

From these data, it was found that “self-concept” was the most important variable in predicting academic success for the total sample ($F = .885, p < .001$) (See Table 9). The ranking of the other variables for predicting academic success were “prefers long-terms goals over short-term needs”(F = .617, $p < .001$), followed by “demonstrated community service” (F = .526, $p < .001$), “successful leadership experience” F = .514, $p < .001$), “understands and deals with racism” (F = .338, $p < .001$), “availability of a strong support person” (F = .312, $p < .001$), and “realistic self-appraisal” (F = .274, $p < .001$) (See Table 11). In terms of predicting group membership, 78.4% of the original grouped cases were correctly classified (academically successful or nonsuccessful).

Table 9

Discriminant Analysis for Total Population to Predict Group Membership (Academically Successful or NonSuccessful) using NCQ Subscores

Wilks' Lambda

| Test of Function(s) | Wilks Lambda | Chi-square | df | Sig. |
|---------------------|--------------|------------|----|---------|
| 1 | .64 | 42.73 | 7 | .000*** |

Structure Matrix

| | Function |
|---------------------------------------|----------|
| | 1 |
| Self- Concept | .885 |
| Prefers Long-Term Goals over Short | .617 |
| Demonstrated Community Service | .526 |
| Successful Leadership Experience | .514 |
| Understands and Deals with Racism | .338 |
| Availability of Strong Support Person | .312 |
| Realistic Self- Appraisal | .274 |

| | | Predicted Group Membership | | | |
|----------|-------|----------------------------|---------|-----------|-------|
| | | SUCCESS | Correct | Incorrect | Total |
| Original | Count | 1 | 50 | 10 | 60 |
| | | 2 | 30 | 12 | 42 |
| | % | 1 | 71.4 | 28.6 | 100.0 |
| | | 2 | 83.3 | 16.7 | 100.0 |

Note: 78.4% of original grouped cases correctly classified, N= 102, *p= <.05, **p=<.01, ***p= <.001
1= Academically Successful, 2= Academically NonSuccessful

These data indicated that the three most important variables for predicting group membership (academically successful or unsuccessful) for the total sample were “self-concept”, “prefers long-terms goals, over short-term needs” and “demonstrated community service”.

Chapter V

Summary, Conclusions and Recommendations

This chapter presents a summary of the study, a discussion of the implications of the findings for educational best practices, conclusions and recommendations for future research.

Summary of the Study

The purpose of the study was to examine the influence of selected noncognitive variables on the academic success of urban Black high school males in an enrichment Pre-College Program. The research question under investigation was: Which of the selected seven noncognitive variables are most useful in predicting academic success for urban Black high school males in an enrichment Pre-College Program? It was hypothesized that: A significant relationship exists between the selected seven noncognitive variables and academic success.

This hypothesis was tested, in seven parts, utilizing a correlational research design. One-hundred and two urban Black high school males enrolled in the Mathematics and Science Education Network enrichment Pre-College Program from six urban North Carolina school districts were the participants. The participants completed the Noncognitive Questionnaire (Tracey and Sedlacek, 1984, 1988, 1989, 1991), and provided demographic information.

The Noncognitive Questionnaire (NCQ), when hand scored, provided cumulative subscores for each student participant. The NCQ cumulative subscores for each student were matched with the student's GPA, number of honors/AP courses taken, and the

composite scores that were calculated. Statistical analyses were conducted using SPSS (8.0).

The research hypothesis was tested in seven parts. Part one of the hypothesis stated: **Self-concept will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.** The Pearson Product-Moment was used, and based on the findings, this part of the hypothesis was supported. The discriminant analysis ordered this variable as most important in predicting group membership (academically successful or nonsuccessful).

Part two of the hypothesis stated that: **Realistic self-appraisal will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.** The Pearson Product-Moment was used, and based on the findings, this part of the hypothesis was supported. The discriminant analysis ordered this variable as the least important in predicting group membership (academically successful or nonsuccessful).

Part three of the hypothesis stated that: **Understanding of and ability to deal with racism will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.** The Pearson Product-Moment was used, and based on the findings, this part of the hypothesis was supported. The discriminant analysis ordered this variable as number five in importance out of the set of seven noncognitive variables in predicting group membership (academically successful or nonsuccessful).

Part four of the hypothesis stated that: **Preference for long-term goals, over more short-term needs will significantly related to academic success for urban Black high**

school males in and enrichment Pre-College Program. The Pearson Product-Moment was used, and based on the findings, this part of the hypothesis was supported. The discriminant analysis ordered this variable as the second most important variable in predicting group membership (academically successful or unsuccessful).

Part five of the hypothesis stated that: **Availability of a strong support person will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.** The Pearson Product-Moment was used, and based on the findings, this part of the hypothesis was supported. The discriminant analysis ordered this variable as number six out of a possible seven variables in its importance in predicting group membership (academically successful or unsuccessful).

Part six of the hypothesis stated that: **Successful Leadership experiences will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.** The Pearson Product-Moment was used, and based on the findings, this part of the hypothesis was supported. The discriminant analysis ordered this variable number four out of seven possible variables in importance for predicting group membership (academically successful or unsuccessful).

Part seven of the hypothesis stated that: **Demonstrated community service will be significantly related to academic success for urban Black high school males in an enrichment Pre-College Program.** The Pearson Product-Moment was used, and based on the findings, this part of the hypothesis was supported. The discriminant analysis ordered this variable number three out of seven noncognitive variables in importance for predicting group membership (academically successful or unsuccessful).

Implications of the Findings

The major concern was to develop a set of prediction variables that were relatively accurate and minimized incorrect predictions. The variables selected were based on previous research while changing the target population. The researcher considered variables within the limits of the information available through a questionnaire designed for student participants.

The findings from this study can only be viewed as illustrative of the academic success of urban Black high school males in an enrichment Pre-College Program in six urban school districts in North Carolina. However, the results may have implications for urban Black males educational best practices and research. The following are conclusions related to the variables of this investigation. Further research regarding the measurement of these variables and their role in predicting academic success for urban Black high school males would be useful.

1. All the of the selected seven noncognitive variables are significantly related to academic success for urban Black high school males in an enrichment Pre-College Program when academic success is measured by GPA and number of honors/AP courses. The findings from this study helped to validate the relationship between selected noncognitive dimensions and academic success. Further research regarding the measurement of these variables and their role in predicting academic success for urban Black males would be useful.

2. The findings from the study indicate that certain noncognitive variables might be more related and better predictors of academic success. There were two noncognitive variables examined that had high correlations, as well a high predictive value. They were

“self-concept” and “preference for long-term goals, over more short-term needs”. These variables might be useful in assessing students entering high school to predict their academic performance. Black male students who do not have high degrees of self-concept, and prefers short-term needs, over long-term goals are most prone to not being academically successful in high school. Black male students who score low on these dimensions could be identified, and programs aimed at meeting these less “academic needs” could be designed and implemented.

3. The findings from this study support previous research which suggested that noncognitive variables may function independently as predictors of academic success. Sedlacek (1987, 1989, 1991, 1992) and Sedlacek and Brooks (1976) hypothesized that noncognitive variables are more important than traditional academic measures to predict academic success of minority students. The findings from this study also confirms Tucker’s (1999) self-empowerment theory which postulates that academic success is significantly influenced by self-confidence, self-praise, self-reinforcement and adaptive skills. The finding are also validates Winfield’s (1994) resilience model which identifies such characteristics as positive self-concept, sense of personal power, participation, and adult interaction as ultimately leading to academic success. The implicit finding of this study was that effective predictors of academic success for urban Black high school males are often related to self-empowerment and resilience.

Conclusions

Where academic failure was once viewed as resulting from deficient homes or inefficient schools, it can now be acknowledged that the responsibility for student academic

success is a mutual one, shared by the home, the school, the community, policy makers and the student. This means no one variable is the cause of or lack of academic success for urban Black high school males. On the contrary, it has been shown that a students' academic success– and a schools' success- is very much dependent upon an array of variables as tested in this study.

While scores of Black male students develop the survival strategies, coping mechanisms, forms of resistance and self-empowerment to be academically successful, it must be understood that social and environmental forces have historically been stacked against the psychosocial development of urban Black males (Hopkins, 1997). For this reason, those committed to the academic empowerment of urban Black high school males must first understand the dimensions of Black psychosocial development. It is important to recognize that these dimensions are complex and challenging in a society that has historically placed the Black male at social, economic and academic risk.

Urban Educators and others are urged to consider implementing programs as an integral part of a comprehensive strategy for urban Black male empowerment. Ultimately, the academic empowerment of urban Black males rest within themselves. They must find the inner resources to promote their own educational and social success. Each young man must then decide for himself whether to act on that commitment often guided by support from home, school, community, and/or policies.

The picture of United States Cities that emerge out of the self-empowerment and resilience research should encourage hope, not despair. The research findings in this study are contrary to the picture of inner-city schools that stress deficiency, negativity, and hopelessness (Miron, 1996). As research on academic success expands, urban educators

will have more information on how to construct positive and healthy environments that will advance the academic and social abilities of their most vulnerable students which are most often Black males. In this way, the research community contributes to revitalizing our nation's urban schools and cities (Wang, 1997).

Through the process of answering the research question and reviewing the literature, the researcher sought to provide policy makers with recommendations that could help predict academic success or failure through selected noncognitive variables for urban Black high school males. While at the same time examine significant events that could precede a student's academic failure in school, and develop school site programs and prescription procedures to promote academic success for urban Black high school males and ultimately all students.

Recommendations for Future Research

This study examined the relationship between selected noncognitive variables and academic success of urban Black high school males in an enrichment Pre-College Program. There was limited literature that existed to authenticate the relationship between urban high school Black males' noncognitive dimensions and their academic performance, further studies need to be undertaken:

1. A larger sample from a nationwide population of urban Black high school males would provide more representative data on this group as a whole.
2. A longitudinal study should be conducted to better understand the role of noncognitive variables over time in predicting academic success for urban Black high school males. This approach will ascertain whether an enrichment Pre-College Program

would have influenced the student's responses to the Noncognitive Questionnaire items.

3. A more diverse sample utilizing and comparing urban Black males with other groups such as Black females, or other minority groups to see if the degree of relationships between noncognitive variables and academic success are different or similar.

4. Examine other factors to determine academic success such as SAT, IQ test scores, and other achievement tests scores instead of just GPA, and number of honors/AP courses as it relates to selected noncognitive variables.

5. Eventually, evaluation research that focuses on change could be conducted. The impact of specific interventions that focus on noncognitive variables as they relate to urban Black high school males should be studied.

Given that early predictive noncognitive variables are available, there now must be the political and financial will on the part of policy makers and administrators to fund and provide a greater variety of academic success programs for urban Black high school males. School districts must develop success models to help prevent urban Black high school male students from academic failure and programs must be continually assessed to determine their effectiveness.

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Appendix A Questionnaire

ID Code # _____

8. Please list three goals that you have for yourself right now:

A. _____

B. _____

C. _____

9. About 12.5% of high school students typically leave before receiving a high school diploma. If this should happen to you, what would be the most likely cause? (Please only circle one response)

A. Absolutely certain that I will obtain a diploma

B. To accept a job

C. Marriage

D. Disinterested in school

E. Lack of academic ability

F. Insufficient reading or study skills

G. Other

10. Please list three things that you are proud of having done:

A. _____

B. _____

C. _____

ID Code # _____

SECTION TWO: Please indicate the extent to which you agree or disagree with each of the following items. Respond to the statements below with your feelings at present or with your expectations of how things will be. Write in your answer to the left of each item.

| 1 | 2 | 3 | 4 | 5 |
|----------------|-------|---------|----------|-------------------|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

-
- ___ 11. The high school should use its influence to improve race relations in the community.
 - ___ 12. It should not be very hard to get a B (3.0) average at my high school.
 - ___ 13. I get easily discouraged when I try to do something and it does not work.
 - ___ 14. I am sometimes looked up to by others because of my leadership abilities.
 - ___ 15. If I run into problems concerning school, I have someone who would listen to me and help me.
 - ___ 16. There is no use in doing things for people, you only find that you get taken advantage of in the long run.
 - ___ 17. In groups where I am comfortable, I am often looked to as a leader.
 - ___ 18. I expect to have a harder time than other students of different races.
 - ___ 19. Once I start something, I finish it.
 - ___ 20. When I believe strongly in something, I act on it.
 - ___ 21. I am as academically smart as the average student at my high school.
 - ___ 22. I expect I will encounter racism at some time in my life.
 - ___ 23. People can pretty easily change me even though I thought my mind was already made up on the subject.
 - ___ 24. My friends and relatives do not feel I should go to college.
 - ___ 25. My family has always wanted me to go to college.
 - ___ 26. I sometimes view being smart and taking honor classes as "acting White".
 - ___ 27. I want a chance to prove myself academically as compared to students of other races.
 - ___ 28. My grades don't really reflect what I can do.

29. Please list offices held and/or groups belonged to in your school or in your community

SCHOOL:

COMMUNITY/CHURCH/CIVIC:

Appendix B
Scoring Sheet for Questionnaire

Work Sheet for Scoring NCQ

1. POSITIVE SELF-CONCEPT or CONFIDENCE

item 7 + item9 + (6 - item20) + item 23 + (6 - item28)

2. REALISTIC SELF-APPRAISAL

item9 + (6 - item 12) + (6 - item21)

3. UNDERSTANDS and DEALS with RACISM

(6 - item11) + item18 + (6 - item22) + (6 - item26) + (6 - item27)

4. PREFERS LONG-RANGE GOALS to SHORT-TERM or IMMEDIATE NEEDS

item8A + item13 + (6 - item19)

5. AVAILABILITY of a STRONG SUPPORT PERSON

(6 - item15) + item24 + (6 - item25)

6. SUCCESSFUL LEADERSHIP EXPERIENCE

(6 - item14) + (6 - item17) + item29A

6. DEMONSTRATED COMMUNITY SERVICE

Item16 + item29B

Appendix C
Pre-College Program Summary

The North Carolina Mathematics and Science Education (MSEN) Pre-College Program Summary

Mission

The University of North Carolina Mathematics and Science Education Network (MSEN) Pre-College Program is designed to increase the number of historically underrepresented students – minorities and females- who have sufficient interest and preparation to pursue mathematics and science fields at the university level and to move into careers in science, mathematics, technology, engineering, and teaching.

Components

The Pre-College Program provides students in grades 6-12 with rigorous academic enrichment activities aimed at improving their science, mathematics, and communication skills. The program also works with teachers of these students in order to increase teacher knowledge of science and mathematics and to increase teachers' awareness of the particular needs of underrepresented students. The components of the Program include:

In-School Programs in the middle school are offered through Academic Enrichment Classes. The elective classes are offered daily to all middle school MSEN Pre-College students. The instruction involves hands-on experiences in mathematics and science labs, experiential learning through field trips, individualized tutoring, and counseling about course selection and career activities, such as discussions with engineers and scientists.

Saturday Academy sessions are held on the six UNC campuses during the school year . There are 10 to 20 sessions scheduled every year at each of the participating sites. Each Saturday, students rotate through four classes: mathematics, science, communication skills, and self-esteem/career awareness. The instructors include university faculty, public school teachers, business people, and scientists from the area.

Summer Scholars is an on-campus program held at the six sites during the summer. It meets Monday through Friday, for 100 class hours.

Parents Involved for Excellence (PIE) – a parent outreach program – is one of the most important components of the MSEN Pre-College Program. Each participating school has a PIE Club to support its Pre-College students. Parents are consulted in the planning of program activities and asked to support those activities by helping raise funds within each school and by assuring that their students participate fully in all program activities.

Teachers associated with the MSEN Pre-College Program receive intensive inservice education to use methods and materials to attract and retain minority and female students in science and mathematics courses, to extend their knowledge of mathematics and science, and to teach them how to establish bias-free classrooms.

Leadership and Career Awareness Activities are featured in all components of the program. Career counseling, role-model speakers, and field trips help make students aware of the opportunities available to them.

Appendix D
Human Subject Approval Forms and Documents

April 15, 2000

TO: Rita Fuller, UNC state MSEN Pre-College Director

The participation of the six MSEN Pre-College Programs is needed for a research study designed to examine the relationship of selected noncognitive variables on the academic success of urban Black high school males. This study will attempt to provide additional knowledge to better understand some of the issues facing urban Black males, such as underachievement, high drop out rates, and underrepresentation in the academic tracks and in gifted programs.

My doctoral dissertation at Old Dominion University is a correlational analysis of selected noncognitive variables and their influence on the academic success of urban Black high school males. The state six MSEN Pre-College Programs are being asked to participate in this study because of their diversity in race, culture, and academic profiles. As state Pre-College Director, you will be asked to:


Distribute the noncognitive questionnaire (NCQ) to the six Pre-College sites. The questionnaire takes a maximum of (20) minutes to complete. The questionnaire should be completed in a classroom setting. The sites will return the data forms in an enclosed self-addressed stamped envelope.

The data reporting form (NCQ) will not be coded so that confidentiality will be maintained. Further, collected data will not be analyzed for individual sites but expressed only in the aggregate. All current MSEN Pre-College students and parents have already signed an agreement on their enrollment application to participate in ethical research studies with the consent of the particular site and the state MSEN office. Please note that participation is still completely voluntary and each participant has the right not to respond to this request. However, since there is a limited number of high school Black males that meet the criteria for inclusion, I sincerely hope that all the participants that meet the profile will participate in this study. This research involves no known risks to the state MSEN Pre-College Program nor the student participants.

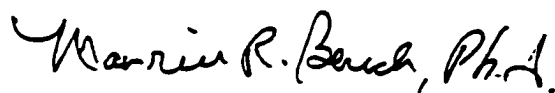
Thank you for considering the use of MSEN Pre-College students for this worthwhile research endeavor. The results will be shared with the state MSEN office, as well as, all participating Pre-College sites after the completion of this research project.

A copy of the actual questionnaire is enclosed for your perusal.

Sincerely,



Leon Rouson, M.A.
Doctoral Candidate
College of Education
Old Dominion University



Maurice Berube, Ph.D.
Advisor and Dissertation Chair
College of Education
Old Dominion University

cc: Gerry Madrazo, Ph.D.
Executive Director, UNC MSEN Network Office

Pre-College Coordinators (ECSU, FSU, GAMSEC, NCSU, UNC-C, UNC-CH)



UNC
MSEN

University of North Carolina Mathematics & Science Education Network
Campus Box #3345 Telephone: (919) 966-3256
University of North Carolina at Chapel Hill Facsimile: (919) 962-1316
Chapel Hill, North Carolina 27599-3345 e-mail: msen@unc.edu

April 20, 2000


Mr Leon Rouson
Doctoral Candidate
College of Education
Old Dominion University
Norfolk, Virginia

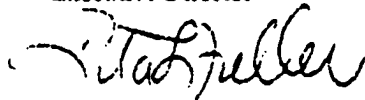
Dear Leon:

We grant you permission to use the noncognitive survey questionnaire with the Black male population at our six Mathematics and Science Education Network Pre-College sites. We look forward to you sharing your results to help improve student success. If you have any additional questions, please contact us at (919) 966-3256.

Best wishes as you work towards the completion of your doctorate.

Sincerely,


Gerry Madrazo, Jr., Ph.D
Executive Director



Rita L. Fuller
Associate Director of Pre-College Programs

Center Sites: Appalachian State University Boone East Carolina University Greenville Fayetteville State University
North Carolina A&T State University/University of North Carolina at Greensboro North Carolina School of Science and
Mathematics Durham North Carolina State University Raleigh University of North Carolina at Chapel Hill University of
North Carolina at Charlotte University of North Carolina at Wilmington Western Carolina University Asheville

NONCOGNITIVE QUESTIONNAIRE SURVEY CONSENT FORM

This form has three purposes:

- 1) to let you know that this is a research survey, what kind of questions are on the survey, and what will be done with the information,
 - 2) to promise that your answers will be completely confidential, and
 - 3) to let you know that you do not have to participate in the survey.
-
- 1) All 9th through 12th grade students will have the opportunity to complete the questionnaire/ survey. It will take approximately 20 minutes to complete. It will ask how you feel about yourself academically, relationships with others in your school, community and home, as well as community and school involvement/activities.
 - 2) Your name will not be anywhere on the survey. Your answers will not be identifiable in any way. You may skip any question you cannot answer or do not want to answer.
 - 3) You do not have to take the survey. Students not taking the survey will not be penalized in any way. These initialed forms will be kept separately from your survey.

Using the Information

Overall, the purpose of the questionnaire survey is to help determine the influence of selected noncognitive variables on academic success. The results will help to develop ways to improve student success based on the specific results of this study. The findings will be shared with the state North Carolina Math and Science Education Network Pre-College Program Office.

Initial below if you agree take the survey. If you do NOT wish to take the survey, do NOT initial this form.

By initialing below. **YOU** agree to take the Noncognitive Questionnaire Survey and to give truthful and honest responses.

Initial ONLY

Appendix E
VITA

VITA

Leon Rouson

Education

- | | |
|----------------------|---|
| September, 1996-2000 | Ph.D. Urban Services. Old Dominion University, Norfolk, Virginia. |
| May, 1995 | M.A. Educational Administration and Supervision. North Carolina Central University, Durham, North Carolina. |
| May, 1984 | B.A. Mathematics Education. North Carolina Central University, Durham, North Carolina. |

Professional Experience

- | | |
|--------------|---|
| 1993-present | Director, Mathematics and Science Education Network Pre-College Program at Elizabeth City State University, Elizabeth City, North Carolina. |
| 1990-1993 | Assistant Director of Admissions and Recruitment. North Carolina Central University, Durham, North Carolina. |
| 1989-1990 | North Carolina Teacher of Year Program. North Carolina Department of Public Instruction, Raleigh, North Carolina |
| 1984-1989 | Lead Teacher (Mathematics). Durham Public Schools, Durham, North Carolina |

Honors

- 1988 **Durham Public Schools Teacher of the Year,
Durham, North Carolina**
- 1989 **North Carolina Region 3 Teacher of the Year**
- 1989 **The State of North Carolina Teacher of the Year
(1st Runner-up)**
- 1990 **National Black Teacher of the Year,
Washington, DC**