EXAMINING THE ACADEMIC ACHIEVEMENT OF BLACK YOUTH: THE ROLES OF SOCIAL INFLUENCE, ACHIEVEMENT VALUES AND BEHAVIORAL ENGAGEMENT

A Dissertation
by
ALICIA MARIE DARENSBOURG

Submitted to the Office of Graduate Studies of Texas A&M University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2011

Major Subject: School Psychology
Examining the Academic Achievement of Black Youth: The Roles of Social Influence, Achievement Values and Behavioral Engagement

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Approved by:

Co-Chairs of Committee, Janilia Blake
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August 2011

Major Subject: School Psychology
ABSTRACT

Examining the Academic Achievement of Black Youth: The Roles of Social Influence, Achievement Values and Behavioral Engagement. (August 2011)

Alicia Maire Daresbourg, B.S., Louisiana State University

Co-Chairs of Advisory Committee: Dr. Jamilia Blake
Dr. Jan Hughes

The achievement gap between White youth and youth of color is a pervasive problem in the United States. Many cultural explanations have been provided within the academic literature to explain the differences in achievement between Black and White youth. However, present theories lack empirical evidence and continuously use a deficit model to explain Black adolescent achievement. It is of utmost importance to explore other theories about Black youth achievement and to identify protective factors to support Black adolescent academic success. Study I of this dissertation examines the effect of behavioral engagement and achievement values on the academic achievement of Black late elementary school students longitudinally through the use of Structural Equation Modeling. Results indicate that whereas behavioral engagement is a significant predictor of academic achievement, abstract achievement values do not influence behavioral engagement or academic achievement. In a follow-up to the study, Study II examines a more complete construct of achievement values, along with behavioral engagement and the impact of these constructs on Black adolescents’ academic achievement. Additionally, this study assessed who, peers or parents, has influence on the academic attainment of Black adolescents through the use of Structural Equation Modeling. Results indicate that the
achievement values of Black adolescents affect behavioral engagement and subsequent achievement. Furthermore, results suggest that both peer and parent influences have a significant effect on students’ achievement values and behavioral engagement.

Intervention strategies including fostering the development of positive and academically supportive peer relationships, creating opportunities for youth to interact with pro-social peers, and providing explicit strategies to encourage the continued involvement of parents and parental academic socialization are discussed.
DEDICATION

I would like to dedicate this dissertation to my mother and father. I would never have gained the courage and strength I needed to make it through this process without your continued love, guidance, and support. I am so lucky to have you as my parents. Thanks for being my rocks as I continue to find my way in this world. We made it! I would also like to dedicate this project to my guardian angel and nephew, Nehamiah, my niece Miriam, my nephew Liam, and their wonderful father – my brother, Brandan. Thank you for always serving as an inspiration to me and providing me with someone so humble and kind-hearted to admire.
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CHAPTER I

INTRODUCTION

Literature Review

The achievement gap between ethnic groups is a pervasive problem in the United States. Differences in academic performance between White youth and youth of color have been documented consistently throughout the academic literature (Becker & Luthar, 2002). More specifically, Black youth have been found to consistently perform lower on standardized tests of achievement in comparison to their same-age peers of other ethnic groups (NCES, 2007). According to the U.S. Department of Education National Center for Education Statistics (2007), in 2007, nine-, thirteen-, and seventeen-year old Black youth performed worse than their White counterparts on standardized tests of achievement in both reading and mathematics. Additionally, in 1999, White males were twice as likely to graduate from college (U.S. Census Bureau, 2004), and less likely to drop out of high school than Black males (U.S. Department of Education, 2009). These differences indicate that on average Black students’ achievement is lower than the achievement of their White counterparts throughout their educational career signaling the need to examine the achievement of Black youth at different developmental stages.

This dissertation follows the style of *Journal of Educational Psychology.*

1 Black adolescent is used to describe adolescents of African decent
Causes of the Achievement Gap

Multiple factors most likely contribute to the race based differences in achievement of American youth. Given that Black youth are more likely to live in poverty, (U.S. Census Bureau, 2007) some suggest that that the gap in achievement between White and Black youth can be attributed exclusively to poverty rather than race (Magnuson, Rosenbaum, & Waldfogel, 2008). In addition to poverty, other contributing factors include differing parenting styles and influences of early literacy. Furthermore, others suggest that race and culture are a contributing factor over and above that of poverty (Ogbu, 2003). Specifically, Ogbu reports that Black students of all socioeconomic classes share similar attitudes about education that contribute to their poor academic performance.

The present study recognizes the impact of multiple factors and their contribution to the achievement gap; however, this study will investigate social and environmental factors that have been given less attention in the literature (McKown & Strambler, 2008). Specifically, this study will examine motivational and social effects on the academic attainment of Black youth in an attempt to identify specific effects that these constructs have on Black youth achievement. Furthermore, in order to gain an understanding of specific issues that a racial group may experience, it is important to examine the group independent of other groups (Graham, 1991). Consequently, the current dissertation will explore the achievement of Black youth specifically.

Understanding the influence of child motivational factors, as measured through the constructs of achievement values and behavioral engagement, on Black youth achievement is a primary focus of this study. Within this dissertation, Black is used to
describe adolescents of African descent. Behavioral engagement and achievement values will be used to examine the motivational effects on Black achievement. Behavioral engagement has been defined as effort exerted to participate in the learning process through such things as classroom involvement, inclusion in classroom discussions, completion of homework, and engagement in disruptive behaviors (Fredricks, Blumenfeld, & Paris, 2004). Achievement values is defined, in this study, as the importance one places on their education as a means to upward mobility. One way to measure achievement values is the Expectancy-Value Model of Achievement which purports that the more a student finds school important to their future success the more likely they are to engage and participate in the learning process (Eccles, et al., 1983). Behavioral engagement and achievement value constructs have been shown throughout the literature to contribute to the academic attainment of White youth (Fredricks, et al., 2004; Meece, Wigfield, & Eccles, 1990; Pintrich & DeGroot, 1990; Roeser, Strobel, & Quihuis, 2002). It is important to examine their influence on the Black population to determine if they are equally motivating. The social effects to be examined include the influences of both peers and parents on the academic achievement, achievement values, and behavioral engagement of youth.

Differences in Academic Achievement within Black Populations

When examining Black youth achievement independent of White youth, additional educational disparities are reported (Taylor & Graham, 2007). The disparities in educational attainment of Black children are especially problematic for Black males. Black females are more likely to maintain academic success into middle and high school, with girls having higher grades, more positive attitudes toward school
and a higher graduation rate (Jordan & Cooper, 2003; Mickelson & Greene, 2006). Continual lower performance among males is documented throughout elementary, middle, and high school (Boyd-Franklin & Franklin, 2000; NCES, 2007). Although significant discrepancies are noted between Black males and females with respect to achievement, when the data are aggregated by gender, national statistics consistently indicate that both Black males and females are performing lower than White peers. Given that Black males and females both have a greater risk for underachievement, the target population of this study is both Black males and females.

This dissertation will investigate factors that may relate to the achievement of Black youth at the elementary and middle school levels to gain additional knowledge about this disparity within the education system taking a developmental approach. Past and current literature and theory will be examined to shed light on this phenomenon. Additionally, the examination of specific child mechanisms and social influences on Black youth achievement will be conducted.

Cultural Influences on Academic Achievement

Multiple hypotheses and theories exist to explain the underachievement of Black youth. One theory that has gained considerable attention in the literature is Ogbu’s cultural ecological theory (Ogbu, 1981; Ogbu & Simons, 1998). This theory is based on the tenet that involuntary minorities, those minorities brought to this country against their will, develop an oppositional identity to American culture, specifically White culture, in response to their experience in the United States (Ogbu & Simons, 1998). Ogbu posits that Black individuals develop an oppositional identity in response to the high levels of discrimination and racism they experience within society. For example,
America is seen as a place where anyone can achieve their dreams and reach their goals. However, due to the high levels of discrimination Blacks have historically experienced, (i.e. through the work force) many Blacks come to believe that the “American dream” is not attainable, that is, that the American dream does not apply to them. Ogbu hypothesizes that the ambivalence that Blacks experience surrounding the utility of the American dream to foster social mobility may also influence Black individuals’ behaviors, practices, and motivation surrounding the value of education and its ability to help them succeed in the United States. According to Ogbu and Simmons (1998), Black Americans’ feelings of ambivalence toward the utility of education cause them to place less value on education as a means of social mobility.

The cultural ecological theory has been applied to understanding Black children’s academic values and subsequent educational attainment. Drawing from the cultural ecological theory, researchers propose that Black children place less value on education because they develop a belief that education will not produce better results for them in the future (Fordham & Ogbu, 1986; Mickelson 1990; Noguera, 2003). The “acting White” hypothesis by Fordham and Ogbu (1986) suggests that Black children associate characteristics required for academic attainment, such as doing well in school and receiving good grades, as characteristics of White identity. To ascribe to these characteristics is to adopt the “White frame of reference” or culture and abandon Black culture. Therefore, there is an “inverse” relationship between academic achievement and characteristics required to attain academically and maintaining your Black identity (Fordham & Ogbu, 1986). Furthermore, the “acting White” hypothesis implies that to achieve in the classroom is to “act White” while simultaneously not acting Black. This
suggests that in order to achieve, Black children must make a conscious decision to abandon their cultural identity (Fordham & Ogbu, 1986). The subtractive nature of this process indicates that one cannot have both a Black identity and an aspiration to achieve. Therefore, it is proposed that Black students devalue education and exert limited effort to achieve to avoid their peers having the perception that they are trying to “act White”.

Fordham (1988) expanded on the “acting White” hypothesis by explaining the struggle faced by high achieving Black students when attempting to balance their racial identity with their academic achievement. She suggests that high achieving Black students must detach themselves from their Black identity and adopt the values and attitudes of mainstream culture, or become “raceless” in order to achieve (Fordham, 1988). Ogbu and colleagues have found evidence for this hypothesis (Fordham & Ogbu, 1986; Fordham, 1988). However, these studies are qualitative in nature, and therefore, are not intended for generalization to the entire Black population. Moreover, it appears that no studies provide strong empirical support for these well known hypotheses about Black children’s achievement.

An additional theory has also been proposed to explain the achievement discrepancy. Steele’s (1992) stereotype threat theory considers the effect of negative stereotypes on student perceptions of themselves and how these stereotypes influence their attitudes and behaviors. In order to cope with the negative stereotypes associated with group membership in a domain, such as academics, students of minority status may disconnect with this domain. Ethnic minority students attempt to not confirm negative stereotypes by refraining from putting forth the required effort in that domain. Steele proposes that in order to cope with the stereotypes related to Black youth
underachievement, Black students disconnect their self esteem from their performance to protect their sense-of-self from the negative impacts of group stereotyping. Therefore, Black students begin to develop attitudes and behaviors, such as a lack of motivation and lack of value for students who do well in school, that diminish the importance of this domain in their lives (Osborne, 1995).

Some researchers have used Steele’s theory as the basis for their research examining student self-esteem, peer affiliations and academic behaviors (Griffin, 2002; Graham, Taylor, & Hudley, 1998; Osborne, 1995, 1997; Taylor & Graham, 2007). Griffin (2002) examined the significance of student school performance on their decision to not complete high school. Results indicated that Black students, when compared to both White and Asian students, were less likely to consider grades as a factor for not completing high school. Specifically, Black students’ low grades did not predict whether they chose to leave school. However, poor grades did significantly predict whether White and Asian students chose to leave school. Based on these findings, Griffin concluded that Black students disidentified with school because their performance in school did not affect their decision to stay enrolled or to leave. More specifically, Black students, more so than their White peers, were likely to choose to leave school even if they had passing grades. Other students were more likely to leave school if they had failing grades. Additionally, studies by Osborne (1995, 1997) indicate that Black male students maintain a high global self-esteem even though they perform more poorly in school than other students. Similar findings were not supported for Black females or White youth. These results in conjunction with Griffin’s findings suggest that there is a disconnection between Black male students’ grades and their
academic achievement and subsequent persistence. Black male students disengage in school more frequently than students of other races and their female counterparts. However, Griffin determined that Black females also disidentify more than White students (Osborne, 1995).

Self-esteem theory suggests that positive self-esteem develops through efficient maneuvering of environments in which people operate (Gecas & Schwalbe, 1983). Therefore, it is conceivable that student self-esteem is usually tied to performance in school. Students who perform poorly in school should therefore be more prone to negative self concepts (Osborne, 1995). The inconsistency with self-esteem theory within the Black male population suggests that because low performance in the academic domain does not produce low self-esteem, this domain is not one in which the Black male places value. Beginning in middle school and during high school, young Black males place more value on being like peers of lower academic standing than they do on being like peers of higher academic standing (Graham, Taylor, & Hudley, 1998; Taylor & Graham, 2007). Similar findings are not supported for White youth or females of color; these students continue to value and want to be like high achieving peers.

Comparisons of these findings indicate that Black middle school males may not value academic achievement and therefore disidentify with the academic process at higher rates than other youth. Taylor and Graham (2007) specify that although Black males in elementary school value and want to be like higher achieving peers, similar to their White counterparts and female counterparts of color, there is a shift in Black males’ valuing of high achieving peers once they enter middle school. This research suggests that in middle school, Black males do not value education or want to be like those who
do well in school, which negatively affects their motivation or desire to do well themselves. Although this research suggests that Black youth begin to devalue education in middle school, considering national test scores which indicate that Black youth achieve below their White peers as early as 4th grade. It is possible that declining achievement values of Black youth begin in late elementary school. This study examined the achievement of late elementary and middle school youth to gain a developmental understanding of this phenomenon.

Limitations and Criticisms of Current Theories

The presented theories permeate the literature on Black child achievement indicating that Black youth do not value education (Graham, Taylor, & Hudley, 1998; Taylor & Graham, 2007), identify with school (Osborne, 1995, 1997), or associate school success with Black identity (Fordham & Ogbu, 1986). However, each of these theories has significant limitations that should be considered when explaining the achievement of Black youth. For example, Ogbu’s “acting White” hypothesis is not generalizable to the Black population at large. This research is qualitative in nature and was not intended to be generalized to the entire Black population, but rather to capture the experiences of some Black youth. However, it is conceivable that because Ogbu’s “acting White” hypothesis was the only available hypothesis to explain underachievement in Black youth for many years it was generalized to all Black students. These investigations were also only conducted with Black students of low socioeconomic status. Since these findings have not been replicated within middle and upper class Black populations, one cannot assume that these findings represent the entire Black population. Additionally, it is difficult to conclude whether these findings are due
to race or class without comparison to children from differing socio-economic status (SES) backgrounds.

The work of Osborne (1995, 1997), Taylor and Graham (2007), and Graham and colleagues (1998) suggest that Black youth do not value achievement and therefore choose not to engage in efforts that promote academic success. Osborne (1995, 1997) purports that because the global self-esteem of Black youth does not predict their achievement they do not value achievement. However, Osborne does not consider academic self-esteem in his analysis, which is more predictive of academic behavior than global self-esteem (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Similarly, Taylor and Graham (2007) and Graham and colleagues (1998), assume that Black males do not value achievement based on the tenet that children nominate peers they admire or want to be like based on academic ability. Other possibilities that may be associated with admiration such as popularity or athletic ability of the nominated student were not examined in these studies. Osborne (1995, 1997) and Taylor and Graham (2007), and Graham and colleagues (1998), allude that their work is based on the tenets of Steele’s Stereotype Threat (1992); however, students’ stereotypes about education within their samples were not assessed. Furthermore, the conclusions based on these theories and hypotheses have not been empirically supported via sound statistical analyses.

In addition to the presented limitations, some researchers would suggest that a main criticism of the presented theories’ explanation of the achievement gap can lead to the interpretation that all Black children have the same academic outcomes (Neblett, Philip, Cogburn & Sellers, 2006). More specifically, each assumes that academic
outcomes for all Black youth are deficient, and that these deficiencies are inherent to the youth themselves. These theories and the literature to support these hypotheses all follow a deficit model of thinking about the Black child within our nation’s school system. The deficit model, in relation to child education, is defined as a model that suggests that students who fail to do well in school, do so because of internal deficiencies, such as devaluing of education (Valencia, 1997). This intense focus on deficit models within the racial achievement gap literature has led to a lack of examination of the protective factors that have a positive influence on Black student achievement (Neblett, Philip, Cogburn & Sellers, 2006). Some research has indicated that having a strong racial identity can be seen as a protective factor in promoting academic achievement among Black youth (Thomas, Townsend, & Belgrave, 2003). In accordance with this research, correlational analyses suggest that the fostering of a positive Black identity, through racial socialization messages that parents send to their children about being Black, is positively related to improved psychosocial adjustment and achievement related outcomes (Neblett, Philip, Cogburn & Sellers, 2006; Shin, Daly, & Vera, 2007; Smalls, White, Chavous & Sellers, 2007; Thomas, Townsend, & Belgrave, 2003). Whereas racial socialization and positive Black identity development have been shown to increase the achievement of some youth, namely youth of middle class backgrounds, these findings do not seem to entirely explain the underachievement of Black youth.

Need for Alternate Explanations

The cultural deficit models within the literature do not provide a clear explanation for the achievement discrepancy between White and Black youth, especially
considering the limitations of this research. In order gain a better understanding of the Black child’s experience in our educational system it is conceivable that additional explanations and sources of influence need to be considered at different developmental stages.

Research suggests that all students’ achievement and motivation decrease during the transition into adolescence (Marks, 2000). In order to better understand and to prevent the impact of this decline, a contextual approach considering multiple systems in which a child operates should be employed (Bronfenbrenner, 1977). Further exploration into the role of peers and parents in fostering child mechanisms such as motivation, engagement and achievement values - processes that are known to influence achievement in non-Black populations - is needed to better understand the achievement of Black youth. Additionally, it is important to examine not only the decline that occurs during the transition to adolescence, but also the initial differences in achievement and achievement values that are present as early as 4th grade. Much is known about the influence of peers and parents on the motivation and achievement of White youth (Cauce, Hannan, & Sargeant, 1992; Kindermann, 2007; Nelson & DeBacker, 2008; Paulson, 1994; Wentzel, 1998). Additionally, child engagement and achievement values have also been shown to predict White youths’ achievement (Fredricks, et al., 2004; Meece, Wigfield, & Eccles, 1990; Pintrich & DeGroot, 1990; Roeser, Strobel, & Quihuis, 2002). However, significantly less attention has been devoted to youth of color surrounding these topics (Connell, Spencer, & Aber, 1994; Sirin & Rogers-Sirin, 2004, 2005; Trusty, 2002; Xie, Li, Boucher, Cairns, & Hutchins, 2006).
Purpose of Study

The purpose of this dissertation is twofold. The primary objective is to gain a better understanding of what child mechanisms (e.g. achievement values and behavioral engagement) and social factors (e.g. parents and peers) influence the achievement of Black youth at different developmental stages. A secondary objective is to determine whether the current cultural explanations surrounding the achievement values of Black youth can be empirically supported.

This dissertation consists of two empirical manuscripts that will be submitted for publication. The first manuscript explores and identifies which child mechanisms affect achievement and the relationships between these variables. Specifically, the first study examines how the academic achievement of Black children in 3rd through 5th grade is influenced by their achievement values, and determine if this relationship is mediated by behavioral engagement. The second manuscript expands on the first by exploring who, peers or parents, has more influence on child mechanisms that are shown to promote achievement within a sample of 6th through 8th grade students. It is important to examine these constructs across various developmental stages to determine their impact on the Black population throughout their academic career. An overarching theme presented throughout this study is an attempt to gain an understanding of how these phenomena affect Black youth specifically. Thus, Black students are the population of interest for this dissertation study.

Study Implications

The results of this dissertation have both theoretical and methodological implications for understating the academic attainment of Black youth throughout various
developmental stages. Additionally, implications for the creation of prevention and intervention programs to target Black students at-risk for academic failure may emerge. The design of this study, which assesses the beliefs and behaviors of Black youth toward education through structural equation modeling statistics, while simultaneously providing information about who influences these beliefs and behaviors, will provide important knowledge into the educational experience of Black youth. Given that less information is known about the influence of peers and parents on academic achievement of Black youth, in addition to the lack of evidence with regards to direct assessment of Black child achievement values, it appears that more research is needed within these areas. It is hoped that the information in this dissertation will spark future research to gain a better understanding of the Black child’s experience within the education system.

Most importantly, this research may provide information to guide the development of school-based prevention and intervention programs that target Black youth at risk for academic failure. By gaining an understanding of the systems (e.g. child factors, peers, and parents) that are most influential to Black youth achievement, prevention and intervention programs can be created to effectively intervene within these systems and decrease the effects of low motivation in Black students in late childhood and adolescence. Specifically, school psychologists, school administration, and educational stakeholders charged with knowledge of specific factors that affect the underachievement of Black youth, can increase student values or engagement through the social environments in which Black children are most influenced and intervene appropriately.
CHAPTER II
PREDICTORS OF AT-RISK BLACK STUDENTS’ ACHIEVEMENT IN LATE ELEMENTARY SCHOOL:
THE ROLE OF ACHIEVEMENT VALUES AND ENGAGEMENT

Overview

The racial/ethnic gap between White youth and youth of color is well documented. The underachievement of Black youth is of particular concern to educational stakeholders, educational psychologists, and researchers alike, due to negative factors associated with academic disengagement. Currently, there are several theories that provide cultural implications for the lack of achievement within Black populations. It is suggested that Black youth do not value achievement and therefore choose not to engage in efforts that promote academic success. These conclusions, have not been empirically supported via sound statistical analyses. Additionally, conflicting research suggests that Black students value achievement as much as White students but continue to perform at lower rates in elementary and middle school. This study utilizes direct assessment of child achievement values and engagement to explore how these mechanisms affect the academic attainment of Black youth in late elementary school. Results from this study indicate that achievement values, as measured, do not have a significant influence on engagement or achievement in late elementary school. However, behavioral engagement significantly influences math achievement from grades four to five and is marginally significant in influencing reading achievement in grades four to five. Implications of these findings are discussed.
Introduction

A critical issue facing administrators, educational stakeholders, school psychologists, and teachers is the underachievement of Black youth (Taylor, Casten, Flickinger, Roberts, & Fulmore, 1994). The gap in achievement between White youth and youth of color has been consistently documented throughout the academic literature as early as fourth grade (Becker & Luthar, 2002). Not only do Black youth fall behind their White peers academically, but they also experience multiple factors that negatively affect their academic attainment at higher rates. Black youth are more likely than their White peers to experience disproportionate discipline practices (Costenbader & Markson, 1994; Fenning & Rose, 2007; McCarthy & Hoge, 1987; Skiba & Petterson, 1999; Skiba, Petterson & Williams, 1997; Wu, Pink, Crain & Moles, 1982), drop out of school (National Center for Educational Statistics, 2007) and to be incarcerated before the age of 25 (U.S. Department of Justice, 2007). The increases in these risk factors, combined with the lower academic attainment of Black youth, drive researchers to pursue the identification of factors that affect Black youth achievement across all developmental stages.

Although there is a generous body of literature comparing the academic performance of Black youth to White youth, little is known about the complexity of the academic experience within the Black population (Hill, 1997, Sirin & Rogers-Sirin, 2005; Tatum, 1987). Examining influences that exclusively impact Black youth achievement will provide insight into protective factors that foster achievement in this population, especially the achievement of academically at-risk Black students. All students who enter formal schooling with low literacy skills are at elevated risk for
continued poor academic performance (Juel, 1988; Stanovich, 1986; Stevenson & Newman, 1986). Given this information, identification of protective factors that will assist at-risk Black youth from academic failure is of great importance. Pinpointing specific, within group developmental characteristics will allow researchers to better address factors that may impact ethnic minority youth achievement (Fisher, Jackson & Villarruel, 1997). The purpose of this study is to identify specific child mechanisms, achievement values and behavioral engagement, that may have influence on at risk Black youth achievement.

*Effects of Achievement Values on Achievement*

Valuing school refers to perceiving the utility of everyday schooling in shaping one’s future success (Vokel, 1996). The Expectancy-Value Model of achievement suggests that the more students find school interesting or important to their future goals, the more likely they are to invest or exert energy in that domain (Eccles et al., 1983). For example, if a student believes that science is important for his future success, expectancy-value theory purports that the student will place greater value on his achievement in science and exert more effort in that subject. Similarly, if a student believed that basketball was important for her future success, the student would place more value on basketball and exert more effort into her success in that area. Empirical evidence suggests that achievement values are associated with student engagement, persistence in schoolwork and school performance (Pintrich & DeGroot, 1990; Roeser, Strobel, & Quihuis, 2002). However, these findings are based on predominately White samples, limiting the ability to generalizability of these findings to Black youth.
Studies examining the achievement values of Black children present very different results. Although Black youth value education as much as White youth, Black students continue to perform lower academically (Steinberg, Dornbusch, & Brown, 1992; Vokel, 1996; 1997). One explanation for this finding is the premise that minority students, in particular Black students, develop two separate sets of values about education: abstract and concrete values (Mickelson, 1990). Abstract values incorporate ideas that education leads to future success, whereas concrete values refer to interpretations of how education has fostered success in the community of the adolescent. Concrete values specifically consider the realities of how education affects the success of adults in the environment of the adolescent (i.e. adults may have less success getting jobs or receive less wages than adults of other races in comparison to their educational experience). According to Mickelson (1990), all children share similar abstract values that education leads to a brighter future, but her research indicates that Black students’ achievement is more predicted by their concrete values. It may also be argued that Black youth, especially in low-income environments, perceive people without “traditional education” as being successful in their community, which may lessen their ideas about the usefulness of education as a tool for their own success (Ogbu, 1981). For example, Black youth may observe that an auto mechanic is equally as successful as a medical doctor. Within low-income communities, Black youth may be less exposed to highly educated Black adults, who have achieved societal standards of success, making it harder to see how education can result in success. It is conceivable that Black students’ dual set of achievement values is more related to SES than race. However, concrete values predict the achievement of Black youth from both high and
low socio-economic backgrounds, suggesting that the difference in values may not be explained by SES alone (Mickelson, 1990). Although Black youth see the value of education, their perception of the utility of education in their respective communities or how education leads to success may be more predictive of their achievement.

*Cultural Theories Affecting Black Students’ Value of Education*

Multiple theories, which attribute achievement discrepancies to factors specific to one’s culture, have been proposed to explain Black students’ devaluing of education and subsequent underachievement (Graham, Taylor, & Hudley, 1998; Osborne, 1995, 1997; Taylor & Graham, 2007). For example, the disidentification hypothesis (Osborne, 1995; 1997) proposes that Black youth do not identify with school and do not value education because their self-esteem is not affected by their performance in school. Studies examining the disidentification hypothesis reveal that in contrast to White youth, the self-esteem of Black youth remained high even though their school performance was low (Osborne, 1995, 1997). Similarly, Taylor and Graham (2007), and Graham and colleagues (1998) suggested that Black males in middle school do not value achievement because they wish to be like and admire peers who are not high achieving. Through the use of peer nominations, youth were asked to choose students who they admired and wanted to be like. Students were identified as high or low achieving by a teacher-rated Likert scale (very low achieving to very high achieving). The researchers concluded from these peer nominations that since Black males were more likely to nominate lower achieving peers that they did not value education (Graham et al., 1998; Taylor & Graham, 2007).
Although these studies provide one explanation for the underachievement of Black youth, namely that Black students do not value education, significant limitations should be noted. Osborne’s disidentification hypothesis is rooted in self-esteem theory (Gecas & Schwalbe, 1983), which suggests that self-esteem is affected by performance in areas of life where individuals place value. However, Osborne neglected to consider specific facets of self-esteem (i.e. academic self-esteem) within his investigation of preadolescent students. Suggesting that global self-esteem has a direct impact on specific facets of self-esteem is problematic because whereas global self esteem is shown to be a good indicator of psychological well being, academic self esteem is a better indicator of academic behavior and performance (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Methodological limitations are also observed within this literature. Although Taylor and Graham (2007), and Graham and colleagues (1998) provide an interesting method for assessing identification with school through the examination of academic values systems, this approach may be problematic because it assumes that Black students’ nominations of peers they admire or want to be like is based on shared academic values with nominated students. However, other behavioral characteristics may be driving the type of students that Black children nominate as admirable, such as whether the individual is popular or athletic. For example, children may have nominated others because they are leaders in school, and not necessarily because they value school to the same extent as the student they nominated. The assumptions and indirect assessment of this research call for the utilization of a more direct approach to measure the achievement values of Black children.
Direct Assessments of Academic Values and Academic Outcomes

Task values, a component of the expectancy-value model of child effort, provide a framework for examining values of achievement more directly than previous investigations. The expectancy value model consists of two components: (1) competence beliefs, how competent the child feels in their ability to perform a task, and (2) subjective task values, how much they value performing the task. Children’s task competence and values determine the amount of effort the child exerts on a task (depicted as expectancy x value = effort). Given that children are able to distinguish between their competency beliefs and task values by first grade (Eccles, Wigfield, Harold & Blumenfield, 1993), investigating unique contributions of each on achievement is warranted. Task values consist of three components: (a) interest in the task, (b) perceived importance of being good at the task (c) and the utility, or perceived usefulness of the task for future goals (Eccles, Wigfield, Harold, & Blumenfield, 1993; Eccles & Wigfield, 1995; Wigfield & Eccles, 1992). The use of a clearly defined and targeted construct to assess achievement values will provide a more accurate perception of how Black children value education.

Prior research assessing task values of students have been examined across various age ranges (Meece, Wigfield, & Eccles, 1990; Wigfield & Eccles, 2000). Conclusions from these studies suggest that task values of achievement are most predictive of activity choice and decisions to continue with the activity in the future. Child interest in a task and the importance of a task (two components of task value) have been shown to predict future interest and activity choices, but not achievement, across grade levels (Meece et al., 1990; Wigfield & Eccles, 2000). Although these studies
suggest that task values are not predictive of child achievement, to our knowledge no study has assessed all three components of task values simultaneously. It is possible that when testing all aspects of task values collectively, the predictive ability of this construct on achievement might emerge. Furthermore, all of the studies examined the task value construct in lower to middle class majority White samples. The use of components of the expectancy-value model within the current study will not only provide a more direct assessment of achievement values needed within Black populations but will also provide support for the model within a different population.

**Effects of Engagement on Achievement**

Not only is it important to understand how achievement values affect achievement, it is also important to examine how children’s behaviors, thoughts, and feelings aid in school investment and motivation and subsequently promote student achievement. School engagement consists of different thoughts and feelings that affect the effort a person exerts on a task. Fredricks and colleagues (2004) have identified three types of engagement: *behavioral engagement* (participation, involvement in the classroom, and disruptive classroom behaviors), *emotional engagement* (both positive and negative affective reactions within the classroom), and *cognitive engagement* (goal pursuit and intrinsic motivation).

Behavioral engagement has been shown to be consistently predictive of child achievement (Fredricks et al., 2004). Behavioral engagement is related to achievement scores across elementary, (Alexander, Entwisle, & Dauber, 1993, Alexander, Entwisle, & Horsey, 1997; Marks, 2000; Skinner, Wellborn & Connell, 1990) middle, and high school samples (Connell, Spencer, & Aber, 1994; Marks, 2000; Sirin & Rogers-Sirin,
2004, 2005; Taylor et al., 1994). Children who exhibit greater behavioral engagement are shown to have higher achievement scores including both grades and standardized test scores (Connell et al., 1994; Marks, 2000; Sirin & Rogers-Sirin, 2005; Skinner et al., 1990; Taylor et al., 1994). Behavioral engagement has also been shown to be predictive of later achievement (Alexander et al., 1993 & Alexander et al., 1997). Studies exclusively examining Black youth report that behavioral engagement is predictive of achievement (Connell et al., 1994; Taylor et al., 1994). In some instances it is the second highest predictor of achievement for Black students (Sirin & Rogers-Sirin, 2004). Even when controlling for a number of socio-demographic variables (Sirin & Rogers-Sirin 2005), behavioral engagement is predictive of achievement whereas emotional engagement is not. Although research examining the influence of behavioral engagement on Black students’ achievement exists, studies exploring how achievement values affect engagement and subsequent achievement have not been forthcoming. Additionally, the relationship between engagement and achievement has not been examined longitudinally within Black populations.

*Reciprocal Effects of Achievement on Engagement*

It is believed that achievement is the result of reciprocal processes between the individual and the environment in which he/she interacts (Sameroff, 1975). These interactions alter both the individual and the environment resulting in behavioral change at the individual level and the overall system level suggesting that engagement not only influences later achievement, but that achievement also influences how much youth engage in the classroom in the future. Studies have identified effects of achievement on future engagement (Hughes, Luo, Kwok & Loyd, 2008) as well as effects of engagement
on future achievement (Fredricks et al., 2004). Furthermore, studies investigating reciprocal effects between achievement and engagement find evidence for such effects (Hughes, Luo, Kwok & Loyd, 2008; Skinner & Belmont, 1993). This study seeks to replicate these findings in upper elementary grades.

Effects of Achievement Values on Academic Engagement

Motivation theorists suggest that the examination of values and belief systems should be investigated when studying student behavioral engagement (Eccles, Wigfield, & Schiefele, 1998). The more students consider a subject to be intrinsically interesting (one component of task value), the more likely they are to engage and invest in that subject (Eccles et al., 1983). Achievement values and engagement have been studied simultaneously yielding mixed results. Some research indicates that higher levels of intrinsic achievement values affect child engagement (Pintrich & DeGroot, 1990; Roeser, Strobel, & Quihuis, 2002), whereas other studies indicate that intrinsic values were not a significant predictor of engagement (Wentzel, 1996). These conflicting findings indicate the need for additional research to understand the relationships between these variables. Additionally, a model examining the relationships between achievement values, engagement, and achievement needs to be conducted in order to better understand how these mechanisms work together to affect Black students achievement.

The Current Study

The current study examined the relationship between achievement values, behavioral engagement, and achievement in an academically at-risk sample of Black students to identify which factors influence the achievement of Black students. This study, through the examination of task values and their relation to student achievement,
tested the accuracy of the disidentification hypothesis (Osborne, 1995, 1997) and the assumption that Black students’ devaluing of education (Graham et al., 1998; Taylor & Graham, 2007) contributes to their underachievement. Additionally, the moderating effects of gender was examined to understand how the achievement of Black youth differed for males and females. The following research questions were examined: (1) do the achievement values of Black youth relate to their academic behavioral engagement in school? (2) is the relationship between achievement values and achievement mediated by behavioral engagement for Black youth? and (3) does this relationship vary by gender? Understanding connections between values, engagement and achievement within this population of students will assist in the identification of protective factors that may aid Black children’s achievement.

Analytic Strategy

Data will be analyzed through Structural Equation Modeling (SEM) procedures across three time points. In order to provide a stronger, albeit not definitive, test of presumed causal relationships between variables, the variable that is proposed to ‘cause’ the outcome should precede the outcome in time (Cole & Maxwell, 2003). Specifically, the cause, the mediator, and the outcome were collected at different points, or waves (Hughes et al., 2008). This design allows for the testing of stability. The stability of effects assumes that within-wave correlations are of similar levels across the developmental stages measured. Previous published findings with the same longitudinal sample used in this study have reported stability of both achievement and engagement in younger samples (Hughes, Luo, Kwok & Loyd, 2008). The current study seeks to replicate these findings in a sample of older Black children. At the most basic level, the
model designed for this study intends to examine the relationship between achievement values and academic achievement and determine if child behavioral engagement in school mediates this relationship. This relationship will be tested across time to determine if a true mediation exists between variables (Cole and Maxwell, 2003) using a three time point longitudinal design, with assessments on all measures in the spring of each student’s third, fourth, and fifth grade years in the longitudinal study. The relationship between achievement values and reading and math achievement, as well as, the relationship between engagement and reading and math achievement will be examined across the three time points. These models will allow for the controlling of previous child achievement and engagement when considering the across time relationship between independent variables (achievement values and engagement) and the outcome variable (reading or math achievement). It is hypothesized that achievement values will predict student behavioral engagement and that this engagement will lead to increases in academic achievement in reading or math. The relationship between achievement values and achievement is hypothesized to be mediated by behavioral engagement across the three wave sample. It is proposed that reciprocal effects between engagement and achievement will exist and that similar relationships between these variables will be found across years. Figure 1 depicts the hypothesized model assessing reading achievement to be analyzed in this study. Given that previous research with this data set (Hughes et al., 2008) indicates that the latent construct of achievement is not invariant across years, reading and math achievement, as measured by the Woodcock Johnson Test of Achievement, will be assessed in separate models. The same model will be used to assess math achievement.
Figure 1. Hypothetical model. The bold lines represent target indirect effects. The dashed lines represent reciprocal effects. The dotted lines represent replicated relationships between target variables. READ: Woodcock Johnson Test of Achievement Reading composite score.

Methods

Participants

Participants are a sub-sample of children drawn from a larger sample of students participating in a longitudinal study on the impact of grade retention on academic achievement. Children in the larger study were first grade students recruited from three school districts (one urban and two small cities) in southeastern United States across two cohorts beginning in 2001 and 2002. Eligibility to participate in the larger study was determined by a score below the median on a district administered literacy measure, in
addition to not receiving special education services and not being previously retained in first grade.

The current study includes a sample of 167 at risk Black students for data collected during the 3rd, 4th, and 5th years of the ongoing longitudinal study. Participants were included in the current study based on the inclusionary criteria of Black racial identity (i.e. parent reported on child race/ethnicity choices of Black, White, Hispanic, Native American, Asian and Pacific Islanders, and other) and some data on the measured variables at the time points assessed in the current study. The amount of missing data on demographic or study variables ranged from 5% to 23%. The overall rate of missingness for the 167 participants was 10%. Of the 167 participants, 56 had complete data on all variables assessed at all three occasions including times 3, 4, and 5, and 111 had data on at least one of the analysis variables at each occasion. Attrition analysis showed that the 56 children with complete data did not differ from the 111 participants with some data at each time point on either demographic or study variables at time 3, suggesting that the assumption of data missing at random is reasonable. Based on these findings, missing values were estimated for those participants missing data using full information likelihood estimation in MPlus (Version 5.2). Additional attrition analysis on a broad array of demographic variables, including district-administered literacy, gender, standardized full scale intelligence, standardized math and reading achievement, percentage economically disadvantaged, and eligibility for free-reduced lunch, suggests that the 167 Black participants included in the current study did not differ from those 181 Black students originally recruited in the larger study in first grade.
Of the 167 participants, 81 (49%) were male. At entrance to third grade, children’s mean age was 8.62 (SD = .42). Children’s mean score for intelligence as measured with the Universal Nonverbal Intelligence Test (McCallum & Braken, 1997) was 86.31 (SD = 13.83), confirming their academic risk. On the basis of family income, 77% of participants were eligible for free or reduced-price lunch. For 35%, the highest educational level in the household was high school certificate or less. The ethnic racial composition for the 167 teachers (94% female) completing questionnaires was 88.7% White, 7.5% Hispanic, 2.8% Black and .9% other ethnicities. The mean teaching experience was 4.42 years (SD = 1.92) and 100% of teachers held certification. All teachers had a bachelor’s degree; at least 41.1% had completed some graduate work.

**Procedures**

Annual assessments were completed beginning when the students were in third grade. Individually administered math and reading achievement measures were conducted at varying times during the school year. Each yearly assessment was separated by at least 8 months. Students’ achievement values were assessed in the spring of each year. Additionally, teacher questionnaires assessing student behavioral engagement were administered in the spring of each year. Teachers received $25 for completing and returning questionnaires.

**Measures**

*Achievement.* The *Woodcock Johnson Tests of Achievement, 3rd* edition (WJ-III; Woodcock, McGrew, & Mather, 2001) is an individually administered measure of academic achievement for individuals, ages 2 through adulthood. For the purposes of this study, age-based standard scores for Broad Reading (Letter-Word Identification,
Reading Fluency, and Passage Comprehension subsets) and Broad Math (Calculations, Math Fluency, and Math Calculation Skills subsets) were used. Internal consistency reliability ranged from .92 to .94 (Woodcock et al., 2001).

Teacher-reported Academic Engagement. Engagement was assessed by asking teachers to describe child engagement in the classroom during the spring of each academic year. The completion of a 4 item Likert-type scale ranging from 1 (not at all true) to 4 (very true) was used to determine the extent to which the teacher believed the statement presented described the child. Items were adapted from teacher and student ratings of engagement (Skinner, Zimmer-Gembeck & Connell, 1998). This scale consists of ten items assessing behavioral engagement, 4 items assessing interest, and 4 items measuring emotional engagement. Chen et al. (April, 2009) conducted an exploratory factor analysis (EFA) using the larger data set revealing one factor assessing behavioral engagement (i.e. effort, persistence, concentration, and interest). Based on these EFA results, the mean of the 11 items were used to create a single variable for behavioral engagement. Example behavioral engagement items include “When this student is in class, he/she participates in class discussion” and “This student only learns what he or she wants to learn” (reverse scored). The internal consistencies for the behavioral engagement scale for this sample are .90, .92, and .92 at times 3, 4, and 5 respectively.

Achievement Values. Participants perceived reading and math achievement values were assessed with the Competency Beliefs and Subjective Task Values questionnaire (Wigfield et al., 1997). This individually administered measure contained 24-items which provide a self-reported account of each child’s competence beliefs and subjective task values for reading, math, and sports. The subjective task values subscales
for reading and math consisted of 3 items each was used in this study. Specifically, children were asked about the usefulness of the subject, their interest in the subject, and how important it is for them to be good at the subject. Eccles and colleagues (1993) recommendation to provide graphic representation of response scale for younger children (1993) was followed. More specifically, children responded to each item by pointing on a thermometer numbered 0 to 30. The end point and midpoint of each scale were also labeled with a verbal descriptor of the meaning of that scale point (e.g., the number 1 would be labeled with the words "not at all good," or "one of the worst") the number 15 would be labeled with the word "ok," and the number 30 would be labeled with the words "very good" or "one of the best"). The internal consistency for the Reading scale at times 3, 4, and 5 were .59, .68, and .62 respectively. Internal consistencies for the Math scale at times 3, 4, and 5 were .58, .65, and .60 respectively. Given that the correlation between reading and math task values was not high, separate models were used to assess reading and math achievement values.

Results

Sample Descriptive Statistics

Table 1 presents means and standard deviations for the analysis variables. Table 2 presents the correlations between analysis variables. Green’s (1992) SEM approach was used to determine the stability of the within-wave correlations across the time. This SEM-based method assesses if correlation matrices are different from each other. Two models were tested to assess whether correlation differences existed. The unconstrained model (model 1) allowed the within-wave correlations to be estimated freely. The
second model was constrained and within-wave correlations were constrained to be
equal across waves. A chi-square difference test was then conducted to test whether the
second model was significantly worse than the first model. Since the result was
nonsignificant, it was assumed that the within-wave correlations were equal across
waves or timepoints. Correlations between achievement variables across time points are
consistent with the stability effects anticipated. Additionally, the correlations between
engagement across time and task values across time are consistent with stability effects
anticipated as shown in Table 2. The low correlations between earlier reading and math
task values with future engagement and achievement (e.g., reading task values at time 3
and reading achievement at time 4) are low and nonsignificant, which was inconsistent
with the expected hypotheses.

### Table 1
Means and Standard Deviations of Analysis Variables

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<tr>
<th>Scale</th>
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<tr>
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<td>MTV5</td>
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**Note.** The numbers in the row headings refer to the timing of assessment. READ = Woodcock-Johnson III Broad Reading age standard score; MATH = Woodcock-Johnson III Broad Math age standard score; ENG = teacher perception of child behavioral engagement; RTV = task values related to reading; MTV = task values related to math.
Table 2
Correlations for All Continuous Analysis Variables

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Note. The numbers in the row headings refer to the timing of assessment. READ = Woodcock-Johnson III Broad Reading age standard score; MATH = Woodcock-Johnson III Broad Math age standard score; ENG = teacher perception of child behavioral engagement; RTV = task values related to reading; MTV = task values related to math.

Gender Differences

Significant gender differences were found on some measured variables on the basis of the results of one-way multivariate analysis of variance. Girls performed better than boys on reading achievement: for Year 3, $F(1, 156) = 10.35$ ($SD = .14$), $p < .05$, for Year 4, $F(1, 152) = 8.97$ ($SD = .08$), $p < .005$, and for Year 5, $F(1, 152) = 8.97$ ($SD = 4.91$), $p < .05$. Girls also exhibited higher levels of behavioral engagement based on teacher report: for Year 3, $F(1, 113) = 17.39$ ($SD = .69$), $p < .001$, Year 4, $F(1, 113) = 8.07$ ($SD = .65$), $p < .002$, and for Year 5, $F(1, 145) = 7.01$ ($SD = .71$), $p < .009$. 
Structural Equation Models

**Reading Achievement.** The hypothesized three-wave longitudinal model (see Figure 1) was first tested with reading achievement as the target outcome. In Figure 1, teacher reported behavioral engagement (e.g., engagement at Year 4) marginally predicted achievement at later waves (e.g., reading achievement at Year 5) when prior levels of engagement and achievement (e.g., engagement and achievement at Year 3) were controlled. The model also included reciprocal paths from prior achievement (e.g., achievement at Year 3) to later behavioral engagement (e.g., engagement at Year 4) and paths between prior reading task values (e.g., task values Year 3) and later behavioral engagement (e.g., engagement at Year 4) which were nonsignificant.

Figure 2 presents the results of the hypothesized model with reading achievement. The model of reading achievement fitted the data adequately, with a $\chi^2 (18) = 32.94, p < .01$, the CFI = .97, the RMSEA = .07, and the SRMR = .09. Figure 2 presents all unstandardized parameter estimates and the standardized estimates (shown in parenthesis). Given that the effect of reading task values on behavioral engagement was not significant, mediation effects were not tested. All residuals were correlated between waves although not listed here. Additionally, the direct effect of prior levels of reading task values on later reading achievement was assessed (e.g., reading task values at time 3 and reading achievement at time 4). The paths were insignificant and did not improve the measurement model and therefore were not included.
Figure 2. Model of reading achievement. Values are unstandardized parameter estimates, with standardized estimates in parentheses. READ = Woodcock-Johnson III Broad Reading age standard score; ENG = teacher perception of child behavioral engagement; RTV = task values related to reading. Significant paths are indicated by complete lines. Marginally significant paths are indicated by dotted lines. Nonsignificant paths are indicated by dashed lines.

**Math Achievement.** The above analysis was repeated for math achievement yielding a similar pattern of results. Differences included engagement at Year 4 significantly predicting achievement at year 5. The model, as presented in Figure 3, fitted the data adequately, with a $\chi^2 (18) = 29.25$, $p < .05$, the CFI = .97, the RMSEA = .06, and the SRMR = .11. Similar to the reading model, effects of task values on later engagement were not significant; therefore mediation effects were not tested. All residuals were correlated between waves although not listed here. Additionally, the direct effect of prior levels of math task values on later math achievement was assessed (e.g. math task values at time 4 and math achievement at time 5). The paths were insignificant and did not improve the measurement model and therefore were not included.
Figure 3. Model of math achievement. Values are unstandardized parameter estimates, with standardized estimates in parentheses. MATH = Woodcock-Johnson III Broad Math age standard score; ENG = teacher perception of child behavioral engagement; MTV = task values related to math.

Moderators

The possible moderation effect by gender on the relationship between student engagement and achievement was examined. A multiple-group comparison revealed that the relationships between earlier variables on later variables in Figure 2 (reading) and Figure 3 (math) were the same for both boys and girls. Additionally, examination of the standardized path coefficient between models for boys and girls confirmed that the structural paths are similar.

Discussion

The gap in achievement between White and Black youth has been well documented. The current study utilized child motivational factors, behavioral engagement and achievement values, to examine their effect on the academic achievement of Black youth through a three time point longitudinal design. Although the predicted mediating effect of behavioral engagement between task values and
achievement was not identified in this study, important information is provided pertaining to an academically at-risk population of Black students. Whereas the relationship between achievement values and achievement was not found, this study provides data for assessing the effects of behavioral engagement on the academic achievement of Black students because the design controlled not only for prior levels of achievement, but also for prior levels of the engagement and task values. Additional strengths include the assessment of the unique effect of behavioral engagement independent of other types of engagement and the use of an individually administered instrument with strong psychometric properties used to measure reading and math achievement rather than teacher report of student achievement or grades.

We found that the relationship between engagement and achievement was significant for math achievement in later elementary school whereas the relationship between engagement and reading achievement was moderately significant. Behavioral engagement’s effect on math achievement from Year 4 to Year suggests that at-risk Black students who are behaviorally engaged within this domain persevere academically. The marginally significant effects of behavioral engagement on reading achievement from Year 4 to Year 5 should be interpreted with caution. However, the lack of significant findings may be related to the fact that inclusionary criteria for the study were determined based on a below average score of reading achievement. More specifically, this may reveal that without the basic reading literacy skills needed to achieve in this domain, students level of engagement alone is not sufficient in increasing student’s academic attainment. However, the approaching significant results suggest that engagement is still an important factor in reading achievement. Given the increases
in academic demands in fourth grade, it appears that Black students who are behavioral engaged persevere academically.

The assessment of each study variable at different time points permits strong tests for bidirectional causal pathways. This study was able to control for previous levels of each variable in testing the direct effect, and also able to test these pathways across two time points. Reciprocal effects of behavioral engagement on math achievement were found from Year 3 to Year 4, while no other reciprocal effects were identified. Given that previous studies with the same data set have identified reciprocal effects between prior engagement and later achievement in models where outcomes were reading achievement as well as models where outcomes were math achievement (Hughes et al., 2008), the lack of findings for the present study may be due to the small sample size which limited the power. Additionally, the lack of findings may be due to the increased academic risk of this sample compared to the academic risk of the overall sample, as indicated by a lower mean IQ score of the current sample compared to the overall sample. Future research is needed to further understand the reciprocal process between engagement and both reading and math achievement and possible mediators of this relationship.

As predicted, behavioral engagement either predicted or marginally predicted achievement in reading and math models above the effects of prior engagement and achievement. Previous studies which employ a similar design (Hughes et al., 2008) report comparable findings of this effect across time in samples of first, second, and third graders. The current findings suggest that behavioral engagement is an important predictor of both reading and math achievement in late elementary school for
academically at-risk Black students. Findings also suggest that intervention strategies to increase academic achievement in academically at-risk Black youth in late elementary school should include components to increase academic effort and behavioral attributes that support classroom perseverance. The identification of protective factors in the educational attainment of Black youth is greatly needed, one such protective factor - child engagement, is identified here for late elementary grades. Given the increases in academic demands at this time, demonstrating that child engagement in school has the ability to assist Black students to achieve is important information for school administrators and staff. This study provides school officials with a point to intervene and positively affect the achievement of this Black students. Interventions that foster child engagement and motivation should be utilized in order to assist Black students make academic gains.

Predicted effects of academic task values on academic achievement or behavioral engagement were not supported by the data. Given this information, the accuracy of the disidentification hypothesis (Osborne, 1995, 1997) and the assumption that Black students’ devaluing of education (Graham et al., 1998; Taylor & Graham, 2007) contributes to Black youth underachievement was not supported. The lack of academic task values effect on achievement may be further explained by research suggesting that students’ attitudes and values toward school are multi-layered (Mickelson, 1990). More specifically, Mickelson (1990) suggests that students hold two sets of values toward their education: abstract and concrete values. She purports that the importance of abstract values about school for future goals are widely held by students regardless of race; however, depending on the concrete interpretation of how education assists adults within
the minority students’ frame of reference to excel, students will hold a second set of
values about school. If a student perceives that education is not beneficial for success,
research has shown that it is these values, concrete values, predict achievement of
minority youth (Mickelson, 1990). The measure used to assess value in this study
resembles the construct of abstract values as defined by Mickelson, and the lack of
findings may be explained by the type of value that was assessed.

Future studies should examine the relationship of concrete values, engagement
and achievement to determine if this relationship exists. It is likely that interventions
that target abstract values will not lead to increases in achievement for Black students. If
considering Mickelson’s findings, the targeting of concrete values in intervention efforts
would be expected to be more beneficial for increasing academic achievement of Black
youth. It may also be the case that both types of values should be considered
simultaneously in order to understand the full effect of the construct of achievement
value with Black youth. It is possible that the combined effect of both types of values
could influence academic attainment. Specifically, future studies should consider
assessing both abstract and concrete values as one construct to determine their effect on
student engagement and achievement.

Limitations

These results need to be interpreted in the context of study limitations. Given
that these findings were obtained with a sample of students selected on the basis of
scoring below their school districts median on a test of early literacy, results may not
generalize to children with higher literacy skills. However, the sample utilized in this
study is one of concern to educators and policy makers alike not only because all the
participants in this study scored in the bottom 50% of students in their school district on a test of literacy, but also because of the gaps in achievement between Black and White youth. Therefore, study findings can provide potential for interventions in late elementary school for reducing racial achievement discrepancies.

Another limitation of this study is the small sample size; the hypothesized effects may not have been attainable because of the small sample size utilized. Given the considerable importance of identifying intervention strategies for assisting Black youth to achieve, this study should be replicated with a larger sample size as well as with Black students in different types of school environments.

Finally, the scale used to measure achievement values may account for the lack of findings related to this construct. The low reliability of this scale with the current sample is a limitation. Given a higher reliability, this scale may have had more of an effect on future engagement and achievement. Furthermore, since the literature suggests that the achievement of Black youth is not predicted by abstract values (Mickelson, 1990) and the scale utilized in this study measured this type of value, the hypothesized mediation model may have been unattainable. Future research should replicate this study assessing concrete values independently and in conjunction with abstract values of Black youth to determine their effect on academic achievement. Additionally, it is possible that the widely used subjective task values subscale utilized in this study does not assess the construct it is intended to assess. The field may need to begin to examine other assessment tools to address abstract values.
CHAPTER III
A PILOT STUDY EXAMINING THE ACADEMIC ACHIEVEMENT OF BLACK ADOLESCENTS: THE IMPORTANCE OF Peer AND PARENTAL INFLUENCES

Overview

The racial gap in achievement between White and Black youth is well documented. This is of particular concern when children enter middle school due to the decline in engagement and achievement noted in all students during this transition. Although cultural explanations are provided for the racial achievement gap, additional explanations should be explored to gain a comprehensive understanding of this phenomenon. The influence of parents and peers on academic achievement, engagement, and achievement values of youth has been explored during the transition to middle school in White populations; however, it appears that less attention focuses on Black populations. The current study explored these constructs in a sample of 181 Black adolescents to identify protective factors that may counteract decreases in achievement in this population. Results indicated that achievement values significantly predicted engagement and engagement significantly predicted achievement. Additionally, both peers and parents influenced these processes. Implications for future research and intervention strategies are discussed.
Introduction

A major concern of educators and scholars is the achievement gap between White and Black youth. National statistics indicate that the gap in achievement still exists (NCES, 2007). Differences in achievement between Black males and Black females have also been observed once children enter middle school (Boyd-Franklin & Franklin, 2000). Although a decline in engagement and achievement is noted in all students during the transition to middle school (Marks, 2000), it is suggested that Black students, males specifically, have increased difficulty recovering from these declines (Taylor & Graham, 2007).

Explanations pertaining to Black culture have been provided to account for differences in achievement between both Black and White youth and within the Black population during the transition to middle school (Fordham & Ogbu, 1986; Graham et al., 1998; Osborne, 1995, 1997; Taylor & Graham, 2007). Specifically, it has been suggested that Black youth do not place value on the concept of achievement once they enter middle school and that they equate academic attainment with “acting White” (Fordham & Ogbu, 1986; Graham et al., 1998; Osborne, 1995, 1997; Taylor & Graham, 2007). Current cultural explanations for the racial discrepancy purport that internal deficits are present within Black adolescents who do not perform adequately in school (Valencia, 1997). Yet, this type of comparative and deficit model thinking does not account for environmental factors that may attribute to differences in achievement. Whereas much is known about the comparative differences between the achievement of White and Black youth, little is known about the unique educational experiences of Black youth (Hill, 1997, Sirin & Rogers -Sirin, 2005; Tatum, 1987). Thus, alternate
explanations need to be examined to gain further insight into this phenomenon specific to Black populations. Additionally, it has been suggested that to comprehensively understand the experiences of a racial group, it is important to examine the group independent of other groups (Graham, 1991). The current study seeks to examine the achievement of Black youth specifically. Furthermore, environmental factors, in addition to motivational factors that may affect Black adolescent achievement, will be examined to provide a comprehensive understanding of the academic experience of Black adolescents.

Given that Black youth appear to suffer most gravely from declines in achievement and engagement shown in all youth during the transition to middle school (Taylor & Graham, 2007) the current study utilizes a systems approach (Bronfenbrenner, 1977). Systems in which Black adolescents operate are examined in order to understand their impact on motivation to achieve and subsequent achievement. Specifically, parents, peers, and child mechanisms related to motivation (i.e. achievement values and engagement), are explored. Whereas exploration on the influence of peers and parents on adolescent motivation and achievement has been examined in White populations (Cauce, Hannan, & Sargeant, 1992; Kindermann, 2007; Nelson & DeBacker, 2008; Paulson, 1994; Wentzel, 1998), it appears that less is known about the impacts of these systems on the motivation and achievement of Black adolescents (Connell, Spencer, & Aber, 1994; Sirin & Rogers -Sirin, 2004, 2005). Not only social systems explored, but the impact that these environments may have on specific motivational factors (i.e. academic engagement and achievement values) and subsequent achievement of Black adolescents are examined. More specifically, the purpose of this study is to investigate
Black adolescent achievement during the transition to middle school and who, parents or peers, has a greater influence on Black adolescent achievement. How these social influences affect adolescent motivational factors (i.e. engagement and achievement values) to achieve is a secondary goal of this study.

Adolescent Developmental Changes

The turbulent transition into adolescence is marked by a number of normative changes. These include the onset of puberty and identity negotiation, in addition to increases in emotions and unstable peer relationships (Eccles & Midgley, 1989; Gottman & Mettetal, 1986). Along with these changes, a variety of changes are observed in the school setting. Specifically, adolescence marks the beginning of a downward trend in achievement and factors linked to achievement such as engagement, motivation and school attachment (Anderman & Maeher, 1994; Eccles et al., 1993; Gutman & Midgley, 2000; Marks, 2000; Roeser, Eccles & Freedman-Doan, 1999). Eccles and Midgley (1989) indicate that most adolescents eventually recover from decreases in achievement and motivation; however, it has been suggested that Black youth, specifically males, experience difficulty with this recovery (Taylor & Graham, 2007). It is conceivable that the intensive combination of changes that occur in adolescent lives at the transition to middle school may be related to the declines in achievement and achievement related factors.

Drawing from stage-environment fit theory, the environment in which middle school students enter, along with the numerous developmental changes they encounter at the time, may not be sufficient to meet their psychological needs (Eccles & Midgley, 1989; Eccles et al., 1993) which in turn may lead to noted decreases in achievement and
achievement related outcomes (Eccles et al., 1993). Research in the area of peer relations and parental involvement have pointed to social relationships and parental values of education as a possible source of influence on all children’s motivation to learn and subsequent achievement (Berndt, 1999; Kindermann, 1993; Paulson, 1994; Wentzel, 1998). However, if the social environment and parental involvement in which emerging adolescents operate do not provide them with sufficient support and positive influence, adolescents are not likely to fair well during this transition (Eccles et al., 1993). This study seeks to further examine the influences of peers and parents on the achievement of Black adolescents to identify protective factors that may counteract decreases in achievement and factors related to achievement among Black youth.

*Peer Influence in Adolescence*

Peers have a great influence on the attitudes and behaviors of adolescents. While parents’ values shape pre-middle school identity, peer influence has twice as much influence as parent influence upon entering middle school (Bates, 2004). A shift between the strong relationships with parents noted in elementary school aged children, to increased attention on peer relationships among adolescents is noted (Giordano et al., 1993). Furthermore, there is an increase in the amount of time spent with peers and a decrease in interactions with adults (Berndt, 1996). In addition to spending more time with friends, early adolescent relationships with friends become closer and more supportive. Given the fact that these relationships become more supportive, peer influences on adolescent behavior and attitudes increase and the opinions of peers become relatively more important than the opinions of adults (Berndt, 1996) increasing the amount of pressure children feel to conform to peers (Brown et al., 1986).
Peer Influence on Academic Attitudes and Behaviors

Although the influence of peers has been well documented within the literature, relatively little is known about peer influence on academic achievement in minority populations (McKown & Strambler, 2008). Adolescents tend to look at teacher, parent, and peer reactions to their choices to engage in school (Ryan, 2000). Within recent years, the examination of peer influence on adolescent motivation and academic achievement within a classroom or school setting has increased. The findings of this research indicate that peers have a tremendous influence on the motivation, engagement and subsequent achievement of their counterparts. These findings seem to persist when controlling for parent involvement and teacher influences on child engagement (Kindermann, 2007). Ryan (2001) found that among urban 7th grade students, peer group membership in the fall predicted changes in students’ overall liking and enjoyment of school at the end of the year. Kindermann (2007) reports similar results in a sample of 6th grade students. Furthermore, peer group membership predicted end of year engagement in both elementary and middle school students (Kindermann, 1993; Kindermann et al., 1996). Similarly, having a friendship with a student who does not value academics was related to maladaptive achievement motivation within science classrooms of 6th, 7th, and 9th graders (Nelson & DeBacker, 2008). The influence of both a child’s peer group and a child’s best friend has an impact on a child’s liking of school, and their motivational drive and school engagement. Furthermore, children who desire to be part of the popular crowd and those that have low achievement scores within the classroom are more likely to avoid seeking help within the classroom context (Ryan et al., 1997). The pressure students feel to be “cool” may affect their desire to seek out the
help needed to succeed, which negatively affects their ability to achieve and further supports the presence of strong peer influences on achievement. Additionally, the perceived peer norms of a classroom may have a negative impact on child motivation. Nelson and DeBacker (2008) found that when students perceive others within their class to be resistant to school norms, students within that class are more likely to have low motivation for learning. This also supports the importance of peer group influence on educational attainment. When children view others as not wanting to do well in school they are more likely to adopt motivational strategies that support that particular view.

These studies indicate the influence of peers within adolescent populations is high. However, it should be noted that most of this research was conducted with majority White, middle class populations. The ability to generalize these results to ethnic minority populations of different socioeconomic statuses is difficult. However, the presented findings lend support for future research in this area with minority populations. Discovering whether similar results are found with Black youth is of the utmost importance, particularly because of the educational disparities facing Black youth.

Peer Influence in Black Populations

Preliminary research presents conflicting findings in reference to peer influences on Black populations. Narrative reports from Black middle school youth indicate that perceived popularity among this population related to doing well in school and prosocial behavior is similar to other populations. While deviant behaviors such as not doing well in school are more prominent during middle school, positive student qualities are still highly related to popularity (Xie et al., 2006). In contrast, Graham and colleagues (1998)
report that Black males are more likely to admire and want to be like students who do not do well in school. Some research indicates that Black youth are less peer oriented and perceive significantly lower levels of peer pressure than White youth (deCindio et al., 1983; Giordano et al., 1993). However, Steinberg and colleagues (1992) report that the negative peer relationships maintained by Black youth moderate the relationship between positive parental involvement and school achievement. This finding was not significant for White populations, suggesting that negative peer influence is stronger for Black youth. Further investigation in these areas is imperative to understanding the influence of peer influence on Black populations. Determining whether these influences have more or less impact on Black student achievement can provide insight into why Black youth have more difficulty recovering from decreases in motivation and achievement when entering middle school. Thus, this study seeks to examine the impact of peer influences on Black adolescent achievement and related factors during the transition to middle school.

Parent Influence on Achievement

Even though peer influence on adolescent behavior increases during the transition to adolescence, research indicates that parents of adolescents continue to have influence over attitudes and behaviors related to school (Benner & Mistry, 2007; Brown, et al., 1993; Dornbusch et al., 1987; Hill & Tyson, 2009; Paulson, 1994; Spera, 2006; Sui-Chi, & Willms, 1996; Trusty, 2002). It appears that parents have more influence over long-term choices, such as success in school (Wang, Peterson, & Morphey, 2007). Specifically, research in the areas of parenting style and parental involvement suggest that parental influence is still an important predictor of adolescent achievement and
Adolescents with parents who exhibit an authoritative style of parenting, the type of parenting including both responsiveness and high levels of demands, tend to exhibit more positive outcomes (Baumrind, 1991), including academic achievement (Baumrind, 1991; Dornbush et al., 1987; Park & Bauer, 2002), when compared to adolescents with parents who exhibit permissive and authoritarian parenting styles (Baumrind, 1991). There is a paucity of research examining the effects of parenting style and parental involvement on adolescent academic behavior and outcomes simultaneously. However, when they are considered together, parental involvement predicts achievement above any specific parenting style (Paulson, 1994) which suggests that parental involvement may be a more significant predictor of achievement related outcomes for adolescents.

The involvement of parents in the education of adolescents has been well documented within the literature. Research indicates that specific components of parental involvement have a positive impact on adolescent motivation and academic achievement (Fehrmann, Keith, & Reimers, 1987; Hill & Tyson, 2009; Keith et al., 1996; Spera, 2006; Sui-Chu & Williams, 1996; Trusty, 1999). Similar findings have been supported in Black populations (Wood, Kaplan & McLoyd, 2007). It has been suggested that specific components of involvement may be more influential on student achievement during different developmental stages (Epstein, 1996). When compared to other types of parental involvement, parental values and expectations have been shown to be most influential above other aspects including participation in school activities and parental supervision during adolescence (Paulson, 1994; Sui-Chu & Willams, 1996).
More specifically, in a meta-analytic assessment of studies related to middle school students and parental involvement it was identified that parental values of education and their academic expectations for their adolescents was most predictive of middle school students’ achievement (Hill & Tyson, 2009).

*Parental Academic Socialization of Adolescent Achievement*

Consistent with developmental perspectives of increased need for independence and decision making, when children enter adolescence, it is conceivable that parental influence on achievement may become less direct, such as assisting with homework, and more indirect. For example, this may involve the conveyance of parental values and expectations which teach youth the utility and importance of school (Hill & Tyson, 2009). This type of socialization assists adolescents in learning the importance of school for their future. In a qualitative analysis, youth indicated that the high expectations they internalized from their parents translated into personal high expectations and increased their motivation to do well in school (Howard, 2003). Furthermore, research indicates that parental expectations of adolescents are related to adolescent achievement (Benner & Mistry, 2007; Trusty, 2002). Parental values of achievement also influence adolescent effort and motivation to do well in school (Paulson, 1994). The presented research suggests that parents continue to have influences on adolescent motivation and subsequent academic achievement in school. Additionally, it is suggested that parent values and expectations influence adolescent values and subsequent achievement. This system appears to be influential in the academic socialization of adolescents independent of peers (Wang et al., 2007).
Parental Influence in Black Populations

Much of the research measuring parental influence on adolescent achievement and achievement related behavior has been conducted on majority White samples, making it hard to generalize these results to youth of color. Examining how these relationships affect Black adolescents will provide valuable information for intervention efforts to assist academically at-risk youth to succeed. Preliminary results are mixed. Some research indicates that Black parent educational expectations influence adolescent expectations (Trusty, 2002) and that parental involvement is related to student educational outcomes (Taylor et al., 1994). Other research suggests parental values are related to adolescent achievement but do not predict changes in achievement (Sirin & Rogers-Sirin, 2004). Additionally, when ethnic differences are considered in the assessment of parental involvement, Seyfried and Chung (2002) indicate that the relationship may be weaker for Black populations. Other investigators have found that the relationship was stronger for Black students compared to White students (Hill et al., 2004). These mixed results suggest that further research should be conducted to better understand these relationships and their effect on Black adolescent achievement.

Adolescent Perceptions of Parental Attitudes and Behaviors

Research suggests that parents have a tendency to rate themselves more positively with regards to their parental involvement, values and expectations than their student rates their involvement (Paulson, 1994). Student perceptions of parental attitudes and behaviors may provide more information because student perceptions of parental behavior will influence how children respond to their parents’ behavior more than the parents’ actual behavior (Spera, 2006). For example, students’ perception of parental
values and involvement was predictive of adolescent achievement, while parent perceptions of these constructs were not (Paulson, 1994). Given the presented information, the current study will examine adolescents’ perceptions of parental achievement values and expectations to gain an understanding of parental influence on achievement.

**Achievement Related Factors and Environmental Influences**

Multiple motivational factors have been identified within the literature as having the ability to influence achievement of adolescents. Of interest in the current study, is the capacity of behavioral engagement and adolescent achievement values to influence subsequent achievement. Behavioral engagement is defined as the effort a child puts into participating in a classroom, including classroom involvement (Fredricks, Blumenfeld, & Paris, 2004). Children and adolescents who exhibit greater positive behavioral engagement are shown to have higher achievement scores on standardized test scores and higher classroom grades (Connell et al., 1994; Marks, 2000; Sirin & Rogers-Sirin, 2005; Taylor, Casten, Flickinger, Roberts, & Fulmore, 1994). Behavioral engagement has also been shown to be predictive of later achievement (Alexander, Entwisle, & Dauber, 1993 & Alexander, Entwisle, & Horsey, 1997). Some studies have examined the influence of engagement on achievement in Black populations (Connell et al., 1994; Sirin & Rogers-Sirin, 2004, 2005). Research indicates that peers do indeed influence adolescents’ behavioral engagement in school (Shin, Daly, & Vera, 2007), both positive and disruptive forms of behavioral engagement (Berndt & Keefe, 1995). However, how engagement is influenced by specific systems, namely peers and parents, within Black populations has not been extensively explored.
Achievement values, the perceived utility of everyday schooling in shaping one’s future success (Vokel, 1996), have been defined in various ways throughout the academic literature. The Expectancy-Value Model of achievement suggests that the more students find school interesting or important to their future goals, the more likely they are to invest or exert energy in that domain (Eccles et al., 1983). For example, if a student believes that science is important for his future success, Expectancy-Value Theory purports that the student will place greater value on his achievement in science and exert more effort in that subject. Empirical evidence suggests that achievement values are associated with student engagement, persistence in school work and school performance (Pintrich & DeGroot, 1990; Roeser, Strobel, & Quihuis, 2002). However, these findings are based on predominately White samples, limiting the generalizability of these findings to Black youth. Studies assessing achievement values have concluded mixed results, especially between Black and White populations. Some research suggests that the low value Black youth place on achievement explains their lower academic attainment (Osborne, 1995, 1997; Graham, Taylor, & Hudley, 1998; Taylor & Graham, 2007), where as other research indicates that Black youth value achievement as much as White youth but still perform at lower rates (Vokel, 1996, 1997; Steinberg et al., 1992). These conflicting findings suggest that further examination is warranted.

A possible explanation for this discrepancy could be attributed to the manner in which achievement values have been defined historically (Mickelson, 1990). Mickelson asserts that students hold two sets of values about school: abstract values – the overarching belief that education will assist future success and concrete values – the students’ personal experiences identifying how much education has helped those within
their frame of reference. However, much of the literature on achievement values, have explored abstract values with few studies examining student’s concrete values of achievement. Whereas Mickelson reports that concrete values are more related to Black adolescent achievement, to our knowledge, no other studies have examined this construct or come to these conclusions. Furthermore, studies examining a scale assessing items related to abstract values have found that these values alone do not predict student achievement (Meece et al., 1990; Wigfield & Eccles, 2000). Given this information, the current study seeks to combine these two types of values, both abstract and concrete, to determine if the full construct of achievement values has a stronger effect on Black adolescent achievement. Prior research may only be partially testing the role of achievement values in relation to achievement by not considering the full construct of achievement values hypothesized by Mickelson.

The Current Study

The current study seeks to examine the relationship between peer and parental influences on student academic values, behavioral engagement, and academic achievement in a sample of Black adolescents. We will also examine the association between achievement values and behavioral engagement, as well as, the association between behavioral engagement and adolescent achievement is also examined. We tested three hypotheses, if (1) achievement values predicted behavioral engagement, (2) behavioral engagement predicts achievement, and (3) peer and parental factors influence these variables. Since the above hypotheses were supported, the mediating effects of achievement values and engagement on adolescent achievement were examined.
Additionally, moderating effects of gender were examined to understand how the achievement of Black youth may differ for males and females.

Understanding connections between values, engagement and achievement in addition to understanding who has influence over these constructs will assist in the identification of protective factors that may aid in increasing Black adolescent achievement. In order to examine the relationship between motivational aspects of achievement (i.e. engagement and achievement values) and achievement we used structural equation modeling (SEM). Figure 4 represents the hypothesized model.

![Figure 4. Hypothesized Model. PAR_INF = parent influence of academics; PEER_INF = latent factor including peer academic aspirations, peer resistance to school norms, peer academic support; TBENG = teacher perception of child behavioral engagement; BEN_ED = economic benefit of education; STV = task values related to reading and math; ACH = self reported student achievement](image)

**Methods**

**Participants**

Participants in the current study were 6th, 7th, and 8th grade students (41% male) recruited from three school districts (two urban and one small city) in the southeastern United States. Given that this study examines Black adolescents specifically, student
eligibility was determined based on Black racial/ethnic status, which was reported by student self-identification. Black was used to describe children who self-identified as African American or was reported to be African American by school officials.

Recruitment

Teachers of academic subjects were recruited for participation in the study to report on student engagement within the classroom. Student recruitment was employed based on two different recruitment strategies. Students from district 1 were recruited as part of a larger study assessing peer relationships and academic achievement. The two schools utilized in district 1 had overall high percentages of students receiving free or reduced lunch (69%, 86%) and moderate percentages of Black youth (44%, 30%). Students recruited from districts two and three were recruited through classroom presentations. In each school 10 homeroom classrooms were targeted based on a random selection of homerooms. The schools in district 2 had a high overall percentage of students receiving free or reduced lunch (86%, 83%) and moderate to high percentages of Black students (79%, 31%). The school used in district three had a low overall percentage of students receiving free reduced lunch and a low percentage of Black youth (12%). Given the low percentage of Black youth, students were drawn not only from 10 randomly selected homeroom classes but also from a district sponsored after-school program in an effort to increase the numbers of Black students reached by research efforts. Information is not available on the total number of Black students recruited in comparison to the number of students eligible to participate.

Of the 181 participants, 112 had complete data on all variables assessed and 68 were missing one or more items on an analysis variable. Comparisons of participants revealed
that students with some missing data did not differ based on demographic variables including gender, free reduced lunch status, and school campus. Based on these findings, missing values were estimated for those participants using full information likelihood estimation in MPlus (Version 5.2). At the time of the study children’s mean age was 12.53 years ($SD = 1.01$). Student participation varied across grade level with 53 (29%) students enrolled in 6th, 62 (34%) in 7th, and 66 (36%) in 8th grades. Participating schools’ free-reduced lunch eligibility status ranged from 22% to 86.5%, with most schools exceeding 70%. Furthermore, 89% of student participants were classified as economically disadvantaged based on eligibility for free or reduced lunch. Teacher demographic information indicates that teachers surveyed were predominantly White (79%), and female (76%).

** Procedures **

A survey design was conducted to obtain an assessment of Black adolescent achievement values, engagement, and achievement in addition to the extent to which these factors are influenced by both peers and parents. Initial school recruitment was conducted through administration. Once each middle school agreed to participate, student recruitment took place through speaking with classes about the study to gain student interest in participating. Although only Black students were used in this study, classroom presentations were given to mixed race classrooms. Students were informed that the study was assessing ways to assist adolescents to succeed at school. Once all data was collected from a multitude of races, the researcher used only the Black participants for the current study. Consent forms were then sent home to obtain parental permission to participate. Student questionnaires were group administered during 20
minute sessions after school hours. Students at each participating school were entered into a school-wide raffle to win a token gift for their participation in the study in accordance with IRB approval. Teacher questionnaires assessing student behavioral engagement were administered once student surveys were completed. Teachers were entered into a raffle for a gift card for their participation in the study.

Measures

Achievement. Achievement was assessed by asking students to report their grades across academic classes for the most recent 6 week period. The completion of a 4 item Likert-type scale ranging from 1 (Mostly D’s) to 4 (Mostly A’s) was used to determine the extent to which the response describes their grades. Self-reported classroom grades have been shown to be an accurate representation of student grades as compared to grade point averages provided by school records (Dornbursch, Ritter, Leiderman, Roberts, & Fraligh, 1987). Dornbursch and colleagues (1987) report that only slight inflation of grades were reported by students who received average grades lower than a “C” average.

Achievement Values. Participants were given the Subjective Task Values subscale of the Competence Beliefs and Subjective Task Values questionnaire (Wigfield, Eccles, Yoon, Harold, Arbreton, Freedman-Doan et al., 1997). This individually administered measure contains 6 items, with 3 items assessing subjective task values for reading and math respectively. Specifically, children were asked about the usefulness of the subject, their interest in the subject, and how important it is for them to be good at the subject. The internal consistency with the present sample for the Reading scale was .66 and .53 for the Math scale.
Additionally, students were given the Economic Value of Education Scale (Murdock, 1999) to assess their overall values of education and its usefulness for their future. A confirmatory factor analysis (CFA) was conducted (Murdock, 1999) to identify specific subscales for the Economic Value of Education Scale which contains items from the Limits of Education subscale and the Benefits of Education subscale. This individually administered 15 item questionnaire requires completion of a 4 item Likert type scale ranging from 1 (really disagree) to 4 (really agree) to determine the extent to which the adolescent believes the statement presented assesses their beliefs about the general benefits and limitations of education for their future. Example items include, “Many of the things we do in school seem useless to me” and “If I work hard it will pay off later with a well paying job.”

A CFA was conducted to determine if the current data fit the previously identified subscales suggested by Murdock (1999). The results suggested that the data fit moderately well. Once the model was modified with the use of modification indices suggesting that certain item error variance on the Limits to Education subscale be correlated, the model fit was adequate with CFI = .91, RMSEA = .05 and SRMR = .06 (Browne & Cudeck, 1993; Kline, 2005). Additionally, all items had a statistically significant fit to their designated subscale. Internal consistency of items on the Limits to Education subscale for the current sample was .72 and internal consistency of the Benefits to Education subscale was .71. Given the high correlation (.52) between these two subscales, the current study assessed an overarching latent factor of the Economic Benefit to Education.
To assess the full construct of achievement values, the Economic Benefit to Education and the Subjective Task Values scales were combined. The Subjective Task Values scale assesses abstract values while the Economic Benefit to Education assesses concrete values. Correlations between the two scales suggest that these scales measure a similar construct \((r = .41)\). A CFA was conducted to determine if combining the scales into a single construct resulted in a well fitting model. The model was modified based on modification indices which suggested that certain item error variance on the Economic Benefit to Education Scale be correlated. The model fit was adequate with CFI = .91, RMSEA = .04 and SRMR = .05.

**Peer Influence.** Peer influence was assessed by the Peers’ Academic Support and Aspirations scale (Murdock, 1999) to assess students’ perceptions of peer behaviors and beliefs about school. The factor loadings of this scale were previously assessed with middle school students and a CFA revealed three specific subscales for the measure (Murdock, 1999). Cronbach’s alpha coefficients are noted for each subscale. The Peer Academic Aspirations subscale examines aspects concerning the student’s perception of their friends long term goals; and the Peers’ Resistance to School Norms subscale examines the extent to which students peers discourage them to conform to behaviors related to school success. Additionally, the Peer Academic Support subscale assesses perceptions of peer support for academic related tasks. This individually administered 15 item questionnaire requires completion of a 4 item Likert type scale ranging from 1 (really disagree) to 4 (really agree) assessed the three constructs presented above.

A CFA was conducted to determine if the current data fit the previously identified subscales suggested by Murdock (1999). The results suggested that the data
fit moderately well. Once the model modification indices were considered suggesting that two item error variances on the Peer Academic Aspirations subscale be correlated, the final model fit was improved with CFI = .92, RMSEA = .07 and SRMR = .06. Additionally, all items had a statistically significant fit to their designated subscale. Internal consistencies of Peer Academic Aspirations subscale, Peers’ Resistance to School Norms subscale, and Peer Academic Support subscale with the current sample were .76, .73 and .80 respectively. Given the high correlations (between .57 and .65) between these subscales, the current study assessed a latent construct of peer influence.

**Parental Influence.** Parental influence was measured using a researcher developed questionnaire that assesses students’ beliefs about the importance of parental approval of various decisions within their life (i.e. school, athletics, and clothing). A 6 item self report scale which uses a 4 item Likert-type scale ranging from 1 (really disagree) to 4 (really agree) was used. Sample items include “It is important to me that my parents like my friends” and “It is important to me that my parents are proud of how I behave in school.” Research suggests there are differences in parental influence on school related decisions and other life decisions, such as athletics, clothing, and extracurricular activities (Wang, Peterson & Morphey, 2007). Given these differences, a CFA was conducted that identified two factors, the first related to school decisions and a second related to other life decisions. The results suggested that the model fit the data adequately with CFI = .97, RMSEA = .07 and SRMR = .03. Internal consistency of the parent influence related to academics with the present sample was high (α = .85), whereas the consistency of the parent influence related to other activities was low (α
Given this information, the current study only assessed the subscale of parent influence related to academics.

**Teacher-reported Behavior Engagement.** Engagement was assessed by asking one academic subject teacher to describe the child’s engagement in the classroom within the past 6 week period. The completion of a 4 item Likert-type scale ranging from 1 (not at all true) to 4 (very true) was used to determine the extent to which the teacher believed the statement presented described the child. Items were adapted from teacher and student ratings of engagement (Skinner, Zimmer-Gembeck & Connell, 1998). This scale consists of 10 items assessing behavioral engagement, 4 items assessing interest, and 4 items measuring emotional engagement. Chen, Huges, Liew, and Kwok (April, 2009) conducted an exploratory factor analysis (EFA) of the measure revealing one factor assessing behavioral engagement (i.e. effort, persistence, concentration, and interest). Based on the EFA results, the mean of the 11 items was used to create a behavioral engagement variable. Example behavioral engagement items include “When this student is in class, he/she participates in class discussion” and “This student only learns what he or she wants to learn” (reverse scored). Results of the CFA for the current data suggested adequate fit with CFI = .97, RMSEA = .08 and SRMR = .03. Internal consistency of this measure for the current sample was .95.
Results

**Sample Descriptive Statistics**

Table 3 presents correlations, means, and standard deviations for the analysis variables. The correlation between engagement and achievement is as expected. Additionally, the correlations between peer and parental influences and achievement values are consistent with hypotheses. The low correlations between engagement and peer and parent influences are low and nonsignificant, which was inconsistent with the expected hypotheses. Table 4 depicts the unique contributions of the task values subscale and the economic benefit to education subscales effect on other analysis variables.

Table 3  
**Correlations, Means and Standard Deviations of Analysis Variables**

<table>
<thead>
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<th>Scale</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>M</th>
<th>SD</th>
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<td></td>
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<td></td>
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<td></td>
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<td>9.57</td>
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</table>

*Note.* ACH = self reported student achievement; TBENG = teacher perception of child behavioral engagement; PEER_INF = peer influence composite; PAR_INF = parent influence of academics; ACH_VAL = achievement values composite.
Structural Equation Model

The hypothesized model was assessed using MPLUS version 5.2 (1999). Results indicated that teacher reported behavioral engagement predicted achievement \( (p < .001) \). Additionally, student achievement values predicted teacher reported behavioral engagement \( (p < .05) \). The social influences assessed, peer and parental influences both predicted student achievement values. This findings suggests that the more students are concerned with their parents perceptions of them related to academics and the more support and positive aspirations within their peer group, the more likely they are to perceive economic benefits to their education and the more likely they are to value education and view education as useful and important.

Figure 5 presents the results of the hypothesized model. The model fit the data adequately, with a \( \chi^2 \) (18) = 27.08, \( p < .05 \), the CFI = .97, the RMSEA = .05, and the SRMR = .04. Figure 5 presents all unstandardized parameter estimates and the standardized estimates (shown in parenthesis). Significant paths are indicated by
complete lines.

Figure 5. Results of hypothesized model. Values are unstandardized parameter estimates, with standardized estimates in parentheses. PAR_INF = parent influence on academics; PEER_INF = latent factor including peer academic aspirations, peer resistance to school norms, peer academic support; TBENG = teacher perception of child behavioral engagement; ACH_VAL = latent factor including economic benefit of education and task values related to reading and math; ACH = self reported student achievement

**Moderators**

The possible moderation effect by gender on the hypothesized paths was examined using multigroup analysis. To determine if gender differences exist in the hypothesized model, multigroup analysis compares a fully constrained model where structural paths are equal for boys and girls to an unconstrained model where structural paths for boys and girls are free to vary (Kline, 2005). If there is no significant difference between the constrained and unconstrained models then one assumes no gender differences exist. First, a fully constrained multiple-group model of the structural paths showed good model fit \( \chi^2 (42) = 58.95, p < .05 \), the CFI = .94, the RMSEA = .07, and the SRMR = .05, and when compared to a model where structural paths were
allowed to be freely estimated, which also showed good fit $\chi^2(38) = 55.02$, $p < .03$, the CFI = .94, the RMSEA = .07, and the SRMR = .05. The chi square difference test conducted between the constrained and unconstrained model did not reach statistical significance indicating that the models are similar for both boys and girls. Additionally, examination of the standardized path coefficient between models for boys and girls confirmed that the structural paths are similar.

Discussion

Previous research indicates that peers and parents influence both child factors (i.e. achievement values and behavioral engagement) and academic achievement (Kindermann, 2007; Nelson & DeBacker, 2008; Paulson, 1994; Wang et al., 2007). However, most of these findings have been identified in majority White samples. The purpose of this study was to determine if findings are similar for a sample of Black adolescents. Specifically, we were interested in determining if the achievement values held by Black adolescents had an effect on their behavioral engagement and subsequent achievement. Furthermore, we examined who - peers or parents - influenced these relationships.

Our findings provide pertinent information surrounding the influence of peers and parents on the achievement values, behavioral engagement and achievement of Black students. Predicted effects between achievement values and engagement as well as the effects between engagement and student achievement were supported by the data. Furthermore, the role of peer and parent influences’ ability to effect motivation and subsequent achievement of a sample of Black youth are supported. Additional strengths of the study include the assessment of the unique effect of behavioral engagement
independent of other types of data, the use of multiple sources to assess the constructs in question, and an examination of Black students independent of peers from other ethnicities.

The effects of peer and parental influences on achievement values and engagement and subsequent achievement were supported by the data. Peers and parents both had significant influence on the achievement values assessed. Results suggest that the more students perceive that their friends support them academically, follow school norms, and have high aspirations the more likely the student is to hold values and beliefs that school will be important and useful for their future, both in general and as specifically related to economic benefits of their education. Additionally, results indicate that higher perceived parental importance of doing well in school is associated with students holding higher values and beliefs about the general importance of school and beliefs about the economic benefit of their education.

Utilizing a construct that assesses both construct and abstract values of achievement provides important information about student values. Specifically, findings suggest that the values that parents instill in their children about academics do relate to the engagement and achievement of their youth. Identifying that parents still have an influence on achievement values and subsequent engagement and achievement during this developmental period is an important finding within this population, given that previous research suggests that parents may have less of an effect on their Black students achievement once reaching middle school (Seyfried & Chung 2002). This indicates that parents continued involvement and conveyance about the importance of school assist Black youth to excel. Furthermore, the importance of a positive and supportive peer
group also affect the values that children hold about school’s importance for their future success and their subsequent behavioral engagement and achievement.

At this developmental period, it appears that having friends who are support academic attainment, follow school norms and have high academic aspirations are more likely to excel academically, reinforcing the importance of peers during this developmental period. Academic intervention strategies to increase academic attainment within Black adolescents should incorporate the cultivation of positive, academically supportive relationships between peers. Previous research supports the findings presented here indicating that peers influence behavioral engagement of youth (Berndt & Keefe, 1995; Shin et al., 2007) and the notion that peers have influence on day to day behavior of students at school (Steinberg et al., 1992).

As predicted, behavioral engagement was significantly related to student self reported achievement. Behavioral engagement is a significant factor in student achievement in middle school for Black students. This finding suggests that academic intervention strategies to increase academic achievement in middle school aged Black youth should include components to increase academic effort and behavioral attributes that support classroom perseverance. Youth at this developmental stage are experiencing multiple developmental changes as well as declines in achievement, which have been suggested to affect Black youth more so than White youth (Graham & Taylor, 2007). The identification of protective factors to assist middle school aged Black youth to achieve is greatly needed. This study identifies one such factor, child behavioral engagement, and provides important information for school administrators and staff. This study provides a point to intervene and the ability to positively affect the
achievement of this population. Fostering engagement in early Black adolescents may assist students in making and maintaining academic gains.

Predicted effects of academic values were significant in relation to student engagement and subsequent achievement. Past research as identified differences in the ability of different types of academic values to influence the achievement of Black youth (Mickelson, 1990). The current study did not find significant correlations between concrete values and achievement outcomes. However, when the latent construct of achievement values is considered, both abstract and concrete values, both significant correlations and effects are identified on academic engagement and subsequent achievement. This provides evidence of the importance of measuring all components of achievement values in order to determine their full effect on the engagement and achievement of youth. Some research suggests that Black youth begin to devalue achievement once entering middle school (Osborne, 1995, 1997; Graham, Taylor, & Hudley, 1998; Taylor & Graham, 2007). However, the results indicated here that higher achievement values lead to higher levels of engagement and subsequent achievement provide some data against the devaluing of achievement suggested by past researchers. Specifically, this data suggests that Black youth do value achievement, and this valuing translates into behavior in the classroom represented here as behavioral engagement.

Study Limitations

Results need to be interpreted in the context of study limitations. Given that these findings were obtained on a group of Black students that are mostly classified as at-risk due to their economic disadvantage (i.e. eligible for free reduced lunch) results may not generalize to children from families with higher levels of income. However,
economically at-risk Black youth are a major concern of educators and policy makers because of the achievement gap between White and Black youth. Consequently, results of this study can point to social intervention strategies for reducing racial disparities in achievement. Additionally, all measures were collected at one time point, making it difficult to assess measures of influence (i.e. peer and parent). Influence is expected to develop over time (Ryan, 2000) and having multiple time points to measure these constructs in the future could provide additional information into their effect on across time.

Another limitation of the study is the small sample size. Future studies should utilize larger sample sizes to increase ability to produce an effect in study variables. Additionally, the use of self-reported grades as a measure of achievement may have affected study results (Kuncel et al., 2005). Given the great importance of identifying protective factors and intervention strategies for assisting Black adolescents to achieve, this study should be replicated with a larger sample size and a more objective measure of student achievement. Finally, given that no longitudinal data was collected it is not possible to control for prior levels of achievement and it is possible other variables that may affect the achievement of Black youth, such as prior achievement.

This pilot study provides the identification of protective factors for the academic attainment of a sample of Black youth. The factors assessed have mostly been examined with majority White populations, and this study provides insight into these factors within a different population. Additionally, the ability to examine achievement related constructs within a completely Black sample without comparison to their majority race peers allows pertinent information to be gathered independent of comparisons to others.
The finding of this study can be utilized by educational stakeholders to intervene in the academic attainment of Black youth. The identification that behavioral engagement is a strong predictor of academic attainment within this population provides an entry point for intervention. Increasing behavioral engagement will allow Black adolescents to continue to persevere academically. Identifying that parents still provide influence over the values and subsequent engagement and achievement of their youth provides important information into this developmental period. Furthermore, the finding that positive peer influence is an important factor in academic attainment during this shift into adolescence should charge stakeholders with the task of fostering positive peer relationships among Black adolescents.
CHAPTER IV
CONCLUSION

In sum, the findings of this dissertation suggest that behavioral engagement, achievement values, and the social influence of peers and parents are key variables to consider when understanding the academic attainment of Black youth across the developmental stages of late childhood and adolescence. It was important to examine these constructs across developmental stages because research has only looked at the achievement of Black youth in one developmental period at a time, providing limited information as to how Black students’ achievement may be impacted throughout their academic career.

The Significance of Behavioral Engagement

It appears that teacher reported behavioral engagement is a predictor of the academic achievement of Black youth throughout late elementary and middle school. In study one “Predictors of At Risk Black Students’ Achievement in Late Elementary School: The Role of Achievement Values and Engagement,” behavioral engagement either predicted or marginally predicted math and reading achievement when controlling for prior levels of engagement and achievement. Furthermore, in the second study, “A Pilot Study Examining the Academic Achievement of Black Adolescents: The Importance of Peer and Parental Influences” behavioral engagement predicted self-reported grades of middle school students. Given that each study assessed a different measure of academic achievement (i.e. standardized math and reading scores, self reported grades) it seems that behavioral engagement is a fundamental construct in the process of academic attainment, suggesting behavioral engagement should be targeted in
the development of academic interventions for this population. The marginally
significant relation between behavioral engagement and reading achievement in the first
study may be explained by sample characteristics since the inclusionary criteria for
student participation in study was evidencing at risk reading achievement as determined
by earning a score below the median on a district assessed reading measure. It may be
that student’s level of behavioral engagement is less significant without the requisite
academic skills necessary for academic mastery in the academic subject (e.g., reading
skills). Therefore, providing students with the academic skills necessary for school
success should be a central component when targeting engagement efforts. Overall, the
identification of behavioral engagement as a significant predictor of academic attainment
suggests that academic interventions to increase achievement in at risk Black youth
include components to increase academic effort and behavioral attributes that support
classroom perseverance.

In order to capitalize on the identified importance of student engagement within
the Black population discovered throughout these studies, it is important to examine
classroom mechanisms that cultivate higher levels of engagement. Research suggests
that teacher-student relationships play an important role in creating a safe and supportive
environment for students to learn (Wentzel, 1998). The environment created by this
connection has been identified as a predictor of student engagement and subsequent
achievement (Hughes et al., 2008). Additional studies have also identified the link
between the teacher-student relationship and student engagement (Ryan et al. 1997;
Wentzel, 1996,1998). Furthermore, the promotion of student self-autonomy has been
linked to increases in academic engagement in adolescence (Marks 2000; Ryan et al.
development of teacher skills to cultivate strong, positive relationships with students and the promotion of self-autonomy within the classroom. It appears from developing these skills teachers may be more likely to create an environment that is highly conducive to Black student involvement and engagement in school.

The Redefined Importance of Achievement Values

This dissertation provides important information about the achievement values of Black youth as well as the constructs used to measure achievement values within the literature. Within the first study, the assessment of task values as a measure of achievement values was not a significant predictor of student engagement. This finding is consistent with previous research (Meece et al., 1990; Wigfield & Eccles, 2000). It has been suggested that this may be attributed to the type of value that this scale assessed. More specifically, Mickelson (1990) purports there are two types of achievement values: abstract and concrete. Abstract values, those defined as an overall idea that education will provide future success, is similar to items assessed on the Eccles’ Task Values scale used in the first study. In a previous study, Mickelson identified that these abstract values are not predictive of Black student achievement whereas concrete values, defined as values related to the actual amount of success education has provided to others within the youths’ frame of reference, are predictive of achievement. In study two, neither type of value, abstract or concrete, was significantly correlated with student engagement; however, when both types of values were considered together to form an achievement values construct, the achievement values construct was predictive of student engagement. This finding underscores the
importance of reexamining achievement values as uni-dimensional construct to
determine the combined effect of achievement values on student engagement and
academic achievement.

In relation to the achievement values of Black youth, some research suggests that
Black youth begin to devalue achievement once entering middle school (Osborne, 1995,
1997; Graham, Taylor, & Hudley, 1998; Taylor & Graham, 2007). However, our
findings from study two indicate that Black youth valuing of achievement during middle
school is related to an increase in academic effort engagement within the classroom.
Thus, the presented findings are not supportive of hypotheses related to the devaluing of
achievement often used to explain the underachievement of Black students.

Whereas to our knowledge no research exists examining how to promote
achievement values within Black youth, potential interventions that may target the
cultivation of achievement values include highlighting the successes of Black youth
within the school setting to reinforce academic success. Additionally, inviting
successful Black professionals to mentor Black youth while highlighting the importance
of education to their current level of success may begin to shape negative perceptions
Black youth possess about the benefits of education. Empirical evidence should be
attained to evaluate these strategies.

Parent and Peer Influences

In the second study not only was the relation between achievement values,
engagement, and achievement examined, but the social influence of peers and parents on
these variables was also explored. Results indicated that both peers and parents
influences were related to student achievement values, subsequent engagement, and
achievement. These findings provide support for the continued involvement of parents in the education of their adolescent and the importance of parental academic socialization as it relates to the utility of education (Hill & Tyson, 2009). Additionally, the importance of positive and supportive peer groups on student achievement values was also identified. Consistent with prior research, our findings indicate that peer influences are related to adolescent behavioral engagement (Berndt & Keefe, 1995; Shin et al., 2007) and the day to day behavior of students at school (Steinberg et al., 1992). It appears that during adolescence, youth who have friends that are supportive of academic attainment, follow school norms, and hold high academic aspirations are more likely to value school, remain engaged, and excel academically. Intervention strategies that target improving and maintaining the academic success of adolescent Black youth should foster the development of positive and academically supportive peer relationships through interventions such as peer-wide tutoring and involvement in extracurricular activities. Creating opportunities for youth in interact with pro-social peers allows for the cultivation of relationships with supportive youth. Additionally, providing explicit strategies to encourage the continued involvement of parents and parental academic socialization will assist with maintaining the academic success of Black youth.

Future Directions

In conclusion, future studies should further examine the combined effects of achievement values on the academic achievement of youth. Further exploration will provide a better understanding of the full constructs’ ability to influence and affect motivation, engagement, and achievement of youth. Additionally, longitudinal designs should be employed to examine the impact of these relationships, particularly the
influence of peers and parents, across time. This information could greatly influence the intervention efforts needed. Longitudinal designs could also determine the directionality of these relationships; that is if achievement values are driven by performance or if performance is drive by achievement values. Whereas the current dissertation looked at students at risk of academic failure and economically disadvantaged students, future studies should examine these processes in ethnically diverse middle class youth with varying levels of achievement. Considering that other variables such as prior levels of achievement, type of school attended, cognitive ability, and the quality of teacher relationships may also influence student’s academic values, behavioral engagement, and academic achievement future studies should examine and the impact of these constructs impact on student’s academic functioning. The current dissertation study not only identified variables that effect the achievement of an at-risk population of youth, but also identified points for educational stake holders to intervene and assist this population to reach and maintain academic perseverance.
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