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The Impact of Self-Efficacy and Motivation Characteristics on the Academic Achievement of Upward Bound Participants

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THE IMPACT OF SELF-EFFICACY AND MOTIVATION CHARACTERISTICS ON THE ACACEMIC ACHIEVEMENT OF UPWARD BOUND PARTICIPANTS

by

Brenda Leigh Brown

Abstract of a Dissertation
Submitted to the Graduate School
of the University of Southern Mississippi
in Partial Fulfillment of the Requirements
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ABSTRACT

THE IMPACT OF SELF-EFFICACY AND MOTIVATION CHARACTERISTICS ON THE ACACEMIC ACHIEVEMENT OF UPWARD BOUND PARTICIPANTS

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The purpose of this study was to evaluate the impact of self-efficacy and motivation characteristics on the achievement of at-risk students. Seventy-nine Upward Bound program participants completed self-efficacy, motivation, and demographic questionnaires. The relationship between GPA and self-efficacy was significant, negative, and low in strength. High GPA was associated with high self-efficacy (as shown by lower numbers on the survey). Gender, length of time in the Upward Bound (UB) program, length of participation in the UB summer program, college sponsor (community or four-year college), self-efficacy characteristics, and motivation characteristics significantly predicted academic achievement as measured by GPA. The relationship between motivation and self-efficacy was significant and low in strength. The results showed that higher extrinsic motivation was associated with higher intrinsic motivation. Results also showed that higher self-efficacy was associated with lower amotivation and higher intrinsic motivation. The author suggests that researchers continue to study self-efficacy and motivation characteristics to determine strategies for academic success of at-risk students.

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CHAPTER I

INTRODUCTION

Academic achievement of at-risk students has proven to be an enduring concern to parents, educators, and researchers (Bloom, Gardenhire-Crooks, & Mandseger, 2009; Bridgeland, Dilulio, & Morison, 2006; Mayer, 2008; Nowicki, Duke, Sisney, Stricker, & Tyler, 2004; Orfield, Losen, Wald & Swanson, 2004; Osborne & Walker, 2006). The National Center for Educational Statistics (1996), reports that in 2007, approximately 3.3 million youth age 16-24 were not enrolled in high school and had not received a diploma or graduate equivalency degree (GED). In 2008, 1.4 million youth between the ages of 16 and 19 were neither in school nor working (KIDS COUNT Data Center, 2008). Of American high school students, reports indicate that approximately one-third do not graduate (Azzam, 2007; Bridgeland et al., 2006; Melville, 2006). The percentage for minority and low-income students who do not graduate is alarmingly higher than the percentage of other students who do not graduate, approximately 50% compared to 25% respectively (Azzam, 2007; Bridgeland et al., 2006; Melville, 2006).

The result of dropping out of high school is distressing not only to the individual, but to our communities and our nation as a whole (Orfield et al., 2004). Nowicki et al. (2004) find enormous ramifications as a result of the dropout rate nearing one million annually.

> In modern America, increasing levels of education are necessary for success (more than 70% of jobs for example, now require 4 years of high school mathematics), and those students who drop out before achieving a

> high school degree are at increased risk for a variety of problems in later life…but the disturbing factor is that significant numbers of students remain at risk of leaving school permanently. (Nowicki et al., 2004, p. 226)

Research indicates that motivating students to participate willingly in school may be the main challenge of parents and educators in preventing academic failure (Wood, 2001). Nowicki et al. (2004) identified demographic indicators, which lead to failure to persist academically, including low socioeconomic status, minority status, broken family structure, and low level of educational attainment among family members. In addition, withdrawal from school is strongly related to race, gender, and socioeconomic status (Osborne & Walker, 2006).

Students engaged in school characteristically demonstrate a desire to learn and are more apt to succeed academically (Caraway, Tucker, Reinke, & Hall, 2003). Bramlett, Murphy, Johnson, & Wallingsford (2002) report that among educators, a shared concern, is the number of students enrolled in school who lack the motivation and desire to persist academically and are unwilling to put forth the effort necessary to succeed, and are thus disengaged. Cleary (2009) notes the importance of determining why adolescents become disinterested in school and separate themselves from academic pursuits.

Academic achievement of minority students is of particular concern. Comparing graduation rates by each state, calculations show a large gap between whites and most minority groups (Orfield et al., 2004). Although

graduations rates are a universal concern, male minorities tend to be at greater risk. Regarding graduation rates, Orfield et al. (2004) writes:

> they are substantially lower for minority groups and particularly males…in 2001, only 50% of all Black students, 51% of Native American students, and 53% of all Hispanic students graduated from high school. Black, Native American, and Hispanic males fare even worse: 43%, 47%, and 41% respectively. (p. 2)

Despite obstacles, it has been reported that high-achieving minority students share the same demographic characteristics with their low-achieving peers (Mayer, 2008). Students from disadvantaged backgrounds are capable of overcoming situations that put them at risk and succeeding academically (Brown & Brown, 2005; Mayer, 2008). Research suggests that important contributions to academic success of at-risk students include connectedness, opportunities to participate and contribute, and high self-expectations (Brown & Brown, 2005).

Around 60% of low income children have parents whose education consists of high school diploma or less (National Center for Children in Poverty, 2009). Because parents of low-income students often do not have the academic understanding necessary to support educational concerns, many of these students experience a disadvantage as they attempt to maneuver their way through the educational system. “While mothers of the non-achieving students might have valued schooling, they were unable to advise their sons in such matters as setting educational objectives, getting involved in school activities, or navigating school” (ETS Policy Information Center, 2005, p. 4).

Motivation is found to be the result of complex interactions that are often not understood, especially as they relate to achievement and conceptual change (Hynd, Holschuh, & Nist, 2000). Reports indicate that as individuals are motivated, learning occurs (Wood, 2001). Somers, Owens, and Piliawsky (2009) note that successful at-risk students find school work engaging and have an understanding of how school relates to the world of work. Unfortunately, many at-risk students often do not make the link between high school education and college education and earnings. (Somers et al., 2009).

Certain researchers report that motivation is dependent on specific situations and have certain characteristics (Hynd et al., 2000).

> For students strongly identified with academics, good performance should be rewarding (higher self-esteem, leading to more positive emotions) while poor performance should be punishing (lower self-esteem, leading to negative emotions). For students not identified with academics, there should be little motivation to succeed in academics because there is no contingency between academic outcomes and self-esteem—good performance is not intrinsically rewarding, and poor performance is not intrinsically punishing. (Osborne & Walker, 2006, p. 565)

Hynd and colleagues (2000) found that among students who learned and students who did not learn, important factors toward motivation were interest and understanding. Research indicates that student learning is highly related to motivational variables such as self-efficacy and goal orientation (Kizilgunes, Tekkaya, & Sungur, 2009; Neber & Schommer-Aikins, 2002; Pintrich, 2000;

Pintrich & Schunk, 2002; Wigfield & Eccles, 2000). Research suggests that self-efficacy correlates highly with achievement and is an essential component for academic success (Hsieh, Sullivan, & Guerra, 2007). "Compared to students who doubt their learning capabilities, those with high self-efficacy for acquiring a skill or performing a task participate more readily, work harder, persist longer when they encounter difficulties, and achieve at higher levels" (Schunk & Zimmerman, 2007, p. 9).

The Upward Bound program is one of the programs established by the Higher Education Act of 1965 and was reauthorized by the Higher Education Opportunity Act of 2008. The Higher Education Act of 1965 provides for compensatory education programs designed to address issues of educating at-risk high school students whose academic and motivational needs have gone unmet. The programs established vary in their attempts to address academic problems, educate instructors and counselors, and intervene in familial situations that impede academic success.

The Upward Bound program is a federally-funded grant, national education program designed to maximize the opportunity of at-risk high school students to complete secondary education and enter a program of higher education in order to obtain a baccalaureate degree (O'Brien, Bikos, Epstein, Flores, Dukstein, & Kamatuka, 2000). It has been noted that Upward Bound's effectiveness can be seen in that students who complete the program, matriculate into college, and persist to postsecondary graduation more readily

than do at-risk students without this intervention (Pell Institute for the Study of Opportunity of Higher Education, 2009).

Students enrolled in Upward Bound programs are provided extra instruction after school and on weekends in mathematics, laboratory science, foreign language, English, and composition. Participants in the program are provided visits to college campuses, instruction, tutoring, counseling, mentoring, and cultural enrichment (Pell Institute for the Study of Opportunity of Higher Education, 2009). College campuses, which host the Upward Bound program, usually provide an intense six-week residential or non-residential summer program for added academic, cultural, social, and personal enhancement.

The mission of Upward Bound programs is to motivate enrollees to complete high school and succeed in college (O'Brien et al., 2000). Research studies have reported that Upward Bound does indeed influence participants' motivation to complete secondary and enter postsecondary education (Pell Institute for the Study of Opportunity of Higher Education, 2009). Within the literature that exists on Upward Bound's influence on student's motivation, there is a lack of attention given to specific motivational types that affect their academic success and involvement with the Upward Bound program.

Purpose of the Study

This study examines motivational characteristics of students who participate in the Upward Bound program through implementation of the Academic Motivation Scale-High School Version (AMS-HS) (Vallerand, Pelletier, Blais, Briere, Senecal, & Vallieres, 1992) and the Morgan-Jinks Student Efficacy

Scale Questionnaires (MJSES) (Jinks & Morgan, 1999). Hynd and colleagues (2000) found that students who were intrinsically interested in the information that is learned in the classroom became successful learners. The AMS-HS questionnaire was utilized as a theoretical basis for explaining and predicting motivational characteristics that lead to persistence in high school and matriculation to college. The MJSES questionnaire was administered as a means of gaining information regarding student self-efficacy beliefs related to the scholastic success (Jinks & Morgan, 1999).

Because motivation and self-efficacy are important factors in enrollment and success in postsecondary education, which is the underlying goal of the Upward Bound program, this study sought to answer the following research questions:

1. Is the academic achievement of Upward Bound participants, as measured by overall grade point average (GPA), significantly related to their self-efficacy characteristics?
2. To what extent can gender, length of time in the Upward Bound program, length of participation in the Upward Bound summer program, location of the Upward Bound program in a community or a four-year college, self-efficacy and motivation characteristics significantly predict the academic achievement of Upward Bound participants, as measured by overall GPA?
3. Are the self-efficacy characteristics of Upward Bound participants significantly related to their motivation characteristics?

Research Hypotheses

Three research hypotheses were investigated in this study and are outlined below:

Research Hypothesis #1

The academic achievement of Upward Bound participants, as measured by overall grade point average (GPA), is significantly related to their self-efficacy characteristics.

Research Hypothesis #2

Gender, length of time in the Upward Bound program, length of participation in the Upward Bound summer program, location of the Upward Bound program in a community or a four-year college, self-efficacy and motivation characteristics can significantly predict the academic achievement of Upward Bound participants, as measured by overall GPA.

Research Hypothesis #3

The self-efficacy characteristics of Upward Bound participants are significantly related to their motivation characteristics.

Definition of Terms

Terms used in this study are defined as follows:

Upward Bound Program. The Upward Bound program is a federally-funded grant program through the U. S. Department of Education and is designed to prepare low-income and potential first generation college students with instruction in mathematics, English literature and composition, and science

in order to succeed in secondary education and be prepared for postsecondary education (Pell Institute for the Study of Opportunity of Higher Education, 2009).

Upward Bound Participants. According to the U. S. Department of Education (2004) eligible Upward Bound students must be 13-19 years of age, entering the ninth grade, aspire to go to college, and demonstrate a need for services provided by the program. In addition, two-thirds of Upward Bound participants are selected on the basis that their families income is within 150% of the federal poverty guideline as established by the U.S. Department of Commerce, Bureau of the Census and neither parent has completed a program of postsecondary education to earn a baccalaureate degree. The additional one-third of participants must be considered low-income and/or potential first generation college students (U.S. Department of Education, 2004).

At-Risk Students. For the purpose of the current study, at-risk students are defined as school aged youth at-risk of academic failure, substance abuse, teenage pregnancy, and unlawful activity (Caraway et al., 2003).

Motivation. Motivation is the manner in which a goal-directed pursuit is initiated and maintained (Pintrich & Schunk, 2002).

Intrinsic Motivation. Intrinsic motivation refers to the pleasure and satisfaction students receive by engaging in an activity (Vallerand et al., 1992).

Intrinsic Motivation to Know. Intrinsic motivation to know refers to performance of an activity for the pleasure derived from learning, exploring and understanding (Vallerand et al., 1992).

Intrinsic Motivation towards Accomplishment. Intrinsic motivation towards accomplishment refers to engaging in an activity for the pleasure and satisfaction of attempting to create or accomplish something (Vallerand et al., 1992).

*Extrinsic Motivation***.** Extrinsic motivation refers to students engaging in an activity as a means to an end (Vallerand et al., 1992).

External Regulation. External regulation refers to behavior being controlled by external rewards and controls (Vallerand et al., 1992).

Introjected Regulation. Introjected regulation is when students start to internalize reasons for their actions (Vallerand et al., 1992).

Amotivation. Amotivation refers to students who do not perceive a connection between one's actions and the resulting outcome, which they assume occurs by circumstance and is beyond their control (Vallerand et al., 1992).

Self-Efficacy. Self-efficacy refers to students' "judgments of their performance of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391).

Limitations

There are four noted limitations to this study. First, the sample was such that random selection was not possible because participation in the survey was voluntary. Second, the sample is representative of a limited geographical area in the southeastern United States. Because the survey was administered to Upward Bound participants in southwest and central Mississippi, and because the sample was not random, applicable generalizations should not be made to other Upward Bound participants unless their characteristics closely match the study sample.

Third, the difference between effects of the community college Upward Bound program and four-year college Upward Bound program is a limitation in that students were not randomly assigned to these programs. Participation in the Upward Bound program is voluntary and students select the program in which they attend based on its availability in their high schools. Finally, all participants in both Upward Bound programs were African American, thus making race a constant.

Introduction Summary

At risk youth are often in jeopardy of academic failure (Azzam, 2007; Bridgeland et al., 2006; Melville, 2006). Male minorities tend to struggle the most in achieving academic success (Orfield et al., 2004). Improving student motivation tends to be an important step to preventing academic failure (Wood, 2001). It has also been determined that engagement and interest in academics are often essential for scholastic success (Bramlett et al., 2002; Cleary, 2009). Student achievement is also frequently attributed to high levels of self-efficacy (Kizilgunes et al., 2009; Neber & Schommer-Aikiins, 2002; Pintrich, 2000; Pintrich & Schunk, 2002; Wigfield & Eccles, 2000).

The Upward Bound program is designed to help academically at risk students gain the skills necessary to complete secondary education and be successful in their post secondary pursuits. This study sought to determine if there is a relationship between academic achievement and self-efficacy of students participating in the Upward Bound program. Through implementation of the AMS-HS, MJSES, and demographic questionnaires, this study attempted to

determine if motivational characteristics, self-efficacy, and demographic characteristics can predict academic achievement of students enrolled in Upward Bound. The study also sought to determine if self-efficacy characteristics were significantly related to motivational characteristics.

CHAPTER II

REVIEW OF LITERATURE

There is a wealth of information pertaining to the at-risk population of students. This chapter focuses on literature related to the history of access to education and the academic achievement of at-risk students. There is a review of literature pertaining to motivational and self-efficacy theories as well. The chapter concludes with empirical studies of motivation of students.

At-Risk Students

Upward Bound is a program designed to identify and provide services for at-risk students. The term at-risk is prevalent in literature and there are varying ways in which at-risk characteristics are defined. Alfassi (2003) describes at-risk students as learners who have suffered difficulties or failures. Caraway and his colleagues (2003) found at-risk students to be youth at risk of academic failure, substance abuse, teenage pregnancy, and unlawful activity. Characteristics, such as race, low socioeconomic status, poor performance, and behavioral problems are often used in definitions as indicators of at-risk students (Nowicki et al., 2004; Somers et al., 2009). Black males from low socioeconomic status are the most at-risk (Orfield et al., 2004; Whiting, 2009).

Because poor children and children of color will make up a substantial part of the future workforce, it is important to improve the education of these at-risk students (Shore, Shore, & Casey, 2009a). At-risk students often experience poor preparation, lack of family support, and negative peer pressure, which can prevent them from achieving success in school. These students face a higher

incidence of such problems as teenage pregnancy, alcohol and drug abuse, delinquent membership in gangs, and dysfunctional and violent families (KIDS COUNT, 2003). At-risk students are also often less engaged in school, putting them at higher risk of academic failure and dropping out of school (Osborne & Walker, 2006). Bloom and his colleagues (2009) note that students who drop out of school are three and a half times more likely to be arrested than their peers.

The lack of success for poor and minority students is often a result of the educational systems in which they are enrolled and the lack of resources provided to these schools (Brown & Rodriguez, 2009; Eamon, 2001). Orfield and colleagues (2004) find that students who are enrolled in school districts with high rates of poverty are at a severe disadvantage. The researchers find these schools to have multiple problems, such as, "lower levels of competition from peers, less qualified and experienced teachers, narrower and less advanced course selection, more student turnover during the year, and students with many health and emotional problems" (Orfield et al., 2004, p. 6). In addition, Garrett (2009) finds that poor and minority students suffer in the educational system from "inequities in opportunities, access, resource allocation, and expectations for success" as compared nonminority students from families with a higher economic status (p. 6). Simply put, at risk students are often put in academic environments that do provide them the tools or resources necessary to foster their achievement.

Research shows that poverty is often related to lack of engagement in school and is a powerful predictor of failing to graduate (Orfield et al., 2004;

Somers et al., 2009). The lack of academic success and disengagement are related to failure to succeed and put students at risk of dropping out (Kemp, 2006). Students living in poverty often begin school academically behind their more fortunate peers, a trend that increases as they move through school (Cuthrell et al., 2010).

The KIDS COUNT Data Center (2008), reports the number of impoverished children increased from 12.2 million to 13.1 million from 2000 to 2007. According to the report, 18%, or nearly one in five children in the United States, live in poverty. Minorities tend to be more greatly affected by poverty and the risk factors associated with it more frequently than nonminorities (Borman & Rachuba, 2001). In a 2006-2008 American Community Survey, the U.S. Census Bureau (2008) estimated that 34.5% of Blacks under the age of 18 were living in poverty. Hughes, Newkirk, and Stenhjem (2010) found that about one fourth of Blacks, Hispanics, and Native Americans are living in poverty in the United States. Further, Cuthrell et al. (2010) note that one in three Black children live in poverty. These children often begin school at a disadvantage, having poor scholastic skills and at-risk of academic failure (Cuthrell et al., 2010; Howse, Lange, Farran, & Boyles, 2003). They commonly experience lower self-esteem, lower popularity, and have conflicting relationships with others (Eamon, 2001).

Even though graduation rates have improved for minorities, the dropout rates remain higher than that of their White counterparts (Shore, Shore, & Casey, 2009b). It has been reported that “White and Asian/Pacific Islander students

were less likely to drop out [of high school] than were American Indian/Alaskan Native, Black, or Hispanic students" (Young & Hoffman, 2002, p. 53).

Motivation

Student motivation and their willingness to put forth effort to succeed is a common educational concern (Bramlett et al., 2002). A large amount of research has been compiled through education and educational psychology regarding motivation (Dembo & Eaton, 2000; Neber & Schommer-Aikins, 2002; Pintrich, 2000; Pintrich & Schunk, 2002; Wigfield & Eccles, 2000). Motivation to achieve is "the desire to accomplish something of value or importance through one's own efforts and to meet standards of excellence in what one does" (Hyde & Kling, 2001, p. 364). Simply defined, motivation is an intense interest in a specific action or topic (Linnenbrink & Pintrich, 2002).

According to Wood (2001), the motivation of students to willingly participate is one of the number one challenges for educators and parents concerned about prevention of failure. Motivation combines with a student's strategy use, knowledge level, context, and other elements of the learning environment (Hynd et al., 2000). Low-performing students have been reported as feeling that, in general, their level of motivation is not very high (Hynd et al., 2000).

Linnenbrink and Pintrich (2002) note that early research regarding student achievement and learning divided "cognitive and motivational factors and pursued very distinct lines of research that did not integrate cognition and motivation" (p. 313). Research has focused on how cognitive and motivational

factors influence student learning through interaction and working together since the 1980s (Linnenbrink & Pintrich, 2002; Pintrich & Schunk, 2002).

A shift in motivational theories fostered increased research on the interaction of motivational and cognitive influences (Linnenbrink & Pintrich, 2002). Motivational theories moved from traditional achievement motivation models to social cognitive motivation models (Pintrich & Schunk, 2002). "One of the most important assumptions of social cognitive models of motivation is that motivation is a dynamic, multifaceted phenomenon that contrasts with the quantitative view taken by traditional models of motivation" (Linnenbrink & Pintrich, 2002, p. 313). Linnenbrink and Pintrich (2002) note that the social cognitive motivational theory encompasses the belief that students are motivated in various ways and it is important to determine how and why students are motivated for academic achievement.

As defined by the social cognitive theory of motivation, aspects of student motivation such as self-efficacy, attributions, intrinsic motivation, and goals are all considered part of motivation as an academic enabler (Linnenbrink & Pintrich, 2002). The key factors of self-efficacy, attributions, intrinsic motivation, and goal orientation are presently accepted in the major social cognitive motivational theories and explain how motivation is related to achievement and other academic enablers (Pintrich & Schunk, 2002).

Buehl (2003) found that students' beliefs, achievement motivations, and outcomes of learning were connected. According to Buehl, learners' beliefs indirectly connect to academic achievement and performance through motivation,

cognition, and learning strategies. Motivation to achieve is embedded in "the assumption that the beliefs that students create, develop and hold to be true about themselves are vital forces in their success or failure in school" (Pajares, 2003, p. 140).

The self-determination theory "postulates that behavior is either intrinsically motivated, extrinsically motivated, or amotivated" (Cokley, Bernard, Cunningham, & Motoike, 2001, p. 109). Intrinsic motivation is evident in social cognitive models of motivation. Intrinsic motivation is motivation to engage in an activity for its own sake (Pintrick & Shunk, 2002). Students with intrinsic motivation see the relevance of information they have been taught in school for their daily lives and are more likely to be interested in this information (Hynd et al., 2000). Students tend to be more cognitively engaged in learning if they are motivated to learn the material and find the work interesting.

Some researchers see intrinsic motivation as preferable over extrinsic motivation (Hynd et al., 2000). Contrasting with intrinsic motivation, extrinsically motivated behaviors are not a result of internal interest in engaging in an academic activity (Cokley et al., 2001). Extrinsic elements of motivation are considered to be external rewards, such as grades (Hynd et al., 2000).

Researchers have found that students often feel they are motivated by the sense that they should be striving to do their best (Hynd et al., 2000). Conversely, at-risk students feel debilitated by poor performance, possess ineffective study strategies, and have low feelings of self-efficacy and motivation (Hynd et al., 2000).

Self-Efficacy

Bandura (1977, 1986, 1993) found that self-efficacy was the feeling and development of self-belief and focuses on a students' judgment of their own abilities. Students are influenced by these judgments in the way they think, are motivated, and the way they perform (Alfassi, 2003). Schunk (2003) referred to self-efficacy as "students' personal beliefs about their capabilities to learn or perform behaviors at designated levels" (p. 159). Students' self-efficacy beliefs are defined as "judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Ramdass and Zimmerman (2008) cite findings that,

> Students with high levels of self-efficacy set higher goals, use more effective self-regulatory strategies, monitor their work more efficiently, persevere when faced with challenging academic tasks, and evaluate their performance more accurately compared to students with low levels of self-efficacy. (p. 21)

Self-efficacy is distinctive from self-concept in that it refers to beliefs that are "much more specific and situational judgments of capabilities" (Linnenbrink & Pintrich, 2003, p. 121). Self-efficacy is believed to influence choices made, effort expended, persistence, and achievement (Bandura, 1997; Schunk, 2003). In addition, students' self-efficacy helps sustain their motivation and promotes learning (Schunk, 2003). Linnenbrink & Pintrich (2002) find that,

> Students who are interested are motivated and they learn and achieve because of this strong interest. One of the more important motivational

> beliefs for student achievement is self-efficacy, which concerns beliefs about capabilities to do a task or activity. More specifically, self-efficacy has been defined as individuals' beliefs about their performance capabilities in a particular context or a specific task or domain (Bandura, 1997). The assumption is that self-efficacy is situated and contextualized, not a general belief about self-concept or self-esteem. (pp. 313-314)

Students of various ages have displayed a positive relationship between self-efficacy and higher levels of achievement and learning and adaptive academic outcomes such as increased effort and persistence with difficult tasks in experimental and correlational studies (Bandura, 1997; Linnenbrink & Pintrich, 2002; Pintrich & Schunk, 2002). These studies find that students with high self-efficacy beliefs tend to work harder, persist more, and achieve at higher levels than those with low self-efficacy beliefs. Academic persistence is more likely among students with high expectations and who seek a challenge than those with low expectations who are more apt to avoid or to give up on their pursuit of learning (Brophy, 2004; Cleary, 2009; Zeldin & Pajares, 2000). Students with high levels of self-efficacy are likely to establish challenging goals and strive to meet them and draw on different strategies to accomplish the goals (Kizilgunes et al., 2009). Similarly, Walker, Greene, and Mansell (2006) found a positive relationship between students' self-efficacy and cognitive engagement that was meaningful.

Pajares (2002) noted ways in which student's self-efficacy beliefs influenced their academic performance. He found that these beliefs influence the

choices students make and the actions they take. Pajares writes, “Self-efficacy beliefs also help determine how much effort students will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will be in the face of adverse situations” (2002, p. 116).

Additionally, the effects of a strong self-efficacy do not discriminate and thus has a positive influence on all students, including those at-risk.

> Both experimental and correlational research in schools suggest that self-efficacy is positively related to a host of positive outcomes of schooling such as choice, persistence, cognitive engagement, use of self-regulatory strategies, and actual achievement. This generalization seems to apply to all students, as it is relatively stable across different ages and grades as well as different gender and ethnic groups. (Linnenbrink & Pintrich, 2002, p. 315)

Self-efficacy is enhanced by experiencing success, but lowered when failures occur and more so if the failures are repeated (Alfassi, 2003). As students achieve their goals, their self-efficacy is enhanced (Caraway et al., 2003). But, failure or fear of failure, has the adverse affect.

> Fear of failure often accompanies low self-efficacy. Fear of failure refers to the motivation to avoid failure because of the possibility of experiencing shame or embarrassment. Individuals who doubt their capabilities, and experience high levels of fear-of-failure are less likely to set and work toward goals, thus giving them no opportunities to increase levels of self-efficacy. (Caraway et al., 2003, p. 419)

Motivation, Self-Efficacy, and Student Achievement

Anthony and Jenson (2005) studied the effects of an afterschool program on students' academic self-efficacy and educational attainment. Participants were 7 to 18 years of age who were enrolled in afterschool programs that provided tutoring and assistance with homework. The MJSES was administered to the 130 youth participating in the study. Researchers sought to determine if there was a relationship between self-efficacy, gender, age, and self-reports of educational achievement. The researchers found that self-efficacy did improve for students in the study and concluded that, "high-risk youth participating in afterschool programs may benefit from opportunities to increase individual perceived academic self-efficacy and that high levels of self-efficacy can improve educational achievement" (p. 1).

Alfassi (2003) investigated "the effectiveness of instructional design in enhancing the academic competence and confidence of students who are at risk of dropping out of school" (p. 28). The study compares two groups in order to explore the role of instruction in developing and enhancing self-efficacy beliefs. Subjects included 52 students, 37 of which were enrolled in a remedial high school that aimed to improve student academic performance and allow students to gain confidence and 15 were enrolled in a conventional remedial school. A questionnaire was administered to students prior to beginning the study. Achievement tests, a standardized test, measures of self-efficacy and motivational scales were administered. Results indicate that a structured academic program promotes significantly higher achievement and self-efficacy

scores and an increased orientation for internal motivation. Alfassi notes that fostering academic competence and confidence provides a "beneficial synergy to the student" (p. 28).

Caraway et al. (2003) examined the association of self-efficacy, goal orientation, and fear of failure with school engagement. Subjects included 123 students, grades ninth through twelfth, ranging in age from 13 to 19 years. In addition to investigating age, gender, or ethnicity differences as they relate to self-efficacy, goal orientation, fear of failure, or school engagement, the study investigated the following hypotheses:

> (a) self-efficacy and goal orientation will have significant positive associations with school engagement (as measured by grade point average, number of school absences, and the engagement subscale of the Rochester Assessment Package for Students); and (b) fear of failure will have a significant negative (or inverse) association with school engagement. (p. 419)

Results of the study support the hypotheses and can be interpreted to suggest that "the more confident adolescents are about their general level of competence, the more likely they are to get better grades in school and to be more engaged in various aspects of school" (Caraway et al., 2003, p. 423). The study found there were no effects for gender, age or ethnicity as they related to self-efficacy, goal orientation, fear of failure, or school engagement.

Howse et al. (2003) examined the association of motivation and self-regulated task behaviors among economically at-risk and not-at-risk students to

early achievement patterns. Participants included 85 at-risk students and 42 not-at-risk students, ages ranging from 5 to 8. Results indicate that motivation levels were similar between both groups of students and did not support the assumption that economically at-risk students are at a motivational disadvantage during the early years of school.

Walker and Greene (2009) examined the relationship between student perception of classroom achievement goals, self-efficacy, perceived instrumentality of classroom, and sense of belonging within a classroom. Participants in the study were 249 students, age 14 to 19 years, from three high schools. Participants completed a demographic sheet and four questionnaires designed to measure motivational beliefs and cognitive engagement of students. Results indicate that the use of mastery goals was predicted by perceived instrumentality, self-efficacy, and belonging. The researchers found that perceived instrumentality and sense of belonging made a statistically significant contribution to the prediction of cognitive engagement, but self-efficacy did not.

Sideridis (2001) compared motivational determinants of students at risk of language difficulties and those with high language skills. Subjects included 202 elementary school students, 22 of whom were at risk of language difficulties. Significant differences were found between the two groups. The students at risk of language difficulties reported lower perceptions of goal importance, intention to achieve, belief strength, outcome evaluation, and normative beliefs. These students scored lower in language and mathematics.

Race, Gender, Motivation, Academic Achievement and Socioeconomic Status

According to the U.S. Department of Labor (2000), the higher the level of education is for women, the more likely they are to be a part of the labor force. The difference between poverty and prosperity, then, for many women and their families is often determined by the level of education completed (Hyde & Kling, 2001). Justice & Dornan (2001) noted that gender differences might be present in motivational and cognitive variables associated with academic success. According to research, females tend to consistently perform better in school than males, which is evident in research on grades from elementary through high school (Hyde & Kling, 2001). An example of this fact is also reported by the U.S. Department of Education's National Center for Education Statistics (2000), noting that, compared to females, more males are required to repeat grades, and males make up 66% of the enrollment in special education classes.

Bacharach, Baumeister, and Furr (2003) reported research regarding a gap in student academic achievement in primary education related to race and gender and conducted a study to determine if this gap persisted in secondary education. The researchers used data from the National Education Longitudinal Study of 1988 (NELS:88) conducted from 1988-1994 (National Center for Education Statistics, 1996). The study focused on the race, gender, and science achievement test scores of 668 Black and 5,463 White students taken during their eighth, tenth, and twelfth grade years. The outcome of this study determined that as these students progressed through secondary education the

academic achievement gap was not only still apparent, it continued to increase through the years as the students completed high school.

It has also been noted that gender differences may be present in motivational and cognitive variables associated with academic success (Justice & Dornan, 2001). Martin (2004) notes that female students are higher achievers, outperform male students in more subjects, and are more apt to complete high school. Pajares (2002) found that females "express greater confidence in their capability to use strategies such as finishing homework assignments on time, studying when there were other things to do, remembering information presented in class and textbooks, and participating in class discussions" (p. 118).

Many males do not perform as well academically and some have been found to have a negative attitude about school, do not ask for assistance as often, and are not as likely to do additional work and, thus, could concentrate poorly, might not be as productive, and are sometimes less determined to accomplish difficult work (Martin, 2004). Whiting (2009) finds that Black males, in particular, face enormous obstacles as they strive to achieve academically. He writes:

> The toll that is taken on Black males shows up in all economic, social, and academic areas—more than all other males and females; Black males are over-represented in special education, under-represented in gifted education, over-represented among dropouts, over-represented among students who are underachievers, and over-represented among students who are unmotivated and choose to disengage academically. (p. 224)

These disengaged students often leave without completing their education, increasing their risk of failure and other adverse consequences. According to Garrett (2009), 20% of Black men between 24-35 have been arrested. Among those who dropout, the rate of Black men having a criminal record by their mid 30s increases alarmingly to 60%.

Summary of Literature Review

Identifying and addressing the needs of students at-risk is an important step towards academic success. At-risk students often face multiple obstacles, which impede their progress towards educational achievement. The literature reviewed in this section supports the assumption of this study, that there is a relationship between academic achievement and motivational and self-efficacy characteristics. Because of the positive effects of strong motivational characteristics, research acknowledges the importance of learning how and why students are motivated. Identifying the beliefs students have about themselves and their abilities is important to promoting academic success. In this review, the demographic characteristics as they relate to academics, motivation, and self-efficacy are evident. Socioeconomic status, gender, and race often play an important role in academic success and failure. Researchers have suggested the continuation of studies to determine the existence and strength of the relationship among demographic characteristics and academic achievement, motivation, and self-efficacy and develop strategies toward successful academic outcomes.

CHAPTER III

METHODOLOGY

This chapter defines the methods used to collect and analyze data for the study. Specifically, this chapter discusses the following: subjects; data collection; instrumentation; research questions; and data analysis.

Participants

Volunteer participants were high school freshmen, sophomores, juniors, and seniors who participate in the Upward Bound programs. Participants live in a total of five counties in southwest and central Mississippi. To be eligible for enrollment, students must either be a potential first generation college student (neither parent successfully completed a program of postsecondary education), come from a family living at or below poverty level, or both. Upward Bound guidelines mandate that at least two-thirds of participants meet both requirements. Because of the very nature of the program, participants are deemed to be at-risk for school failure.

Students were selected by staff to participate in the Upward Bound program based on information voluntarily submitted on their applications. Staff review applications to ensure that students meet eligibility criteria and enroll them in the program as openings arise. Students might also make application on their own, at the suggestion of a counselor or instructor, or as a result of parental encouragement. Generally, students chosen are:

1. low income, with a family income below 150% of federal poverty guidelines;

2. potential first generation college students, defined as neither parent has a baccalaureate degree;
3. at a high risk of academic failure;
4. in need for academic support; and,
5. at least 13 and not more than 19 years of age and has completed eight years of elementary education (U.S. Department of Education, 1965).

All participants enrolled in the Upward Bound programs administered in the five counties were invited to participate in the survey. The survey was administered to those participants who attended a regularly scheduled Upward Bound session.

Instrumentation

The measure used to assess the motivational characteristics (intrinsic motivation, extrinsic motivation, and amotivation), were subscores on the AMS-HS (Vallerand et al., 1992). Information regarding student self-efficacy characteristics was gained using subscores from the MJSES (Jinks & Morgan, 1999). In addition, a demographic information questionnaire, which included previously recorded overall student GPA as well as other questions, was administered to participants in the survey.

The AMS-HS scale contains twenty-eight items regarding why students choose to go to school and measures seven subscales, three for intrinsic motivation (motivation to know, to accomplish things, and to experience stimulation), three for extrinsic motivation (external, introjected and identified

regulation) , and amotivation. Subscale scores for intrinsic motivation, extrinsic motivation, and amotivation were used in this study. Students are asked to rate each item on a 7-point scale, ranging from 1 – *does not correspond at all* to 7 – *corresponds exactly*. The questionnaire is scored for each of the sub-scales with higher scores indicating greater intrinsic motivation, extrinsic motivation, and amotivation. External validity for the scale was established by a large sample of 745 students (484 female and 261 male) completing the questionnaire. Studies on the data generated by the AMS-HS reveal high internal reliability, as measured by Cronbach's alpha (.81) and test-retest reliability (.79).

The MJSES is a thirty-item inventory, which uses a 4-point Likert scale to respond to items in the survey. Choices on the scale are 1 - *Really Agree*, 2 - *Kind of Agree*, 3 - *Kind of Disagree*, and 4 - *Really Disagree*. Although the original scale asks for a self-report on grades in reading, mathematics, science, and social studies, students' actual overall grades across these subjects were accessible and used to eliminate the likelihood of inaccurate self-report data. Field-testing over 900 students at three schools established validity with different demographic settings (urban, suburban, and rural; Jinks & Morgan, 1999). The scale was field-tested and reported an overall reliability coefficient of .82 (Jinks & Morgan, 1999).

The demographic information questionnaire was designed to obtain background information about participants in the survey. Information solicited included: gender, length of time enrolled in the Upward Bound program, length of participation in the Upward Bound summer program, and participation in Upward

Bound program sponsored by a community college or a 4-year college. Participants were asked to circle their answers with regards to their Upward Bound program. Overall student GPA was recorded for participants before they completed the demographic questionnaire.

Procedures

Upon approval from the Internal Review Board (IRB, see appendix A), letters explaining the study and consent forms were mailed to the parents of Upward Bound participants (see Appendixes B and C). During a regularly scheduled Upward Bound session, the researcher described the study to the group of participants who had returned signed parental consent forms. Prior to the session, student records were reviewed and grade point averages for the preceding semester were recorded on demographic information sheets (see Appendix D). To maintain anonymity and to ensure that students received demographic questionnaires with grade point averages recorded for them, cover sheets containing only students' names were attached to the questionnaires and removed by the students before submission. Volunteers completed the AMS-HS, the MJSES, and the demographic information questionnaires, which were all attached together to maintain accuracy in recording results per participant. The researcher administered the instruments to those volunteering to participate. Scores from the AMS-HS and the MJSES questionnaires, recorded GPA, and self-reported demographic information were used for the testing the hypotheses of the study.

Research Questions

This research seeks to answer three primary questions related to motivation, self-efficacy, and academic achievement of Upward Bound participants. A list of the questions investigated by the study is provided below:

1. Is the academic achievement of Upward Bound participants, as measured by overall grade point average (GPA), significantly related to their self-efficacy characteristics?
2. To what extent can gender, length of time in the Upward Bound program, length of participation in the Upward Bound summer program, location of the Upward Bound program in a community or a four-year college, self-efficacy characteristics, and motivation characteristics (extrinsic, intrinsic and amotivation) significantly predict the academic achievement of the Upward Bound participants, as measured by overall GPA?
3. Are the self-efficacy characteristics of Upward Bound participants significantly related to their motivation characteristics (extrinsic, intrinsic, and amotivation)?

Analysis of Data

Once result information was compiled on the Upward Bound students who participated in the study by taking the AMS-HS and MJSES and completing the demographic questionnaire, the data were analyzed to answer the research questions. The analysis of data was completed for each hypothesis. Information regarding the statistical analysis of each question is detailed in this section.

Research Hypothesis #1

The academic achievement of Upward Bound participants, as measured by overall grade point average (GPA), is significantly related to their self-efficacy characteristics. Students' total average results of the MJSES and their recorded grade point averages were used to test this hypothesis. A bivariate correlation was used to analyze this data.

Research Hypothesis #2

Gender, length of time in the Upward Bound program, length of participation in the Upward Bound summer program, location of the Upward Bound program in a community or a four-year college, self-efficacy and motivation characteristics can significantly predict the academic achievement of Upward Bound participants, as measured by overall GPA. Information reported on the demographic information questionnaire, average AMS-HS questionnaire subscores for intrinsic motivation, extrinsic motivation, and amotivation, and overall self-efficacy scores on the MJSES were used to test this hypothesis. A multiple linear regression analysis will be used to analyze this data. Gender, length of time in the Upward Bound program, length of participation in the Upward Bound Summer program, location of the Upward Bound program in a community college or four-year college, self-efficacy and motivational characteristics are the predictor variables and overall GPA is the criterion variable.

Research Hypothesis #3

The self-efficacy characteristics of Upward Bound participants are significantly related to their motivation characteristics. Subscores for intrinsic motivation, extrinsic motivation, and amotivation on the AMS-HS questionnaire and overall self-efficacy scores on the MJSES questionnaire were used to test this hypothesis. Bivariate correlations will be used to analyze this data.

Summary of Methodology

This chapter on methodology included demographic descriptions of Upward Bound participants who volunteered for this study. Information was given regarding the AMS-HV questionnaire, the MJSES questionnaire, and the demographic questionnaire utilized. Procedures for conducting the study and research questions and types of statistical analyses were presented.

CHAPTER IV

RESULTS

During a regularly scheduled Upward Bound session, data were collected from volunteer freshman, sophomore, junior, and senior participants enrolled in an Upward Bound program administered by either a community college or a four-year college. Eighty-seven students completed and returned the questionnaires. Of the questionnaires returned, eight were neither scored nor included in the study, because the questionnaires were inaccurately completed. The remaining 79 questionnaires were used to compile the results detailed in this chapter.

Descriptive Statistics

Participants in the study consisted of 30 males (37.5%) and 49 females (61.3%). Forty-two (52.5%) were enrolled in the program administered by a community college and 37 (46.3%) in the program administered by a four-year college. Frequencies and percentages for gender and college sponsors are listed in Table 1 and Table 2, respectively.

Table 1

Gender

Variable	Frequency	Percentage
Male	30	37.5
Female	49	61.3
Missing	1	1.3
Total	80	100.0

Table 2

College Sponsors

Variable	Frequency	Percentage
Community college	42	52.5
Four-year college	37	46.3
Missing	1	1.3
Total	80	100.0

Student GPA ranged from .92 to 4.00 on a four-point scale, with a mean GPA of 2.67. The years enrolled in the Upward Bound program and participation in the summer program ranged from one to four. The mean years enrolled in the Upward Bound program were 2.05 and the mean years enrolled in the Upward

Bound summer program were 1.70. Means for intrinsic motivation, extrinsic motivation, and amotivation, where “7” represents very characteristic and “1” represents uncharacteristic, were calculated at 5.18, 6.10, and 1.91, respectively. Self-efficacy scores, with a lower score representing higher self-efficacy characteristics, ranged from 1.20 to 2.70 with a mean of 1.67. Mean, standard deviation, and ranges for the study variables are listed in Table 3.

Table 3

GPA, Years in Upward Bound, Summers in Upward Bound, Motivation and Self-Efficacy Characteristics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
GPA	79	.92	4.00	2.67	.710
Year in UB	79	1.00	4.00	2.05	1.073
Summers in UB	79	1.00	4.00	1.70	.806
Intrinsic Motivation	79	2.40	7.00	5.18	1.034
Extrinsic Motivation	79	3.40	7.00	6.10	.806
Amotivation	79	1.00	6.00	1.91	1.323
Self-Efficacy	79	1.20	2.70	1.67	.281

Statistical Results

Research Question 1: Is the academic achievement of Upward Bound participants, as measured by overall grade point average (GPA), significantly related to their self-efficacy characteristics?

Data Analysis for Research Question 1

A correlation coefficient was computed between the Upward Bound participants' GPA and their self-efficacy characteristics to determine if there is a statistically significant relationship. The result of the correlational analysis was statistically significant, r (77) = -.37, p = .001. The strength of this correlation is low. In general, the result suggests that participants with high GPAs tend to have high self-efficacy characteristics (indicated in the instrument by lower numbers). The result of the correlational analysis can be seen in Table 4.

Table 4

GPA and Self-Efficacy Correlation

Variable		Self-Efficacy
GPA	Pearson Correlation	-.373**
Sig. (2-tailed)		.001

Note. **Correlation is significant at the 0.01 level (2-tailed).

Research Question 2: Can gender, length of time in the Upward Bound program, length of participation in the Upward Bound summer program, location of the Upward Bound program in a community or a four-year college, self-efficacy characteristics, and motivation characteristics (extrinsic, intrinsic and

amotivation) significantly predict the academic achievement of the Upward Bound participants, as measured by overall GPA?

Data Analysis for Research Question 2

A standard multiple regression analysis was conducted to assess the prediction of Upward Bound participants' GPA based on gender, length of time in the Upward Bound program, length of participation in the Upward Bound summer program, location of the Upward Bound program in a community or a four-year college, self-efficacy characteristics, and motivation characteristics (extrinsic, intrinsic and amotivation). Two predictors were categorical and therefore had to be dummy-coded: gender (male) and sponsor (community college). Evaluations of linearity, normality, homoscedasticity, and multicollinearity showed that the assumptions were met within acceptable limits. Regression results showed that the linear combination of the predictors in the overall model significantly predicted GPA, $R^2 = .24$, $R^2_{adj} = .15$, $F\ (8, 70) = 2.77$, $p = .01$. This model accounted for approximately 15% of the variance in GPA. Table 5 presents a summary of the regression coefficients.

Table 5

Coefficients for Model Variables

Variable	B	SE B	β
Male	-.21	.083	-.29*
Years in UB	.08	.109	.12
Summers in UB	-.03	.131	-.03
Community College	.003	.084	.004
Intrinsic Motivation	-.09	.095	-.13
Extrinsic Motivation	-.06	.121	-.07
Amotivation	.000	.062	-.001
Self-Efficacy	-1.03	.308	-.41*

Note. p=.01.

Results of the analysis suggest that self-efficacy is the strongest predictor of academic success and that amotivation is the weakest predictor. Variables found to be negative predictors include being male, low number of summers in Upward Bound, low intrinsic motivation, low extrinsic motivation, and amotivation, with standardized Beta values of -.29, -.03, -.13, -.07, and -.001 respectively. Positive predictors include years in Upward Bound, participation in a community college, and self-efficacy (because scores were reversed), with standardized Beta values of .12, .004, and .41 respectively.

Research Question 3: Are the self-efficacy characteristics of Upward Bound participants significantly related to their motivation characteristics (extrinsic, intrinsic, and amotivation)?

Data Analysis for Research Question 3

Correlation coefficients were computed among the self-efficacy and the motivation characteristics (extrinsic, intrinsic, and amotivation) of Upward Bound participants to determine if there are statistically significant relationships. Using the Bonferroni approach to control for Type 1 error across the six correlations, a p value of less than or equal .008 (.05/6=.008) was required for significance. The results of the correlational analyses presented in Table 6 show that three out six correlations were statistically significant [intrinsic and extrinsic motivation, r (77) = .58, p<.001; between self-efficacy and amotivation, r (77) = .37, p = .001; and self-efficacy and intrinsic motivation, $r($77) = -.3, p =.008]. The correlation between intrinsic and extrinsic motivation was moderate in strength, while the other two significant correlations were low in strength. The other three correlations were lower and non-significant. The results tend to suggest that higher extrinsic motivation is associated with higher intrinsic motivation and higher self-efficacy is associated with lower amotivation but higher intrinsic motivation. Correlation coefficient computations for self-efficacy and motivational characteristics are found in Table 6.

Table 6

Correlation Coefficients of Self-Efficacy and Motivational Characteristics

Variables	Intrinsic Motivation	Extrinsic Motivation	Amotivation
Extrinsic Motivation	.58**		
Amotivation	.04	.001	
Self-Efficacy	-.3**	-.16	.37**

Note. **Correlation is significant at least at the 0.008 level (2-tailed).

Summary of Results

Completed questionnaires from 79 participants in the Upward Bound program were compiled and the information obtained presented in this chapter. Statistical results were reviewed and data analyzed for the three research questions identified in the study. GPA was related to self-efficacy characteristics distributed by the students. Self-efficacy tended to be the strongest predictor of academic success, while, amotivation was the weakest. A relationship was found between higher extrinsic motivation and higher intrinsic motivation, higher self-efficacy and higher intrinsic motivation, and higher self-efficacy and lower amotivation. Further discussion on the results is found in the following chapter.

CHAPTER V

DISCUSSION

Study Summary

The current study examined the impact of self-efficacy and motivational characteristics on the GPAs of students who participate in one of two Upward Bound programs through implementation of the Academic Motivation Scale – High School Version (Vallerand et al., 1992), the Morgan-Jinks Student Efficacy Scale (Jinks & Morgan, 1999), and demographic questionnaires. Three questions related to self-efficacy characteristics, motivational characteristics, academic achievement, and demographic information were posed. The findings are discussed in this chapter.

Conclusions and Discussion

As was found in the literature, students in this study with high GPAs were found to have high self-efficacy characteristics (Anthony & Jenson, 2005; Alfassi, 2003; Caraway et al., 2003; Linnenbrink & Pintrich, 2002; Ramdass & Zimmerman, 2008). The literature reviewed suggests that students with higher levels of self-efficacy tend to have stronger beliefs in their abilities and perform better academically. Literature suggests students tend to be more interested in academic pursuits and work harder to complete tasks geared toward academic achievement.

A strong self-efficacy has been found to have a positive effect on all students, including those at-risk (Anthony and Jenson, 2005; Linnenbrink & Pintrich, 2002). That finding held true in the present study. Even though all

students in the study were deemed at-risk, students exhibiting strong self-efficacy characteristics demonstrated strong academic achievement as measured by their GPAs. This study and literature maintain that there is a positive relationship between student self-efficacy and higher levels of achievement and learning and adaptive academic outcomes (Bandura, 1997; Linnenbrink & Pintrich, 2002; Pintrich & Schunk, 2002). Results of the study indicated that students exhibiting higher levels of self-efficacy tended to work harder, persist longer, and achieve higher levels than those with low self-efficacy. These results could be attributed to the fact that students with high levels of self-efficacy tend to establish challenging goals and make effort and draw on strategies to meet those goals (Kizilgunes et al., 2009).

Self-efficacy was also found to be the strongest predictor of GPA. These results are consistent with findings in literature and support the theory that increased self-efficacy leads to increased academic achievement (Alfassi, 2003; Anthony & Jenson, 2005; Bandura, 1997; Caraway et al., 2003; Linnenbrink & Pintrich, 2002; Pintrich & Schunk, 2002;Ramdass & Zimmerman, 2008; Schunk, 2003). In both cases, as self-efficacy increased, students' GPAs increased.

Although some researchers favor intrinsic motivation over extrinsic motivation (Hynd et al., 2000), the present study found the influence of both intrinsic and extrinsic motivation were low, although they were components of the significant model predicting academic success. The study did find intrinsic and extrinsic motivation to be correlated. Intrinsic motivation was also correlated to self-efficacy. Not surprisingly, students with high amotivational characteristics

displayed low self-efficacy characteristics. These students often do not see the connection between the effort they put forth and the outcome (Vallerand et al., 1992).

Gender impact was reflective of differences found in literature. Being male tended to have a negative association with GPA. As Hyde and Kling (2001) reported, male students are consistently outperformed by female students, which held true in the current study. Due to their voluntary enrollment in the Upward Bound program, male students likely possess some form of motivation, but that motivation does not seem to be high enough to overcome the academic gender gap evident in literature.

Although the number of years a student participated in the Upward Bound program was a positive predictor for GPA, the number of summers participating in Upward Bound was a negative predictor. This finding could result from the fact that fewer students participated in summer sessions than they did in academic sessions. The lack of summer participation can be interpreted in several ways. One is that students feel obligated to help their families by working in the summers to provide additional income or being available to care for younger siblings. These students might also feel pressure from peers not involved in the program to take the summer off from academic pursuits. With the majority of students having parents with low educational attainment, Upward Bound participants and their parents might not see the value in participation and opt not to enroll in the summer session. Finally, these students might simply lack the motivation to participate.

Participation in an Upward Bound program sponsored by a community college tended to have a positive effect on GPA. Participants in the community college sponsored program tended to participate longer, especially in the academic session. The results could also reflect the mission of the community college and its involvement in the community and local schools. Community colleges in the area tend to be very visible in the local high schools and cover a smaller geographical area and thus could be able to provide more individualized services to that area.

Limitations

There are four limitations acknowledged in this study. First, the sample was such that random selection was not possible because participation in the survey was voluntary. Second, the sample is representative of a limited geographical area in the southeastern United States. Because the survey was administered to Upward Bound participants in southwest and central Mississippi, and because the sample was not random, applicable generalizations should not be made to other Upward Bound participants unless they share substantially the same characteristics. Even then, generalizations should be carefully made.

Third, the difference between effects of the community college Upward Bound program and four-year college Upward Bound program is a limitation in that students were not randomly assigned to these programs. Participation in the Upward Bound program is voluntary and students select the program in which they attend based on its availability in their high schools. Finally, all participants

in both Upward Bound programs were African American, thus making race a constant.

Recommendations for Policy or Practice

Self-efficacy and motivational characteristics seem to be influential factors related to academic achievement. Students are motivated in various ways and it is important to determine how and why students are motivated for academic achievement (Linnenbrink & Pintrich, 2002). Self-efficacy has been found to influence choices, effort, persistence and achievement and to help sustain motivation and promote learning (Bandura, 1997; Schunk, 2003). Students who exhibit high levels of self-efficacy tend to perform better academically, so parents and educators would do well to identify and foster these characteristics.

Male, African American students are most at risk of academic failure (Hyde & Kling, 2001). Upward Bound staff should focus intently on this population to help them overcome that achievement gap. It is important that these students understand the relationship between the effort they put forth and the outcome they experience. Exposing male students to individuals who faced similar obstacles yet are successful, could go a long way in making that connection. Academically successful mentors, with the same demographic makeup as these at risk students, should be sought to help give students a better understanding of what it takes to overcome barriers and be successful.

Because students who are interested are more engaged in academics, Upward Bound staff should explore different educational strategies that encourage students to become more interested in academics. Staff should listen

to students and determine what interests them and create lesson plans and social and cultural experiences that interest the student and promotes learning at the same time. Student advisory groups could be formed to help staff better understand the needs, likes, and expectations of the students.

Students who exhibit amotivational characteristics should be identified, as they do not make the connection between effort and outcome (Vallerand et al., 1992). Strategies should be put in place to better help them understand the relationship between such pairings as studying and grades and educational level and income. Amotivated students should be exposed to students who have made those connections and are experiencing academic success.

In this study, increased years of participation in the Upward Bound program resulted in a higher GPA. Upward Bound staff should make effort to enroll at risk youth when they first become eligible for the program, providing them the maximum amount of time they could benefit from the program. Because increased exposure to the program increases academic achievement, Upward Bound staff should use strategies to help increase student involvement and retain participants through their secondary education.

Recommendations for Future Research

Future research should focus on identifying commonalities among students displaying high self-efficacy and motivational characteristics to determine how these characteristics can be nurtured and fostered among students who do not have those characteristics. More research should be focused on gender differences to determine ways to cultivate positive

motivational and self-efficacy characteristics among males. It is crucial for educators and researchers to find ways to combat issues facing African American male students and to help all students make the connection between positive expectations and achievement.

Improving students' motivation to willingly participate in academic endeavors is one of the biggest challenges facing educators and parents striving to prevent failure (Wood, 2001). In general, students who perform poorly report a low level of motivation (Hynd et al., 2000). Students who are confident about their abilities are more likely to have higher academic achievement and be more engaged in different aspects of their education (Caraway et al., 2003). As academic achievement continues to be a concern for parents, educators, and researchers, emphasis should be placed on self-efficacy and motivational characteristics to find means of engaging students in education and learning to encourage their academic success.

Future research should also focus on determining why many Upward Bound students do not chose to participate in the summer session. Researchers should try to determine what obstacles or rationale hinders their participation. Focus should start with issues such as familial obligations, peer pressure, lack of understanding of benefits from participation, and motivation. Because students with higher levels of participation tend to perform better academically, identifying why students choose not to participate might lead Upward Bound program staff to implement strategies designed to address and remove obstacles which hinder their involvement.

Summary of Discussion

Academic achievement of at-risk students continues to be a concern for parents, educators, and researchers (Bloom et al., 2009; Bridgeland et al., 2006; Mayer, 2008; Nowicki et al., 2004; Orfield et al., 2004; Osborne & Walker, 2006). Research has demonstrated that self-efficacy and motivational characteristics influence academic success (Alfassi, 2003; Anthony & Jenson, 2005; Bandura, 1997; Caraway et al., 2003; Linnenbrink & Pintrich, 2002; Pintrich & Schunk, 2002; Ramdass & Zimmerman, 2008; Schunk, 2003). The present study found that students with higher self-efficacy characteristics had higher GPAs. A positive self-efficacy has a positive effect on students. Students with intrinsic motivation displayed self-efficacy characteristics. Students with amotivation characteristics performed poorer academically.

Gender makes a substantial impact, with females performing better than males. Increased years spent in Upward Bound were a positive predictor for GPA. Participation in an Upward Bound program sponsored by a community college had a positive effect.

Students, especially those at-risk, need to identify characteristics, which lead to academic success. Through past research and the present study, it is apparent that self-efficacy and positive motivational characteristics are evident in students who achieve academic success (Alfassi, 2003; Anthony & Jenson, 2005; Caraway et al., 2003; Linnenbrink & Pintrich, 2002; Ramdass & Zimmerman, 2008). In order to help students and educators develop strategies toward successful academic outcomes, researchers should look further into the

existence and strength of the relationship between demographic characteristics and academic achievement, motivation, and self-efficacy.

APPENDIX A

INTERNAL REVIEW BOARD APPROVAL

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board

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HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **10040505**
PROJECT TITLE: **Motivation and Self-Efficacy Characteristics of Students Participating in Upward Bound**
PROPOSED PROJECT DATES: **01/21/2003 to 10/25/2010**
PROJECT TYPE: **Dissertation or Thesis**
PRINCIPAL INVESTIGATORS: **Brenda L. Brown**
COLLEGE/DIVISION: **College of Education & Psychology**
DEPARTMENT: **Educatonal Studies & Research**
FUNDING AGENCY: **N/A**
HSPRC COMMITTEE ACTION: **Expedited Review Approval**
PERIOD OF APPROVAL: **06/28/2010 to 06/27/2011**

Lawrence A. Hosman
Lawrence A. Hosman, Ph.D.
HSPRC Chair

7-1-2010
Date

APPENDIX B

PARENTAL CONSENT LETTER

Dear Parents,

My name is Brenda L. Brown, I am a doctoral student at the University of Southern Mississippi. I would like your child to take part in a research study. During a regularly scheduled group meeting, I will be surveying Upward Bound students. If you and your child agree that your child may participate in the study, I will ask your child to complete a two short surveys and some demographic information.

The survey is designed to determine motivation of Upward Bound participants in relation to GPA, gender, length of time on the program, type of institution administering the program, and length of participation in summer programs. There are two surveys being administered: the Academic Motivation Scale High School Version and the Morgan-Jinks Student Efficacy Scale. The two surveys have a total of 58 questions and should only take around thirty minutes to complete. The survey also includes demographic information including grade point average, gender, length of time on the Upward Bound program, type of institution administering the program, and length of participation in summer programs. There is a tear away sheet on each survey with the student's name on it. Once the student receives the survey, he/she can tear off the name in order to keep it anonymous.

All of the information I obtain from your child will be kept confidential. The student's name will not be used on any of the forms. The survey that your child completes will be marked with a number I select, but no one will know this number or the responses of your child.

The Director of the Upward Bound Program has approved the survey. However, the student does not have to participate in the survey. As the researcher, I will be present during the survey. The Upward Bound staff will be present during the survey. However, they will not be involved in the student survey process. There are no benefits to you or your child for participating in this study. The information from the survey should help us learn more about motivational characteristics of Upward Bound students. There are no known risks associated with participation in this study, and most students enjoy the opportunity to express their opinions.

Please review the enclosed consent form. If you and your child agree that your child may take part in the research please sign this form and return bring it to the next scheduled group meeting. I appreciate your assistance in this research project.

Sincerely,

Brenda L. Brown

APPENDIX C

PARENTAL CONSENT FORM

THE UNIVERSITY OF SOUTHERN MISSISSIPPI
AUTHORIZATION TO PARTICPATE IN RESEARCH PROJECT

Participant's Name:_____

Consent is hereby given to participate in the research project entitled *Motivation and Self-Efficacy Characteristics of Students Participating in Upward Bound.* All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained by Brenda L. Brown. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. All personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project should be directed to Brenda L. Brown at 601.754.0904. This project and this content form have been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601)266-6820.

A copy of this form will be given to the participant.

_____

Signature of Minor Research Participant Date

_____

Signature of Parent/Guardian Date

Participant's Initials _____

_____

Brenda L. Brown Date

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

Please circle the response to the right that applies.

GPA:				
Gender	Male	Female		
Length of time enrolled in Upward Bound:	1 year	2 years	3 years	4 years
Number of summer sessions attended:	1	2	3	4
College Sponsor:	2-year college	4-year college		

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