

THE INTRINISC AND EXTRINISC MOTIVATION FACTORS OF SCHOLARSHIP AND
NON-SCHOLARLSHIP ATHLETES AT A HISTORICALLY BLACK COLLEGE

By

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ABSTRACT

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The purpose of this study was to replicate and extend the previous work of Amorose and Horn (2001) by examining the levels of interest/enjoyment of scholarship and non-scholarship athletes at a Historically Black College (HBCU). Male and female athletes (N=227) from a mid-major Division I HBCU completed a demographic questionnaire and the Sports-Oriented version of the Intrinsic Motivation Inventory (IMI) at a pre-season athletic department student body meeting. Cronbach alpha coefficients for each of the IMI subscales were found to be reliable ($\alpha > .70$). The results of the one-way ANOVA yielded no significant findings in interest/enjoyment among scholarship status ($F(2, 113) = 0.28, p > .05$) and grade classification ($F(3, 207) = 1.44, p > .05$) for the student-athletes. Additionally, no significant finding was reported for gender ($p > .05$). However, a significant finding in interest/enjoyment for team sport type ($p < .05$) and revenue sport type ($p < .05$) was revealed using an independent samples t-test. Specifically, team sport athletes reported greater enjoyment than individual sport athletes and revenue-sport athletes (namely, football, basketball) enjoyed their sport experience more than non-revenue sport athletes. Findings partially supported earlier work. Team sport athletes and revenue sport athletes greater enjoyment may have resulted from the greater recognition received through the opportunity to play in larger venues and exposure of larger media markets. Lastly, it was noted that the Black College Experience in itself might have influenced the results of the study.

DEDICATION

This is dedicated to my family:

God has blessed me with a wonderful support system. My family is the foundation to my existences without their love, support, guidance, patience, and prayers my achievements in life would not be possible. Thank you for being the backbone of my life and supporting me on all my ventures even if you did not understand or approve of my choices.

Your love means the world to me.

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Chapter 1

INTRODUCTION

Since the early 1970's researchers and theorists have systematically tested the relationship between intrinsic motivation and extrinsic rewards (Weinberg & Gould, 2007). Research in this area began with Edward Deci (1971, 1972), who found that monetary rewards decreased intrinsic motivation while verbal reinforcements enhanced it. One of Deci's (1971) first studies consisted of a sample of undergraduate students whom he paid to complete a mechanical puzzle called SOMA. The SOMA Cube is a solid transformation puzzle invented by Piet Hein in 1936, which consists of seven unit cubes that must be assembled into a 3x3x3 designated colored cube. As a result he found that those who were paid to play spent less time at perfecting the game than those who were not. These responses would be similar to the ideas and definition of intrinsic motivation, which is that an individual engages in an activity for the pleasure derived from the activity itself and not for extrinsic rewards (Deci, 1971).

Based on this definition of intrinsic motivation, Deci (1975; Deci & Ryan, 1985) proposed the Cognitive Evaluation Theory (CET). CET specifies factors explaining intrinsic motivation and variability with it and examines how social and environmental factors help or hinder intrinsic motivation. The theory focuses on the psychological processes underlying changes in intrinsic motivation. In particular, two propositions can be responsible for changes in intrinsic motivation, namely, the perceived locus of causality proposition and the perceived competence proposition. It is the relative salience of the two propositions that determine which process will be operative (Vallerand & Reid, 1984). Deci and Ryan (1985) stated that, when the perceived locus of causality process is "in operation," intrinsic motivation varies as a function of perceptions and feelings of self-determination. The increases and decreases in perceptions and

feelings of self-determination lead to increases and decreases in intrinsic motivation. Cognitive Evaluation Theory also suggested that when the perceived competence process is “in operation” intrinsic motivation varies in line with perceptions and feelings of competence. Increases in perceptions and feelings of competence will produce an increase in intrinsic motivation while a decrease in perceived competence will lead to diminished levels of intrinsic motivation.

Research in sport has provided support for the influence of awards on intrinsic motivation. Sport activities are representative of such intrinsically motivating activities, because individuals desire to experience such feelings as competence and self-determination. Intrinsic motivation in sport-related environments have received much attention through studies by E. Ryan (1977, 1980), Orlick and Mosher (1978), Vallerand (1983); Deci and Ryan (1985), Vallerand, Deci, and Ryan, (1987), and Amorose and Horn (2000, 2001). Their research has investigated whether extrinsic rewards are an indication of an athletes’ competence of a sport skill or a controlling component of their behaviors.

E. Ryan (1977, 1980) conducted two studies that examined the effects of athletic scholarships on intrinsic motivation in collegiate athletes. In his first study, Ryan (1977) measured the degree of intrinsic motivation in both scholarship and non-scholarship male athletes. Ryan (1977) hypothesized that individuals on scholarship would score lower on intrinsic motivation than would non-scholarship athletes. He argued that the student-athletes were essentially being paid (i.e., getting a scholarship) for doing an activity that was initially intrinsically pleasing. Results supported Ryan’s hypothesis, with scholarship athletes showing a lower degree of intrinsic motivation than did non-scholarship athletes.

Ryan (1980) then replicated and extended his earlier research by including male subjects from both wrestling and football and female athletes from a variety of sports. In support of

Ryan's first study, the results indicated that athletes on scholarship had lower levels of intrinsic motivation than did non-scholarship athletes, but that was only true for football players. Male wrestlers and female athletes, who were on scholarship reported higher levels of intrinsic motivation than did their non-scholarship teammates. Ryan suggested that scholarships may have increased intrinsic motivation in both wrestlers and female athletes because only a few of the athletes from each team were on scholarship at that time. Therefore, the awarding of scholarships in these sports increased the athlete's perception of competence. However, most football players in this study were on scholarship, so such rewards may have undermined perceptions of competence because the athlete may perceive their scholarship as controlling, thereby resulting in lower levels of intrinsic motivation.

E. Ryan (1977) suggested that the relative number of scholarships given to members of a team might influence the degree to which athletes would perceive the scholarship as a positive indicator of competence or as a controller of their behavior. The inconsistencies reported in the two studies may very well lie within the sample of participants. Ryan's (1977) study was limited to only collegiate male football players. Additionally, the ethnic backgrounds of these athletes were not described. As we look at the participants that Ryan included in his 1980 study, we note that the racial identities of the participants were not established for this study either. However, from a historical perspective we know that during the late 1970s and early 1980s African American athletes attended Historically Black Colleges and Universities (HBCUs) at a higher rate than they did predominantly white institutions (PWIs). In 1975, African Americans made up only one-third of the population of college basketball players at PWIs, whereas today the number has increased to almost three-fourths of the population (Harris, 1993). The dynamics of the

schools' populations could have very well influenced and limited the inclusion of other minority groups in Ryan's (1977, 1980) study.

In addition, to these earlier studies by Deci and Ryan, other researchers such as Orlick, Mosher, Lepper, and Greene have played an integral part in the investigation of how extrinsic rewards affect intrinsic motivation. Orlick and Mosher's (1978) study showed that children's intrinsic motivation would be undermined by unexpected extrinsic rewards. These results were contradictory to Lepper, Green, and Nesbit (1973) and Lepper and Greene (1975) who reported that expected rewards would have the most detrimental effect on intrinsic motivation. Although these results yield similar findings, one thing is consistent among all of the other studies; the non-diversification of the participants, which only included middle class white boys and girls.

In 2000, Amorose and Horn replicated and extended Ryan's research (1977, 1980) and found that indices of intrinsic motivation differed between scholarship and non-scholarship collegiate athletes. Contrary to Ryan's (1977, 1980) work, athletes who reported receiving a full athletic scholarship tended to report a higher level of intrinsic motivation than non-scholarship athletes. Amorose and Horn suggested that perhaps the scholarship athletes did not perceive their scholarships to be a controller of their behavior, but rather an indication of their competence, thus facilitating their intrinsic motivation relative to non-scholarship athletes. The participants of Amorose and Horn's (2000) study consisted of 386 student-athletes that participated in Division I athletics around the United States (i.e., Midwest, North, and West). The athletes represented a variety of sports that included football, field hockey, ice hockey, swimming, and wrestling. The vast majority (89.1%) of the athletes identified themselves as European American, while the others identified themselves as African American (7.8%), Hispanic American (1.8%), Asian American (.05%), Native American (.05%), or Filipino

American (.03%). Again, the diversification of the population of minorities was not well-represented.

In another study, Amorose and Horn (2001) examined first year student-athletes to see if their intrinsic motivation would change from pre- to post-season as a function of their scholarship status as well as the influence of their coach's behavior. Amorose and Horn's efforts to replicate and extend their previous study included the examination of whether any changes occurred in first year collegiate athletes' level of intrinsic motivation from pre- to post-season testing, and whether these changes were related to their perceptions of their coaches' behaviors and/or would differ as a function of their scholarship status. The participants in this study consisted of 72 collegiate student-athletes who were between the ages of 17 and 19. The student-athletes represented a variety of sports, which included softball, swimming, track and field, and wrestling. Of the 72 participants only one identified him/her self as being of African descent, while the rest of the student-athletes identified themselves as being from European descent. Also, only 2 of the student-athletes reported receiving full-scholarships, while 30 student-athletes reported receiving partial-scholarships, which means 40 student-athletes did not receive any financial support for participating in their respective sport. Only first year student-athletes were selected, which provides the possibility that the new experiences involved with scholarships would have the largest impact during their first year of collegiate participation (Amorose & Horn, 2000).

Amorose and Horn (2001) used pre-season and post-season measures. The pre-season measures consisted of Amorose and Horn asking each participant to fill out background information, which included the participants' age, gender, race, and primary sport. The questionnaire also inquired about the student-athletes' scholarship status. Participants were also

asked to check whether they received a full athletic scholarship, a partial athletic scholarship, or no athletic scholarship. The other measure was the sports-oriented version of the Intrinsic Motivation Inventory (IMI; McAuley, Duncan, & Tammen, 1989), whose purpose was to assess the overall levels of intrinsic motivation experienced by an individual, who is engaged in an achievement-oriented task. The sport-oriented version of the IMI included five subscales that measure various dimensions of intrinsic motivation including interest-enjoyment, perceived competence, effort-importance, tension-pressure, and perceived choice. For the post-season measures, student-athletes were again measured by the sport-oriented version of the IMI to assess changes in their intrinsic motivation after competition had ceased. In addition to the second assessment of the IMI, the researchers also assessed the student-athletes' perceptions of their coaches' behaviors by having athletes complete the Leadership Scale for Sports (LSS). Chelladuria and Saleh (1978, 1980) developed the LSS with the intentions of measuring an array of leadership behaviors.

Amorose and Horn (2001) hypothesized that student-athletes receiving an athletic scholarship would experience higher levels of intrinsic motivation during both pre-season and post-season, than those athletes who were not on scholarship. No support for these predictions was found. Rather there were no differences between scholarship and non-scholarship athletes on the changes in intrinsic motivation between pre-season and post-season measures. One explanation for the non-significant finding provided by Amorose and Horn was that only a few student-athletes reported receiving a "full" scholarship, while most student-athletes included in the scholarship group received only partial funding. Amorose and Horn (2001) concluded that a partial scholarship may not be perceived as either a major controller of his/her behavior or as an indication of his/her competence which will have an impact on an athlete's subsequent level of

intrinsic motivation. In addition to these conclusions, Amorose and Horn (2001) acknowledged limitations to the study that would result in different findings. First, the participant sample included in the study was comprised of only first-year Division I college athletes. It is possible that different results could be found for athletes in other age groups and/or different competitive levels. Secondly, the athletes in this study were participants in individual sports, which might have impacted the results. Finally, there was concern with the timing of the pre-season data collection due to the data being collected two to four weeks prior to the start of competition. Amorose and Horn believed that the initial exposure may have already begun to have an impact on the athletes' level of intrinsic motivation.

The influence of granting partial scholarships that are received by student-athletes has not been examined to date. The National Collegiate Athletic Association (NCAA) breaks sports into two categories—head count sports and equivalency sports. Students who are offered a scholarship to play a head count sport are typically offered a full scholarship, while students who play equivalency sports might receive only a partial scholarship. At many of the smaller colleges and universities, it is common to find that the majority of the student-athletes are on partial scholarships as opposed to larger universities. In fact, at most Historical Black Colleges and Universities (HBCUs), the majority of athletes are on partial athletic scholarships that are supplemented with other forms of financial aid (i.e., federal grants and other forms of scholarship including academic). The question of how athletes at HBCUs view their total package of scholarship in light of Deci's Cognitive Evaluation Theory (CET) would provide needed insight into our understanding of minority athletes' perceptions of combined scholarships.

To understand student-athletes at HBCUs, you must first understand the mission and the purpose of HBCUs as well as what it offers its students and student-athletes. Under the Education Act of 1965, HBCUs are institutions who were established before 1964 and whose main mission is the education of African Americans (Grimes, 1996). However, there were a small number of African Americans who did attend other universities during that time. In addition, a majority of these institutions were agricultural and mechanical universities, which focused on the skills and trades that would open jobs for African Americans. But it was not until the 1900's that HBCUs built professional schools that were established for such professions as educators, lawyers, and doctors. Also, until 1968 almost 90% of the African American physicians and dentists went to two HBCUs (Grimes, 1996). However, today's mission of HBCUs have not changed but more or less expanded upon its populations of students who may be accepted or not readily accepted at other colleges or universities for an array of reasons. There are also a number of HBCUs that are regarded as Black Ivies, (i.e., HBCUs that have high academic standards similar to the other Ivy league schools) which have produced many of our countries African American intellectuals. In addition to academic changes, many of the HBCUs' athletic programs experienced dynamic change. Before the "great migration" of African American athletes to predominately white institutions (PWIs), HBCUs produced many of the African American athletes playing professional sports, especially basketball and football, during the 1970s and 1980s.

A number of Historically Black Colleges and Universities (HBCUs) are affiliated with the NCAA while competing at various Division I, II, and III levels. Due to the athletic budget restraints of HBCUs, some universities have not been able to give full athletic scholarships to athletes. In these situations the universities and coaches find ways to make up the dollars that the

athletic budgets cannot cover. A portion of these student-athletes may use grants from the university or the government, as well as academic scholarships that may cover some costs, but some athletes are left no other option than the dreaded “LOAN”. In reviewing information on athletic scholarships from the Office of Postsecondary Education (2009), it was found that the universities in Mid-Eastern Athletic Conference have the largest athletic budget of any HBCU conference operating with approximately \$100M. However, one-third (\$34M) of the MEAC’s athletic budget is comprised of monies for athletic scholarship for student-athletes. Nonetheless, for other colleges and universities that are comparable in size to the universities in the MEAC, many of their budgets exceed in area of athletically related-aid (i.e., athletic scholarship) which may have an influence on the athletes perception of their scholarship. For example The Big South, which is a comparable conference to the MEAC has a conference budget of \$128.6M and a conference budget of \$42M for athletically related-aid for its student-athletes (Office of Postsecondary Education, 2009). In addition many of these smaller Division I HBCUs are competing with budgets comparable to Division II teams, which may be one reason why many of these universities must find other options to reward their student-athletes.

However, researchers like Richard Lapchick at The Institute for Diversity and Ethics in Sport have studied and found racial differences in sport especially at the Division I level. Lapchick (2009) found that in 2008 African American males made up only 18.3 percent of student-athletes that compete in Divisions I, II, and III, while 11.2 percent of African-American females compete at this level. These statistics seem skewed because African-American males make up almost 60.4 percent of basketball players in Division I and 45.9 percent in football. For females, 47.4 percent of African-Americans make up Division I basketball, while 23.7 percent of African American females competed in track and field. As for the statistical break down by

divisions, African-American male student-athletes make up 24.7 percent of the total male student-athletes in Division I. In Division II, they comprise 23.7 percent and in Division III, 9.1 percent. In Division I, African-American female student-athletes comprise 15.7 percent of the total female student-athletes. In Division II, they make up 12.8 percent, and in Division III, only 5.3 percent. In addition, it must be noted that Historically Black Colleges and Universities (HBCUs) were not included in these data findings.

In summary, the studies above have provided evidence that scholarships can undermine student-athletes' intrinsic motivation under certain circumstances. However, research is needed in the area of intrinsic motivation and the effects of extrinsic rewards on the culturally diverse athletic populations. Ryan (1980) suggested that there are gender differences in the influence of scholarship on intrinsic motivation, but made no reference to cultural differences among college athletes. However, the above studies that described their participants did not provide a sufficient and representative sample of minority collegiate athletes. The research conducted by Ryan (1977, 1980) and Amorose and Horn (2000, 2001) indicated that athlete's scholarship status may also affect their intrinsic motivation. In addition, to looking at athletic scholarships it has emerged that athletes who are on academic scholarship or receiving other forms of financial aid may experience different levels of intrinsic motivation when participating in sports at the college level.

The purpose of this study is to replicate and extend the work of Amorose and Horn (2001) by examining the effect of athletic scholarships on the intrinsic motivation level of collegiate athletes at a Historically Black College. Specifically, this study is designed with two purposes. The first purpose is to replicate and extend Amorose and Horn's (2001) study by examining intrinsic motivation as a function of scholarship status, gender, team sport type,

revenue sport type, and grade classification at a Historically Black College. Secondly, this study will examine HBCUs' results with the previous literature found on scholarship and motivation.

The following hypotheses are proposed to test the level of enjoyment that the student-athletes at a HBCU may experience in their playing of collegiate athletics.

H1a: Athletes who receive no athletic scholarship will experience higher levels of interest/enjoyment than athletes on partial- and full-scholarship.

H1b: Athletes on partial-scholarships will experience higher levels of interest/enjoyment than athletes on full-scholarship.

H2: Female athletes will experience higher levels of interest/enjoyment than the male student-athletes when participating in college athletics.

H3: Athletes in individual sports will experience higher levels of interest/enjoyment than athletes who participate in team sports.

H4: Athletes in non-revenue generating sports (i.e., baseball, volleyball, etc.) will experience higher levels of interest/enjoyment than athletes in revenue generating sports (i.e., football, basketball).

H5: Sophomore and junior student-athletes will experience higher levels of interest-enjoyment than freshman or senior student-athletes.

Chapter 2

LITERATURE REVIEW

The purpose of this chapter is to present a review of the literature pertaining to the variables in this study. The review is presented in two sections, which include: (a) Cognitive Evaluation Theory and (b) The HBCU Experience.

Cognitive Evaluation Theory

The Cognitive Evaluation Theory (CET) suggested that the presence of an external reward can induce a change in the perceived locus of causality from internal to external, resulting in decreased intrinsic motivation, whereas the absence of a reward and the presence of choice can induce a change in the perceived locus of causality from external to internal resulting in increased intrinsic motivation (Deci, 1975; Deci & Ryan, 1980, 1985). The theory also pointed to a second process through which intrinsic motivation can be affected, namely, a change in perceived competence. If an environmental event enhances people's perceptions of competence, their intrinsic motivation will increase. However, if their perception of competence diminishes, their intrinsic motivation would decrease (Arnold, 1976; Blanck, Reis, & Jackson, 1984; Deci, 1971). This means that an environmental event can decrease intrinsic motivation by making the perceived locus of causality more external or by deflating one's perceptions of competence and, conversely, an event can increase intrinsic motivation by making the perceived locus of causality more internal or by bolstering one's perceptions of competence (Ryan, 1982). Although, prior to Deci and Ryan's (1980,1985) studies, earlier researchers have tested the basic premises of the cognitive evaluation theory and concluded similar findings; theses studies were primarily conducted outside of sport.

For example, Deci (1971) had college age students play an inherently interesting task,

called the SOMA puzzle, where he paid selected students to play. The participants that were paid to play were given both monetary rewards and verbal rewards (i.e., verbally encouraged), and the other participants received on verbal rewards for participating. His study found that the participants who were paid money to play spent a significantly less amount of time playing on their own than participants who were not rewarded to play. However, those who received verbal rewards, played for a longer amount of time than both conditions resulting in an increase of intrinsic motivation. Then Lepper et al. (1973) examined the undermining of children's intrinsic interest with an extrinsic reward (i.e., good player rewards). The participants in the study included predominantly white middle-class children ranging in age from 40 to 64 months. However, interestingly three black children who would have otherwise been included in the experiment were arbitrarily excluded to increase the precision with which the population could be defined. This attempt to gain precision could lead one to believe that black children would interpret a “good player” reward differently from their white peers. The results of the study found that subjects in the expected-award condition spent less time playing with the target materials than subjects in either unexpected-award or no reward conditions. These results indicated that subjects who received expected rewards experienced decreases in intrinsic motivation due to the reward serving as a controlling agent. For those subjects who received unexpected-rewards, the reward served to enhance intrinsic motivation, by being perceived as evidence of ability or competence. Although these previous researchers tested intrinsic motivation on extrinsic rewards in various tasks, it was not until E. Ryan’s research (1977, 1980) that the issue of the influence of an athletic scholarship on athletes’ intrinsic motivation was investigated.

In 1977, and again in 1980, E. Ryan looked at attribution and intrinsic motivation and their

effects in athletics. Ryan (1977) used a survey questionnaire at two universities to assess athletes' intrinsic motivation. He compared male athletes on scholarship to male athletes not on scholarship, expecting those who are receiving a scholarship to be less intrinsically motivated than those who are not receiving a scholarship. His results were supported in that scholarship athletes reported less enjoyment in sport than non-scholarship athletes, signifying that scholarship was undermining to intrinsic motivation. Then Ryan (1980) extended his previous work to include women from various sports and wrestlers. Ryan believed that women would perceive the scholarship as informational because it was so new at the time. His sample included 12 universities, 424 male football athletes and wrestlers, and 188 female athletes from seven sports. Due to the implication of Title IX in 1972, which allowed women to participate in college athletics, various sports were needed to obtain sufficient numbers of women for the sample (U.S Department of Education, 1997).

Results of Ryan's (1980) study supported his hypothesis that women would perceive a scholarship as informational and not undermining to their intrinsic motivation. However, Ryan also found that wrestlers also reported their scholarships to be informational and not undermining to their intrinsic motivation. These results were explained as occurring because so few wrestlers and female athletes received scholarships, and if they did it would signify their being competent in that particular sport. In lieu of E. Ryan's (1977,1980) studies, Deci and Ryan (1980, 1985) looked to the Cognitive Evaluation Theory (CET) as the foundation for research of intrinsic motivation in sport today.

For example, Amorose and Horn (2000) examined collegiate athletes' intrinsic motivation to see if it would vary as a function of several factors including scholarship status, gender, and perceptions of coaches' behavior. The researchers used male and female (N=386) student

athletes from various Division 1 schools, who participated in football, field hockey, gymnastics, ice hockey, wrestling, and swimming. Of the 386 athletes in this study 111 were on full scholarship, 163 were on partial scholarship, and 112 received no scholarship. Amorose and Horn assessed intrinsic motivation of the athletes with the Intrinsic Motivation Inventory (IMI; McAuley et al., 1989). In the analysis, a Multivariate Analysis of Variance (MANOVA) found that the scholarship status main effect indicated that athletes on full scholarship reported higher scores on perceived competence, and lower scores on pressure tension, than non-scholarship athletes. Athletes receiving partial-scholarships reported higher scores on effort-importance than athletes on full scholarship. As for the gender main effect females reported higher scores on effort-importance and tension-pressure subscales and males reported higher scores on perceived choice. In addition Amorose and Horn (2000) believed that the effect size affected the results for gender differences, as 3% of the variability between the athletes' intrinsic motivation was attributable to gender. Lastly, Amorose and Horn (2000) revealed one limitation to their study, namely the samples not being representative across the college athletic population, academic classification of athletes, and concerns of instrumentation.

Following the 2000 study, Amorose and Horn (2001) replicated and extended their previous work to examine whether any changes that occurred in athletes' level of intrinsic motivation from pre- to post-season would be related to their perceptions of their coaches' behaviors and/ or would differ as a function of their scholarship status. Only first year athletes were selected given the possibility that the new experiences involved with both scholarships and college-coaching behaviors would have the largest impact during the athletes' first year of college participation. Amorose and Horn (2001) surveyed ($N = 72$) American male and female Division I college athletes who were in their first year of eligibility. The athletes participated in softball, swimming,

track and field, and wrestling. Of the 72 athletes that participated in the study, two reported receiving full scholarship, while 30 reported receiving partial, and 40 reported not receiving any scholarship. Amorose and Horn (2001) hypothesized that athletes who received a scholarship would report higher levels of intrinsic motivation in comparison to athletes who were not on scholarship due to the previous research reporting that athletes on scholarship exhibited higher levels of intrinsic motivation. The instrumentation used to assess intrinsic motivation was the Intrinsic Motivation Inventory (IMI; McAuley et al., 1989). Results of the RM MANOVA (Repeated Measures MANOVA) revealed that first-year athletes' scholarship status and time interaction effect was not significant ($p > .05$). Thus, indicating that neither scholarship status nor time affected the athletes' reported level of intrinsic motivation. Although the hypothesis was not supported, Amorose and Horn (2001) believed that scholarships may have varying effects on intrinsic motivation depending on the amount of the reward. In addition, the researchers believed that examining how the athletes perceive the rewards could clarify the inconsistent findings.

Moreover, limitations were also noted in this study. First, the participant sample was comprised of only first-year Division I college athletes. It is believed that different results might be found for athletes in other age groups and/or different competitive levels. Secondly, the athletes in this study were participants in individual sports, which might have impacted the results. Lastly, there was concern with the timing of the pre-season data collection, which occurred two to four weeks prior to the start of competition. Amorose and Horn (2001) noted that there are a number of other influences that affect the development of intrinsic motivation (e.g., transition to college life, new peers, new teammates, moving away from parents, etc.), and future studies should continue to examine these possible social and intrapersonal determinants.

In a more recent study conducted to assess extrinsic rewards on motivation in sport, Medic,

Mack, and Starkes (2007) assessed male and female (N=116) college basketball players from Canada and the United States. Of the 116 athletes in the sample, there were 70 athletes from four universities in Ontario with no scholarship and 46 athletes from seven Division I universities in the United States on scholarship. To assess the effects of scholarship on motivation in sport, Medic et al. (2007) used two approaches; the first approach compared sport motivation between gender and scholarship status of Division 1 basketball players from the US and non-scholarship basketball players from Canada, and the second approach manipulated athletic scholarship status through scenarios to examine potential changes in present and future motivation in sport. Medic et al. (2007) used the Sport Motivational Scale (SMS; Pelletier, Fortier, Vallerand, Briere, & Blais, 1995) to assess motivation. The SMS consists of seven subscales that measure three types of intrinsic motivation (i.e., IM to know, IM to accomplish things, and IM to experience satisfaction), three types of extrinsic motivation (i.e., external, introjection, and identified regulation), and amotivation towards sport motivation.

First, Medic et al. (2007) conducted a comparison of gender and scholarship athletes (D-I universities in the US) and non-scholarship athletes (Inter-Universities in Canada). A MANCOVA revealed an interaction effect between scholarship status and gender, (Wilks' Lambda= .87; $F(4,112) = 2.62, p < .05$). A follow up ANOVA revealed that scholarship male athletes ($M = 4.76$; $SD = 1.32$) reported higher levels of introjected regulation compared to scholarship female athletes ($M = 3.26$; $SD = 1.28$; $F(3,112) = 5.90, p < .01$). Also, scholarship males ($M = 4.83$; $SD = 1.01$) reported higher levels of external regulation than scholarship females ($M = 3.60$; $SD = 1.51$), non-scholarship males ($M = 3.75$; $SD = 1.25$), and non-scholarship females ($M = 3.62$; $SD = .92$; $F(3,112) = 6.13, p < .01$). No other difference in present motivation was found. Medic et al. believed that the results were due to male basketball players

experiencing a great deal of pressure to perform. Also, Medic et al. (2007) proposed that the general selection bias of male athletes who receive a full scholarship would initially have higher levels of non-self-determined motivation.

Secondly, Medic et al. (2007) used a within-group approach to manipulate scholarship status to examine potential changes in sport motivation. To analyze the findings two RM MANOVAs were used to examine present and perceived future motivation for non-scholarship and scholarship athletes. For non-scholarship athletes, the main effect for the manipulation was found (Wilks' Lambda = .66, $F(6, 63) = 5.58$, $p < .001$). Also, ANOVA's revealed that perceived future "intrinsic motivation to experience stimulation" would decrease ($F(1,68) = 7.64$, $p < 0.01$; $ES = .19$), "intrinsic motivation to accomplish" would decrease ($F(1,68) = 7.16$, $p < 0.01$; $ES = .24$), and external regulation would increase ($F(1,68) = 15.86$, $p < 0.001$; $ES = .33$) if scholarships were available. Medic et al. found similar findings for the manipulation with scholarship athletes (Wilks' Lambda = .72, $F(6, 39) = 2.64$, $p < .05$). A follow up univariate ANOVA revealed that scholarship athletes "perceived future" intrinsic motivation to experience stimulation ($F(1,44) = 4.99$, $p < .05$; $ES = .20$) and intrinsic motivation to accomplish ($F(1,44) = 9.10$, $p < 0.01$; $ES = .35$) would decrease if scholarships should become unavailable.

Medic et al. (2007) also believed that their results were a combination of non-scholarship athletes perceiving scholarships would apply pressure to perform now that they are being paid to play, and scholarship athletes perceiving the removal of scholarship to lower their choice capacity, now that academics are their responsibility, which in-turn limits their autonomy. In addition, the researchers noted limitations to their study, i.e., the use of a cross-sectional design, and the use of scenarios to assess perceived future motivation, and the timing of the collection of data, could have influenced the results. There was no uniformity to collecting the data and many

of the teams completed the survey towards the end of their competitive seasons. The cultural influence of the Canadian and American athletes on their collegiate experience, and only using college age basketball players were identified as additional limitations. Results may change if applied to other sports and age groups. Finally, Medic et al. (2007) believed that being motivated by extrinsic factors and having internal feelings of pressure such as guilt and anxiety are associated with receipt of a full scholarship, especially male athletes.

In summary, the previous literature describes two main determinants of intrinsic motivation, the degree to which an individual feels self-determination in their environment and the degree to which an individual feels competent when completing a particular task. Additionally, intrinsic motivation will vary as a function of control as an individual feels that they have the choice in an activity (Amorose & Horn, 2001). Although researchers have tested these effects on motivation and scholarship, the results have been found to be questionable.

The previous literature should have noted in their results the limitations pertaining to race. In many of these studies African American athletes were underrepresented, even though Lapchick (2009) reported that African Americans make up the majority of the athletes in the sports that were tested. In addition PWIs were the only universities used to test athletes' motivation. Additionally there are four HBCU conferences that have been excluded from numerous studies pertaining to sports. However, Deci and Ryan (1985) stated that intrinsic motivation would vary across time depending on the experiences of the individual. It is proposed that the HBCU environment is one that may alter an individual's experience, which may increase or decrease motivation of athletes. The HBCU environment is unique, due to the majority of university being habited by African Americans, which may be new for white students as well as some black students.

The HBCU Experience

Historically Black Colleges and Universities (HBCUs) began in the United States because of segregation, discrimination, and racism (Grimes, 1996). Although many HBCUs were established after the Morrill Act of 1890 that provided state support for land grant HBCUs, most were established prior to that time (Evans, A.L., Evans, V., & Evans, A.M., 2002). Many of these universities were private but later state and public schools were established to provide postsecondary education for black students (Brown & Davis, 2001). In addition, most HBCUs were established wherever large black populations resided such as in the Southeast, Southwest, and Northeast. Moreover, these universities were not designed to succeed, but rather their purpose was to appease black people or to serve as a holding institution because black students could not matriculate to predominately white institutions (PWIs) (Evans et al., 2002). Likewise, many of the HBCUs established prior to 1870 were due to the support from white majority lead groups like the American Missionary Association (AMA), which was a Protestant-based abolitionist group founded to eliminate slavery, to educate African Americans, to promote racial equality, and to promote Christian values and the Freedman's Bureau, was a U.S. federal government agency that aided distressed freedmen (freed slaves) from 1865-1872 (Dubois, 1970).

In addition to HBCUs being holding or appeasing institutions for African American students, the environment and atmosphere that is provided seems most appealing to current students (Martin, 2009). Many African American students feel comfortable and confident in themselves when attending HBCUs (Drake, 2010). Moreover, students are feeling more self-determined due to the nurturing environment of the university, which can be defined by Deci and Ryan's Self Determination Theory (1985a; Ryan & Deci, 2000, 2002). The theory suggests

three universal need- competence, autonomy, and relatedness. Although all three needs are vital, it is the concept of relatedness that may contribute the most to the HBCU environment, which has the unique structure of the university being predominantly comprised of African Americans. The relatedness concept states, “the need to perceive that one is connected to ones around him/her and that he/she experiences a sense of belonging”. Having a campus encompassed of majority African Americans (i.e. administrators, professors, staff, etc.) may increase levels of intrinsic motivation because African American students may feel more connected when having administrators and professors who look like them. Additionally they feel supplied with vital knowledge and information that prepares them for future careers, which tend to increase enrollment for these universities (The top colleges, 2000, p. 14). Due to increasing enrollment, these universities must be able to accommodate students’ needs, which includes increasing tuition rates. HBCUs have always had problems securing funding to run these institutions, especially state universities. Each state allocates state dollars to its public universities, but when funds are not dispersed appropriately, HBCUs become underfunded (Martin, 2009). With HBCUs being underfunded through the state dollars other areas of the university are not able to function properly, one area being the athletic department.

Athletics play an important part in HBCUs, but with athletic departments’ budgets being appropriated from the university, it places limitations on what this department is capable of offering (Martin, 2009). Limitations in athletic departments may include lack of funding for teams, facilities, and/ or most importantly athletic scholarships. To raise appropriate funds athletic departments must rely on fundraisers and/or outside donations. Raising funds for scholarships tend to be more challenging for these universities, especially when HBCUs have to share top African American athletes with PWIs, who have more resources and scholarships

(Sperber, 1990). For example, big time college athletic programs like, University of Michigan, The Ohio State University, Pennsylvania State University, and University of Texas at Austin are the premier frontrunners in the National Collegiate Athletic Association (NCAA). The Big Ten Conference, which houses some of the country's premier academic and athletic programs (i.e., University of Michigan, Penn State, Michigan State University, etc.) spent over \$106 million dollars in 2008 for student-athletic scholarships, which exceeded any other conference in the country (Office of Postsecondary Education, 2009).

However, as stated before in 2008 universities from the Mid-Eastern Athletic Conference (MEAC) spent \$34M in scholarships for its student-athletes (Office of Postsecondary Education, 2009). The MEAC conference spent approximately one-third of the Big Ten's proposed budget (\$112M) for athletic scholarships in 2008. It is clear that these two conferences cannot be compared by budgets, but what can be compared is the number of African American athletes that attend these universities. Lapchick (2009) found that 60.4% of college basketball and 45% of college football programs from Division I colleges and universities were comprised of African American student-athletes. However, Lapchick's study failed to include the athletes attending HBCUs, which would give a better representative sample of all the conferences and student-athletes in the country.

In addition to the number of athletic scholarships available, scholarships at HBCUs are not delegated the same way as larger division 1 universities. At the Division 1 level scholarships are divided into two types, head count and equivalency. Head count scholarships are a set number of scholarships, and they are all full, whereas equivalency scholarships are a set number of scholarships, but each one can be divided among two or more student-athletes (George, 1999). In addition to head count and equivalency, scholarships are broken down in to two forms of

athletic aid, which are full and partial scholarships (Cozzillio, 1989). Full scholarships do not exceed tuition and fees, room, board, and required course-related books, whereas partial athletic scholarships are any amount of aid that does not cover 100% of the total costs of attendance to a college or university (NCAA, 2009). However at HBCUs scholarships are based on equivalency, meaning scholarships are shared between student-athletes.

In addition, information published by the NCAA stated that more than \$1.5 billion dollars in athletic aid is awarded annually to approximately 126,000 student-athletes each year (NCAA, 2009). However, at HBCUs and smaller institutions other forms of student-aid are utilized to supplement for athletic scholarship funding, which may include federal grants, state grants, or academic scholarships. Thus, student-athletes at HBCUs who have a partial athletic scholarship may be considered to have a full ride if the remaining fees are culminated with federal funding (i.e., grants). However, student-athletes who receive combined athletic scholarship and grants raises the issue of how athletes perceive this form of aid and thus, their perceptions of ability and/ or perceptions of autonomy.

In conclusion, the review of literature investigation of motivation for sport entails the search for the underlying process that initiates one's participation (Alderman, 1974). Earlier researchers have found that athletes participate in sports primarily for intrinsic reasons (i.e., they enjoy it, they want to master a particular skill, and the enjoyment of being with friends) (Gill, Gross, & Huddleston, 1983; Sapp & Haubenstricker, 1978; Scanlan & Lewthwaite, 1986). With most athletes beginning their athletic career with community youth sports programs, church recreational leagues, or playing for their local middle and high schools, they initiate this love affair with competition (Ogden & Warneke, 2010). Many of these athletes want to develop their skills, as well as enhance their knowledge of the game, which would be considered intrinsically

motivating reasons for participating in sport. In addition to wanting to become better athletically, athletes tend to face societal pressures, which may stem from environmental and social influences to playing at the collegiate level and receive a scholarship (Peltier, Laden, & Matranga, 1999). These influences tend to impede intrinsic motivation, which can either enhance or diminish self-determination.

Although, research on the influence of an athletic scholarship on intrinsic motivation of student-athletes have been inconclusive these previous studies have set the foundation for research in this area. Furthermore, the cognitive evaluation theory (Deci & Ryan, 1985) states that the two main determinants of intrinsic motivation include: (a) the degree to which individuals feel self-determining in their environment and (b) the extent to which individuals feel competent in a particular domain. However, research in one particular environment has been notably absent, namely the Historically Black College. HBCUs provide a more nurturing environment for African American students and student-athletes, which may lead to changes across motivation. This may be the result of the campus being mostly comprised of African Americans, which may include the President of the university, other administrators, faculty and staff, and coaches. The presence of these individuals may lead to a sense of relatedness for the students and student athletes. In addition, HBCUs provide a different experience for student-athletes by way of its method of awarding scholarships, which may increase or decrease motivation. The proposed study examines the perceptions of intrinsic and extrinsic motivation in scholarship and non-scholarship athletes at a Division I HBCU.

Chapter 3

METHOD

Participants

The sample consisted of 227 male (N =134) and female (N = 93) collegiate student-athletes that attend a Division I Historically Black College. The student-athletes' ages ranged from 18 to 23 years (M = 19.78; SD = 1.19) with all students between their freshman and senior year of college. Of the 227 athletes surveyed at the university, 191 (82%) indicated being African American, 19 (8%) indicated being Caucasian, 7 (3%) indicated being Latino/Hispanic, 1 (.5%) being Asian/Pacific Islander, 1 (.5%) indicated being Native American, and 11 (6%) indicated being "other" as their ethnicity. The student-athletes participated in one or more of the university's 15 intercollegiate sports plus non-competitive cheerleading. The sports included football (n = 78), men's basketball (n=14), women's basketball (n=10), baseball (n=20), men's track and field (n=12), women's track and field (n=19), men's cross country (n=1), women's cross country (n=6), softball (n=10), men's tennis (n=4), women's tennis (n=6), men's golf (n=5), women's bowling (n=6), women's volleyball (n=11), and non-competitive cheerleading (n=25).

The student-athletes received full-athletic scholarships (37%), partial-athletic scholarships only (11%), partial athletic scholarships and academic scholarships (6%), partial athletic scholarships and federal/ state grant-in-aid (23%), academic scholarship (6%), no athletic scholarship (8%) at all, the remaining 9% was unreported. However, the only students that were assessed for scholarship status were students that indicated receiving only a full-, partial-, or no scholarship. Of the 233 student-athletes given a survey only 132 reported receiving full, partial, or no athletic scholarship. Specifically, and of those 85 student-athletes indicated receiving a full

scholarship, 25 indicated receiving a partial scholarship, and 22 indicated receiving no scholarship. Lastly, scholarship student-athletes were then asked if they were not on scholarship would they still attend the HBCU, of the of scholarship athletes 45% reported that would stay and 45% reported they would not stay if they were not on scholarship, the remaining 10% were not on scholarship.

Instrumentation

Demographic Information. Each participant was asked to complete a demographic questionnaire (See Appendix A). The questionnaire assessed the participants' age, gender, race, and sport participation. The questionnaire also inquired about grade point average, which was self-reported, and the program course of study for each participant. Finally, the questionnaire inquired about scholarship status of the participants. Participants were asked to check whether they received full athletic scholarship, a partial athletic scholarship only, a partial athletic scholarship with an academic scholarship, partial athletic scholarship with federal or university grant-in-aid, or no athletic scholarship.

Intrinsic Motivation Inventory. The Intrinsic Motivation Inventory (IMI; See Appendix B) assessed the overall level of intrinsic motivation that an individual experienced when engaging in an achievement-oriented task (Ryan, Mims, & Koestner, 1983). For this study the Sport-Oriented version of the IMI (McAuley et al., 1989) was used. The sport-oriented version of the IMI included four subscales that measure various dimensions or indices of intrinsic motivation including: (a) interest-enjoyment, (b) perceived competence, (c) effort-importance, and (d) tension-pressure. Following the recommendations of McAuley et al. (1989), a fifth scale, perceived choice, was used to assess the degree to which the athletes feel they are participating in their sport by personal choice.

All items were scored on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Mean scores were calculated for each of the five subscales. High scores on the subscales (i.e., interest-enjoyment, perceived competence, effort-importance, and perceived choice) would result in a high level of intrinsic motivation. However, a low score on the subscale of tension-pressure would indicate a high level of intrinsic motivation (e.g., the less pressure an individual feels, the more self-determined they are which will increase their levels of intrinsic motivation). McAuley et al. (1989) and Vallerand and Fortier (1998) reported the psychometric properties of the sport version of the IMI. Reliabilities of the measures were determined by coefficient alpha (Cronbach, 1951). Internal consistency reliability estimates for the IMI subscales were determined by the alpha coefficient and ranged from .68 to .84, specifically pressure-tension ($\alpha = .68$), interest-enjoyment ($\alpha = .78$), perceived competence ($\alpha = .80$), and effort/importance ($\alpha = .84$) (note: perceived choice had not been tested for internal consistency and reliability). The overall scale appeared to be consistent with an alpha coefficient of .85.

As for the construct validity of the IMI, McAuley et al. (1989) tested several models using the confirmatory factor analysis (CFA) and found that the data yielded less impressive results. A second-order factor with intrinsic motivation being subdivided into four first-order factors was found to be the best model. Amorose and Horn (2001) also established validity with IMI from the reports of McAuley et al. (1989) and Vallerand and Fortier (1998). Internal consistency reliability estimates for the IMI subscales for athletes in this study were determined by the alpha coefficient and ranged from, interest-enjoyment ($\alpha = .82$), for perceived choice ($\alpha = .81$), for perceived competence ($\alpha = .85$), for effort-importance ($\alpha = .82$), and for pressure-tension ($\alpha = .86$). The overall scale appeared to be consistent with an alpha coefficient of .86.

Procedure

Following approval from the Institutional Review Board (IRB) for the Protection of Human Subjects, the researcher obtained consent from university's athletic director (AD) to complete the present study. The researcher contacted the athletic director for a scheduled meeting time to conduct the research at a general body meeting for the student-athletes. Once the secured meeting time was confirmed, the researcher personally attended the pre-season athletics meeting to distribute all surveys to the student-athletes at the university. The researcher was informed that each participant would be separated by classification (i.e., freshman, sophomore, etc.) and placed in separate classrooms respectively and he had approximately 20-25 minutes to distribute, obtain informed consent, and collect the surveys from the participants in each classroom. Once the survey packets were given to the participants, the researcher then informed the participants of their rights as subjects. They were then directed to open and read the Informed Consent Form (See Appendix C). Also, participants were asked to raise their hand if they needed further explanation. Upon completion of reading the consent forms the participants were asked to tear off those sheets and then began to fill out the survey. The researcher also informed participants that once they had completed their survey they would place it back into a packet to be collected by either the researcher or an athletic department administrator. Once the surveys were collected, the researcher thanked the participants for their participation and at that time he notified that they could keep their MSU pen as a thank you for their participation. Once done with one group of participants the researcher would move to the next group and repeat the procedures.

Data Analyses

Once the data were collected, the information was entered into a SPSS file. Descriptive statistics were used to create a demographic profile of the participants. The following statistical tests were used for each hypothesis:

H1a: A One-Way ANOVA was used to test the difference levels of interest/enjoyment among athletes who are receiving full athletic scholarship, a partial athletic scholarship, and athletes receiving no athletic scholarship.

H1b: A Paired-Sample t-Test was used to test the difference levels of interest/enjoyment between athletes on full- and partial-scholarships.

H2: A Paired-Sample t-Test was used to test the difference levels of interest/enjoyment between female and male athletes.

H3: A Paired-Sample t-Test was used to test the difference levels of interest/enjoyment of athletes who participate in individual and team sports.

H4: A Paired-Sample t-Test was used to test the difference levels of interest/enjoyment for athletes who participate in non-revenue and revenue generating sports.

H5: A One-Way ANOVA was used to test the difference levels of interest-enjoyment in grade classification of the student-athletes (i.e., freshmen, sophomores, juniors, and seniors).

Chapter 4

RESULTS

This chapter is presented in seven sections, which include: (a) Scale Reliabilities and Correlations, (b) Scholarship Status (c) Gender, (d) Team Sport Type, (e) Revenue Sport Type, (f) Grade Classification, and (g) Exploratory Questions. Within each question, descriptive statistics are presented first, followed by inferential statistics. All statistical analyses are reported at a .05 level of significance unless otherwise specified.

Scale Reliabilities and Correlations

Cronbach's (1951) alpha coefficient was used to determine the reliability of each subscale of the IMI. A minimum acceptable criterion was set at .70 as suggested by Nunnally (1978) and also used by Amorose and Horn (2001). Examination of the pre-season measures of intrinsic motivation indicated that all five of the subscales demonstrated an acceptable reliability (range .81 to .86). Correlations were run on the IMI subscales to test for multicollinearity. Correlations among the pre-season measures of the subscales of the IMI suggested that multicollinearity was a factor ($r = .39$ to $.70$). More specifically, Interest/Enjoyment and Perceived Choice ($r = .704$) and Perceived Choice and Effort/Importance ($r = .705$) were both highly correlated. The variables that are highly correlated have a strong relationship such that a given rise or fall in one variable will lead to a direct change in the other variable, meaning that interest/enjoyment is related to the perceive choice of the individual and perceived choice is highly related to the effort/importance an athletes exhibits. See Table 1 for correlations of IMI subscales.

Table 1**Pearson Correlations of IMI Subscales**

	Interest/ Enjoyment	Perceived Choice	Perceived Competence	Effort/ Importance	Pressure/ Tension
Interest/Enjoyment	1				
N	212				
Perceived Choice	*.704	1			
N	.000 210	213			
Perceived Competence	.575	.505	1		
N	.000 205	.000 205	208		
Effort/ Importance	.615	*.705	.630	1	
N	.000 211	.000 212	.000 206	214	
Pressure Tension	.503	.504	.395	.497	1
N	.000 210	.000 211	.000 207	.000 212	214

Scholarship Status

Due to the sufficient number of participants, Hypothesis 1a and Hypothesis 1b were executed simultaneously. Using a One-way Anova Hypothesis 1a stated, “Athletes who receive no athletic scholarship will experience higher levels of interest/enjoyment than those who receive a full or partial athletic scholarship”. The results were answered by comparing the interest/enjoyment of athletes with no athletic scholarship and athletes with a full and/or partial athletic scholarship. Hypothesis 1b stated, “Athletes with partial- athletic scholarships will experience higher levels of interest-enjoyment than athletes with full- athletic scholarships.” As

shown in Table 2 athletes with no- athletic scholarship exhibited slightly higher levels of interest/enjoyment than athletes with full- or partial-scholarships. However, a one-way Analysis of Variance (ANOVA) was run to test the mean difference of athletic scholarship status for subscale interest/enjoyment. Results showed that there were no significant differences among the three groups, $F(2, 113) = 0.28, p > .05$. Thus, Hypothesis 1a and Hypothesis 1b were not supported. Also, see Appendix D for comparison of means and standard deviation with the results reported by Amorose and Horn (2001), which are very similar. (The results listed under Exploratory Analysis will be discussed later in this section.)

Table 2

Means and Standard Deviations for the IMI subscales by Scholarship Status

	No-Scholarship	Full Scholarship	Partial Scholarship
	(N=21)	(N=74)	(N=23)
Subscales	M (SD)	M (SD)	M (SD)
Interest/Enjoyment	6.00 (1.23)	5.91 (1.14)	5.80 (1.09)
<i>Exploratory Analysis</i>			
Perceived Choice	6.39 (0.84)	6.04 (1.03)	5.82 (0.87)
Perceived Competence	6.04 (0.97)	6.03 (0.83)	5.73 (0.85)
Effort/Importance	6.07 (1.25)	6.30 (0.93)	6.09 (0.97)
Pressure/Tension	5.43 (1.23)	5.15 (0.97)	5.05 (1.06)

Gender

Hypothesis 2 stated, “Female student-athletes will experience higher levels of interest-enjoyment than male student-athletes when participating in sport.” To test for gender differences on interest/enjoyment, an independent samples T-test was used to compare the means of the two groups. No significant difference was found for the subscale of interest/enjoyment, $t(210) = -1.18, p > .05$. Although there was no significant difference found for gender, males reported having slightly higher levels of interest-enjoyment than females. See Table 3 for means and standard deviations for subscale interest/enjoyment and gender.

Table 3

Means and Standard Deviations for the IMI subscales by Gender

Subscales	Male (N=131)	Female (N=102)	t-Value	Sig. (2-tailed)
	M (SD)	M (SD)		
Interest/Enjoyment	6.02 (1.15)	5.83 (1.11)	.424	0.24
<i>Exploratory Analysis</i>				
Perceived Choice	6.14 (0.93)	6.04 (0.97)	0.38	0.43
Perceived Competence	5.89 (0.88)	5.98 (0.89)	0.01	0.48
Effort/Importance	6.27 (0.96)	6.23 (0.99)	0.00	0.79
Tension/Pressure	5.33 (1.04)	5.09 (0.95)	0.65	0.09

Team Sport Type

Hypothesis 3 stated, “Athletes who participate in individual sports will experience higher levels of interest/enjoyment than athletes who participate in team sports.” An independent samples T-test was used to compare the means of participants from team and individual sports. A significant difference was found for subscale interest/enjoyment, $t(181) = 3.05$, $p = .00$. Athletes from team sports reported significantly higher levels of interest-enjoyment than athletes from individual sports. Thus Hypothesis 3 was not supported and in fact was in opposition to the predicted direction. See Table 4 for the means and standard deviations for subscale interest/enjoyment and sport type.

Table 4

Means and Standard Deviations for the IMI subscales by Team Sport Type

Subscales	Team (N= 143)	Individual (N=59)	t-Value	Sig. (2-tailed)
	M (SD)	M (SD)		
Interest/Enjoyment	6.09 (1.14)	5.54 (1.07)	0.46	0.00
<i>Exploratory Analysis</i>				
Perceived Choice	6.14 (0.93)	5.92 (0.99)	0.73	0.16
Perceived Competence	5.95 (0.91)	5.75 (0.90)	0.16	0.19
Effort/Importance	6.32 (0.94)	6.05 (1.09)	1.88	0.09
Tension/Pressure	5.25 (1.03)	5.16 (0.97)	0.25	0.59

Revenue Sport Type

Hypothesis 4 stated, “Athletes who participate in non-revenue generating sports (i.e., baseball, volleyball, etc.) will experience higher levels of interest/enjoyment than athletes who participate in revenue generating sports (i.e., football and basketball).” An independent samples T-test was used to compare the means of the two groups. A significant difference was found for subscale interest/enjoyment, $t(181) = 2.12, p = .04$. The hypothesis was supported, but not in the predicted direction. Revenue sport athletes reported higher levels of interest/enjoyment than non-revenue sport athletes. See Table 5 for means and standard deviations for subscale interest-enjoyment and revenue sport type.

Table 5

Means and Standard Deviations for the IMI subscales by Revenue Sport Type

Subscales	Non-Revenue Sports	Revenue Sports	t-Value	Sig. (2-tailed)
	(N= 100) M (SD)	(N=102) M (SD)		
Interest/Enjoyment	5.75 (1.12)	6.11 (1.14)	0.05	0.03
<i>Exploratory Analysis</i>				
Perceived Choice	5.97 (0.95)	6.18 (0.94)	0.01	0.13
Perceived Competence	5.84 (0.87)	5.94 (0.95)	0.83	0.47
Effort/Importance	6.18 (0.98)	6.30 (1.01)	0.07	0.44
Tension/Pressure	5.20 (0.97)	5.25 (1.05)	0.43	0.74

Grade Classification

Hypothesis 5 stated, “Sophomore and Junior student-athletes will experience higher levels of interest-enjoyment than Freshmen or Senior student-athletes.” This hypothesis was answered by examining the levels of interest/enjoyment among the grade classifications of the student-athletes. A One-way Anova was used to test the means among each grade classification. Results showed that there was no significant difference for the subscale interest/enjoyment, $F(3, 207) = 1.44, p > .05$. Thus, no support was found for the hypothesis. Interestingly, sophomore and junior student-athletes reported the lowest levels of interest/enjoyment. See Table 6 for the means and standard deviations for interest-enjoyment and grade classification.

Table 6

Means and Standard Deviations for the IMI subscale by Grade Classification

	Freshman	Sophomores	Juniors	Seniors
	(N=40)	(N=54)	(N=65)	(N=52)
Subscales	M (SD)	M (SD)	M (SD)	M (SD)
Interest/Enjoyment	6.19 (1.04)	5.75 (1.20)	5.84 (1.12)	6.03 (1.14)
<i>Exploratory Analysis</i>				
Perceived Choice	6.23 (0.90)	6.13 (0.96)	6.03 (0.93)	6.02 (1.01)
Perceived Competence	6.08 (0.78)	5.79 (1.09)	5.86 (0.81)	6.03 (0.81)
Effort/Importance	6.38 (0.79)	6.14 (1.12)	6.33 (0.86)	6.15 (1.08)
Tension/Pressure	5.35 (0.92)	5.23 (1.03)	5.25 (0.99)	5.07 (1.08)

Exploratory Questions

A series of exploratory questions were examined pertaining to the remaining IMI subscales (i.e., perceived choice, perceived competence, effort/importance, perceived choice, and pressure/tension). In this section six exploratory questions using the previous hypothesis and the remaining subscales of the IMI were examined.

The first Exploratory Question tested the remaining IMI subscales (perceived choice, perceived competence, effort/importance, and tension/pressure) by scholarship status for athletes with no-athletic scholarship, full-athletic scholarships, or partial- athletic scholarships. A one-way ANOVA yielded no significant difference for any of the subscales, Perceived Choice, $F(2, 113) = 2.65, p > .05$, Effort/Importance, $F(2, 113) = 0.56, p > .05$, and Pressure/Tension, $F(2, 113) = 1.34, p > .05$. The means reported in Table 2 indicated that athletes with no scholarships reported slightly higher levels of perceived choice, effort/importance, and pressure/tension than athletes with full or partial scholarship for all IMI subscales. See Table 2 for means and standard deviations of remaining IMI subscales and scholarship status. Although a non-significant difference was found for IMI subscale, Perceived Competence, $F(2, 113) = 1.25, p > .05$, athletes on partial scholarships reported lower levels of perceived competence than athletes on full scholarships or no scholarships.

Exploratory Question 2 tested the remaining IMI subscales for gender differences. An independent sample T-test was used to assess gender for each of the remaining four subscales of the IMI, no significant differences were found for subscales; Perceived Choice, $t(211) = 0.38, p > .05$; Perceived Competence, $t(206) = 0.01, p > .05$. ; Effort/Importance, $t(212) = 0.00, p > .05$; and Tension/Pressure, $t(212) = 0.65, p > .05$. Although no significant differences were found, Table 3 indicated that male athletes indicated higher levels of perceived choice,

effort/importance, and pressure tension, while females indicated higher levels of perceived competence. See Table 3 for means and standard deviation of the remaining IMI subscales and gender.

Exploratory Question 3 tested the remaining subscales of the IMI for differences between sport types. The independent sample T-test used to compare the means for sport type found no significant difference for team or individual sport type for subscales Perceived Choice, $t(182) = 0.73$, $p > .05$; Perceived Competence, $t(179) = 0.16$, $p > .05$; Effort/Importance, $t(183) = 1.88$, $p > .05$; and Pressure/Tension, $t(182) = 0.25$, $p > .05$. As shown in Table 4 athletes from team sports indicated higher levels of perceived choice, perceive competence, effort/importance, and tension/pressure. See Table 4 for means and standard deviations for remaining subscales of the IMI and team sport type.

Exploratory Question 4 tested the remaining IMI subscales for differences between revenue sport type. The independent samples T-test used to compare the means for revenue sport type found no significant difference for any of the subscales, Perceived Choice, $t(182) = 0.01$, $p > .05$; Perceived Competence, $t(179) = 0.83$, $p > .05$; Effort/Importance, $t(183) = 0.07$, $p > .05$; and Pressure/Tension, $t(182) = 0.43$, $p > .05$. As shown in Table 5, athletes from revenue sports reported higher levels of perceived choice, perceived competence, effort/importance, and pressure/tension than athletes in non-revenue sports. See Table 5 for means and standard deviations for the remaining IMI subscales and revenue sport type.

Exploratory Question 5 tested the remaining IMI subscales for differences among grade classification. A One-way ANOVA was used to compare the means of the four classifications, and no significant difference was found for subscales Perceived Choice, $F(3, 208) = .53$, $p > .05$; Perceived Competence, $F(3, 203) = 1.23$, $p > .05$; Effort/Importance, $F(3, 209) = .78$, $p > .05$;

and Pressure/Tension, $F(3, 209) = .62, p > .05$. While not significant, as seen in Table 6 freshmen athletes indicated the highest levels of perceived choice, perceived competence, effort/importance, and pressure tension, while seniors indicated the lowest levels of perceived choice, perceived competence, effort/importance, and pressure tension.

Summary

A few differences were found among athletes at this Historically Black College. Specifically differences in interest/enjoyment were found for athletes who participated in team and individual sports. Although not hypothesized, differences were found among athletes from revenue sports and non-revenue sports. In addition to the original hypotheses a series of exploratory questions were examined to look at the remaining IMI subscales. While no significant difference was found for the majority of the exploratory questions, a significant difference was found for Perceived Competence by scholarship status of full and partial scholarship athletes.

Chapter 5

DISCUSSION

The purpose of this study was to replicate and extend the work of Amorose and Horn's (2001) research, which focused on intrinsic motivation and scholarship status of athletes. We examined factors that may affect the levels of interest/enjoyment of scholarship and non-scholarship athletes at a Historically Black College. A number of the hypotheses yielded results that either aligned with or contradicted previous research. In the current study, there were significant findings in sport type (i.e., team or individual) and revenue sport type (i.e., revenue or non-revenue). Additionally, non-significant findings for the other proposed hypotheses were noted and will be mentioned throughout the discussion.

Of the proposed hypotheses predicted to influence interest/enjoyment for athletes at HBCUs, significant differences were found between athletes who participated in team sports and athletes who participated in individual sports. Although athletes from team sports reported higher levels of interest/enjoyment than athletes from individual sports, the results may have been influenced by a variety of reasons. Weiss, Smith, and Theeboom (1996) concluded that team sports are more likely than individual sports to have all of the characteristics of competency-enhancing activities (i.e., leadership skills, cooperative behaviors, and building cohesive relationships). Additionally, participation in most forms of organized athletics provides individuals with regular opportunities to interact with a role model, who encourages the development of a strong sense of individual accomplishment or mastery. Lastly, team sports participation is different from participation in individual sports activities because the team environment encourages increased involvement with peers in a pro-social context, which leads to greater enjoyment (Pedersen & Seidman, 2004). One may believe that athletes at HBCUs who

are on team sports may exhibit higher levels of interest/enjoyment than athletes on individual sports because the number of team sports at HBCUs may exceed the number of individual sports, suggesting that the university may place more emphasis on team sports. Furthermore individual sport coaches at HBCUs may often have challenging times trying to recruit or fill roster spots, because of the low number of African American athletes who are interested and/or skilled enough to play at the college level. This may be due to the prevalence and accessibility of team sports (i.e., basketball and football) in predominately African American communities. Also, playing team sports are more cost efficient especially for athletes from poor or working class families. Another explanation for this result may include the assumption that African American athletes' chances of playing professionally are higher in team sports than individual sports. It should be noted that the influences of team sports and individual sports might have impacted the results for revenue sport type, which are typically team sports. Additionally, the influences may be due to the fact that the vast majority of sports at a HBCU are team sports.

Along with team sport type, athletes in the present study reported a significant difference in interest/enjoyment for revenue sport type. Athletes from revenue generating sports reported higher levels of interest/enjoyment than athletes from non-revenue generating sports. One might not believe that most athletic departments operate fiscally in the "RED" (i.e., over budget), but in many cases revenue sports do not produce enough profits for the department to function, thus, many athletic departments rely on outside sources for funding, e.g., sponsorships, fundraisers, donations, and/or payout games. In many cases HBCU athletic departments rely on a combination of these forms of funding to supplement their budgets, especially payout games. Payout games help to minimize the decreasing gap between sports revenue and expenses at smaller universities, so if they win or lose, these schools will get their money (Fulks, 2009).

However, with tight budgets plaguing athletic departments nationwide, this money could mean the difference between being able to operate their intercollegiate athletic department programs or risk cutting budgets or even entire sport programs. Therefore, athletes in revenue sports at HBCUs may enjoy the experience of playing teams from highly regarded athletic programs and traveling to some destinations by plane, which other HBCU student-athletes are rarely afforded. Furthermore, by playing these prestigious universities athletes gain national exposure, which in most cases HBCU's are never given.

Additionally, the results showed slight, but non-significant, differences in scholarship status, gender, and grade classification. The direction of the differences among scholarship status of athletes at this HBCU were aligned with previous work of Amorose and Horn (2001), in that non-scholarship athletes reported slightly higher levels of interest/enjoyment than scholarship athletes (i.e., full or partial). Amorose and Horn (2001) explained that very few athletes in their study reported receiving full scholarship, thus, the majority of the scholarship athletes received partial scholarships. Nevertheless, in the current study the sample of full scholarship athletes exceed the number of full scholarship athletes in the Amorose and Horn (2001) study. Also Amorose and Horn (2000) stated that partial scholarships might not be enough of an award to be perceived as controlling or an indication of competence. Moreover, non-scholarship athletes at HBCUs may just enjoy being a part of a team environment, which according to the cognitive evaluation theory (Deci & Ryan, 1985) may indicate competency because these athletes made the team and are enjoying the amenities that come with being a part of something that they innately enjoy, while also receiving financial support.

In addition to scholarship status, gender yielded no differences in the present study. Amorose and Horn (2000) found similar results and hypothesized that this was due to the

advancement in women's college sports over the past few decades, which would contribute to the decrease of difference in male and female athletes levels of interest/enjoyment. Another explanation may be that due to the HBCU being in its last year of transition to Division I, the administrators may have placed high emphases on all sports to do well and not just men's basketball and football. In addition to scholarship status and gender, grade classification yielded no significant findings for interest/enjoyment for athletes at this particular HBCU. One may assume that the non-significant finding may have been due to the transition to Division I. Prior to 2007 this college was apart of a division transition in which they were an independent team. Thus the athletes regardless of scholarship status, gender, and grade classification would not have had previous experience of participating in post-season play.

Moreover, this study concluded that there are similar and dissimilar findings to previous research involving the Cognitive Evaluation Theory (Deci & Ryan, 1985) and athletes who attend HBCUs. Earlier research has stated that athletes who receive an extrinsic reward (i.e. scholarship) for once intrinsically motivating activities may experience lower levels of intrinsic motivation. In this study it was found that athletes reported higher levels of interest/enjoyment in team sports and revenue-generating sports, which are not consistent with the previous research in the area. The results may have been contributed to a number of attributes (i.e., relatedness of the environment, the self-determination in ones environment, etc.) that may have increased perceptions of competence and therefore increased levels of intrinsic motivation.

Although there were significant findings in interest/enjoyment of team sport and revenue sport athletes at this Historically Black College, it was my experience as a former collegiate two-sport athlete at a HBCU, that "The Black College Experience" in itself is enough to alter the levels of interest/enjoyment of its athletes. The Black College Experience is a phrase that has

been coined through out the HBCU system. It is also believed that individuals attend HBCUs because of the environment, the social capital, and the historical background that is offered at the university. Although there are athletes at HBCUs who may have wanted to attend just because of what the university stands for and its historical background, I believe that there are numerous athletes who did not have the opportunity to play collegiately at a PWI for an array of reasons (i.e., academically ineligible, team/university violation, or not measuring up to the ideal college athlete physique). Thus HBCUs may offer first chances and even second chances for some athletes to get an education. For example, Jerry Rice attended a HBCU because he was deemed to slow to play football at a top tier Division I school, and now he is revered as the NFL's greatest wide receiver.

Although intrinsic motivation has been found to be an integral part of sport, but when referring to HBCUs, social motivation may better assess the influences that are presented to HBCU's student athletes. Social motivation examines how others behavior impacts the way individuals think, feel, and behave (Cialdini & Trost, 1998). Included in these influences are social environments, which may impact an individual's motivation. For instance, HBCUs offer a college experience that cannot be obtained anywhere else. Both Black and White students are placed in an unfamiliar environment, Blacks are now the majority, and Whites the minority. In addition, African Americans are afforded the opportunity to see more administrators who look like them. As stated by Deci and Ryan's (1985, 1991) self-determination paradigm, the need of relatedness provides confidence because individuals feel connected to either significant others or others who come from similar backgrounds. Athletes at an HBCU share similar influences compared to everyone else at the university itself, which may reduce tension and increase enjoyment of the athletic and academic experience.

Limitations

The limitations of this study are worth noting. Although the study included a large number of participants, only one HBCU was contacted to collect data, which may not be representative of all HBCUs in the country. Additionally, the procedures of collecting data may have influenced results of the study. The researcher had only 20 minutes to inform the participants of their human rights, distribute, and collect the surveys for each of the six groups of athletes. Thus, athletes may have felt hurried or pressured to respond without much time to reflect on their feelings and experience. Also, as with most survey research, a common method bias may have been present because all data were self-reported. Moreover, some athletes may have misinterpreted or misrepresented their scholarship status, due to the different variations of resources. For example, athletes may have been on full scholarship, but only part of the scholarship dollars were from the athletic department and the remainder from academic scholarship, grants, or loans. This combination may result in feeling less controlled by the coach. Although previously noted, the university in the study was in its final year of transition to Division I, and results may be impacted if participants were full members of their selected conference and had been able to compete in a conference championship or post season play. Finally, the timing of the data collection (prior to start of classes) may have influenced the results of the study, unlike Amorose and Horn (2001) who collected data two to four weeks prior to the competitive season. The researcher was only able to collect data at the beginning of the fall term, which may not have given an accurate account of the interest/ enjoyment of spring and winter sports given that they were out of season and freshman, in particular, had not had any collegiate athletic experience.

Future Recommendations

Because this study was conducted at one university, future research should consider doing the following. Researchers should take into account that there are only four HBCU athletic conferences (i.e., SIAC, SWAC, MEAC, and CIAA) and athletes from these conferences may report different findings in regards to the present study. Also researchers should look at coaches' behavior as an influence on intrinsic motivation and social motivation for athletes at HBCUs. In addition to the current study, researchers should look at the athletes from this particular university after they have completed full transition and are full members in their conference.

Future research should also look at athletes' from HBCUs socio-economic status (SES) as an influence on preference of school. In addition to SES, social factors should also be looked at for athletic participation at HBCUs. Qualitative research should be done to look at what is enjoyable about the athletes experience at an HBCU. Lastly, due to the increased enrollment of white students at HBCUs, research should look at the enjoyment of white athletes at HBCUs.

APPENDICES

APPENDIX A

Demographic Sheet

Please do not write your name on this form. The information below will allow us to provide an accurate description of the participants in this study.

For the following items, please select the one response that is most descriptive of you or fill in the blank as appropriate.

1. Gender: ___female ___male Age: _____

2. Ethnicity:

- ___ Asian or Pacific Islander
- ___ Black/African American (non-Hispanic)
- ___ Caucasian/White
- ___ Native American
- ___ Latino/Hispanic
- ___ Puerto Rican
- ___ Others (specify): _____

3. What type of community was your high school located? (Please check one)

Urban___ Rural___ Suburban___ Inner City___

4. What is your Fall, 2010 college classification: (please check one)

- ___ Freshman
- ___ Sophomore
- ___ Junior
- ___ Senior (Including 5th year senior)

4. In high school did you live with your mother, father, or both parents: (please check one)

Mother___ Father___ Both___ Other (i.e. grandmother etc.)___

5. Please list your parent/s Occupation:

Mother's _____

Father's _____

6. Are you the first one in your family to attend college? Yes____ No____

7. Please write in your major and minor.

Major(s): _____ Minor(s): _____

8. What is your current college G.P.A: (please check one)

____ 4.0 ____ 3.9 - 3.5
____ 3.4 - 3.0 ____ 2.9 - 2.5
____ 2.4 - 2.0 ____ 1.9 > 0.0

9. Do you plan to graduate? Yes____ No____

10. What sport/s do you currently participate in at NCCU? Place one X in front of all sports for which you are currently listed on the roster. If you participate in more than one sport, indicate with a double X (XX) the sport from which you receive the greater amount of athletic aid.

____ Football	____ Baseball	____ Golf
____ Men's Basketball	____ Men's Tennis	____ Track
____ Women's Basketball	____ Women's Tennis	____ Cheerleading
____ Bowling	____ Cross Country	
____ Volleyball	____ Softball	

11. Have you transferred to NCCU from another university? Yes____ No____

12. Are you on the traveling team? Yes____ No____

If yes, circle on average how much time did you play.

All 3/4 1/2 1/4 few minutes

13. How important is your degree compared to your athletic career? (Please check one)

___My Degree is not important compared to my athletic career

___My Degree is somewhat important compared to my athletic career

___My Degree is important compared to my athletic career

___My Degree is very important compared to my athletic career

___My Degree is more important compared to my athletic career

14. Are you receiving financial aid in any form? Yes___ No ___
If yes, please check, which applies to you. If No, SKIP to Question 11.

Full athletic scholarship or equivalent (two or more partial athletic) _____

Partial Athletic Scholarship only _____

Partial Athletic and Academic Scholarship _____

Partial Athletic and Grants (NCCU or federal) _____

Academic Scholarship only _____

15. If you answered yes to question #14 in having a scholarship, please respond to whether you would still play (your sport) if you were not receiving a scholarship? Yes ___ No___ and why?

16. If you were not on scholarship, would you still attend NCCU? ___YES ___ NO
IF NO, where would you be?

17. Are you currently a starter (or a projected starter for the coming season) on the team for which you play? Yes_____ No_____

18. On the scale from 1 to 5 please circle your perceived pressures of family expectations on your educational achievements in college.

1
none

2
below average

3
average

4
above average

5
high

19. On the scale from 1 to 5 please circle your perceived pressures of family expectations on your athletic achievements in college.

1	2	3	4	5
none	below average	average	above average	high

Please answer the following question regardless of scholarship status.

20. Is an athletic scholarship important to you? Yes ____ No _____. Please explain why.

21. How much satisfaction do you feel if you play well and lose the game?

1	2	3	4	5
none	below average	average	above average	high

22. How much satisfaction does have when you win the game and play poorly?

1	2	3	4	5
none	below average	average	above average	high

23. Please rate each of the following reasons for wanting to receive a scholarship by circling the appropriate number ranging 1-4, (1=meaning not important, 2=meaning somewhat important, 3=meaning important, and 4=very important.)

To paying for school	1	2	3	4
----------------------	---	---	---	---

To leave home environment	1	2	3	4
---------------------------	---	---	---	---

To demonstrate my ability in sport	1	2	3	4
------------------------------------	---	---	---	---

To make family/friends proud	1	2	3	4
------------------------------	---	---	---	---

(1=meaning not important, 2=meaning somewhat important, 3=meaning important, and 4=very important.)

To feel good about myself	1	2	3	4
---------------------------	---	---	---	---

To develop skills to go pro	1	2	3	4
-----------------------------	---	---	---	---

To have a chance to play at the college level	1	2	3	4
---	---	---	---	---

24. Rate the amount of pressure imposed by each of the following.

(1=meaning no pressure, 2=meaning a little pressure, 3=meaning some pressure, and 4=a lot of pressure.)

Yourself	1	2	3	4
----------	---	---	---	---

Teammates	1	2	3	4
-----------	---	---	---	---

Coaches	1	2	3	4
---------	---	---	---	---

Friends/family	1	2	3	4
----------------	---	---	---	---

25. How enjoyable is practice in college compared to high school?

1	2	3	4	5
Not at All	Much less	Less	More	Much More

26. In comparing high school athletics to college athletics. Please rate whether college athletics are as much fun as you had expected?

1	2	3	4	5
Not at All	Much less	Less	More	Much More

Please answer the following questions in regards to coaching influence.

27. How often does your coach work to see if each player is working to his or her capacity?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

28. How often does your coach specify in detail what is expected of each athlete?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

29. How often does your coach ask for the opinion of the athletes on strategies for specific competitions?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

30. How often does your coach let the group set its own goals?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

31. How often does your coach not explain his/her action?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

32. How often does your coach refuse to compromise a point?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

33. How often does your coach help athletes with their personal problems?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

34. How often does your coach look out for the personal welfare of the athletes?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

35. How often does your coach express appreciation when an athlete performs well?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

36. How often does your coach compliment an athlete for his performance in front of others?

Never	Rarely	Every once in a while	Sometimes	Almost Always
1	2	3	4	5

APPENDIX B

SPORT REACTION INVENTORY

DIRECTIONS: Please read each of the statements listed below and indicate how much you personally agree with each statement by circling the appropriate response.

	Strongly Disagree	Partly Disagree	Disagree	Neutral	Agree	Partly Agree	Strongly Agree
1. I enjoy this sport very much.	1	2	3	4	5	6	7
2. I think I am pretty good at this sport.	1	2	3	4	5	6	7
3. I put a lot of effort into my sport practice sessions.	1	2	3	4	5	6	7
4. I participate in this sport because I want to.	1	2	3	4	5	6	7
5. It is important to me to do well in a competition/game setting.	1	2	3	4	5	6	7
6. I feel tense while participating in my sport.	1	2	3	4	5	6	7

	Strongly Disagree	Partly Disagree	Disagree	Neutral	Agree	Partly Agree	Strongly Agree
7. I try very hard while participating in my sport.	1	2	3	4	5	6	7
8. I would quit this sport if I could.	1	2	3	4	5	6	7
9. Participating in my sport is fun.	1	2	3	4	5	6	7
10. I would describe this sport as very interesting.	1	2	3	4	5	6	7
11. I feel pressured while participating in my sport.	1	2	3	4	5	6	7
12. Working hard in this sport is something I choose to do.	1	2	3	4	5	6	7
13. I am anxious while participating in my sport.	1	2	3	4	5	6	7
14. I don't try very hard at practicing my sport.	1	2	3	4	5	6	7

	Strongly Disagree	Partly Disagree	Disagree	Neutral	Agree	Partly Agree	Strongly Agree
15. After the practice session of my sport ends, for a while I feel pretty competent.	1	2	3	4	5	6	7
16. I am very relaxed while practicing my sport.	1	2	3	4	5	6	7
17. When my eligibility is up, I will quit this sport.	1	2	3	4	5	6	7
18. I am pretty skilled at my sport.	1	2	3	4	5	6	7
19. This sport does not hold my attention when competing or playing.	1	2	3	4	5	6	7
20. I can't play or compete in this sport very well.	1	2	3	4	5	6	7

APPENDIX C

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Title of Study: The Intrinsic and Extrinsic Motivation Factors of Scholarship and Non-Scholarship Athletes at a Historically Black College

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You are being asked to participate in a research study. Your participation in this study is voluntary. If you decide to be in this study, you will be one of approximately 260 people who will participate. Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about whether you want to participate in this research.

Background and Purpose:

The purpose of this research is to examine the levels of intrinsic motivation between scholarship and non-scholarship athletes at a Historically Black College. Intrinsic motivation refers to motivation that comes from inside an individual rather than from any external or outside rewards. The research participants for this study are being recruited from undergraduate classes at [REDACTED]. You must be 18 years of age or older to participate in this research study.

Duration and Location:

Participation in this study will occur over a one-day period on Sunday August 22, 2010, in a classroom here at [REDACTED]. Your participation will last for approximately 45 minutes to 1 hour.

Procedure:

In this study you will be asked to complete a demographic questionnaire and the Sport-Oriented Intrinsic Motivation Inventory (IMI), which measures an individual's level of intrinsic

motivation in a sport setting. The principal investigator will administer the demographic survey and IMI to a group of about 260 students.

Risks and Discomforts:

The risks and discomforts involved in this study are believed to be minimal. You may experience some discomfort in answering questions about your intrinsic motivation to play your particular sport, and breach of confidentiality is also a risk (see Privacy and Confidentiality section below), but the likelihood of any serious problem is believed to be low.

Benefits and Payment:

Research is designed to gain new knowledge that will be beneficial to society. By participating in this research, you will be contributing to society's understanding of the relationship of intrinsic motivation between scholarship and non-scholarship athletes at a Historically Black College. Also, upon completion of the questionnaire and the IMI you will be allowed to keep the complimentary Michigan State University pen or pencil.

Right to Refuse or Withdraw from the Study:

Your participation in this study is voluntary. You may refuse to participate, refuse to answer any particular questions, or may discontinue your participation at any time without penalty. The Investigator has the right to stop your participation at any time due to the participant disrupting other participants from completing the surveys or compromising the integrity of the surveys by discussing information with others.

Use of Research Results:

The data obtained in this study will assist investigators in the understanding of intrinsic motivation in scholarship and non-scholarship athletes at a Historically Black College, and will help steer future research in this area. The data may be used in publications or for teaching purposes.

Privacy and Confidentiality:

In order to protect your confidentiality, participants will be instructed NOT to put identifying information on the questionnaire and IMI. Upon completion of the questionnaire and IMI, participants will place the material in a manila folder such that the investigator will not likely be able to identify the individual responses of a given participant. Although it is very unlikely, it may be possible that someone might be able to determine your identity based upon your responses to the demographic questions. The investigators will protect your confidentiality to the maximum extent allowable by law. To ensure confidentiality, you will not be asked to sign this consent form, instead if you choose to participate; you will indicate your voluntary consent by completing and submitting the attached surveys. Completed questionnaires will be stored in a

personal file cabinet at MSU for at least three years following completion of study. Participants will not be identified in any report or publication. Only the investigators and the IRB at MSU will have access to these completed questionnaires.

Questions about the Study:

If you have any questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the investigators listed on the first page. The Institutional Review Board (IRB) at [REDACTED] has approved this study. If you have questions about your rights as a research participant, or if you have complaints or concerns about this study, you may contact the IRB Chair at IRB@[REDACTED].edu or [REDACTED]-530-6570, or the Director of Research Compliance, uhoffler@[REDACTED].edu, [REDACTED]-530-5140

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complain about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or email irb@msu.edu or regular mail at 207 Olds Hall, MSU, East Lansing, MI 48824.

You indicate your voluntary consent by completing and submitting the attached surveys to Oliver Jenkins.

APPENDIX D

Comparisons of Means and Standard Deviations of the IMI Subscales for Scholarship and Non- Scholarship Athletes.

	No- Scholarship (N=21) M (SD)	*A/H (2001) No Scholarship (N=40) M (SD)	Full- Scholarship (N=74) M (SD)	*A/H (2001) Scholarship (N=32) M (SD)	Partial- Scholarship (N=23) M (SD)
Subscales					
Interest/Enjoyment	6.00 (1.23)	5.96 (1.03)	5.91 (1.14)	5.94 (1.09)	5.80 (1.09)
<i>Exploratory Analysis</i>					
Perceived Choice	6.39 (0.84)	6.31 (0.99)	6.04 (1.03)	6.45 (0.61)	5.82 (0.87)
Perceived Competence	6.04 (0.97)	5.41 (1.05)	6.03 (0.83)	5.95 (0.73)	5.73 (0.85)
Effort/Importance	6.07 (1.25)	5.91 (1.06)	6.30 (0.93)	5.88 (1.19)	6.09 (0.97)
Pressure/Tension	5.43 (1.23)	5.00 (1.35)	5.15 (0.97)	5.05 (1.59)	5.05 (1.06)

Note: * A/H (2001)-Amorose and Horn (2001), Pre and Post Season Changes in Intrinsic Motivation of First Year College Athletes: Relationships with Coaching Behavior and Scholarship Status.

* In A/H (2001) 30 of the 32 athletes on scholarship reported on receiving a partial scholarship. A/H (2001) scholarship chart was placed in between full scholarship and partial scholarship to compare reports.

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