FACTORS THAT INFLUENCE THE ACADEMIC PERFORMANCE OF NCAA DIVISION I ATHLETES

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INTRODUCTION

Several academic and non-academic factors can influence the academic performance of National Collegiate Athletic Association (NCAA) Division I athletes. Researchers have attempted to determine what non-academic variables might help to explain the college academic performance of college athletes. The non-cognitive variables of a strong support person or role model, involvement in the community, and positive self-concept positively predicted college academic performance (Tinto, 1987; Vroom, 1964). If influential role models do not care how the college athlete performs academically, the college athlete's academics will suffer (Broadhead, 1992; Petrie & Russell, 1995; Sedlacek & Adams-Gaston, 1992; Sellers, Kuperminc & Waddell, 1991; Young & Sowa, 1992).

Previous research has suggested several factors that may significantly influence the academic performance and potential for graduation of NCAA Division I athletes (Adler & Adler, 1985; Briggs, 1996 Grimes & Chressanths, 1994; Hanford, 1974; Pascarella, Bohr, Nora & Terenzini, 1995). This study is relevant to revenue and non-revenue sports in intercollegiate athletics. A revenue sport is defined as a team sport that can generate revenue to help support itself. The two most common revenue sports are men's basketball and football, which in turn carry immense pressure for coaches to win. The less pressure to win, the more focus a coach can put on the academic well being of the college athlete. Conversely, it appears that non-revenue sports do not generate the revenue or marketing exposure, thus there is less pressure on the coaching staff to produce wins (Sperber, 1990). However, the findings in this study do support that all sports, revenue and non-revenue alike, have significant time demands and other distractions that may inhibit persistence and graduation. The intent of this study is to determine what motivates NCAA Division I college athletes academically and athletically to achieve successful academic progress and graduation from college.

An evaluation of the academic success of NCAA Division I college athletes must address predictors of academic progress and graduation for college athletes. Sub-standard graduation rates for college athletes that are below that of an institution's general student body can demonstrate the lack of academic commitment toward college athletes on part of a specific institution or the lack of academic preparation on part of the individual college athletes (McMillen, 1991). Most college athletes ultimately become disillusioned with and detached from academics. Some college athletes begin their college careers idealistically, caring about academics and intending to graduate, but graduation may not end up being the end result due to the inherent pressures of intercollegiate athletics (Adler & Adler, 1985).

STATEMENT OF PROBLEM

The phenomenon of intercollegiate athletes' academic success and probability of persistence and graduation has been a cause for concern and significant inquiry by university and intercollegiate athletic administrators (Adler & Adler, 1985; 1991; Briggs, 1996; Grimes &

Chressanths, 1994; Hanford, 1974; Pascarella, Bohr, Nora & Terenzini, 1995). This exploratory study analyzes the ongoing problem with academic integrity and NCAA Division I athletics. The study also presents results of the empirical data analysis derived from a specialized survey instrument and makes research based conclusions.

THEORETICAL BASIS FOR STUDY

This study draws on Vroom's expectancy theory on human motivation (Vroom, 1964). The theory is applied to examine the relationship and motivation of predetermined predictors for academic progress and graduation of college athletes and the effect those predictors have on the persistence and potential for graduation of Division I college athletes in a mid-major NCAA intercollegiate athletic conference.

The expectancy theory is separated into two parts of a cognitive model, which happens in three stages. The two parts are the concept of valence and the concept of force. The three-stage process of the theory of accomplishing or working toward accomplishing a goal consists of Expectancy (E), Instrumentality (I), and Valence (V). The concept of expectancy refers to the strength of a person's belief about whether or not a particular performance is attainable. In layman's terms, a person will be motivated to try a task, if he or she believes it can be done. The concept of instrumentality is a probability belief linking one outcome to another outcome. This can be applied as a high level of academic performance to graduation, better job prospects, and money; in a sense, a reward. In the concept of valance, it is assumed that that a person has preference among outcomes or states of nature. Preference is defined as a relationship between the strength of a person's desire for or attraction toward two outcomes. In other words, an outcome is positively valent when a person prefers attaining a goal to not attaining that goal. A zero valence is when the person is indifferent to attaining the goal, while it is negatively valent when he prefers not attaining the goal.

In general, college athletes overall come to college less prepared that other non-athletic students (American Institutes for Research, 1989; Sellers & Chavous, 1997; Sellers, Kuperminc, & Waddell, 1991). The expectancy theory is feasible framework for this study considering the argument of lack of desire would suggest that these differences in academic preparation are, in part, a function in differences in motivation (Sellers & Chavous, 1997). There is evidence in the research indicating that athletic participation is linked with satisfaction with the overall college experience and may also increase motivation to complete one's degree, persistence in college, and actual degree completion (Pascarella, Bohr, Nora & Terazini, 1995). The NCAA's focus on increasing and/or changing initial and continuing eligibility standards has been based on the assumption that the academic problems of college athletes are motivational in nature.

In a 1990 survey in the *Journal of Higher Education,* most college head coaches believed that a lack of motivation and interest in school is the primary reason for college athletes not graduating (Cullen, Latessa, & Byrne, 1990). The focus of recent NCAA reform movements has been toward making incoming college athletes as similar academically to the rest of the student body as possible by increasing the pre-college academic requirements for the initial eligibility of prospective college athletes (Sellers & Chavous, 1997).

The expectancy theory supports the predictors and empirical data found in the literature and previous research in that it measures how motivation, or lack thereof, may affect the expectancy of college athletes to academically progress and graduate. A college coach's emphasis on academics can significantly affect the motivation or expectancy of college athletes to graduate if the emphasis and importance of graduation is not discussed or in turn, if it is held in high importance. A coach is the most prominent role model for the college athletes

in college (Adler & Adler, 1985; 1991). If that role model does not stress academic progress and graduation, the motivation and expectancy of the college athletes to graduate may be reduced. Using specialized academic support services may increase the expectancy to graduate if the programs available are viewed as helpful or as a necessity to graduate to the college athletes. The characteristics of the specific sport played in college may also increase or decrease motivation and expectancy to graduate from college. Existing literature indicates that revenue sports are primarily focused on winning, while non-revenue sports by and large place more emphasis on academics and graduation (Lopiano, 1994; Maloney & McCormack, 1992; Purdy, Eitzen & Hufnagel, 1982; Thelin, 2000; Toma, 2003). The academic atmosphere created by the sport played can influence the desire and ability of the college athletes to graduate within time frames established by the NCAA and individual colleges and universities (Ridpath, 2002).

RESEARCH QUESTIONS

For the purposes of this study, the researchers analyze and discuss six research questions derived from the survey instrument used to obtain the data. The research questions were formulated by the grouping of specific questions from the instrument into six factors for the statistical analysis (see Tables III & IV). The survey instrument is a self-developed, 56-question survey covering many different aspects of a college athletes' academic and athletic life. The six research questions analyzed for this study are:

1. Does the influence of a college coach(es) affect the perception of the athlete on the importance of academic progress and graduation?
2. What is the perception of college athletes on the importance of academics vs. athletics?
3. What is the athletes' perception of the need for specialized academic support services?
4. Is a coach the primary reason an athlete will choose a specific college or university?
5. Does a college athlete perceive an education as the most important goal during enrollment?
6. Do coaches emphasize academics or athletics more during the recruiting process?

Question 1

Does the influence of a college coach(es) affect the perception of the athlete on the importance of academic progress and graduation?

Coaches, in particular head coaches of specific college athletic teams, can have a major impact on the academic success of the college athlete (Adler & Adler, 1985; 1991; Briggs, 1996; Petrie & Russell, 1995). A coach and/or coaches involved in the academic well-being of their college athletes and emphasizing the importance of academics can greatly increase the chance of a college athletes succeeding academically and graduating (Adler & Adler, 1985). The level of the coach's involvement and whether that coach wants his or her students to graduate, or just stay eligible to compete is an indicator as to whether a college athletes will graduate from college (Adler & Adler, 1985).

According to Adler and Adler (1991) and Briggs (1996), the goal toward which a coach rallies the athletes, and around which he/she forges their role identity until it becomes their central life interest, is extremely short term. As one ball player explained, "Coach's main goal is to keep producing quality basketball teams…His job is not to produce accountants or NBA athletes, it's to have a winning program" (Briggs, 1996, p. 412). A coach can be the strongest support person in the life of a college athlete (Petrie & Russell, 1995).

In revenue sports, coaches are typically hired and fired based on won-loss records, not for achieving high graduation rates. The pressure to succeed can deter a revenue producing sport coach from being involved in the academic success of their college athletes. However, there is evidence in the literature that these pressures exist in most if not all-intercollegiate sports (Ridpath, 2002; Sperber, 1990). Still, revenue sport coaches as a whole are likely to be excessive in their demands on the time of their athletes for athletic purposes and not for academic purposes (Purdy, Eitzen, & Hufnagel, 1982; Ridpath; Sperber, 1990).

Question 2
What is the perception of college athletes on the importance of academics vs. athletics?

Studies done over the years conclude that athletes are unprepared for and uninterested in academics and come to college primarily to advance their athletic careers rather than their future vocational careers; therefore, they have lower grade point averages, higher attrition rates, and lower chances of graduating that other students (Adler & Adler, 1985; Cross, 1973; Edwards, 1984; Harrison, 1976; Nyquist, 1979; Purdy et. al., 1982; Sack & Thiel, 1979). For many years, colleges and universities turned away from academic requirements to allow under-prepared students who are blessed with athletic ability on campus just to participate in athletics while academics became a forgotten entity (Sperber, 1990).

Due to the high pressure put on coaches in revenue sports to win games, often the focus on academics becomes less (Adler & Adler, 1985; 1991; Briggs, 1996; Broadhead, 1992; Purdy, 1981). Many college athletes have been counseled by coaches to major in eligibility (Purdy, 1981), thus giving the perception that athletic endeavors supersede academic requirements and progress. These athletes are shuttled by their coaches into “professor friendly” classes and easy majors so academics will not interfere with their athletic responsibilities. If coaches are threatened with their employment, an unintended consequence may be the athletic success of the team will almost always take priority over the academic success of the college athlete (Bowen & Levin, 2003; Schulman & Bowen, 2001; Sperber, 1990). A college athlete’s academic performance is significantly affected by coaches’ intervention in their academic lives (Adler & Adler, 1985; 1991).

Several former college athletes at California State universities and colleges claimed that coaches advised them to enroll in courses like physical education courses to protect their athletic eligibility. In some cases, students were instructed to re-enroll in courses they have already passed and coaches became upset when players took courses that were required for graduation instead of courses that helped maintain eligibility (Broadhead, 1992). Revenue sport college athletes often take a downgraded curriculum at the insistence of their coaches and designed specifically for them. This practice significantly reduces the educational value of their time in college (Adelman, 1990; Adler & Adler, 1991; Briggs, 1996; Purdy, 1981).

College athletes, mostly in revenue sports, will often decide in favor of athletics when a conflict exists with academics (Adler & Adler, 1991) to please their coaches who possess the power to decide who starts in games and who is put on scholarship (Simons, Van Rheenen & Covington, 1999). In non-revenue sports, coaches typically do not put much pressure on non-revenue athletes to perform. Since winning in revenue sports appears to have a larger monetary effect, it is believable that those athletes are forced by coaches to accept a more severe tradeoff between academic performances relative to athletic achievements (Maloney & McCormick, 1992; Toma, 2003).

Question 3
What is the Athletes' Perception of the need for Specialized Academic Support Services for College Athletes?

Virtually all institutions in NCAA Division I athletics provide an array of advisors, tutors, and mentors to help athletes learn how to balance the demands of the classroom and the playing field (Naughton, 1996; Suggs, 1999a & b). Effective models of college athletes support programs share several essential components to meet the aforementioned special needs (Carodine, Almond, & Gratto, 2001). College athletes at virtually all NCAA institutions receive specialized compensatory academic assistance (Naughton, 1996).

Services available are usually in the form of a dedicated academic service center solely for use by the athletes at the institution. These centers are sometimes located within athletic departments, and offer equipment and services that in many cases are superior to what the institution offers the rest of the student body. The administrative oversight, while mostly performed by the athletic department, can fall under an academic entity. Many recent academic scandals have prompted more universities to bring all academic advising for college athletes under the control of an outside academic department to insure better administrative oversight (Suggs, 1999a). Many higher education administrators believe that it is less likely for academic integrity to be questioned if a college athlete's academic center reports to an academic department (Suggs, 1999a; 1999b).

Figler and Figler (1984) indicated that, in addition to personal and career counseling, academic advisors and counselors for athletes provide eligibility monitoring, course selection, assessment of skills deficiencies, tutorial assistance, study hall, etc. The goal is to assist all college athletes in the department with their academic, athletic, and social development (Reyes, 1997; Stier, 1992). Specifically, the ideal program should include academic support, career counseling, and personal development for college athletes. Services provided for college athletes by institutions have assisted the college athletes in balancing these three areas of their college experience (Carodine, Almond, & Grotto, 2001; Reyes). Some studies argue that although some college athletes had poor academic records in high school, they have higher GPAs, lower attrition rates, and a greater likelihood of graduating than non-athletes because they receive extra tutoring and more specialized academic attention (Henschen & Fry, 1984; Michener, 1976; Shapiro, 1984).

These centers provide, in addition to academic counseling, a counselor-to-student ratio much higher than for the general student body, as they provide tutoring, advance scheduling, drug and alcohol counseling, study and academic skill sessions, and life skills classes (Naughton, 1996). Critics of these types of arrangements argue that the necessity of these support services suggest many athletes, especially those in football and men's basketball would not succeed without an inordinate amount of help. Those who support special services for college athletes say all college students in general need these programs and athletic academic assistance programs are available for other students throughout campus (Naughton). These services are more concentrated in athletics, with the main reason being because the college athlete's time is so limited due to complex demands that result from participating in competitive sport (Naughton, 1996).

Increased compensatory academic assistance for college athletes has been cited as a reason, along with better pre-college preparation, for increased graduation rates for college athletes since 1991 (Benson, 1997a & b). Fred Strook, a former president of the National Association of Academic Advisors for Athletes, attributed the relative success of college athletes in the classroom to an increased commitment to academics at Division I institutions. He also believed

that most college athletes have a lower academic profile than the typical student, but in the last 15 years almost every Division I school has put in athletic academic programs in academic counseling, tutoring, mentoring, and programs in career and life skills to assist in providing the opportunity for an athlete to be successful athletically and academically (Naughton, 1996). Surveys done by the NCAA since 1991 show that the increased initial eligibility standards combined with a long list of academic services for Division I athletes have contributed to the overall increase in the graduation rates of college athletes (Benson, 1997a; 1997b).

Question 4
Is a coach the primary reason an athlete will choose a specific college or university?

Adler and Adler (1985; 1991) found that the varied sets of educational and life goals with which players entered college rapidly shrank to the single goal of winning games by a process called "role engulfment." They noted many factors contributed to this narrowing of aspirations, but found that the coach was the main influence in intentionally orchestrating the process of role engulfment away from academics in order to obtain the extreme loyalty from players in order to meet high performance athletic goals. Coaches can be an intended or unintended source of intense reinforcement for the role of a winning athlete but a lack of reinforcement for the academic role (Briggs, 1996).

Researchers have attempted to determine what non-academic variables might help to explain the college academic performance of student athletes. The non-cognitive variables of a strong support person, involvement in the community, and positive self-concept positively predicted college academic performance. If influential role models do not care how the student athlete performs academically, the student athlete's academics will suffer (Broadhead, 1992; Petrie & Russell, 1995; Sedlacek & Adams-Gaston, 1992; Young & Sowa, 1992). If a prospective athlete is recruited, their main identification with the university is most likely with the coach since he/she is the person they come into contact with most often during the pre-college process (Ridpath, 2002).

Question 5
Does a College Athlete perceive an education as the most important goal during enrollment?

Many researchers (Ervin, Saunders, Gillis, & Hogrebe, 1985; Kennedy & Dimick, 1987; Petrie & Russell, 1995; Watt & Moore, 2001; Young & Sowa, 1992) have suggested that college athletes face a unique set of challenges that they are not ready to meet without assistance. In turn, these challenges may turn an athlete away from academics as a priority. College athletes are a diverse special population because of their roles on campus, their atypical lifestyles, and their special needs (Ferrante, Etzel, & Lantz, 1996).

Many prospective college athletes, who meet NCAA Clearinghouse standards for competitive eligibility, still do not meet admission standards for a particular university. This sub-group may be admitted to a university under a special exception and typically may need specialized academic services available only to college athletes to attain graduation (Benson, 1997). Most Division I universities offer admission exceptions to get athletes into school, even if the college athletes is under prepared and not ready for the academic rigors of college work. With the exception of true scholar athletes, academic averages and test scores of recruited athletes are well below those of students admitted into the general student body (Greene & Greene, 2001).

The sheer competitive nature of athletics and the desire to get the best athletes can persuade coaches to look for the best athletes and not those that are academically oriented, thus that priority can be transferred to the athlete (Zimbalist, 2001). Looking for loopholes in admission requirements to get non-qualified athletes admitted happens regularly at institutions of higher learning (Blum, 1994; Naughton, 1996; Sperber 1990). Scenarios such as these can amplify that athletic prowess and not academic ability are more important, thus leading the athlete to perceive athletics as more important (Ridpath, 2002; Sperber, 1990).

Prospective college athletes have almost twice the chance of being accepted to the college of their dreams, although this dream may be based solely on their athletic skills and a persuasive coach (Greene & Greene, 2001). Several college admissions directors advocate the opportunity given to all students in college and the risk that goes with admitting any student who does not meet the institutional requirements. They also weigh that opportunity with the risk and the reward of knowing not all will succeed (Blum, 1994). These efforts by decision makers in campus administration can clearly set the standard of what is the priority for incoming college athletes (Sperber, 1990).

Even with college athletes meeting initial academic standards and getting admitted, practice, competition, and the rigors of academic and athletic life in college can also present difficult challenges for even the academically gifted college athletes and make athletics a greater emphasis than academics (Naughton, 1996; Sperber, 1990). College athletes at the intercollegiate level must abide by an abundance of NCAA rules, be treated as any other student, and, in general, receive the same benefits that are available to the institution's students or their relatives or friends (NCAA, 2001). The reality is that college athletes are treated differently from the rest of the student body at most higher education institutions so that the level of competition will not abate, but often at the expense of academic integrity.

Question 6
Do coaches emphasize academics more than athletics during the recruiting process?

College athletes are selected and recruited by coaches. These same coaches work with them and get to know them well while they are enrolled in college. If a college athletes runs into personal or academic trouble, coaches are usually nearby, ready and motivated to help. In helping to advance their own careers, the coaches must recruit good athletic material and then guide these students through successful academic and athletic careers. This corresponds with the literature in that most coaches do sell the academic importance of college and graduation to prospective college athletes during recruiting but then that emphasis significantly reduces, primarily in revenue sports (Maloney & McCormick, 1992; Ridpath, 2002).

The goal of academic progress appears to change to one of eligibility maintenance solely for competitive eligibility when a revenue sports prospect, and to a lesser extent, non-revenue prospects enroll in college (Adler & Adler, 1985; Sperber, 1990). This can be attributed that due to the high pressure that revenue sports coaches are put under to win games and fill stadiums, the focus on academics becomes less and less (Adler & Adler, 1985; 1991; Briggs, 1996; Broadhead, 1992; Purdy, 1981).

METHODOLOGY

INSTRUMENTATION

The instrument for this study was a self developed questionnaire containing 56 questions to ascertain factors that are potentially motivating predictors of academic progress and graduation from college according to existing literature and empirical data. The instrument is divided into

three sections of demographic information, general issues which cover perceptions of academics and influence of coaches, and the extent of use/importance of specialized academic support services for college athletes. The specific issues covered in the survey are: (a) influence of coach(es) on college choice, (b) coach's emphasis on academics during recruiting, (c) coach's emphasis on academics after enrollment, (d) frequency of use of specialized academic support services for athletes, (e) athletes' perception of the need for specialized academic support services (f) academic influence of athletic academic advisors, (g) institutional priority of competitive eligibility versus academics and graduation, (h) athletes' perception of the importance of academics and graduation versus athletics success, (i) athletes' perception of the influence of college coach on academics v. athletics, and (j) athletes' perception of the importance of academics v. athletics. The instrument contained a Likert scale consisting of three items (agree, neutral, disagree). The instrument also contains numerous exploratory and descriptive items such as gender, ethnicity, and year in college, based on previous research, related studies, and related instruments (Adler & Adler, 1985; American Institutes for Research Study of Intercollegiate Athletics, 1981; Briggs, 1996; Grimes & Chressanths, 1994; Hanford, 1974; Pascarella, Bohr, Nora & Terenzini, 1995).

To minimize issues of content validity, the self-reported survey instrument was developed through an extensive review of past and present literature, surveys, and questionnaires; approved by a jury of experts; and trial tested through a pilot test of a like population. Of particular value to the development of the instrument were the American Institutes for Research Study of Intercollegiate Athletics (1981), The Reports of the Knight Commission on the Conduct of Intercollegiate Athletics (1991; 1993; 2001), and NCAA Research Reports 91-04 (1991), 92-02 (1993), 96-02 (1997), 97-02 (1997), 97-04 (1999). While many instruments exist that possess similar goals in obtaining data, a more specific, self-developed instrument, tailored for the researchers was desired for this particular study. Previous research (Kuh, 2001; Umbach, Palmer, Kuh & Hannah, 2004) has shown that self-reports are likely to be valid if (1) the information requested is known to the respondents, (2) the questions are phrased clearly and unambiguously, (3) the questions refer to recent activities, (4) the respondents think the questions merit a serious and thoughtful response, and (5) answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways (Kuh, 2001; Umbach et al., 2004). This particular survey instrument meets these standards for self-reported data.

VALIDITY

The nature of this study dictates the type and level of validity issues that require some level of justification. This research study attempts to overcome areas of concern relative to face validity and content validity in relation to predictors of graduation for NCAA Division I college athletes described in the literature. Concerns relating to face validity in this study arise from the choice of the predictors of college athlete's graduation. The college athlete's predictors of graduation and descriptive data are clearly recognized in the literature as predictors of college athlete's graduation. Some literature indicates that these predictors also apply for populations of non-college athletes with regard to graduation from college (Adler & Adler, 1985; 1991; Benson, 1991; 1994; 1997a; 1997b; Purdy, et. al., 1982; Richards, Hollands, & Lutz, 1966; Summers, 1991).

The survey instrument was presented to a jury of experts (Table I) for professional review and assessment. The jury of experts conducted a readability analysis and approved the questionnaire for use in the data collection. These individuals were in the best position to critique and assess the potential of the instrument due to their knowledge of the subject, knowledge of research methods, and experience in higher education administration.

The survey was also trial tested through a pilot study with a like population to determine if any modifications need to be made. The survey was given to several college athletes at a selected Mid American Conference institution who were not in the population selected for the study. The researchers selected junior, by NCAA competitive eligibility standards, college athletes (N = 20) to complete the instrument. This group was chosen because of its similarities to the sample frame and it presented an acceptable cross section of ethnicity, gender, sport played, and academic profile. The purpose of the pilot study was to determine if the data gathered presented an accurate assessment of the answers (Johnson & Christensen, 2000). It is the assessment of the researchers that the pilot study validated the instrument as acceptable for this particular study and for further research into this topic. No reliability analysis was conducted on the pilot study data because initially the statistical analysis was not intended to be a factor analysis. However, after further review, it was determined that a factor analysis would be the best statistical measurement for this particular study.

DATA COLLECTION PROCEDURE

Data were obtained from college athletes at the 13 schools in the Mid-American Conference. The Mid-American Conference, headquartered in Cleveland, Ohio, was established in 1946 as a five-team league. It is the sixth oldest and fourth largest intercollegiate athletic conference in the NCAA. There are currently 13 member institutions split into an Eastern and Western division with a total student enrollment of more than 275,000, including more that 5200 college athletes competing in 23 sports (Hazel, 2001). Many of these institutions are listed on the same Southern Regional Educational Board (SREB) peer institution survey. Some institutions may not be peers by SREB standards, but the Mid-American Conference institutions are peers athletically due to competitive equity, number of sports sponsored, athletic budgets, academic profile of prospective college athletes, and many other areas. Like others in mid-major conferences, these institutions are more likely than The Bowl Championship Series (BCS) conferences to admit academic at-risk college athletes. The Mid-American Conference is one of the few Division I-A conferences that allow admission of college athletes not academically eligible for competition during the initial year of enrollment (non-qualifiers, commonly referred to as “Prop 48’s” in deference to the original NCAA legislative proposal that created the new standards), and admission exceptions for those college athletes who do not meet established institutional academic standards and are considered at risk academically (Messer & Cherry, 2000). Table 2 presents a breakdown of what sports are represented in the survey population. The surveyed population also represents full scholarship athletes, partial scholarship athletes, and walk-on athletes

Academic at-risk college athletes are defined as those who do not meet the requirements for initial athletic eligibility as freshman (NCAA, 2002; Ridpath, 2002). The NCAA Initial Eligibility Clearinghouse reviews and issues initial eligibility decisions based on NCAA standards. The two categories of academic at-risk athlete are non-qualifier and partial qualifier. Non-qualifier means a prospective college athlete may not practice, compete, or receive an athletic scholarship during their freshman year due to not meeting the required academic standards. Partial qualifier means they meet the requirements for practice and athletic aid, but still cannot compete during the freshman year[1] (NCAA).

[1] The NCAA has recently adopted a full sliding scale in determining initial eligibility. This evaluation of core course GPA and entrance exam score has officially ended the designation of Partial Qualifier. Other recent changes include allowing a non qualifier who graduates in four years an additional year of eligibility, and allowing athletes with a certified learning disability special considerations in regaining the lost year of competitive eligibility.

Non-BCS conferences, like the Mid-American Conference, are more likely to admit academic at risk college athletes because the top-tier conferences have first choice of the prospective college athletes who do meet the standards (Messer & Cherry, 2000). The remaining college athletes may be many who were not admitted to the BCS schools due to academic deficiencies. Typically, the mid-major conferences will take the chance of admitting academic at-risk college athletes on the basis of athletic accomplishments and potential so that they may be better equipped to compete, especially in the revenue sports (Messer & Cherry, 2000). Due to this phenomenon, college athletes in a mid-major conference, like the Mid-American Conference, can present a diverse population along the academic spectrum to adequately assess the characteristics for graduation of Division I college athletes (Ridpath, 2002).

POPULATION CHARACTERISTICS

The survey instrument was distributed to senior class athletes, as determined by eligibility status, at the 13 Mid-American Conference schools during the 2001-02 academic year. The population for this study included undergraduate college athletes in their senior year of NCAA eligibility, or in their fifth year of enrollment after expiration of their eligibility (N = 1238). For purposes of this population, a senior athlete might not have been a senior academically, but was competing in the last year of competitive NCAA eligibility. College athletes at NCAA Division I institutions are allowed four years of competitive eligibility within five years of enrollment (NCAA, 2001). A fifth year college athlete is still enrolled at the institution and has not yet graduated, but has exhausted the four allowable years of NCAA competitive eligibility.

At the time the survey instrument was administered, all members of the population had yet to graduate from college. The factors are assessed on the expectancy and predictability of graduation within a maximum of one academic year from the administration date of the survey instrument, based on analysis of responses completed on the survey and the percentage of degree completed by each individual. Percentage of degree completed is used as an NCAA standard to determine academic, not athletic standing of a particular college athlete (NCAA, 2001). For example, to be classified as a senior athlete by NCAA eligibility standards in 2001, a college athlete must have completed 75% of their major degree requirements and only have one year of remaining competitive eligibility (NCAA, 2001). These standards will change to an 80% rule during academic year 2005-06 (NCAA, 2005).

The study used a proportional stratified sample of the population to complete the survey instrument. In proportional stratified sampling, the proportions in the sample on the stratification variable will be perfectly or almost perfectly representative of the proportions on that same stratification variable in the population (Hinkle, Weirsma & Jurs, 1998; Johnson & Christensen, 2000). The study examined 25% of the selected population (n = 310), and then a random set of computer-generated numbers was used to select the individuals who received the survey instrument. For example, one particular university represented 173 students in the total population, or 14%. For the purposes of this study, using proportional stratified sampling, the institution received 44 surveys to distribute to selected college athletes to meet their specific proportion.

DATA ANALYSIS

In keeping with the model of exploratory descriptive research, it was determined to conduct principal components analysis (PCA) using orthogonal rotation (varimax) for factor analysis, PCA is a method for exploratory factor analysis, and varimax rotation aims to produce as few items loading high on a factor as possible, resulting in a parsimonious and highly interpretable solution. Both the Bartlett's test for sphericity (2175.59 with significance level of 0.000) and Kaiser-Meyer-Olkin (KMO) measure of sampling adequancy (.636) justified the appropriateness of using factor analysis for this study. A total of 43 items were used for the factor analysis. The

remaining items on the questionnaire were not relevant to this specific analysis. Unrestricted PCA delivered 15 factors with eigenvalues exceeding 1. However, only 6 out of 15 factors with alpha higher than .60. The six factors and constituting items are presented in Table 4. Eigenvalues, percent of variance per factor, cumulative percentage factor loadings, and Cronbach alphas are presented as well. It can be observed that all factor loadings are higher than .4, indicating high significance (Tabachnick & Fidell, 1989) The quality of the research instrument (internal consistency) is evidenced by high Cronbach alphas ranging from .64 to 79. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient, but lower thresholds are sometimes used in the literature.

In developing a factor analysis, it is important to note that the questions are structured to yield perceptions of the athlete with regards to the affect of different variables on the dependant variable of graduation from college. The survey questions are broken down into the areas of college coach's emphasis on academics, the extent of the use of specialized academic support services, sport played in college, ethnicity, gender, ACT/SAT score, High school core course (college preparatory) grade point average, and current college grade point average. To create the factors from the data, the questions were grouped according to the survey questions that exhibited an alpha of .60 or higher (See Table 4).

Data were analyzed using SPSS version 11.1. The results of this study were gleaned by analyzing the factors to ascertain if significantly affects on the dependant variable, academic progress (GPA) and graduation from college, in all sports surveyed. Then, all of the factors were analyzed to determine which factors are significant in the academic progress and potential for graduation of revenues sport athletes v. non-revenue sport athletes.

RESULTS

The answers on the survey instrument provided some interesting insight into perceptions and motivations for academic success and graduation. The sample population contained 191 athletes in 27 sports. Fifty-nine of the athletes surveyed represented almost one third of the sample (n = 59). 90 females and 101 males participated. Of that, 39 were African American, 143 Caucasian, and 9 from other ethnic backgrounds. All participants were in their last year of competitive NCAA eligibility and were represented class-standing wise by 26 juniors, 153 seniors, and 12 graduate students.

It is interesting to see that females consistently displayed higher performance on the academic indicators of ACT score, SAT score, core course GPA, and current college GPA as the sample on Table III demonstrates. The contrasts here are important given the specific conference surveyed. None of the female sports in the Mid-American Conference are considered revenue sports, in fact only football and men's basketball meet that criteria. It can be inferred that female athletes, at least in the MAC, personally view academics as more important than athletics and/or coaches of these teams view academic persistence and graduation as important. It was consistent that the revenue sports performed worse on the specific academic indicators than female and other non-revenue sports. This is consistent with the literature in that it appears academics suffer at the higher levels of competition.

The main end result is the factors present interesting areas that may be explored through future research to provide more comprehensive, valid results, along with exploring a larger sample using more athletic conferences or the NCAA as a whole. Typically six factors would be considered too many in empirical research, however in exploratory research the number of factors is not limited to allow modification and changes through future research and instrument development (Johnson & Christensen, 2000).

Regarding factor 1 (coach's influence on the perception of the athlete with regard to academics and athletics), the answers convey there is no significant difference between revenue sport athletes and non-revenue athletes in their perception of the influence of a college coach on academics after enrollment. This finding differs from the literature in that previous research implies that coaches are the most influential in the academic progress of a college athlete specifically in revenue sports. The results of this study suggest that individual motivation and others outside of the coaching staff have more influence, at least in the area of grade point average and the findings here present further potential areas of research.

Concerning factor 2 (the perception of the athlete as to the importance of academics v. athletics), previous research indicates that many athletes in revenue sports will focus on athletic, rather than academic endeavors. The answers for this study conflict with that data. Over 70% (n = 132) of the participants in all sports responded that they regarded themselves as a serious student and academics, not athletics, are their first priority. Only 26% (n = 49) of the respondents in revenue sports said they chose their institution for athletic advancement and not for an education.

Results of the survey confirmed the trends in the literature of revenue sport athletes needing and using specialized academic support services as compared to those in non-revenue sports in factor 3. This was especially acute in ethnic minority male revenue sport athletes. Over two-thirds of the ethnic minority male athletes surveyed stated they needed these services to progress academically and potentially graduate. There is also a significant difference by gender with male athletes using these services more than female athletes.

Factor 4 covered the personal goal of the athlete with regard to academics and graduation. Almost all of the respondents stated that achieving academically and graduating was of major importance to them. Since the surveyed sample was within one year of graduation the answer ratio can be attributed to this. However, while many alluded to the importance of coach's involvement and support, the benefit of tailored academic services, many of the respondents added that academic progress and graduation were an individual responsibility and they alone must have the motivation to accomplish the goal.

The changes in emphasizing academics versus eligibility during recruitment with regard to the direct influence of the coach in Factors 5 and 6 were also found in this study with athletes from the Mid-American Conference. While overall, almost 50% of the college athletes (revenue and non-revenue sports) in the Mid-American Conference said their coaches maintained the priority emphasis on academics and not athletics during recruitment (n = 85), only 31% (n = 18) of men's basketball and football athletes believed that their coach was more interested in them graduating from college than their competitive eligibility after enrollment. Overall only 10% (n = 19) of the respondents stated that the coach was a primary factor in choosing which institution to attend.

DISCUSSION

Previous research indicated that the influence and academic philosophy of the coaching staff is one of the most significant factors in predicting academic success and potential for graduation of a college athlete (Cullen, Latessa & Byrne, 1990; Ridpath, 2002). This study does not support that premise, instead giving individual goals and motivation along with the influence of others outside the coaching staff, specifically athletic academic advisors higher importance, at least in the perception of the athlete. The literature implies that a coach(es) is more of an influence for revenue sports, but this study and this particular population put more significance on individual motivation and desires along with the influence of athletic academic advisors. Athletes in

revenue and non-revenue sports were given the opportunity to comment on the contents of the survey and their own personal feelings and experiences in college athletics.

The results validated Vroom's Expectancy Theory in that overall, most of the responses and individual written commentaries referred to individual responsibility and motivation, not relying on someone else to motivate them or insure academic progress and graduation. Since student motivation for all college students in general is considered to be a determining factor in academic performance, persistence, and graduation (Geiger & Cooper, 1996), the results from this study confirmed the importance of individual wants, needs, and desires. The following is a sample of qualitative responses from some of the respondents that lend validity to the theory and effect of individual motivation and quantitative findings:

QUOTES:

Female, Track and Field
"I have been very lucky to have a coach that really encourages academic success, but I know many people who have not been that lucky."

Female, Volleyball
"The academic services at my university have been excellent. My coach has put the correct emphasis on both academics and athletics."

Female, Soccer
"I feel that coaches do not put academics before athletics during the season."

Male, Football
"Being a college athlete has been a great challenge for me and is an experience that will prepare me for the rest of my life. I realized quickly that academics are of the utmost importance if I am to achieve the things I desire in life."

The results of this study can be used by university and college athletic administrators to improve academic support services, philosophies of athletes and coaches, and priorities within the mission of the university. This study shows that many college athletes want an education and are putting the responsibility of getting an education on their own shoulders. However, the importance of all involved in the academic/athletic process (coaches, administrators, academic advisors, and athletes) must recognize that while individual motivation has proven to be paramount in this study, the influence and priorities set by others still are very important and can influence whether a college athlete persists and graduates from college.

SUGGESTIONS FOR FUTURE RESEARCH

There are several implications that can be derived from this study for coaches and intercollegiate athletic administrators. As stated in the literature and previous research, academic achievement of and the graduation of intercollegiate college athletes is of significant concern to those in charge with running intercollegiate athletic programs (Adler & Adler, 1985; Briggs, 1996; Grimes & Chressanths, 1994; Hanford, 1974; Pascarella, Bohr, Nora & Terenzini, 1995). This study attempted to confirm or refute existing literature and previous research on a certain characteristic that may enhance or inhibit graduation from college for an NCAA Division I college athletes.

The researchers believe that this study validated some of the data presented in the literature with some interesting revelations. The implications of this study apply primarily and are limited to only the Mid-American Conference, but the results can be generalized to college athletes in

other conferences since the data presented in this study show that the affect of the perception of coach (es) involvement in the academic life is important, but the perception is not as significant as individual goals and motivation, as per Vroom's theory. However, when grouped together with a factor analysis, the populations in this study revealed that individual motivation to succeed academically and direct involvement of athletic academic advisors have a greater impact on potential than influence of a coach. Still many of the respondents confirmed that a coach is an important force toward them achieving academically. Further research will include additional development and validity enhancement of the instrument, updating the existing literature, and more reliable and valid statistical analysis that contains fewer factors for analysis.

The results of this study can assist intercollegiate athletic administrators in designing and applying programs and strategies to enhance the academic progress and graduation rates of NCAA Division I college athletes. The graduation rates of intercollegiate athletes at a particular institution have long been used as a measurement of the academic emphasis concerning intercollegiate athletics. These findings suggest that college presidents, athletic directors, coaches, and other higher education administrators must be aware of factors concerning coaches involvement, individual athletes motivations and goals, and positive or negative influences of athletic academic advisors that can improve the academic achievement and graduation rate of college athletes. Most notably, higher education institutions must be courageous enough to admit only prospective college athletes who are capable of academically succeeding while in turn realizing the power that administrators and coaches have over that success. Future research could include a qualitative study of several athletes, academic at-risk and others, which consists of analyzing them through several years of enrollment to better assess the factors and predictors in revenue and non-revenue sports. It is important to expand the body of knowledge on this topic considering the future changes regarding intercollegiate athletic eligibility that are forthcoming.

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TABLE 1

Jury of Experts for Review of Survey Instrument

Michelle Duncan, Director of the Buck Harless Student Athlete Program, Marshall University.

Karen Kirtley, Director of Auxiliary Operations, Marshall University

Paul Leary, Ed.D., Professor, Leadership Studies, Marshall University

Robin Walton, Associate Professor, College of Nursing and Health Professions, Marshall University

Rhonda Shepherd, Director of the Testing and Tutoring Center, Mountain State University, Beckley, West Virginia

Jim Hodge, Math Faculty, Mountain State University, Beckley, West Virginia

Doug Sturgeon, Director of Student Teaching, Rio Grande College, Gallipolis, Ohio

Darrell Taylor, Director of Upward Bound, Concord College, Concord, West Virginia

TABLE 2

Frequency Statistics on Completion of Survey by Sport

Sport	Frequency	Percentage
Football	48	25.1
Men's Basketball	11	5.8
Women's Basketball	6	3.1
Baseball	16	8.4
Men's Volleyball	3	1.6
Women's Volleyball	12	6.3
Track and Field M&W includes Indoor /Outdoor/Cross Country	22	11.5
Men’s Wrestling	3	1.6
Tennis (M&W)	6	3.1
Swimming (M&W)	15	7.9
Soccer (M&W)	15	7.9
Men’s Ice Hockey	4	2.1

TABLE 2 (CONTINUED)

Frequency Statistics on Completion of Survey by Sport

Sport	Frequency	Percentage
Women's Field Hockey	2	1.0
Women's Softball	15	7.6
Women's Gymnastics	6	3.1
Golf (M&W)	2	1.0
Women's Lacrosse	2	1.0
Total	191	100.0

TABLE 3

Descriptive Statistics on Contrasts Between Selected Sports, Male and Female.

Main Sport		ACT Test Score	SAT Test Score	Core Course GPA	Current College GPA
Football	Mean	20.87	1022.11	3.016	2.809
	N	31	19	44	47
	Std. Deviation	3.085	112.821	.5570	.4973
Men's Basketball	Mean	21.33	1140.00	3.230	2.936
	N	6	1	10	11
	Std. Deviation	4.367	.	.5982	.6313
Women's Basketball	Mean	21.67	990.00	3.100	2.883
	N	3	1	6	6
	Std. Deviation	2.309	.	.4382	.4401
Synchronized Skating Female	Mean	26.00	1220.00	3.650	3.067
	N	3	1	2	3
	Std. Deviation	2.646	.	.2121	.1155
Field Hockey Female	Mean	28.00	1230.00	3.500	3.250
	N	1	2	2	2
	Std. Deviation	.	42.426	.4243	.4950

TABLE 4

Factor, Constituting Items (Factor Loading)	Eigenvalue Explained per Factor	Variance Explained	Cumulative alpha	Cronbach
Factor 1. Does the Influence of a college coach(es) affect the perception of the athlete on the importance of academic progress and graduation? 1. I feel I have control over my academic and athletic life (.428) 2. It is important to me for my coach to encourage and require good performance in class (.446) 3. During college, my coaches placed academic success above athletic success (.634) 4. My coach stresses the importance of getting a college degree (.649) 5. I believe my coach will be interested in my academic success when my eligibility expires (.656) 6. My coach cares that I succeed academically and graduate (.785) 7. It is important to my coach for me to graduate (.783)	**4.962**	**11.54**	**11.54**	**.79**
Factor 2. What is the perception of the athlete on the importance of academics v. athletics? 8. When I entered college, getting a degree was more important than being a professional (.594) 9. I spend at least 10 hours studying per week (.663) 10. Academics are my top priority in college (.632) 11. I chose this school to meet my academic goals (.698)	**3.390**	**7.88**	**19.42**	**.64**
Factor 3. What is the athletes' perception of the need for specialized academic support services? 12. I use special academic support services for college athletes on a regular basis (.414) 13. I could not graduate without having used these services (.838) 14. I use these services voluntarily (.454) 15. I do not need these services to graduate (.777)	**2.602**	**6.05**	**25.47**	**.64**
Factor 4. Is the coach the primary reason an athlete chooses a specific college? 16. I chose this school because of the coach (.755) 17. My coach is the person who has the most academic influence on me (.704)	**2.092**	**4.87**	**30.34**	**.68**
Factor 5. Does the athlete perceive education as the most important goal during enrollment? 18. It is of great importance to me to get a college degree (.902) 19. I feel academics are important and a degree is needed for me to be a success (.879)	**1.900**	**4.42**	**34.76**	**.78**
Factor 6. Do coaches emphasize academics or athletics during the recruiting process? 20. My coach emphasized academics more than athletics during the recruiting process (.805) 21. The coach made it clear to me about academics being more important than athletics during the recruiting process (.799)	**1.759**	**4.09**	**38.85**	**.78**

TABLE 5

Number of Athletes Represented per Factor

Factor	N	Mean	Std. Dev
Factor 1	191	1.38	.37
Factor 2	189	1.63	.45
Factor 3	189	1.99	.56
Factor 4	190	2.28	.65
Factor 5	191	1.05	.25
Factor 6	185	1.54	.57