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An Investigation of the Relationship Between
Academic and Athletic Satisfaction
Among Division IA Student-Athletes

A Doctoral Dissertation
Presented for the
Doctor of Philosophy Degree
The University of Tennessee, Knoxville

James Joseph Phillips
August, 2007

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DEDICATION

This dissertation is dedicated to my beautiful wife, Laura, my wonderful children, Luke James, Madeline Margaret, Meredith Anne, and John Patrick, and my loving parents, John Phillips, Anita Phillips (deceased), Jim Hayes, and Regina Hayes.

Laura, please know that the completion of this dissertation is as much of a reflection of you as it is on anyone. Thank you for your constant support, encouragement, patience, understanding, and most importantly, love throughout this process. Very directly, you are absolutely the best thing that has ever happened to me!

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Words will never adequately express my deep love and affection for each of you. God has certainly blessed me! I LOVE YOU ALL VERY MUCH!!!!

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ABSTRACT

The purpose of this study was to examine the relationship between academic and athletic satisfaction for Division IA intercollegiate athletes. Student-athletes ($n = 367$; 16 teams) at a Division IA university in the Midwest completed the Athlete Satisfaction Questionnaire (ASQ) and the Student Satisfaction Inventory (SSI), in addition to a demographic survey. The data was analyzed using a variety of analytical procedures including descriptive statistics, bivariate correlation, and hierarchical regression in order to answer the research questions guiding this study:

1. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?
2. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic satisfaction controlling for differences by: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed?
3. What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

There was a statistically significant relationship between academic and athletic satisfaction ($p < .01$), even after controlling for the intervening variables. This finding suggests that academic satisfaction is a powerful predictor of athletic satisfaction.

Two controlling variables were found to be significant predictors of athletic satisfaction: gender and games missed. One additional variable approached the level of significance, leadership style of coach. Females were less satisfied with their athletic experiences than males; the more games student-athletes missed, the lower the levels of satisfaction with their athletic experience; and preference for greater student-athlete input and direction in decision making (leadership style of coach) related to higher levels of athletic satisfaction.

Based on the findings of the study, it is reasonable to conclude that student-athletes' satisfaction with their athletic experience is intimately related to their satisfaction with their academic experiences. Indeed, their academic satisfaction is predictive of their athletic satisfaction.

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CHAPTER I

Introduction and Purpose

Background and Context

The collegiate experience presents students with opportunities as well as challenges. Opportunities are provided to develop intellectual and social skills both in and out of the classroom. Challenges exist such as maintaining previous relationships and developing new relationships. For student-athletes, their collegiate experience requires great commitment to the development of their physical sport skills in addition to their academic and social skills. Thus, it has been suggested that the dual roles student-athletes assume during college, as students and athletes, offer unique challenges as they seek to balance these roles.

Addressing the well-being of today's intercollegiate student-athletes has become a priority for many intercollegiate athletic departments in the United States. Further, the increasing emphasis on the academic development of athletes underscores the importance of monitoring student-athletes' progress academically, socially and athletically. Such an agenda offers obvious benefits to student-athletes but presents sizeable challenges to athletics department staff members charged with guiding these young men and women during their collegiate career. Specifically, these challenges require looking beyond win-loss records and performance statistics in order to provide a more comprehensive understanding of the student-athlete experience that includes both their non-sport educational experiences as well as their sport-related experiences. One important aspect

of this wider concern involves assessing student-athletes' perceptions of their expectations and satisfaction with their collegiate experience.

Student-athlete satisfaction is an issue which is coming into focus for athletics administrators as well as coaches. Look no further than the recent trend where more and more intercollegiate athletics departments are hiring sport psychologists, academic advisors, career counselors, and nutritionists. All in all, the goal or primary focus remains trying to provide the necessary resources and staff to support every area that affects overall student-athlete satisfaction (academically, socially and athletically). Case in point, in January 2005, the National Collegiate Athletics Association (NCAA) hosted a convention focusing on colleges and universities dealing with student-athlete satisfaction, welfare, and mental health.

In many cases, student-athletes are seen as "having it all" - athletic success, academic success, popularity and high satisfaction with their experiences. However, participation and observable success does not necessarily make a student-athlete immune to the same stress and demands (i.e., missing friends, family, and high school teachers; living away from home for the first time; having a roommate, etc.) that the general student population faces during college. In 2004, Mary Wilfert, NCAA Assistant Director of Education Outreach suggested that, "Athletes have satisfaction/welfare issues the same as everyone else. This needs to be attended to with the same resources we give to physical or sport issues" (NCAA News, 2004).

Universities as well as colleges at a variety of levels are beginning to give athletic and academic satisfaction much-needed attention. Both Boston University and the University of Oklahoma recently announced that a sport psychology services unit had

been created for their student-athletes. The Director of Athletics at Boston University, Mike Lynch, indicated that the additional services now available will deal specifically with satisfaction issues involving anxiety, stress, performance enhancement, depression, and other areas related to the overall well-being of each student-athlete. In the end, these types of services assist teams, coaches, and administrators with the increasing challenges of handling issues that student-athletes face on a daily basis and which directly impact their level of overall satisfaction academically and athletically.

Several schools around the country (i.e., University of Notre Dame, University of Tennessee, Kent State University and Northern Illinois University) have created additional academic advising and career counseling positions to support their student-athletes' academic goals and aspirations. Overall, it is perceived to be the responsibility of each athletics department to provide the necessary resources to support each student-athlete's academic, social, and athletic goals.

Sport psychology researchers have long been interested in the psychological consequences of sport participation. The work of Chelladurai and colleagues identified athlete satisfaction as one of several key outcomes of sport participation (Chelladurai, 1978; Chelladurai & Riemer, 1997; Riemer & Chelladurai, 1995; Riemer & Chelladurai, 1998). Chelladurai and Riemer (1997) proposed a definition of athlete satisfaction that reflected athletes as the beneficiary of their sport experience rather than as producers of the sport experience. Specifically, they defined satisfaction in sport as a "positive affective state resulting from an evaluation of the processes and outcomes associated with the athletic experience" (p. 135). Following this conceptualization of satisfaction, much of the empirical work focused on satisfaction as an outcome of the coach-athlete

relationship. Further, several investigations focused on examining the discrepancy between athlete preferences for coaching behaviors and coaches' actual behaviors. Sport researchers expanded on the initial examination of satisfaction as an outcome of the coach-athlete relationship to include the examination of several individual and contextual variables. For example, research has examined satisfaction with athletic training services, as well as the individual satisfaction associated with role clarity, goal orientation and ethnic diversity associated with collegiate sport participation (Bruening, Armstrong, & Pastore, 2005; Eys, Carron, Bray, & Beauchamp; Unruh, Unruh, Moorman, & Seshadri, 2005).

While there has been a good deal of research on athlete satisfaction with their sport experience, there has been little to no research about their satisfaction with their academic experience or with the link between their academic and athletic satisfaction. Such research is needed to be able to serve student-athletes effectively.

There are numerous individual and contextual factors that influence student-athletes' experiences within a collegiate setting. From an individual perspective it is acknowledged that student-athletes enter their collegiate experience with a set of personality traits, a previous history of academic pursuits, as well as familial backgrounds that will most likely influence their interpretation of their collegiate sport experience (Chelladurai & Riemer, 1997). Further, student satisfaction is a critical outcome variable related to other variables (Benjamin & Hollings, 1997) including, and most notably, academic achievement (Bean & Bradley, 1986), learning and development (Pike, 1993), and attrition (Koeske & Koeske, 1991). In addition, student satisfaction was thought to be multi-dimensional and deeply dependent on the clarity of the student's goals prior to

starting the academic journey. Also, student satisfaction has been linked to student persistence and achievement (Bean & Bradley, 1986). In summary, student satisfaction remains accepted in research as a paramount factor in the evaluation of the collegiate educational experience.

Finally, research on student-athlete satisfaction has focused almost exclusively on the outcomes of sport participation (Riemer & Chelladurai, 1998). Although the construct of athlete satisfaction has been of much interest to researchers and athletics administrators, very few studies have addressed the underlying standards and processes that determine whether an athlete perceives his or her entire experience, academic as well as athletic, to be satisfying.

Statement of the Problem

To date, athlete satisfaction has been investigated solely as an outcome of sport-related experience. Yet, research on student satisfaction and even limited research on student-athlete satisfaction suggests that student-athlete satisfaction may be a more complex phenomenon than currently conceptualized and that sport participation may not be the sole factor in determining athletes' satisfaction with their collegiate experience. What is missing from the literature is an examination of the relationship between athletes' satisfaction with their athletic experience and their academic experience.

It remains unclear whether satisfaction is solely an outcome variable or whether it may also be a predictor variable. More specifically, does academic success of a student-athlete affect in a positive manner their sport experience? Does attaining a higher grade point average influence athletes to rate their sport season as more satisfying? In contrast, does lack of attainment of their sport goals decrease athletes' perceptions of satisfaction

with their educational experiences? How do student-based experiences such as campus climate and present friendships, living situations, relationships with teachers, academic performance, and social experiences on or off campus affect the satisfaction of student-athletes? These and similar questions remain unanswered. To this end, this research sought to bring a broader perspective to the study of student-athlete satisfaction by considering the relationship that may exist between their academic and athletic experiences.

Purpose of the Study

The purpose of this study is to examine the relationship between academic and athletic satisfaction for Division IA intercollegiate athletes.

Research Questions

1. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?
2. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic satisfaction controlling for differences by: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed?
3. What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

Theoretical Framework

Creating as well as testing theoretical models encourages rigor in design, shapes the data collection and analysis, and is a key to the interpretation of results (Benjamin & Hollings, 1997). Satisfaction is widely regarded as a key outcome of higher education (Astin, 1977, 1993b; Sanders & Chan, 1996); thus, theoretical frameworks which have been used to examine the collegiate athletic experience provide a potentially fruitful approach to examining satisfaction with the academic and athletic experience. Research on athlete satisfaction has rested largely on the job satisfaction literature (Balzer, Smith, Kravitz, Lovell, Paul, Reilly, & Reilly, 1990; Dawis & Lofquist, 1984; Rice, McFarlin & Bennett, 1989), and on principles of consumer theory, also referred to as occupational satisfaction (Betz, Starr, & Menne, 1972).

Principles of occupational satisfaction guided the original student satisfaction literature as well as the original athlete satisfaction literature (Bean, 1982; Betz, Starr & Menne, 1972). A satisfied student, conceptualized as a consumer of education, was thought to persist in the educational setting. Furthermore, occupational satisfaction theory informed the vast amount of literature produced on student retention in higher education (Bean, 1982; Terenzini & Pascarella, 1977; Tinto, 1987).

In the athletic realm, sport researchers defined and investigated satisfaction from a closely related theoretical framework – that of job satisfaction. Based on the definition of job satisfaction used by several scholars (Balzer et al., 1990; Dawis & Lofquist, 1984; Rice, McFarlin & Bennett, 1989), Chelladurai and Riemer (1997) defined athlete satisfaction as “...a positive affective state resulting from a complex evaluation of the structures, processes, and outcomes associated with the athletic experience” (p. 135). To

examine student-athlete satisfaction, Riemer and Chelladurai (1995) used occupational satisfaction theory to look at student-athletes' perceptions of satisfaction with their sport experience, conceptualizing it as analogous to an employee's perception of satisfaction (Betz, Starr, & Menne, 1972). Similar to employees, student-athletes must interact effectively with their academic and sport or athletic environments to remain productive and satisfied group members. Likewise, the academic and athletic environment must meet the student-athletes' needs as well as reward them for their efforts (Pennington, Zvonkovic, & Wilson, 1989).

In consonance with the extant literature, occupational satisfaction theory informed and guided this study. Further, this investigation influenced the questions asked, the design of the study, and the analysis and interpretation of the findings.

Significance of the Study

A considerable amount of information exists linking athlete satisfaction to sport participation. However, there is a lack of information about the relationship between student-athletes' satisfaction with their academic experiences and their athletic experiences. It is hoped that this study adds to the existing body of knowledge by providing information not currently available about this dimension of the student-athlete collegiate experience. Further, it allows for determining discrepancies between perceptions of satisfaction and the importance of various facets of student and athlete satisfaction as well as determining what is satisfying about one's sport and non-sport educational experiences. Lastly, it is hoped that this study expands our knowledge of student-athlete satisfaction by incorporating important demographic variables that reveal

whether satisfaction and importance ratings vary across selected demographic variables (i.e., race, gender, grade point average, year in school, etc.).

This information is not only important to the field of sport psychology, but is absolutely critical to athletic directors, college administrators, coaches, faculty, staff, etc., who may benefit from the knowledge that comes from this study. By discovering the key factors that influence student-athlete satisfaction, universities and colleges may be able to dramatically enhance their ability to deliver a world-class experience that allows for success academically, athletically and socially to each and every student-athlete.

Limitations of the Study

The limitations of the study should be noted. The sample was drawn from a single institution in the Midwest and consists of student-athletes who participated only in varsity team sports. Hence, the ability to generalize to other institutions and student-athletes is limited. Additionally, the cross-sectional design of the study limits the interpretation of the results because the survey represents a single point in time.

Further, while every precaution was taken to ensure that the study was conducted in a way to minimize any effect, the researcher may have influenced the study and the voluntary participation of the participants due to the fact that he is also the Director of Intercollegiate Athletics at the institution.

Delimitations of the Study

The current study is delimited in several ways. This study investigated student-athlete perceptions at a single Division IA collegiate university. Thus, the findings speak to this particular institution and may not reflect student-athlete perceptions at other

Division IA institutions. Further, the findings cannot be generalized to athletes competing at different levels (i.e., Division II, III, or NAIA).

Organization of the Study

The study is presented in five chapters. The first chapter provided an introduction to the study, explained the rationale behind the study, states the problem and purpose of the study, identifies the research questions and theoretical framework, describes the significance of the study, and clarifies the limitations and delimitations of the study. The second chapter contains a critical review of the literature relevant to the study including an extensive review of both the athlete and student satisfaction literature as well as the instruments used to assess student satisfaction that have led to the identification of a gap in the measurement of student-athlete satisfaction. The third chapter provides a detailed description of the methods and procedures that were used in the conduct of the study including the research design, site and population, instrumentation, data collection procedures and analysis. The findings of the study are presented in the fourth chapter, while the concluding chapter provides a review of the study, summary and conclusion of the findings, discussion of the findings, conclusions of the study, and recommendations for further study.

Definitions

Team Outcomes

Achievement may relate to personal performance and/or team performance. Chelladurai and Riemer (1997) provided the following detailed definitions of their facets (pp.141-149):

Task Outcomes

Team Performance. The outcome measure of performance in athletics is winning: winning championships, winning the most number of games, and even winning against traditional rivals.

Team Goal Attainment. Goal attainment can be measured when teams and their coaches set goals for the season such as winning a certain number or percentage of games, statistical goals, and/or containing opponent scoring.

Team Performance Improvement. Satisfaction can stem from improvements such as overall win/loss percentage, standings in the league, and/or perceptions of improvement in performance.

Team Maturity. This facet of satisfaction refers to the growth and development of the team members in terms of health, fitness, ability, mastery of skills, and strategies of the sport.

Group Integration. This facet refers to group dynamics shaped by the following: (a) a focus on the group's purposes and processes, (b) understanding and acceptance of strategies and tactics, (c) recognition and respect for each other's strengths and contributions toward the group purposes and, (d) a collective determination to put forth the best efforts toward that end (p. 147).

Social Outcomes

Interpersonal Harmony. This facet refers to the degree to which members of the team get along well as a group and provide social support to each other.

Individual Outcomes

Task Outcomes

Personal Performance. Each team member will develop perceptions about their own performance and as a result, this will have an individual impact on their perceptions of satisfaction. For example, athletes often reflect on whether they have improved. Dissatisfaction may stem from their perception of a lack of improvement.

Personal Goal Attainment. Athletes may set individual performance goals by themselves or with coaches or teammates. Irrespective of how these goals were set, satisfaction with the extent to which these goals were met is important to feeling satisfied.

Personal Performance Improvement. Another significant facet of satisfaction in athletics relates to improvements in personal performance over the season or from year to year.

Personal Growth. Whereas satisfaction with performance may be restricted to physical execution of skills of a sport, personal growth refers to psychological and mental growth.

Personal Immersion. This facet refers to the extent to which the athlete is satisfied with personal involvement in their particular sport; the feeling of being immersed in the sport. Such feelings are often called being in the zone or flow.

Belongingness. The sense of belonging to a group and being accepted by the group is a source of satisfaction. The significance of belonging to an athletic team must come from the prestige, status, and special privileges associated with being on an athletic team.

Friendship. Satisfaction may also be linked to the success of making friends within the team structure. Lacking this opportunity may result in dissatisfaction.

Social Role. For some, the importance of having a social role on the team may provide a source of satisfaction. Having an opportunity to socialize would dictate the outcome.

Processes

Processes are strategies used to move toward a desired outcome. However, the processes may not be perfectly related to outcomes due to process losses and external factors such as luck, officials' calls, and opponent's superior performances (Corneya & Chelladurai, 1991). From the athlete's perspective, the internal processes may be significant sources of satisfaction irrespective of the outcomes. For example, an athlete might feel they played well but lost a particular game due to poor officiating.

Team Processes

Task Processes

The task processes are those designed to make the team as effective as possible. They relate to strategy selection, mobilization, practice sessions, competition tactics, equitable treatment, decision participation, ethics, team effort and coordination, adequacy of facilities and equipment, budget, ancillary support, and community support.

Strategy Selection. The success of sport teams rests largely on the competitive choices made by the coach that can influence athletes' satisfaction depending on whether they agree or disagree with the selection.

Mobilization. Mobilization refers to the extent talented athletes are recruited as members of the team.

Deployment. Deployment is the effectiveness of the coach in using the available talent to achieve success in athletic competitions. Individual athletes may evaluate positively or negatively the extent to which a coach combines their talents within the team.

Practice. Athletes spent long hours on practice relative to time spent in competition (Chelladurai & Saleh, 1978). To the extent to which athletes perceive these sessions to be inappropriate or ineffective, they are likely to be dissatisfied.

Competition Tactics. The success of a team is largely determined by the specific strategies used by the coach during competitions.

Equitable Treatment. The extent to which an athlete feels they are treated fairly in comparison with other team members. These are subjective evaluations which affect levels of satisfaction.

Ethics. Recruiting violations, use of ergogenic aids and/or pain killing drugs, anabolic steroids, adopting unsportsmanlike tactics, cheating, and excessive violence are some of the elements of this debate. Athletes may react in various ways toward these issues when they relate to their own team.

Team Effort and Coordination. This particular facet refers to the extent to which an athlete perceives his or her teammates to be putting forth their best efforts for the success of the team.

Facilities/Equipment. The success of a team and the satisfying experiences of athletes also depend on the extent to which athletic staff members lend support to the team. This is often explicit in the facilities and equipment provided to the team.

Budget. Reflects satisfaction with the total team budget. Overall, what is being spent on a particular team.

Ancillary Support. Ancillary support may be in the form of medical support, academic and psychological counseling, as well as game management.

Community Support. Although the community (including students, faculty/staff and community at large/fans) is never directly involved in the affairs of the team, they have a significant bearing on how well the team does through their implicit and explicit support for the team. It is also true that a community may be indifferent to the efforts of a particular team or group of athletes. Even worse is the possibility that the community may express overtly its displeasure with a team or coaching staff. These factors may affect satisfaction of athletes.

Social Processes

Decision Participation. This facet refers to the extent to which the coach engages the athletes in decision making relevant to the team and its performance.

Loyalty Support. This facet refers to an athlete's satisfaction with the loyalty demonstrated by the coach and/or administration toward the team as a whole.

Individual Oriented Processes

Task Processes.

This set of facets focuses on what happens to athletes as individuals in an attempt to gain success. Specifically, athletes react to what the coach actually does, both

to the team as a collective unit as well as to them as individuals within the entire team.

Ability Utilization. This particular facet is concerned with how the coach uses the abilities of an individual athlete. Specifically, an individual athlete may be concerned with how well his or her own abilities are used, which in turn, affects their perception of satisfaction.

Training/Instruction. The extent to which the coach engages in training and instruction would be a significant predictor of satisfaction of athletes.

Positive Feedback. This is a key predictor of student-athlete satisfaction. Positive feedback may be given in both practice and game situations.

Personal Inputs. This refers to the satisfaction an athlete has with the effort he or she has put forth during practice sessions and competitions. It may include satisfaction with physical and/or mental/psychological effort as well as emotional effort.

Team Contribution. The team members, collectively or as individuals, may serve to train and instruct the individual athlete, offer the positive feedback, and help the athlete understand how his or her effort fits in with the rest of the team's efforts. All of these actions are collectively termed as team contribution toward the individual athlete (p. 133).

Recognition. Whether the athlete is satisfied with the recognition that he or she received from the coach, teammates, and others with respect to what he or she brings to the task processes is the key determinant question.

Financial Support. This facet is analogous to pay satisfaction scales that are present in most job satisfaction scales.

Family Support. An athlete may or may not be satisfied with the amount of family support he or she receives for their involvement in an athletic endeavor.

Social Processes

Social Support. Generally, social support describes the comfort, assistance, and/or information one receives through formal or informal contacts with individuals or groups.

Loyalty Support. This facet refers to one's satisfaction with the level of loyalty the coach and/or teammates demonstrate toward the athlete as an individual.

CHAPTER II

Review of the Literature

The purpose of this study is to examine the relationship between academic and athletic satisfaction for Division IA intercollegiate athletes. A critical review of the research and literature related to the study is presented in this chapter. The chapter is organized in terms of two primary topics: research and literature on student satisfaction and research and literature on athlete satisfaction. In addition, this chapter is completed with a brief summary of what we know about academic as well as athletic satisfaction and what we still need to discover.

Research and Literature on Student Satisfaction

Student satisfaction is a critical element of any comprehensive institutional assessment plan. Satisfaction assessment allows institutions to strategically and tactically target areas in need of immediate attention as well as garner positive feedback in places where expectations are being met. Further, it facilitates the fundamental principle of listening to your most important constituent – the students. With student-athletes, satisfaction with their academic experience bears some relationship with what we know about the satisfaction of the general student population.

Stemming from consumer theory, issues of retention and recruitment within institutions of higher education require attention to meeting the expectations of the student population (Elliot & Healy, 2001). Satisfaction measures have become the common indicator of college students' expectations of their educational experiences. Student satisfaction has proven to be a consistent predictor of educational outcomes such as persistence, attrition, and achievement; and institutional characteristics such as size,

location and degree programs influence students' satisfaction ratings (Cabrera, Nora, & Castaneda, 1993). As in the sport-related literature, satisfaction has been examined not only as a predictor variable but as an outcome variable as well. To this point, general student education satisfaction has been examined as an outcome of various pre-entrance student characteristics such as SAT scores, gender, and mental health. Further, satisfaction has been studied as an outcome of the educational experiences during the college career. For example, involvement in extracurricular activities, grades and positive relationships with peers as well as faculty have been consistently linked to college student satisfaction (Pennington, Zvonkovic, & Wilson, 1989; Tinto, 1987).

Both academic and social strategies used to integrate into a campus setting have been examined to determine satisfaction. Specifically, Markus and Wurf (1987) examined the effects of both students' motives to study and socialization tactics on their academic achievement and satisfaction. Socialization was defined as the process by which students learn the campus culture and become a member of that campus. The congruence between one's motives to study and one's socialization tactics is grounded in the self-consistency theory referring to the desire to have congruence between one's identity and role behaviors (Markus & Wurf, 1987). In relation to satisfaction, students' socialization tactics explained about 10% of variance in their academic achievement. Further, students' motives to study were positively related to the socialization tactics they used to integrate into the university setting. The authors contended that congruence between motives to study and socialization tactics are crucial in understanding students' learning experiences at the university. The motives and tactics suggest that: a) participants' motives to study affected the type of socialization tactics they chose; and,

b) tactics adopted by students were not selected randomly but corresponded to students' motives to study. The contribution of this research demonstrates the importance of understanding socialization tactics and motives to study in relation to students' academic achievement and satisfaction (Markus & Wurf, 1987).

Overall, if students are able to attain their goals and act consistently with these motives, they are more likely to gain satisfaction. Interestingly in athletics, it is not uncommon to find athletes -- particularly in certain sports -- highly motivated to achieve in their sport. It remains unclear how important the pursuit of their academic goals is in relation to satisfaction. Further, the development of socialization strategies may not be individually driven or a priority with the athlete population. Moreover, there are consequences to not achieving certain academic standards. What is not known is how athletes integrate themselves into the larger campus community and how satisfaction with their campus experiences is related to satisfaction with their athletic experiences. Markus and Wurf (1987) concluded that the findings regarding their experiences raise an important question about the role of university administrative and academic staff in assisting students to adjust, survive, and succeed in their college lives.

In a study by Pennington, Zvonkovic, and Wilson (1989), the researchers sought to answer the question whether college satisfaction changes over the course of an academic term and what factors are associated with college satisfaction. The participants were undergraduate students enrolled in introductory classes in Human Development and Family Studies at a large university. One hundred eighty ($n = 180$) respondents completed the modified College Student Satisfaction Questionnaire (CSSQ) as a measure of student satisfaction (Betz, Menne, Starr, & Klingensmith, 1971).

The CSSQ measures dimensions relating to quality of education, working conditions, compensation of results compared to time spent on academics, social goals met, and the recognition one receives for academic efforts. Satisfaction scores were lowest in the mid-term with an increase in overall satisfaction toward the end of the term. Relating these findings to an athlete's perceptions of his/her athletic experience might translate to expecting that student-athletes might start with high satisfaction, have the lowest satisfaction in the middle of their season, and then end with a higher overall satisfaction rating. However, in athletics, the outcome of a season may be a stronger predictor of overall student-athlete satisfaction.

The study by Pennington et al. (1989) used several student characteristics as predictor variables of overall satisfaction scores. Findings revealed that students who were more involved in their college environment were more satisfied than those with less involvement. Specifically, individuals with Greek affiliations were more satisfied than non-Greeks. This finding about the importance of social membership in college suggests it may be an important predictor of satisfaction. Astin's foundational work, *What Matters In College* (1993b), supports this theory. The researchers also found that a student's place of residence was related to college satisfaction. The study indicated that students living in a Greek house were more satisfied than students in a residence hall or in their own housing. In addition, they found that men were significantly more satisfied with college than were women. Students with higher GPA's were more satisfied than those with lower GPA's and students in dating relationships were more satisfied with college social life than those who were not. The findings also revealed that students' employment status and weekly work hours were related to college satisfaction. Specifically, students who

worked 11-20 hours a week were most satisfied with their college experiences, followed next by students who did not work at all (Pennington et al., 1989).

In relation to sport, student-athletes participate in their sport a maximum of 20 hours a week. They also have a built-in social system in the form of their team. Exceeding 20 hours of practice is not only an NCAA violation; it could create a feeling among athletes that their sport is a “job”, and, thus, influence their satisfaction with the sport experience. Understanding the effects of the time commitment on student-athletes’ satisfaction with both sport and school may provide important information. It appears from Pennington et al. (1989) that those students who are more involved in their college environment will be more satisfied with their college experience than those who are less involved in their college environment.

However, there are also time periods in a semester where students are naturally more stressed and less satisfied. Understanding the dynamics of these time fluctuations is an important consideration when examining changes in satisfaction across academic terms. The study by Pennington et al. (1989) provided evidence of factors which have an influence on students’ satisfaction with their college experience. What is not known, however, is whether these same factors would predict satisfaction among college student-athletes. Furthermore, it would be important to determine the similarities and differences between student-athletes and non-student-athletes in terms of fluctuations in satisfaction as well as determinants of belongingness.

The relationship between perceived learning and satisfaction with college from an alternate view was researched by Pike (1993). This study evaluated two competing models of perceived learning and satisfaction. The first theoretical model represented a

true relationship between learning and satisfaction while the second theoretical model treated the relationship as an artifact of a “halo effect.” The first model represents the assumption that the observed relationship between perceived learning and satisfaction is true. The second model depicts the alternative of the relationship between satisfaction and perceived learning.

Data came from subjects who completed learning and satisfaction questions as seniors and again two years after graduation (Pike, 1993). The setting for this research was at the University of Tennessee, Knoxville. In 1988, all seniors completing the general education testing requirement were administered a survey designed to elicit information about perceptions of their college experience, satisfaction with college as well as learning and development during college. Two years later, in 1990, the same subjects were mailed an alumni survey containing items from the senior survey. The response rate for the senior survey was essentially 100% (foreign students were excluded), while the response rate for the alumni survey was a little greater than 50%. Specifically, complete data was obtained for 989 individuals.

Data from this study were derived from responses to 15 questions, common to both the senior and alumni surveys. Previous research found that these questions represent five dimensions: (a) satisfaction (three questions); (b) verbal skills (three questions); (c) quantitative skills (three questions); (d) personal development (four questions); and (e) arts and humanities (two questions) (Pike, 1990, 1991a, 1992a). In both surveys, subjects were asked to indicate their satisfaction with their academic, social, and overall experiences. Response options were as follows: “very dissatisfied,” “dissatisfied,” “satisfied,” and “very satisfied.” Further, in responding to the learning and

development items, subjects were asked to indicate the degree to which their education at the University of Tennessee-Knoxville added to their skills in the areas represented by the 12 learning and development questions. Three response options were provided: “very little,” “somewhat,” and “very much” (Pike, 1993).

In summary, according to Pike (1993), it is impossible to unequivocally support either of the competing two models. Although the goodness-of-fit indices revealed that the “halo effect” model provided the best fit to the data, the model did not produce a better explanation of the variance in observed manners. In addition, neither did the “halo effect” model produce higher correlations between the same unique variables measured at two points in time. Despite these findings, the results of this study indicate that the “halo effect” model is at least as good an explanation of the correlations among satisfaction and dimensions of learning and development as is assuming that the correlations represent a true relationship among the variables. Finally, the clear conclusion to emerge from this study is that researchers and assessment practitioners should exercise care in interpreting relationships among self-reports of learning and development during college, especially as they relate to satisfaction in college (Pike, 1993).

A number of institutions participate in the College Student Survey (CSS) which is administered by the Higher Education Research Institute and consider the CSS as allowing for one of the most comprehensive assessments of the student experience (Astin, 1993). The instrument is part of the Cooperative Institutional Research Program, the nation’s largest ongoing study of the American higher education system, with longitudinal data covering more than “8,000,000 students and 1,300 institutions” (Astin,

1993, p. 64). The CSS is stratified by institutional race (i.e., historically African-American and predominantly Caucasian), type of institution (i.e., two-year and four-year), control (i.e., public and private), and selectivity (i.e., SAT/ACT scores). The survey asks a multitude of questions about student satisfaction in and out of the classroom. To this end, factor analyses of the 27 CSS satisfaction items produce five satisfaction factors: (a) curriculum and instruction; (b) individual support services; (c) student life; (d) relationships with faculty; and (e) campus facilities (Astin, 1993). Further, these factors are used in subsequent analyses as separate intermediate outcomes using a multiple stepwise regression technique. The purpose is to identify student input characteristics as well as college environment variables that predict student satisfaction.

Another instrument in trying to predict student satisfaction is the Input-Environment-Outcome (I-E-O) model developed by Astin (1993). According to this model, student satisfaction is defined as an intermediate college outcome that can be predicted from student input characteristics as well as college environment factors. According to Astin (1993), applying the I-E-O model to a study on college student satisfaction uncovered that academic preparation and emotional health variables including a student's SAT scores, intellectual self-esteem, socioeconomic status, high school grades, and gender were positive predictors of satisfaction in college.

With regard to the environmental variables, Astin (1993) indicated that satisfaction with most aspects of the college experience was facilitated by students living on campus with an emphasis on diversity, interacting with teacher-oriented faculty (as opposed to research-oriented faculty), trusting the administration, feeling a sense of community, and attending college some distance from home. Overall, the

researcher concluded that students' degree of satisfaction with college was "much less dependent on entering characteristics than other outcomes and more susceptible to influence from college environment" (Astin, 1993, p. 277). In addition, Astin's I-E-O model of student satisfaction research has been used in single-institution studies such as in Meredith (1985).

Pre-college concerns are often an indicator of prospective college students' perceptions of their new transition and ultimately of satisfaction during the first few years. McGrath and Braunstein (1997) examined late adolescents' pre-college concerns about losing existing relationships and making new relationships. In their study, 70 first-year college students (52 female, 18 male) completed a paper-and-pencil questionnaire designed to measure a variety of prospective college students' concerns, focusing specifically on relationships. On average, respondents experienced moderate relational concerns before coming to college. Ten weeks into the first semester, new college students, on average, had moderate self-esteem and high friendship satisfaction. In sum, McGrath and Braunstein (1997) concluded that it was interesting that the major focus of college transition research has been academic adjustment even though research has shown that for many college students the social adjustment may be more important.

In order to address the need for theory-building in the satisfaction literature, Benjamin and Hollings (1995) examined the efficacy of using a "quality of life approach" as a comprehensive theory of satisfaction. Specifically, they conducted an exploratory study of senior undergraduate students to determine whether or not an ecological approach was beneficial, as well, to assess the usefulness of their questionnaire, the Quality of Student Life (QSL). Quality of student life was defined in terms of life

satisfaction (e.g., “All things considered, how satisfied are you with the way the academic side of your life is going?”) and campus satisfaction, which asked students about their satisfaction with common university experiences.

According to Benjamin and Hollings (1995), most studies of student satisfaction are limited by their utilitarian character. The Quality of Student Life (QSL) model moves toward a coherent theory of satisfaction, based on an ecological perspective. Stemming from a multidisciplinary review (Benjamin, 1994) and pre-testing with two groups of 12 undergraduate students, the questionnaire measure (QSL) was constructed involving 72 mostly Likert-type items. The items came from versions of five standardized instruments: (a) FACES III (Olson, 1986) - a 20-item instrument involving two major dimensions of cohesion and adaptability with good reliability; (b) Sense of Coherence Questionnaire (Antonovsky, 1998) - a 13-item instrument involving the three major dimensions of comprehensibility, meaningfulness, and manageability with good reliability; (c) Major Life Events Checklist (Dohrenwend, Raphael, Schwartz, Stueve, & Skodol, 1993) - a 27-item checklist used to measure major sources of life stress; (d) Daily Hassles Checklist (Kanner, Coyne, Schaefer, & Lazarus, 1981) - a 33-item checklist of irritating daily events; and (e) Daily Uplifts Checklist (Kanner et al., 1981) - a 37-item checklist of enjoyable daily events (Benjamin & Hollings, 1995). Overall, the reliability of this study can certainly be questioned due to the very small sample size of only 24 undergraduate students who participated in this study. Moving forward, a much larger sample size of undergraduate students is recommended.

In March of 1994, five faculty members at the University of Guelph (Ontario, Canada) distributed the QSL questionnaire to their classes to be completed anonymously

during class or at home. Of the 521 questionnaires distributed, usable replies were received from 266 students (Benjamin & Hollings, 1995). Descriptive findings were divided into two parts concerned with satisfaction and context: (a) satisfaction – satisfaction scores across a range of variables indicated that satisfaction varied widely across respondents and that they were more likely to be satisfied in social areas than in academic ones; and (b) context – in assessing student satisfaction, it is easy to lose sight of the fact that satisfaction always occurs in some context involving personal, interpersonal, and academic components. In summary, given the relationship between student satisfaction, academic success, and retention, it makes good sense for an institution to approach student satisfaction as an end in itself. However, at this stage in the Quality of Student Life development, the researchers concluded that the instrument is in need of further testing in the area of reliability as well as validity.

In a follow-up study, Benjamin and Hollings (1997) studied student satisfaction by using the Ecological Model of Student Satisfaction (EMSS) created by Benjamin (1994). In this particular model, Benjamin conceptualized student experiences as multileveled and, thus, subject to multiple influences both on and off campus. This model distinguished between four classes of factors, all distributed on a hypothetical timeline. Thus, conditioning factors were thought to affect independent factors. Independent factors were thought to affect student satisfaction (the quality of student life) in two ways - directly and indirectly - via their effect on a range of mediating factors. Further, in some cases, the direction of effect was thought to be linear and unidirectional, whereas in other cases, it was thought to be nonlinear and bidirectional (Benjamin & Hollings, 1997). The complexity of this model supported a large number of hypotheses. To this point, the six

hypotheses which stood at the center of the current study included the following:

satisfaction will be directly related to (a) positive social relationships; (b) positive self-image; (c) positive living arrangements; (d) inversely to negative life events; (e) inversely to cognitive discrepancies; and (f) indirectly and positively to academic achievement (Benjamin & Hollings, 1997).

In order to have a meaningful test of this type of ecological model of student satisfaction, a sample size exceeding 2,000 is required. A number of institutions in Canada and the United States were contacted in an effort to secure the necessary participants. In total, seven small- to medium-sized institutions participated in this study (four in Canada and three in the United States). Random samples were drawn, stratified on gender, year of study, on/off campus residence, and degree program. Sampling proportions varied between 20% and 35%, depending on institutional size. In April 1995, 6,940 questionnaires were distributed, yielding 2,307 usable responses. The majority of the respondents were female (60%), 19 to 21 years of age (62%), and unmarried (92%) (Benjamin & Hollings, 1997). Selection of items included in the instrument, the Quality of Student Life questionnaire (QSL), was based on the ecological model. The instrument comprised a total of 67 questions as well as a handful of open-ended questions. Divided into 12 topic areas, question formats varied from “yes” or “no” questions to questions involving a five- to seven-item range.

The results of the study varied in terms of gender. For example, obvious results were that social relationships, which were central to females, were much less important to males. Whereas females indicated that academic involvement was tied to close relationships, males indicated that they were more likely linked to program certainty.

Program certainty among males was linked to skills assessment, while among females, it was directly linked to close relationships (Benjamin & Hollings, 1997). The findings provided support for this study's hypotheses. As expected, social relationships and self-evaluation played a direct and central role in student satisfaction. Moreover, the findings support four general conclusions: (a) student life satisfaction is shaped primarily by behavioral factors; (b) campus satisfaction may have less to do with where the students live than the conditions of their living arrangements; (c) females and males make sense of their experiences in different ways; and (d) student satisfaction is a multidimensional, complexly-determined phenomenon (Benjamin & Hollings, 1997).

An instrument for measuring students' perceptions of gains made during college is the College Student Experiences Questionnaire (CSEQ) (Pace, 1998). This questionnaire asks the participant how she/he spends her/his time in college – with faculty and friends, in classes, social and cultural activities, extracurricular activities, employment, and the use of campus facilities. As is the case in a majority of questionnaires, the usefulness depends a great deal on the thoughtfulness of those respondents who are asked to complete this document.

Pace (1998) conducted a study of more than 25,000 undergraduates from 74 institutions using the CSEQ between 1983 and 1986. Factor analysis of responses to learning as well as development items in this survey identified five important dimensions: (a) personal and social development; (b) science and technology; (c) general education, literature, and arts; (d) intellectual skills, and (e) vocational preparation. Further, correlations between dimensions were low to moderate, ranging from .18 to .52, with the intellectual skills dimensions being most highly correlated with the other learning and

development dimensions. In a report summarizing national results for the CSEQ, Pace (1998) found that all five dimensions of reported learning and development were positively related to satisfaction.

The Student Satisfaction Inventory (SSI) (Noel-Levitz, 2002) has been widely used on campuses to measure satisfaction and importance (Low, 2000). Since 1973, more than 25 systems and over 1,700 individual campuses nationally have used the instrument developed by the Noel-Levitz group to assess satisfaction and importance at two-year, undergraduate, graduate and professional levels (Noel-Levitz, 2005). The Noel-Levitz group offers both a long as well as short version of the Student Satisfaction Inventory. The long version, Form A, consists of 116 items covering a full range of college experiences as well as demographic characteristics of respondents along 11 subscales. Students are asked to rate each college experience with regard to “importance” and “satisfaction.” A shortened version, Form B, of the Student Satisfaction Inventory for four-year institutions consists of similar but reduced items representing nine subscales across a variety of college experiences.

The shortened version of the Student Satisfaction Inventory (SSI) assesses levels of perceived importance and satisfaction along nine different dimensions:

(a) academic advising effectiveness; (b) campus climate; (c) campus life; (d) campus support services; (e) instructional effectiveness; (f) recruitment and financial aid effectiveness; (g) registration effectiveness; (h) campus safety and security; and (i) student centeredness. In all, these items cover a full range of experiences as well as demographic characteristics of the respondents. Distributed by USA Group Noel-Levitz, the questionnaire contains Likert-type statements on a seven-point scale ranging from (1)

“not important at all” or “not satisfied at all” to (7) “very important” or “very satisfied.” Students are asked to respond with regard to “importance” and “satisfaction” on every question.

The results of the SSI provide three critical scores for each item: (a) importance score; (b) satisfaction score; and (c) performance gap score, which is determined by subtracting the satisfaction score from the importance score. A large performance gap score on an item indicates the institution is not meeting the expectations of the student. A small or zero gap score indicates the institution is meeting the expectation of the student, while a negative gap score indicates the institution is exceeding the expectations of the student. Further, the SSI has demonstrated exceptionally high internal reliability (Elliott & Healy, 2001). Cronbach’s alpha is .97 for the set of importance scores and .98 for the set of satisfaction scores. In addition, the survey instrument has demonstrated high convergent validity ($r = .71$; $p < .00001$) with satisfaction scores of the College Student Satisfaction Questionnaire (CSSQ) (Elliott & Healy, 2001).

Elliott and Healy (2001) studied key factors that influence student satisfaction relative to recruitment and retention. Their work examined which aspects of a student’s educational experience were more important in influencing student satisfaction. Within this study, student importance, student satisfaction, and resulting performance gaps were measured along nine dimensions of a student’s educational experience. The results were used to determine which dimensions of education appear to impact overall student satisfaction. The survey instrument used for their particular study was the Student Satisfaction Inventory (SSI).

A convenience sample of 1,805 freshman, sophomore, junior and senior students from an upper Midwest university completed the instrument. A two-step testing procedure was used to analyze the data for this study. First, mean importance, satisfaction and performance scores (gap scores) were completed for each of the nine dimensions of a student's educational experience. Second, a regression model was applied to assess the predictive ability of the dimensions of a student's educational experience. The mean performance gap scores were the independent variables, while the dependent variable was overall satisfaction (Elliott & Healy, 2001).

The results of this study by Elliott and Healy (2001) indicated that what students report as being important to them in their overall educational experience are not necessarily the same dimension that most significantly impact overall satisfaction with their educational experience. For example, students rated an aspect of campus life as being very important to them; however, a large performance gap score (i.e., high importance score and low satisfaction score) with this dimension may not significantly influence their overall satisfaction with their educational experience.

Several important implications can be drawn from these findings. First, identifying the aspects of an educational experience which students have identified as having the highest levels of importance is critical. Second, identifying the areas that have the highest performance gap score (i.e., high importance score and low satisfaction score) can assist tremendously in enhancing the overall satisfaction of students. An institution can then determine which of these areas appears to have the biggest influence on student satisfaction. A final implication is that institutions can consider emphasizing different aspects of an educational experience in retention strategies (Elliott & Healy, 2001). In

conclusion, this study confirmed strongly that as universities plan recruiting and enrollment strategies, they must first identify what is important to students to attract them and then deliver a quality education both to satisfy and retain them.

In a study by Beltyukova (2002) using the College Student Survey (CSS), and the Student Satisfaction Inventory (SSI), the researcher analyzed student responses to these two instruments. Specifically, the purpose of this study was to investigate whether these two student satisfaction instruments - the CSS and the SSI - could be regarded as objective reproducible measures and, if so, if they could then be calibrated on a common metric of student satisfaction. Four research questions guided the study: (a) How objective and reproducible is the College Student Survey (CSS) as a measure of student satisfaction?; (b) How objective and reproducible is the Student Satisfaction Inventory (SSI) as a measure of student satisfaction?; (c) Do the CSS and SSI measure the same student satisfaction variables?; and (d) To what extent can the CSS and SSI be represented as a common metric of student satisfaction?

The instruments used in this study, CSS and SSI, were chosen for this investigation based on the general nature of their student satisfaction items; hence, their relevance to different types of institutions and student populations. The CSS survey consisted of 27 items focusing on different aspects of student satisfaction that were previously reported. Respondents rated their satisfaction with these aspects on a scale of 1 to 5, choosing from responses such as “can’t rate”; “dissatisfied”; “no change”; “satisfied”; and “very satisfied.” The SSI survey was comprised of 73 items representing such aspects of college life as academic advising, campus climate, campus life, campus support services, concern for the individual, instructional effectiveness, recruitment and

financial aid, registration effectiveness, responsiveness to diverse populations, safety and security, service excellence, and student centeredness (Low, 2000). Respondents rated their satisfaction with these aspects on a scale from 1 to 7, ranging from “not satisfied at all” to “very satisfied”.

The researcher was not involved in the data collection process but used two available data sets that consisted of 4,408 responses to the CSS and 2,618 responses to the SSI surveys. The CSS data was gathered by the Higher Education Research Institute in 1998-1999 from the University of California at Los Angeles. The SSI data was obtained through the Office of Institutional Research at the University of Toledo. The data from Toledo was collected from students enrolled in 2000-2001. For the purposes of increasing the comparability of the samples, the CSS national sample was reduced to a sub-sample of 576 students from four-year public educational universities. This was accomplished by using the SPSS command of selecting cases (Beltyukova, 2002).

Overall, the results of the College Student Survey (CSS) and the Student Satisfaction Inventory (SSI) suggest strongly that both instruments cover a considerable range on the satisfaction continuum and can provide institutions with quite reliable measurements of student satisfaction on a common metric (Beltyukova, 2002). Having a universal metric of student satisfaction would enable colleges and universities to enhance their capacity of establishing standard or shared benchmarks of student satisfaction similar to those that have been successfully created in Australia (Bond & Fox, 2001). In the end, the value of such benchmarks cannot be overestimated since they will allow institutions in higher education to engage in more meaningful communication and reliable comparison of student satisfaction assessment results. However, the

interpretation of these two measurements, the CSS and SSI, remains at the level of individual items since there is no common theory of student satisfaction (Beltyukova, 2002).

Each year for the past decade, Howard Community College measured student experiences and specifically, satisfaction ratings with those experiences. The 2003 Howard Community College Student Satisfaction Survey was sent out to 2,386 students of whom 1,040 replied for a 44% response rate. The instrument for collecting this data was the Yearly Evaluation of Services by Students (YESS) survey. In the spring semester each year, students in randomly chosen class sections are asked to participate in the survey. Faculty members administer the survey in class or request that the students return it at a later class session. In 2003, 107 class sections were selected and instructors in 90 sections returned completed surveys, for a response rate of 84% with the student response rate at 44%. The 1,040 YESS respondents represented 18% of the 5,800 students at Howard Community College in the spring of 2003. The respondent sample is large enough so the results of the YESS survey can be generalized to the student body for spring 2003 with a 95% confidence level and within a 3% margin of error.

The instrument of choice by Howard Community College was the YESS survey which has four main themes: (a) students' satisfaction with college services (22 items); (b) students' satisfaction with instructional topics (12 items); (c) students' satisfaction with student life (9 items); and (d) students' satisfaction with their Howard Community College experience (13 items). In total, the YESS questionnaire contained 56 standard items with a five point rating scale that ranged from "very dissatisfied" (1) to "very satisfied" (5).

The results of the survey were generally very positive and the overall rating on the 56 items was a 3.73, up from the previous year's 3.63. The highest levels of satisfaction were with instructional topics as well as the Howard Community College experience themes which had overall ratings of 3.94 and 3.89, respectively. The college services theme was a respectable 3.72, while only one area on the survey - student life - had an overall rating below 3.50, yet the rating of 3.19 was up 0.44 over the results in 2002. Continuing to monitor satisfaction of students is a vital means of ensuring they receive the maximum benefit from attending Howard Community College. To this end, the annual YESS survey is one tool for assessing student satisfaction.

In a study by Belchair (2003), the focus was directly on the campus climate at Boise State University located in Idaho as measured by the National Survey of Student Engagement (NSSE). "Climate" measures included general perceptions of the environment, quality of relationships with other students, faculty, and administrative personnel, the advising experience, and general satisfaction with the university. The National Survey of Student Engagement (NSSE) is an instrument in the movement to define quality in higher education in terms of student experiences rather than institutional reputation, admission scores, and endowments. The survey includes sections on the frequency with which students engage in various educational activities related to active learning, overall student satisfaction, classroom emphasis on intellectual and mental activities, participation in educational programs that enrich the academic experience, growth from academic experiences, and perceptions of the institution as well as its climate (Belchair, 2003).

The National Survey of Student Engagement (NSSE) is widely administered to colleges and universities across the country and yields valuable comparative information about student perceptions of their educational experiences. For example, it was administered in 2002 to a random sample of first-year students and seniors ($n = 305$) at Boise State. Over 70% evaluated their educational experience at Boise State as either “good” or “excellent.” A similar percentage agreed that they would probably or definitely attend the university again. Only 4% of the respondents rated their experiences as poor. When asked specifically about advising as it related to course requirements and scheduling, nearly 40% were satisfied while less than 30% were dissatisfied. Students stating that they would attend Boise State again, were the strongest predictor of general satisfaction with their educational experiences (Belchair, 2003).

Additionally, major factors that predicted general student satisfaction were quality of academic advising, quality of relationships with faculty, and the extent to which students thought Boise State provided the support they needed to assist them in succeeding academically. The NSSE findings provided strong clues about where the university might start to improve perceptions of institutional climate. Clearly, the faculty is a key component. Ensuring that they are able to provide prompt feedback as well as good examinations or other measures of performance appears critical. Improved advising is another key to increased climate perceptions/student satisfaction. Even though the results were favorable toward the types of experiences these 305 participants were having, Boise State University could still improve in some important areas compared to other institutions. The greatest differences were in the areas of encouraging contact

among students from different backgrounds for both first-year and senior students as well as providing academic and social support (Belchair, 2003).

In another important study, Roszkowski and Ricci (2004) investigated the measurement of importance in a student satisfaction questionnaire comparing the direct and indirect methods for establishing attribute importance. The purpose of their study was to determine: (a) the type of relationship that exists between satisfaction and importance in a student satisfaction survey; and (b) the interchangeability of the direct and the inferred means of assessing attribute importance. Questions remain about whether the relationship between importance and satisfaction exists and whether it is linear or non-linear in nature. The driving force behind their study was to examine the nature of the relationship between the direct and indirect measures of importance in a student satisfaction survey.

Specifically, the following research questions were addressed: (1) What is the degree of similarity between (a) general satisfaction measured with one item, (b) general satisfaction measured as a sum of 25 attributes, and (c) satisfaction measures by retention (repeat purchase) intentions?; and (2) What is the degree of redundancy between the direct method and the indirect method of judging attribute importance using linear and non-linear measures? The idea or hope was that the results would provide some guidelines for the construction and use of satisfaction surveys in the study of attrition and retention (Roszkowski & Ricci, 2004).

The student satisfaction questionnaire was developed, administered, and collected by the university's student government association. Among other questions, the instrument contained 25 specific attributes regarding college experiences that were rated

on both importance and satisfaction. This questionnaire, created by Roszkowski and Ricci (2004), contained two overall satisfaction type questions: (a) inquired about students' global satisfaction by asking how satisfied they were with the university; and (b) asked whether the student would still attend the same university currently enrolled in if she/he had a chance to do it again (repeat purchase). In addition to these two direct questions, a sum score of the 25 attributes was computed. Both the importance as well as the satisfaction ratings was expressed on 5-point scales. Specifically, the scale ranged from "not at all satisfied/important" (1) to "extremely satisfied/important" (5).

The survey was administered to a random cluster sample of students in a regional university at the end of the school year. To this point, clusters consisted of classes. Courses were selected so that adequate representation of freshmen through seniors would be surveyed. Participation was voluntary and students were assured that they would remain anonymous. Completed forms were returned by 159 students of the 400 students (39.7%) that were asked to participate.

Based on the results of the study, Roszkowski and Ricci (2004) discovered evidence to substantiate the existence of a strong relationship between importance and satisfaction in student ratings. Students implicitly incorporate the importance of an aspect of student life into their satisfaction rating with that aspect; however, the relationship is not linear. Further, if the student is extremely satisfied with an attribute, it is more likely that she/he views the dimension as very important. The ultimate question, according to Roszkowski and Ricci (2004), is whether one should measure importance in a student satisfaction survey. The authors indicated that prior to rendering judgment; they would

await the results of studies comparing the prediction of attrition based on student satisfaction ratings with and without importance ratings.

Research and Literature on Athlete Satisfaction

The athlete satisfaction literature within the field of sport psychology has its origins in the organizational psychology work examining job and consumer satisfaction (House, 1971). In using this vantage point, athletes would be viewed as employees or producers of a sport experience while coaches would be viewed as employers or leaders of the sport experience.

What can job satisfaction tell us about athlete satisfaction? In both a job setting and a sport setting there are organizational rewards for performance. However, a distinguishing characteristic of athletics is that a primary organizational reward, winning, is achieved by only one team despite effort and ability. Due to this fact, athletes must also strive to achieve certain internalized performance standards, such as satisfaction from playing well without the outcome of winning. Thus, maximal effort can be a source of satisfaction. A number of authors (e.g., Carron & Chelladurai, 1981a; Frieze, Shomo & Francis, 1979) have proposed that an individual's perception of relative performance (i.e., perception of performance relative to what was expected) is a meaningful measure of performance effectiveness. That is, success and failure are contingent upon the perception of task goal attainment and, therefore, must be considered at both an individual and group level within the context of athletics. Further, the degree of satisfaction expressed by athletes relative to their performance and that of the team may be determined by the extent to which individual and team performance goals were attained.

Further, in both the sport and workplace setting, there are assigned roles that need to be clarified and accepted. A meta-analysis by Jackson and Schuler (1985) within a workplace setting found that the perceptions of role ambiguity were negatively associated with multiple aspects of employee job satisfaction (i.e., satisfaction with work, pay, and supervision). Within the sport setting, role ambiguity has also been linked to athlete satisfaction (Eys, Carron, Bray, & Beauchamp, 2003). Specifically, as role ambiguity increases, satisfaction decreases.

Central to the early stages of athlete satisfaction research was the topic of leadership and its effects on athlete satisfaction. Leadership is perhaps one of the most extensively studied topics in psychology (Chelladurai, 1984). A variety of leadership models have been proposed and activity in this area continues to expand. In contrast, the study of leadership in an athletic context has been sporadic at best (Chelladurai, 1984). However, the Multidimensional Model of Leadership (MML) (Chelladurai, 1980; Chelladurai & Carron, 1978) provided the first framework for the study of leadership in athletics. This model focused on three important aspects of leadership behavior: (a) actual leader behavior; (b) leader behavior preferred by subordinates; and (c) required leader behavior (i.e., behavior required by the organization) (see Figure 1). It is assumed that the salient outcomes of performance and member satisfaction are directly and positively related to the degree of congruence among the three aspects of leader behavior (Chelladurai, 1984).

In addition, the antecedents of these three aspects of leader behavior are comprised as situational characteristics, member characteristics, and leader characteristics. Five dimensions of leader behavior are contained in the MML:

ANTECEDENTS LEADER BEHAVIOR CONSEQUENCES

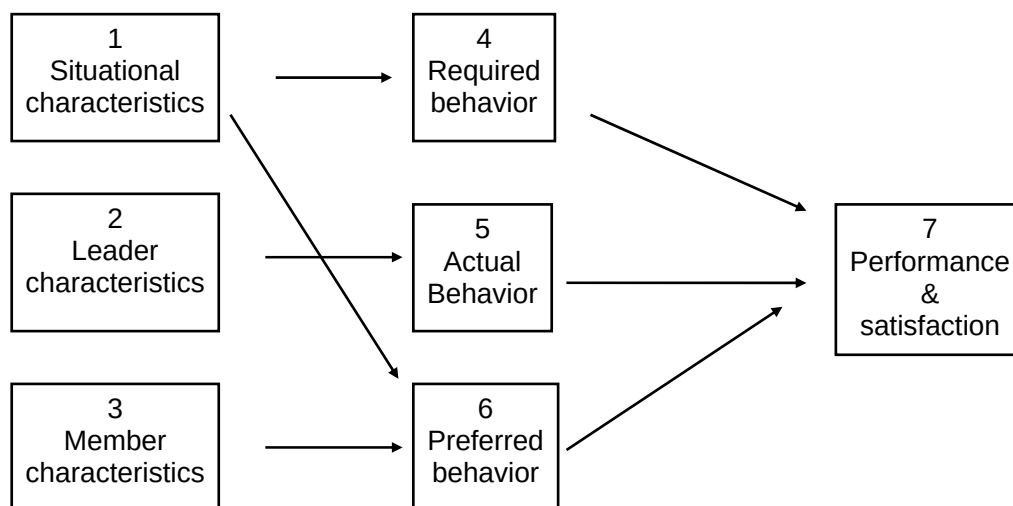


Figure 1. Multidimensional Model of Leadership. Chelladurai (1980).

(a) training and instruction; (b) social support; (c) autocratic behavior; (d) democratic behavior; and (e) positive feedback. A discrepancy measure reflecting the differences between the athlete's perceptions versus the athlete's preferences for these five behaviors is built into this model. Finally, and most critically, satisfaction is considered as a multifaceted construct incorporating satisfaction with these four key areas - individual performance, team performance, leadership, and overall team involvement.

In-depth conceptualization and testing of the construct of satisfaction in the sport domain is a relatively new endeavor. However, the construct of satisfaction or enjoyment has been incorporated in many empirical investigations, albeit through single item measures of satisfaction. Differences in the sport satisfaction literature vary on several levels: first, whether satisfaction is viewed as an antecedent or an outcome variable;

second, how sport satisfaction is measured; and, third, whether it is a central variable or one of several variables of interest.

The majority of the research on sport satisfaction has utilized satisfaction as an outcome variable. In order to understand the development of this position, one can examine the work of Yukl (1971) who developed a discrepancy model which suggested that subordinate satisfaction with a leader was a function of the discrepancy between a subordinate's preference for and perceptions of specific leadership behaviors. Applying this conceptualization to sport, Chelladurai (1984) examined the relationship of the discrepancy between preferred and perceived leadership and athlete satisfaction in a study with student-athletes ($n = 196$). However, athlete satisfaction was conceptualized using a broader framework than the worker satisfaction literature provided. More specifically, Chelladurai (1984) included satisfaction with personal performance, team performance and general overall team involvement. Varsity athletes from Canadian universities (87 basketball players – 10 teams; 52 wrestlers – 4 teams; 57 track & field members – 6 teams) completed the Leadership Scale for Sports (LSS). The LSS is an instrument developed by Chelladurai and Saleh (1980) which measures the five dimensions of leader behaviors previously mentioned. The LSS prefaces each of the 40 items with "I prefer my coach to...." This instrument was used to examine the leadership behavior in a variety of sports prior to the development of the Athlete Satisfaction Questionnaire (ASQ) which will be thoroughly reviewed later in this chapter.

Chelladurai (1984) reported in his study that in terms of satisfaction with individual performance, none of the discrepancies in leadership were related to satisfaction with individual performance in any of the sport groups. In the case of

wrestling, satisfaction with team performance was significantly related to discrepancies in training and instruction, democratic behavior, and social support. None of the discrepancy scores was related to satisfaction with overall involvement in the interdependent variable group (e.g. basketball). Within the independent variable group (e.g. wrestling) discrepancy in the training and instruction behavior was negatively correlated with satisfaction in overall involvement. Athletes' satisfaction with leadership increased as the coach's perceived emphasis on training and instruction increased (relative to athletes' preferences for such behavior). This empirical work allowed for an understanding of the relationship between athlete perceptions, preferences for coach's behaviors, and the effects on satisfaction (Chelladurai, 1984). In addition, it also allowed for an understanding of this phenomenon across multiple sports.

Chelladurai (1984) discovered that the discrepancy between perceived leader behavior and athletes' preferences for such behavior were strongly associated with satisfaction in leadership. Findings also supported the hypothesis that emphasis on training and instruction behaviors would be positively related to athlete satisfaction. He found evidence that athletes, especially at the collegiate level, preferred to have their coach provide the training and instruction needed to improve and experience success. This finding provided initial support for the efficacy of the Multidimensional Model of Leadership (MML), including the role of satisfaction as an outcome variable.

Weiss and Friedrichs (1986) examined the effects of athlete perceptions of a coach's particular leadership behavior on satisfaction among male varsity basketball players. They found that perceptions of all five leader behavior dimensions of the LSS were predictive of team and individual satisfaction scores, with positive feedback serving

as the best indicator for team satisfaction, and democratic behavior as well as social support, being the best forecasters of individual satisfaction. In contrast to earlier findings, training and instruction were not among the best predictors of athlete or team satisfaction. Schliesman (1987) also reported significant perception/satisfaction relationships in the dimensions of positive feedback and social support.

Black and Weiss (1992) found that coaches who were perceived as giving more frequent information-encouragement following desirable and undesirable performances had athletes who perceived higher levels of enjoyment. In another study focusing on the interaction between coaching behavior and satisfaction, Allen and Howe (1998) similarly found that more frequent praise and technical feedback information after a good performance, and frequent encouragement and corrective information after an error, were associated with greater satisfaction with the coach and team involvement among female adolescent field hockey players.

Satisfaction has also been examined in relation to level of commitment to the sport. Schmidt and Stein (1991) utilized satisfaction as an antecedent in their model of sport commitment, noting that athletes who remained in sport over a period of time do so for reasons relating to enjoyment, which can be further characterized by high satisfaction, high commitment, and high investment. In an adaptation of Schmidt and Stein's commitment model (1991), Scanlon, Simons, Carpenter, Schmidt, and Keeler (1993) used satisfaction as a variable which strongly influenced sport commitment, indicating that greater sport satisfaction appeared to lead to greater sport commitment. Similarly, in a study using the MML, Smoll, Smith, Curtis and Hunt (1978) reported that athletes' evaluative reactions focus directly on attitudes toward their coach,

teammates, themselves, and their playing experiences. That these constructs of satisfaction, commitment and evaluative reactions have all been defined as positive affective responses leads to the conclusion that athlete satisfaction is an outcome variable in its own right (Chelladurai & Riemer, 1997; Scanlon et al., 1993; Smoll et al., 1978). Additional research would be strongly recommended as it relates to satisfaction and sport commitment as well as athlete satisfaction being an outcome variable.

Treasure and Roberts (1994) indicated that individual difference variables such as a person's achievement motivation would also predict satisfaction. They proposed that depending upon the achievement goal adopted by athletes, the determinants of satisfaction would vary. Specifically, task-oriented individuals derived greater feelings of satisfaction by developing skill and self-improvement, whereas those who were ego-oriented derived feelings of satisfaction by demonstrating their ability to outperform others. Further, it was unlikely that mastery experiences (i.e., emphasis on task orientation) would have been sufficient to promote satisfaction with ego-involved athletes.

Satisfaction has also been investigated in terms of how the construct might vary across subgroups on a team. Specifically, Riemer and Chelladurai (1995) investigated: (a) the differences between offensive and defensive personnel on football teams in preferred leadership, perceived leadership and satisfaction with leadership; and (b) the relationships among preferred and perceived leadership, their congruence, and satisfaction with leadership. This study employed hierarchical regression procedures to test the congruence hypothesis derived from the Multidimensional Model of Leadership (MML). The main theme of this particular model is that congruence of perceived and preferred leadership

behaviors enhances athlete satisfaction. A single sport with contrasting levels of task variability and dependence within a single team may allow for comparison of the effects on leadership processes while at the same time controlling for other situational variables (i.e., size of team, number of coaches) that may affect leadership behavior preferences. Simply stated, some positions in a sport like football may prefer more or less of a certain leader behavior (Rierner & Chelladurai, 1995). Thereby, it would be unlikely that all athletes in large groups such as a football team would have consistent satisfaction scores.

Based on the above, one would expect differences in leadership preferences and perceptions between defensive and offensive players. In the study by Rierner and Chelladurai (1995), two hundred male NCAA DI-AA football players from three universities completed the Leadership Scale for Sports (LSS) and the Athlete Satisfaction Questionnaire (ASQ). Results revealed a significant interaction between preferred and perceived leadership only in the case of social support. More specifically, those who preferred social support behaviors in their coaches also responded that they perceived that their coaches were displaying social support behaviors. In contrast, those who preferred less social support were more satisfied when this was perceived to be low and less satisfied than when it was perceived to be high. Athletes whose task is more reactive than others (defensive players) preferred greater amounts of democratic behavior and social support than athletes with less variability and more self-initiated sporting behavior (offensive players).

The researchers reported in their study that the two dimensions of training and instruction and positive feedback reflected situational requirements while the remaining three dimensions of democratic behavior, autocratic behavior, and social support were

tied to member preferences. Overall, the study revealed that coaches may be better off when they emphasize training and instruction in addition to positive feedback behavior more in line with task demands and member performance than with member preferences. In contrast, coaches need to be more attuned to member preferences in the case of democratic behavior, autocratic behavior, and social support (Riemer & Chelladurai, 1995).

Institutions of higher education often use a non-theoretical approach to measure student satisfaction. Cochran and Gravely (1987) reported that institutional research offices located on college and university campuses focus on assessing student information in order to increase recruitment and retention. Accused of being insular, athletic departments often develop and use non-theoretical assessment tools or hire outside firms to conduct assessments of satisfaction. The assessment tools are designed to give student-athletes an opportunity to share their experiences candidly and allow for an evaluation of coaches as well as programs. While assessing student-athlete experiences has become common within athletic departments, there have been no consistent methods or measurement tools used to assess the athlete experiences (Cochran & Gravely, 1987). Collegiate institutions have incorporated a variety of measures of student-athlete experiences. There is no single instrument or survey mandated by the NCAA; however, student-athlete satisfaction is one variable that represents a consistent source of information for administrators to conduct self-evaluation or comparison across programs.

What do athletic departments do with their satisfaction data? Some institutions publish their graduating senior data, some use it strictly to make internal decisions and

others do both. In a study by Gravely and Cochran (1995), the University of North Carolina-Asheville published its assessment data of athlete experiences. The satisfaction instrument used in this particular study was the Student Athlete Survey (SAS) (Dillman, 1978). This institutionally-created survey was designed to assist the athletic department in three areas: (a) to obtain early warning about potential problems in programs (student-athlete dissatisfaction); (b) to gain insight into the quality of athlete/coach interaction; and (c) to obtain some global measures of student-athlete satisfaction. The range of information addressed by the survey includes the following: measures of satisfaction on their overall experiences; information on who would or would not attend the institution if they were being recruited again; any verbal or mental abuse by coaches; strengths of the coaching staff; student-athletes perceptions of treatment by administrators, etc. The SAS rating scale ranged from “poor” to “excellent”, “yes” or “no”, and “never” to “always” (Gravely & Cochran, 1995).

The Student Athlete Survey (SAS) was administered to all student-athletes at the University of North Carolina-Asheville during the spring semesters of 1994 and 1995 ($n = 161$ in 1994; $n = 179$ in 1995). The athletic department saw collection of student-athlete data as comparable to the use of student ratings of faculty teaching performance. The survey was repeated each year in order to make normative comparisons among teams and years (Gravely & Cochran, 1995).

According to Gravely and Cochran (1995), the survey results had an immediate impact on the athletic department as it relates to personnel. Shortly after the survey results were disseminated, four coaching changes were made. While the existence of the problems were known prior to the survey (student-athlete dissatisfaction), the data played

an important role in providing empirically-based summary information supplemented with written comments. In some instances, the written comments revealed patterns of coaching behavior which were not consistent with the values and goals of the institution. The survey also brought to light a number of perceived problems related to funding and equity among programs whose student-athletes relayed dissatisfaction about their current situation (Gravely & Cochran, 1995). The main weakness of this survey, however, lies in its use of an instrument for assessing satisfaction which has not been validated.

Through their previous research work on athlete satisfaction, Chelladurai and Riemer (1997) were able to identify the following differences between an athletic setting and a workplace context: (a) in sports, an athlete's satisfaction lies not only in personal outcomes-processes, but also in team outcomes-processes (i.e., winning a national championship based on the performance of the team); (b) the development of task and social cohesion is a focus within a team and several factors influence the success of building team cohesion; (c) the athletes' dual roles as student and athlete makes them distinct; and (d) the focus on developing psychologically and physically is not normally part of the workplace setting.

Comparing athlete satisfaction to worker satisfaction led Chelladurai and Riemer (1997) to argue that athlete satisfaction "...may indeed prove to be the ultimate measure of organizational effectiveness of an athletic program" (p.135). The authors held that the level of satisfaction is indicative of an athlete's reactions to the extent to which the athletic experience meets one's personal expectations. These expectations, they believed, are based on what the athlete wants, feels entitled to, what others get, previous experiences, and/or current expectations. Overall, these entitlement

expectations can come from multiple areas such as parents, high school coaches, teachers, boosters, sponsors, etc. In addition, sport teams frequently compare what each other receives in benefits (i.e., gym shoes, sweat suits, travel bags, etc.). These situations continue to present a tremendous challenge for coaches and, in turn, influence drastically the experiences that student-athletes have and their perceived satisfaction.

Chelladurai and Riemer (1997) made an initial distinction that would ultimately guide their development of a valid measure of athlete satisfaction. Specifically, they acknowledged that the way athlete satisfaction is conceptualized would be driven in part by whether one views the student-athlete as a “producer” (i.e., entertainment and revenue) or “beneficiary” (i.e., skill development, education, friendships, and social skills) of an athletic experience. How this particular view is communicated to coaches and student-athletes is important in managing expectations.

Chelladurai and Riemer (1997) acknowledged that viewing athletes as prime beneficiaries would be the core value in most institutions; however, viewing athletes as prime producers would be sport-specific in some Division IA institutions. Holding the view that student-athletes are beneficiaries of their sporting experiences led Chelladurai and colleagues to underscore the importance of basing the evaluation of an athletic program and its coaches, in part, on athlete satisfaction in addition to measures of performance such as win-loss records. In their opinion, the student-athlete who is viewed as the prime beneficiary provided the rationale for the existence of the organization. The authors recognized this position could be taken in scholastic and amateur sport as opposed to professional sport where other forms of extrinsic rewards are available to the athletes (i.e., salary).

According to Chelladurai and Riemer (1997), there has been no systematic effort to: (a) define athlete satisfaction; (b) ferret out all relevant facets of such satisfaction; and (c) develop a scale of athlete satisfaction. Further, while there have been efforts made to assess other variables that are alleged to affect athlete satisfaction, this hypothesized variable has been assessed in an ad hoc manner (c.f.: Chelladurai, 1979, 1984; Dwyer & Fischer, 1990; Horne & Carron, 1985; Riemer & Chelladurai, 1995; Schliesman, 1987; Weiss & Friedrichs, 1986; Williams & Hacker, 1982).

Overall, single items have been used to measure selected facets of athlete satisfaction. For example, these include satisfaction with team performance, leadership, membership on the team, and individual/personal performance. However, there have been several attempts to develop scales of satisfaction. Several years ago, Whittall and Orlick (1978) reported the creation of an 84-item scale to measure six facets of satisfaction in sport. Later, Chelladurai, Imamura, Yamaguchi, Oinuma, and Miyauchi (1988) attempted to measure satisfaction of Japanese and Canadian athletes with several items (Chelladurai & Riemer, 1997). Factor analysis of their data yielded two dimensions of athlete satisfaction: (a) satisfaction with personal outcomes; and (b) satisfaction with leadership. Schliesman (1987) made use of two measures of satisfaction with athletic leadership. The first measure was a single item referring to general satisfaction with leadership. The second measure consisted of five items measuring satisfaction with one of the five dimensions of leadership behavior proposed earlier by Chelladurai in 1980. However, all of these schemes were not based on any systematic effort to identify all relevant facets of athlete satisfaction (Chelladurai & Riemer, 1997).

Further, Chelladurai and Riemer (1997) noted that even though several authors emphasized the need to treat student-athletes as the prime beneficiary of intercollegiate athletics, there has been very little effort to assess student-athlete reactions to their experiences. Their work stressed the uniqueness of athletic teams, developed a rationale for measuring student-athlete satisfaction as well as emphasized that student-athlete satisfaction can be used as a measure of organizational effectiveness. In addition, a classification of the various facets of satisfaction in athletics was presented. According to Chelladurai and Riemer (1997), a facet is classified by the following criteria: (a) is it task- or social-related; (b) is it an outcome or a process; and (c) does it affect the individual or the team.

Cranny, Smith, and Stone (1992) suggested that “a facet of athlete satisfaction must be linked with one or more aspects of the task environment and the task itself in order to be considered relevant” (Chelladurai & Riemer, 1997, p. 138). In addition, a suggested facet should have some theoretical importance or potentially yield significant correlations with behavior (Smith, Kendal, & Hulin, 1969). Following these suggestions, Chelladurai and Riemer (1997) used three criteria: (a) outcomes versus processes; (b) personal versus team effects; and (c) task versus social aspects in the search for and classification of the various facets of satisfaction relevant to athletics.

First, careful scrutiny of the various approaches to the study of satisfaction showed that the identified facets can be categorized into: (a) those relating to outcomes (i.e., winning, goal attainment, team integration); and (b) those associated with the processes leading to those outcomes.

Second, a significant difference between athletics and conventional organizational contexts is the focal member's interest not only in personal outcomes/processes but also in team outcomes/processes. Specifically, while there are several personal outcomes/processes an individual athlete may seek for himself or herself, those outcomes/processes may be derived only through the efforts and performance of the other members of the team (i.e., the desire in football to win an NCAA championship ring is solely based on the performance of the team).

Third, is the notion that some of the outcomes and processes are purely task-related while others are more social in nature. This dichotomy of task and social domains underlies several theoretical approaches in organizational behavior. As an example, in the athletic realm, cohesion within sports teams traditionally has been broken down into task cohesion and social cohesion (Widmeyer, Brawley, & Carron, 1985).

In addition, the five dimensions of leader behavior measured by the Leadership Scale for Sports (LSS) (Chelladurai & Saleh, 1980) were grouped into those related to the task and those related to the social aspects. Thus, Chelladurai and Riemer (1997) considered both task and social factors in cataloguing the facets of athlete satisfaction. The above three criteria, as determined by Chelladurai and Riemer (1997), strongly underlie the following classification of facets of satisfaction in athletics. Further, the relationships between the three criteria and satisfaction are shown in Figure 2.

In brief, processes lead to outcomes which, in turn, lead to satisfaction. Processes themselves are sources of satisfaction while both the processes and outcomes could pertain to the individual/team and may be task-oriented or socially-oriented.

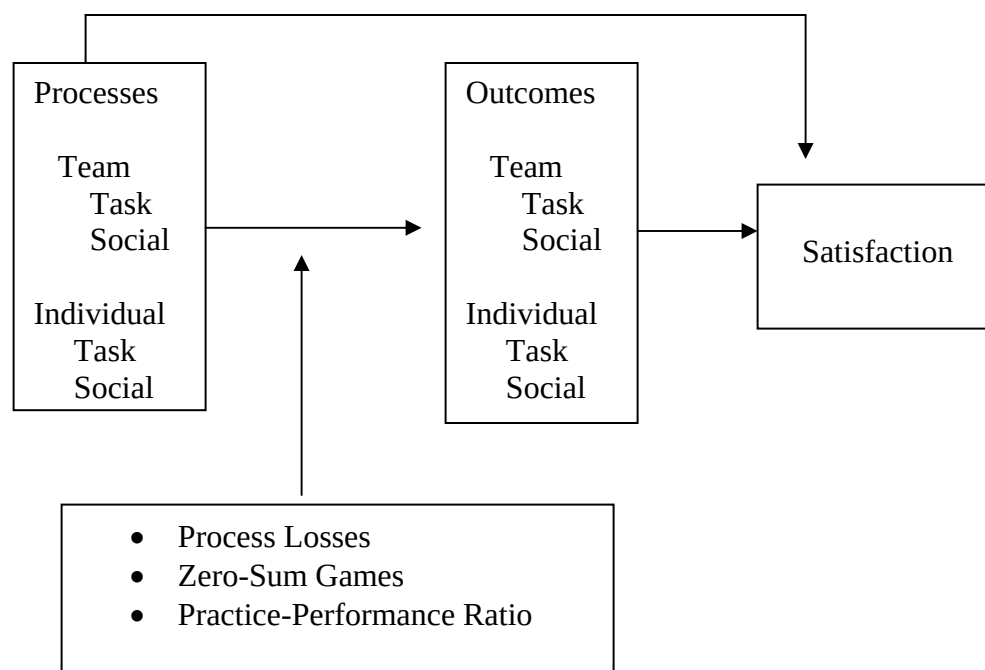


Figure 2. Relationships among processes, outcomes, and satisfaction. Chelladurai & Riemer (1994).

Finally, Figure 2 illustrates that the relationships between processes and outcomes are moderated by: (a) process losses inherent in any context; (b) zero-sum nature of athletic competitions; (c) the inordinate amount of practice relative to performance period; and (d) the traditional performance indicator of winning being contaminated by external factors (i.e., luck, referees' calls, opponents extraordinary performance) (Chelladurai & Riemer, 1997).

Specifically, using the comprehensive description and classification of satisfaction facets in athletics provided by Chelladurai and Riemer (1997) as the foundation, they set out to develop an instrument to measure satisfaction in athletics. The development of the 56-item Athlete Satisfaction Questionnaire (ASQ) came in 1998 and was based directly on Chelladurai and Riemer's (1997) classification of facets of athlete satisfaction. To this point, qualitative procedures included item generation, expert

judgment as well as independent placement of items in relevant facets. Further, quantitative procedures included item-to-total correlation, exploratory, and confirmatory factor analyses.

The Athlete Satisfaction Questionnaire (ASQ) was deemed to possess the qualities suggested to be very important by Ironson, Smith, Brannick, Gibson, and Paul (1989) and Smith, Kendal, and Hulin (1969). These qualities are that the instrument is able to empirically distinguish between the various facets of satisfaction, that it is useful across settings or populations (i.e., variety of sport types and organizational types), understandable, short, and allows for group administration, and finally, the instrument is easy to read as well as respond to (Riemer & Chelladurai, 1998). The ASQ contains 15 potential facets of satisfaction within five specific themes. The five main themes are: (a) Satisfaction with aspects of performance (i.e., individual performance); (b) the team (i.e., integration of the individual to team); (c) the organization (i.e., sport budget); (d) leadership (i.e., ability utilization); and (e) the individual correlates of sport involvement (i.e., personal dedication).

There were three stages necessary in developing the Athlete Satisfaction Questionnaire (ASQ). The initial stage in the development of the ASQ involved the generation of items for the facets suggested by Chelladurai and Riemer (1997). In order to generate a large item pool, several strategies were used. First, a number of appropriate items from the Whittall and Orlick (1978) Sport Satisfaction Inventory (SSI) and Chelladurai et al., (1988) Scale of Athlete Satisfaction (SAS) were adapted for use. Second, the researchers generated items to reflect the content of the facets. Third, the responses of the participants to an open-ended questionnaire regarding satisfaction

including experiences were also used in this “item generation” stage (Riemer & Chelladurai, 1998).

The second stage in the development of the ASQ was directly concerned with further refining the scale through confirmatory analyses and beginning the process of establishing its validity. Further, while confirmatory analyses provide initial evidence of the instrument’s construct validity, it is also important to verify the criterion and/or predictive validity through administering other scales measuring constructs purported to be related to athletic satisfaction (Nunnally & Bernstein, 1994). Therefore, scales measuring commitment and negative affectivity were included in the instrument at this juncture.

The third stage in development of the ASQ dealt specifically with the final estimates of validity and reliability. In order to confirm the factor structure of the final version of the ASQ, a confirmatory factor analysis was carried out with the total sample (Riemer & Chelladurai, 1998). Finally, fitted correlation matrix residuals indicated a good fit. The results of the foregoing analysis provided strong support for the structure of the final version of the ASQ.

In summary, the development of the Athlete Satisfaction Questionnaire (ASQ) was based on an extensive and comprehensive description of possible facets that were discussed. The qualitative and quantitative procedures used in developing the instrument, including different data sets as well as different item and confirmatory analyses, have culminated in this 56-item questionnaire that is grounded in research. Further, it was found to exhibit evidence of being a psychometrically sound scale measuring 15 different psychologically meaningful facets of athlete satisfaction (Riemer & Chelladurai, 1998).

Solomon, DiMarco, Ohlson, and Reece (1998) sought to determine if “coach feedback” varied with years of coaching experience. According to the authors, feedback from coaches could play a main role in athlete satisfaction. Hence, the importance of this particular research study was that it specifically addressed two research questions: (a) Do feedback patterns vary based on coaching experience and coach expectations?; and (b) Is feedback issued by more experienced coaches viewed more or less favorably by high and low expectancy athletes than feedback issued by less experienced coaches? Athletes and coaches from two Division I collegiate basketball teams were selected to participate. The college sample consisted of athletes ($n = 23$) and coaches ($n = 8$). The measure used in this study was the Coaching Behavior Assessment System (CBAS) created by Smith, Smoll and Hunt (1977).

The Coaching Behavior Assessment System (CBAS) was developed for classifying coaching behaviors into 12 feedback categories. Eight categories represent reactive behaviors or the coach’s responses to athletes’ performances (i.e., pulling an athlete out of a game after a mistake). The remaining four categories represent spontaneous behaviors or those initiated by the coach (i.e., calling out the batting order). In order to collect the most accurate data from the CBAS instrument, training and reliability of the observers was critical. Six observers were trained to use the CBAS observational system over a one-month period. Training involved completing the training manual, taking proficiency tests on the CBAS measures and coding the CBAS video module and audio-taped basketball practices. Inter-observer reliability was measured twice prior to the initial observations and once during the observational period. All trials met the pre-set reliability standard of $r > .80$ (Solomon, et al., 1998).

Each coach and athlete participating in the procedures was presented with a project proposal stating the purpose and requirements for participation. All coaching staffs and athletes agreed to participate via written informed consent and completed the CBAS ranking forms before the first observation period. Practices for both the women's and men's teams were observed six times over the course of the season. Ideally, in order to obtain adequate inter-rater reliability it is important to observe as many times as possible. An observer was assigned to each coach and recorded the practice using a hand-held audio-cassette recorder (Solomon et al, 1998). To maintain accuracy and control for observer fatigue, observations were initiated ten minutes into practice and conducted in three 30-minute intervals with five minutes of rest in between. Audio-cassette transcription was coded on the same day of the observation.

The research questions were assessed on a sample of 23 athletes (11 females and 12 males) as well as eight coaches (three females and five males) from two college basketball teams. To address the first research question, coaches were categorized as high or low experience based on total years of coaching experience greater or less than 10 years. A 2 (Experience) x 2 (Expectation) analysis of variance (ANOVA) was conducted revealing a significant main effect for the coaches' rankings of high and low expectancy athletes and the amount of praise provided to those athletes, $F(1, 51) = 8.94, p < .01$ (Solomon, et al., 1998). High expectancy athletes received more praise than did low expectancy athletes. In addition, years of coaching experience did not influence coach feedback patterns. To answer the second research question, a 2 (Experience) x 2 (Expectation) ANOVA was conducted and revealed significant main effects for the level of coaching experience, $F(1, 50) = 12.65, p < .001$, and expectancy ranking of athletes,

$F(1, 50) = 18.50, p < .001$. Therefore, high expectancy athletes' perceived coaches with both high and low experience more favorably than did their low expectancy counterparts (Solomon, et. al., 1998). They suggested, therefore, that there is a growing need for coaches to recognize the role of feedback in athlete satisfaction.

Hyatt (2003) discussed the major barriers to persistence among African-American intercollegiate student-athletes. The purpose of her work was to heighten the awareness of the role non-cognitive variables may play in persistence and satisfaction among African-American student-athletes. There is a great deal of criticism and discussion both on and off college campuses regarding the low graduation rates of athletes, particularly African-American males competing in the sports of football and basketball (Hyatt, 2003). Institutions often hasten to implement academic and student service programs directed toward improving grades as well as graduation rates of their student-athletes. Unfortunately, these initiatives are often begun prior to gaining a true understanding of the student population they are trying to serve.

To this point, understanding the variables affecting persistence as well as overall satisfaction in a certain student population (i.e., student-athletes) at a particular institution is the first step in developing retention programs. There are a variety of variables affecting persistence and satisfaction in students. Typically, the variables are categorized as either cognitive (intellectual) or non-cognitive (attitudinal or motivational) (Hyatt, 2003). Many variables, cognitive as well as non-cognitive, interact to affect the student's decision to leave or remain in college (Astin, 1977; Pascarella & Terenzini, 1991; Tinto, 1993).

Based on the work of Pascarella and Terenzini (1991) as well as Tinto (1993), persistence in college was viewed as a reflection of satisfaction. Hyatt (2003) argued that persistence among minority athletes should be viewed within a social context that includes understanding the effects of stereotypes and isolation. In terms of isolation, athletes may have few contacts on campus with non-athlete students and faculty. Indeed, African-American basketball and football players at predominantly Caucasian institutions reported greater difficulty in getting to know other students on campus as well as to be liked by other students for just being themselves (Center for the Study on Athletics, 1989).

Further, a lack of development of certain academic skills such as goal-setting and goal commitment towards academic progress is, in part, responsible for the lack of persistence and satisfaction. Unfortunately, Hyatt argued, African-American student-athletes, especially males in basketball and football, may not be provided the opportunity and resources needed to navigate the educational arena. Sometimes referred to as “role engulfment”, these athletes start to see themselves as an athlete rather than a student-athlete. The perceived elite status adds to their isolation, which may influence satisfaction (Hyatt, 2003).

Eys, Carron, Bray, and Beauchamp (2003) sought to examine the relationship between athletes’ perceptions of role ambiguity and satisfaction by using the Athlete Satisfaction Questionnaire (ASQ). Role ambiguity was defined as a lack of clear, consistent information about the expectations associated with one’s position. Volunteer club and university soccer athletes representing four female teams ($n = 46$) and four male teams ($n = 55$) for a total of 101 athletes who served as the participants. The overall aim

of this study was to examine the relationship between athletes' satisfaction and the perception of role ambiguity at the beginning of team formation (i.e., early season), approaching the end of the competitive season (i.e., late season), and from early to late season. Based on previous research, the authors hypothesized that perceptions of role ambiguity would be negatively associated with athlete satisfaction. Moreover, it was hypothesized that as role ambiguity was experienced early on in the season, athlete satisfaction would decrease at the end of the season reflecting an inverse relationship.

As previously described, the researchers used the Athlete Satisfaction Questionnaire (ASQ) (Riemer & Chelladurai, 1998) at both the beginning and the end of the season. Multiple regressions revealed that lower perceptions of role ambiguity were related to higher athlete satisfaction when the variables were assessed together at both the beginning and end of a competitive season. Results were consistent with the researchers' hypothesis that role ambiguity would be negatively associated with athlete satisfaction and that athletes preferred role clarification (Eys et al., 2003). Additional issues were noted: (a) the perceptions of role ambiguity on offense were related to athlete satisfaction while role ambiguity perceptions about defense were not; and (b) the relationship between role ambiguity at the beginning of the season and satisfaction experienced at end were positively related. The authors found that ambiguity regarding the scope of responsibilities on offense was negatively associated with perceptions of athletes' satisfaction at both the beginning and the end of competitive season.

In review, this study confirms that perceptions on larger member teams can vary and, therefore, when assessing constructs such as satisfaction, it may be warranted to look within sub-groups. Further, it would be likely that satisfaction with one's sport would

also potentially vary across team and gender. Finally, research on role ambiguity should continue to investigate descriptive relationships with such variables as intention to return and leadership, as well as explore the importance it plays on overall athlete satisfaction (Eys et al., 2003).

Gaston-Gayles (2004) examined academic and athletic motivation as a key variable in predicting academic performance among 211 college athletes representing eight varsity sports at a Division I institution in the Midwest. After controlling for background characteristics, results revealed that ACT score, ethnicity, and academic motivation were significant in the regression model. Specifically, the author contended that research on the academic performance of college athletes should focus on factors related to academic success while students are in college, such as social integration and motivation to succeed in college (Gaston-Gayles, 2004). However, despite this much needed research, the satisfaction construct was not examined within this study. It is plausible that one's satisfaction with both his/her academic and sport performance may affect motivation as well as performance.

In another study by Gaston-Gayles (2005), the researcher developed The Student-Athletes' Motivation toward Sports and Academics Questionnaire (SAMSAQ) to assess academic as well as athletic motivation and satisfaction among student-athletes. The purpose of this study was to determine the factor structure and the reliability of the instrument (SAMSAQ). The sample for this study included 236 student-athletes who participated in eight varsity sports at a Division I university in the Midwest. Seventy percent of the participants were Caucasian while 30% were minority students. Within Division I athletic programs at the time, 63% of female participants and 72% of male

participants were Caucasian (NCAA, 2003). In the overall regression model - which explained 33% of the variance in college GPA - only ACT scores, ethnicity, and academic motivation were found to be significant predictors of college GPA.

A major finding of the study was that the SAMSAQ measured three achievement motivation and satisfaction constructs instead of the original hypothesized two: academic motivation, student athletic motivation, and career athletic motivation. The constructs of motivation and satisfaction are inextricably linked. Gaston-Gayles' (2005) work made an important contribution by investigating motivation and satisfaction both from an academic and athletic perspective. It is important to point out that the proposed investigation did examine the construct of satisfaction which has been shown to directly impact motivation within the academic and athletic realms.

In another valuable study, Unruh, Unruh, Moorman, and Seshadri (2005) sought to evaluate collegiate student-athlete satisfaction with athletic trainer(s) and the athletic training services provided at their institutions. The researchers investigated the differences in satisfaction levels – and perceptions of care - between male and female athletes and athletes in “high” and “low” profile sports who competed at the National Collegiate Athletics Association (NCAA) Division I and II levels. They also wanted to evaluate whether gender, level of competition, or sport profile were predictors of the score on the questionnaire. A systematic, stratified random sample was selected as subjects for this study. A sample was used that represented programs in Division I and II levels from four different time zones in the United States. A total of 325 student-athletes from 20 of the 40 randomly selected programs agreed to participate.

The questionnaire was a modification of a survey used previously by Unruh (1998) which had 35 questions designed to collect responses along a Likert-type scale. In addition, 15 questions were added to obtain either a “yes” or “no” response. Questions were developed from subject matter contained in each section of the Role Delineation Study (2002) conducted by the National Athletic Trainers Association Board of Certification. As mentioned, the questionnaire was a variation of a previously used instrument developed for assessing athletes’ perceptions of care. Validity as well as reliability analyses supported the use of this instrument (Unruh et al., 2005). A linear regression model was calculated to determine predictors of satisfaction scores.

Results of this study revealed significant differences in satisfaction scores were between athletes in “high” and “low” profile sports as well as male and female athletes. Further, when gender and sport profile were combined, differences in scores were noted between female athletes in “high” profile sports and males in “low” profile sports. Both gender and sport profile were predictors of satisfaction among the student-athletes who participated in the study. According to Unruh et al. (2005), student-athletes in “high” profile sports demonstrated a higher level of satisfaction than did athletes in “low” profile sports. This suggests that student-athletes perceive that athletic trainers generally offer greater attention to athletes in “high” profile sports than they do in “low” profile sports (Unruh et al., 2005).

Bruening, Armstrong, and Pastore (2005) suggested that when considering collegiate student-athlete experiences, administrators and coaches must consider race, gender, and social class. However, little empirical work has considered student-athlete satisfaction in relation to these individual difference variables. Bruening et al., (2005)

created a study that examined the sport participation patterns of 12 African-American female collegiate student-athletes using qualitative methods. Data was collected through a document analysis of the NCAA Certification Study during the 1998-99 academic year from a large Midwestern university with an enrollment of 36,562 students, of which 7.6% were African-American.

Interview techniques were used to ask each woman about her experiences across a variety of areas, including satisfaction with the representation of African-American women on a collegiate campus. Each participant commented on the dissatisfaction with the relatively low numbers of African-American women participating in sports other than basketball and track and field (Bruening et al., 2005). The women also commented on a more general issue facing African-American athletes. Specifically, they were most disappointed with the media coverage of African-American women athletes. They contended that women would be more inclined to become involved and stay involved if the media gave them more exposure and better coverage. In addition, they suggested having a women's athletic banquet to acknowledge that female athletes are important. As one woman stated: "...the men are so highly recognized and so to show that what we do is appreciated...if they want to have a men's athletic banquet then go ahead, but just show that they appreciate us too" (Bruening et al., 2005, p. 92).

The female athletes felt satisfied with the treatment they received from the athletic administration, coaches and non-African-American student-athletes. They recognized that the university assisted them when they faced the difficulties of being African-American student-athletes on a predominantly Caucasian campus. One athlete stated, "...it's been really good, and they've helped me out a lot....they were especially

good when I was going through my tough time of not knowing who I was going to hang out with...they introduced me to people and have just been really helpful” (Bruening et al., 2005, p. 96).

In the two sports in which African-American women were most represented, basketball and track, issues with coaching revolved around active recruitment of African-American athletes. While over 800 student-athletes participated in athletics at this university, only 21 were African-American women. According to the women who participated in this study, the administrators and coaches were content not to recruit more African-American women. One direct message from their work was that student-athletes are making judgments about their experiences in relation to the campus climate for race and gender and that their satisfaction will, in part, be determined by the treatment they perceive they receive in relation to other groups (Bruening et al., 2005). The authors concluded that being culturally sensitive was an important area in trying to enhance, as well as increase, overall satisfaction with African-American student-athletes.

In the end, athletes’ intense involvement in practice and competition may contribute to their isolation within the campus community and, thus, limit their overall integration into that community. However, it remains unclear whether these factors are related to satisfaction with their academic and/or athletic experiences. Finally, each of the models of student-athlete satisfaction represents an attempt by the researchers to develop a strong theory of student-athlete satisfaction. Differences among the models and findings, however, indicate that there is still a great deal of research yet to be done.

Summary

Student life presents a series of complex experiences which interact to influence student satisfaction. Much of the above research suggests students' perceptions of the quality of their educational experience can be scores on measures of satisfaction. In general, there have been some consistent findings regarding satisfaction of students. The importance of accurate student satisfaction information for colleges and universities is absolutely critical. The same can be said for athletic departments as it relates to student-athlete satisfaction. Institutions, as well as athletic departments, use student and student-athlete satisfaction data to make key decisions as to the future direction of their organization.

In summary, an extensive review of the student satisfaction literature including the instruments used to assess student satisfaction has led to the identification of a gap in the measurement of student-athlete satisfaction. Within the sport literature there is a gap in what is known about student-athletes' satisfaction with their academic and overall student experiences. Moreover, to date, no research has examined the relationships between athlete and student satisfaction among this dual role population.

CHAPTER III

Methods and Procedures

The purpose of this study was to examine the relationship between academic and athletic satisfaction for Division IA intercollegiate athletes. The three research questions which guided the study are the following:

1. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?
2. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic satisfaction controlling for differences by: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed?
3. What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

This chapter details the methods and procedures used in the conduct of the study. The chapter includes a description of the study design, site and population, instrumentation selected, procedures undertaken in implementing the study as well as collection and analysis of the data.

Design of the Study

Research Design

This study used a correlational research design to determine the relationship between the variables of interest. To this point, both simple and multiple correlation techniques were used to identify the underlying relationships and the strength of those relationships.

Site and Population

The population for this study consisted of 367 student-athletes representing 16 athletic teams from a Division IA university participating in the Mid-American Conference (MAC). Each student-athlete, male ($n = 220$) and female ($n = 147$), was enrolled full-time and had completed at least one full academic year of study.

The student-athletes are enrolled in a Midwestern university founded in the late 1800's which has an overall enrollment of over 25,000 students. There are nearly 1,200 faculty members teaching an undergraduate population of 18,500 and a graduate population of 6,800, translating into a student-to-faculty ratio of 17-1. The student body is approximately 46% male and 54% female with 25% being ethnic minorities. There are close to 1,000 international students representing 88 nations.

The academic programs vary across both undergraduate and graduate levels. The university offers 54 academic majors and 60 minors. Undergraduate colleges are in Business, Education, Engineering and Engineering Technology, Health and Human Sciences, Liberal Arts and Sciences, and Visual and Performing Arts. The graduate school offers study in over 100 major programs and specializations including Accountancy, Business Administration, Fine Arts, Education, Public Administration,

Music, and Science. Finally, the institution is a member of the National Association of State Universities and Land Grant Colleges. Additionally, the institution is a full member of the elite Universities Research Association (URA) and is classified as a research intensive university.

Instrumentation

Two instruments were used to gather data from the participants about their academic and athletic satisfaction. In addition, a demographic questionnaire (see Appendix A) was collected for descriptive purposes and to use as statistical controls. The two instruments are the Athlete Satisfaction Questionnaire (ASQ) (Riemer & Chelladurai, 1998) and the Noel-Levitz Student Satisfaction Inventory (SSI) (Noel-Levitz, 2005).

Athlete Satisfaction Questionnaire (ASQ)

The Athlete Satisfaction Questionnaire (ASQ) (Riemer & Chelladurai, 1998) (see Appendix B) offers a multidimensional approach to the construct of satisfaction and includes 15 different subscales (see Appendix C) that a collegiate student-athlete can evaluate in relation to his or her athletic experience. The ASQ is a theoretically-grounded instrument that has proven to be useful in investigating athlete satisfaction.

The Athlete Satisfaction Questionnaire (ASQ) (Riemer & Chelladurai, 1998) was used to measure the participants' satisfaction with their athletic experiences. The instrument consists of 56 questions related to the athletic experiences of athletes which are answered in terms of a 7-point Likert type scale from 1 (not at all satisfied) to 7 (extremely satisfied). Scoring of the responses results in 15 subscales of satisfaction that

represent five themes. The ASQ assesses levels of perceived satisfaction and importance in terms of these 15 subscales: (a) individual performance (3 items); (b) team performance (4 items); (c) ability/utilization (5 items); (d) strategy (5 items); (e) personal treatment (5 items); (f) training and instruction (3 items); (g) team task contribution (2 items); (h) team social contribution (2 items); (i) ethics (4 items); (j) team integration (3 items); (k) personal dedication (4 items); (l) budget (4 items); (m) medical personnel (4 items); (n) academic support services (4 items), and (o) external agents (4 items). The five themes into which the factors cluster are: (a) satisfaction with aspects of performance; (b) the team; (c) the organization; (d) leadership; and (e) the individual correlates of sport involvement that are summed for an overall score of athlete satisfaction.

To allow for comparing the respondents' ratings of satisfaction of their athletic experiences with the importance they assign to the particular item, a second set of ratings was added to the instrument. In other words, after rating their satisfaction, the respondents were asked to rate the importance of that item. Thus, each of the 56 items regarding satisfaction has a corresponding importance rating. A copy of the revised form appears in Appendix B.

Validity of the Athlete Satisfaction Questionnaire (ASQ)

The Athlete Satisfaction Questionnaire has established construct and content validity (Riemer & Chelladurai, 1998). To develop construct validity of the ASQ, qualitative procedures were used to generate items, including expert judgment, and procedures that grouped items in relevant facets. To establish content validity a panel of experts (i.e., including four university faculty members in sport psychology and sport

management, an athletics administrator, a university coach, and a former athlete) were asked to evaluate the appropriateness of the items assigned to each facet and to propose any new items. It should be noted that due to the lack of other multidimensional measures of athlete satisfaction, no concurrent validity tests could be undertaken.

Reliability of the Athlete Satisfaction Questionnaire (ASQ)

The Athlete Satisfaction Questionnaire (Riemer & Chelladurai, 1998) has demonstrated strong reliability for each subscale (15) measured by Cronbach's alpha coefficients $> .70$ and has been validated with college populations. The internal consistency coefficients (Cronbach's alpha) were calculated for all factors. They ranged from .78 to .95 ($M = .88$) and were higher than .85 in 12 of the 15 subscales, higher than .80 in one, and were .78 and .79 in the remaining two subscales (Riemer & Chelladurai, 1998). For this study, a Cronbach's alpha coefficient was calculated to assess the alpha reliability for each of the 15 subscales.

Student Satisfaction Inventory (SSI)

The Student Satisfaction Inventory (SSI) (Noel-Levitz, 2002) measures student perceptions about the level of satisfaction and the importance of facets of campus and academic experiences. The SSI has been used to measure student satisfaction in a number of studies at over 1200 four-year institutions (Low, 2000).

Student satisfaction with their academic experience was measured using a shortened version of the Noel-Levitz (2000) Student Satisfaction Inventory (SSI) (see Appendix D). This instrument consisted of 41 items representing a variety of college experiences. The shortened version of the SSI assesses levels of perceived satisfaction and importance in terms of nine subscales (see Appendix E): (a) academic advising

effectiveness (4 items); (b) campus climate (4 items); (c) campus life (4 items); (d) campus support services (7 items); (e) instructional effectiveness (7 items); (f) recruitment and financial aid effectiveness (5 items); (g) registration effectiveness (4 items); (h) campus safety and security (4 items); and (i) student-centeredness (2 items).

Respondents were asked to make two separate assessments for each item, one about satisfaction and the other about the importance of the item. Each scale is anchored with the same response selections. Specifically, a 7-point Likert-type scale with ratings ranging from “extremely dissatisfied” (1) to “extremely satisfied” (7) as well as a midpoint rating with the descriptor moderately satisfied (4). The importance items are scaled in the exact same manner with (1) representing “not at all important” to (7) representing “extremely important” and the midpoint was linked with the descriptor “moderately important” (4).

The data from the SSI provided three scores for each item: (a) an importance score; (b) a satisfaction score; and (c) a performance gap score, which is determined by subtracting the satisfaction score from the importance score. A large performance gap score on an item indicates the expectations of students are not being met. A small or zero gap score indicates the expectations of the students are being met. A negative gap score indicates the expectations of the students are being exceeded.

Validity of the Student Satisfaction Inventory (SSI)

The SSI has been tested against other commonly used instruments of student satisfaction – the College Student Satisfaction Questionnaire (CSSQ) (Pace, 1988) and the College Satisfaction Survey (CSS) (Astin, 1968). Concurrent validity was assessed by correlating satisfaction scores from the SSI with satisfaction scores from the CSSQ,

another statistically reliable satisfaction instrument. The Pearson correlation between these two instruments ($r = .71$; $p < .00001$) indicates that the SSI's satisfaction scores measure the same satisfaction construct as the CSSQ (Noel-Levitz, 2005). Beltyukova (2002) demonstrated high convergent validity between the SSI and five subscales of the CSS. The author contended that the metrics must be interpreted in light of the fact that these instruments differ in the number and content of the satisfaction items as well as the scoring metrics.

Researchers in the area of student development contend that the different factors or subscales identified in these various instruments indicate that each instrument uses a different operational definition of student satisfaction; this suggests a lack of agreement about the student satisfaction construct (Benjamin & Hollings, 1997; Donohue, 1997; Upcraft & Schuh, 1996). Thus, when instruments differ in the number and content of satisfaction items and use different rating scales, the comparison between instruments will be unbalanced. Beltyukova and Fox (2002) contend that this fundamental problem could be avoided if existing measures of student satisfaction were calibrated into objective reproducible measures that could comprise a common metric of student satisfaction.

Reliability of the Student Satisfaction Inventory (SSI)

The SSI has reported Cronbach's coefficient alpha of .97 for the set of importance scores and is .98 for the set of satisfaction scores. It also demonstrates good score reliability over time; the three-week test-retest reliability coefficient is .85 for importance scores and .84 for satisfaction scores (Low, 2000). For this study, a

Cronbach's alpha coefficient was calculated to assess the alpha coefficient for each of the nine subscales.

Demographic Survey

The participants completed a demographic survey anonymously to allow for describing the population and to provide the controlling variables that were used in analyzing the data. Specifically, the demographic variables included the following: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual versus team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed. As was discussed in the review of the literature (Chapter II), each of these variables was carefully selected from the empirical literature on satisfaction within both academics and athletics.

Procedures

Approval for the conduct of the study was granted by the university at which the participants reside (see Appendix F). Once IRB approval from that institution had been secured as well as approval from the University of Tennessee (see Appendix G), all of the student-athletes were enlisted for participation in the study. The 367 student-athletes were in mandatory weight training sessions organized by sport during the first two weeks of the spring academic term. During these sessions, the Director of the Department of Intercollegiate Athletics, who was also the principal researcher, requested their participation in the study. He explained the purpose and nature of the study, how data was going to be collected (anonymously) and reported (aggregated), how the instruments would be distributed and collected, that their participation is strictly voluntary, that there will be no penalty for not participating, and that safeguards

have been included so that no one would know whether they had participated or not (see Appendix H). The researcher has developed rapport with all 367 student-athletes in his position as the Director of Intercollegiate Athletics; therefore, after answering questions the athletes had about the study and their participation, in order to ensure that they make a voluntary decision about participating, he then excused himself.

The instruments were distributed by an assistant who had previous research experience at a time deemed reasonable by the coach as well as the strength and conditioning staff; then they comfortably excused themselves. The assistant reviewed the nature and purpose of the study, how the materials would be handled and reminded the student-athletes that their participation was strictly voluntary. Completion of the instruments would constitute informed consent.

In light of the fact that the researcher who made the request for participation is also the Director of Intercollegiate Athletics, special precautions were taken in handling the instruments. A sealable envelope for the placement of each student-athlete's questionnaires was provided. Student-athletes who did not wish to participate were asked to put their blank forms in the envelope so they would not be identifiable as non-participants. The assistant then distributed the instruments and envelope into which to insert all of the materials, allowed time for their completion, and requested that all of the forms be placed in the envelope upon completion of the questionnaire. The completed packets for each sport team were randomly numbered 1 – 16 to allow for greater confidentiality (see Appendix I).

The data from the demographic survey, ASQ, and SSI was inputted using the Statistical Package for Social Sciences program (SPSS). Finally, see Appendix J for the Model Specification Table.

Data Analysis

The Data Analysis section that follows was structured in terms of the research questions. In order to answer Research Question One:

1. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?

The researcher first calculated a composite score for each respondent for each item on each instrument (ASQ and SSI). Next, descriptive statistics for each composite scale were calculated. Finally, bivariate correlation tests were used to measure the relationship between athletes' satisfaction with their academic and athletic experiences. This procedure is consistent with recommendations offered by Pace (1988) and Astin (1968) for assessing the relationship between satisfaction scores.

To answer Research Question Two:

2. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic satisfaction controlling for differences by: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed?

Hierarchical multiple regression analyses were conducted. Hierarchical regression analysis is "a method of regression analysis in which independent and control variables are entered into the regression equation in a sequence specified by the researcher in

advance. The hierarchy (i.e., order of the variables) “is determined by the researcher’s theoretical understanding of the relations among the variables” (Vogt, 1999, p. 129). The dependent variable was satisfaction with athletic experiences as measured by the ASQ. Satisfaction with academic experiences as measured by the SSI served as the primary independent variable. Control variables (i.e., ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed) were entered into the regression equation followed by academic satisfaction to isolate the net impact of the primary independent variable on athletic satisfaction. Using this technique, the multiple correlation coefficient (R^2) indicated the overall relationship between academic and athletic satisfaction controlling for all other differences. A p -value using an alpha of $< .05$ was used to indicate the acceptable level of type 1 error. Beta coefficients were calculated to indicate the relationship between each independent factor and the dependent variable.

In order to answer Research Question Three:

3. What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

Gap scores were calculated by subscales for each instrument (gap score = importance score - satisfaction score). Performance gap scores indicated the degree of congruence between the respondents’ assessment of the importance of the factor and their satisfaction with the factor. A large positive gap score for an item (i.e. 1.5 or above) indicates that the institution is not meeting students’ expectations. A small or zero gap score (e.g. 0 - 1.4)

indicates that an institution is meeting students' expectations, and a negative gap score signals that an institution is exceeding the students' expectations.

CHAPTER IV

Findings of the Study

The purpose of this study was to examine the relationship between academic and athletic satisfaction for Division IA intercollegiate athletes. Student-athletes at a Division IA university in the Midwest completed the Student Satisfaction Inventory (SSI) and the Athlete Satisfaction Questionnaire (ASQ), in addition to a demographic survey. The data were analyzed using a variety of analytical procedures as indicated in the relevant sections in order to answer the research questions guiding this study:

1. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?
2. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic satisfaction controlling for differences by: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed?
3. What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

The findings of the study are presented in this chapter. Following the demographic description of the participants in the study, the findings are presented in terms of the three research questions.

Demographic Data

The 367 student-athletes at the selected university were invited to participate in the study. Of this population, 360 student-athletes participated in the study for a 98% participation rate. The participants included 213 males (59.1%) and 145 (40.2%) females with two (0.7%) student-athletes not reporting their gender. There were 16 teams that participated with nine being female sport programs and seven male sport programs. Of those sixteen sport programs, nine were led by male head coaches and seven were directed by female coaches.

In addition, eight sport programs were considered team-oriented (i.e., basketball, football, softball, etc.), while eight sport programs were termed individual-oriented (i.e., golf, tennis, cross country, etc.). Finally, seven teams had winning seasons, while nine had overall losing seasons at the time of this study.

As may be seen in Table 1, the majority of student-athletes were Caucasian ($N = 251$; 69.7%), followed by African-American ($N = 73$; 20.3%), Hispanic ($N = 21$; 5.8%), Asian/ Pacific Islander ($N = 7$; 1.9%) and finally, American Indian ($N = 6$; 1.7%). Two student-athletes (0.6%) did not report their ethnicity.

Table 1. Ethnicity of Student-Athletes

Status	N	%
Caucasian	251	69.7
African American	73	20.3
Hispanic	21	5.8
Asian/Pacific Islander	7	1.9
American Indian	6	1.7
Did Not Report	2	0.6
Total	360	100%

As may be seen in Table 2, 98 participants were freshman (27.2%), 85 student-athletes were in the sophomore class (23.6%), 84 were juniors (23.3%), and 93 participants were seniors (25.8%). Thus, each of the class years was well-represented.

Student-athletes who had been injured during the year were asked to report the duration of that injury. To this point, injuries were reported by 149 student-athletes (41%). The duration of injuries ranged from one week or less ($N = 30$; 20.1%) to five to six weeks ($N = 39$; 26.1%) with similar numbers and percentages found within that range as shown below in Table 3.

The participants were asked about the leadership style of coach they most preferred. To this end, Table 4 reflects the student-athletes' preferences. The majority of student-athletes preferred the coach to make not all but the majority of decisions.

Table 2. Year in School of Student-Athletes

Status	N	%
Freshman	98	27.2
Sophomore	85	23.6
Junior	84	23.3
Senior	93	25.8
Total	360	100%

Table 3. Injury Duration of Student-Athletes

Status	N	%
1 week or less	30	20.1
1-2 weeks	33	22.2
2-3 weeks	25	16.8
4-5 weeks	22	14.8
5-6 weeks	39	26.1
Total	149	100%

Table 4. Leadership Style of Coach

Decision Making	N	%
Coach Has All Say	60	16.7
Coach Major Say	195	54.2
Coach-Student Joint	97	26.9
Student Major Say	4	1.1
Student Has All Say	1	0.2
Did Not Report	3	0.8
Total	360	100%

Table 5. Grade Point Average of Student-Athletes

Status	N	%
2.0-2.4	53	14.7
2.5-2.9	130	36.1
3.0-3.2	66	18.3
3.2-3.5	55	15.3
3.5-3.7	19	5.3
3.7-4.0	37	10.3
Total	360	100%

The Grade Point Averages of the student-athletes participating in this study are shown in Table 5. The majority had between a 2.5-2.9 GPA ($N = 130$; 36.1%), followed by 3.0-3.2 GPA ($N = 66$; 18.3%), 3.2-3.5 GPA ($N = 55$; 15.3%), 2.0-2.4 GPA ($N = 53$; 14.7%), 3.7-4.0 GPA ($N = 37$; 10.3%) and 3.5-3.7 GPA ($N = 19$; 5.3%). It is important to note that all 360 student-athletes had a 2.0 or above grade point average.

Findings

Research Question #1: What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?

Given the uneven number of items in the tests to be correlated, an overall score for each person on each test (ASQ and SSI) had to be calculated (summated scale). All

responses were summed to create a composite score for athlete satisfaction and another for student satisfaction. Cronbach's alpha for athlete satisfaction was .95; Cronbach's alpha for student satisfaction was .96 echoing the psychometric properties of the instruments used in the original study for scale development (Riemer & Chelladurai, 1998; Noel-Levitz, 2002). Descriptive statistics (i.e., mean, minimum/maximum, standard deviation) were generated for each scale, as may be seen in Table 6. Individuals who did not respond to all questions were excluded yielding a "valid *N*" of 319 (88.6%).

To measure the relationship between students' academic and athletic satisfaction, bivariate correlation tests were conducted. As indicated in Table 7, the relationship between student-athletes' academic and athletic satisfaction was statistically significant,

Table 6.Descriptive Statistics for Summated Scores

	N	Minimum	Maximum	Mean	Std. Deviation
TOTAL ASQ SATISFACTION	334	150.00	392.00	290.7590	41.97663
TOTAL SSI SATISFACTION	330	135.00	287.00	218.5182	33.71706
Valid N (listwise)	319				

Table 7.Correlation Among the Satisfaction Scales

		TOTAL ASQ SATISFACTION	TOTAL SSI SATISFACTION
TOTAL ASQ SATISFACTION	Pearson Correlation	1	.547(**)
	Sig. (2-tailed)		.000
	N	334	319
TOTAL SSI SATISFACTION	Pearson Correlation	.547(**)	1
	Sig. (2-tailed)	.000	
	N	319	330

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

$r(319) = .55, p < .01$. The results suggest that student-athletes who were satisfied with their athletic experiences were also satisfied with their academic experiences.

Research Question #2: What is the relationship between Division 1A intercollegiate athletes' satisfaction with their academic and athletic satisfaction controlling for differences by: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed?

Hierarchical regression analysis was used to answer Research Question Two. Prior to running the regressions certain decisions were made relative to the data. Specifically, the ethnicity category was collapsed from six categories (African-American, Caucasian, Hispanic, Asian/Pacific Islander, American Indian, and Other) to three categories (African-American, Caucasian, and Other). This was decided due to the small numbers of athletes who were Hispanic ($n = 21$), Asian/Pacific Islander ($n = 7$), American Indian ($n = 6$), and other ($n = 2$). Ethnicity was dummy coded (0 = not present; 1 = present). All other variables were coded as shown in the Model Specification Table (see Appendix J).

Hierarchical regression tests were conducted to measure the relationship between athlete satisfaction and academic satisfaction controlling for an array of intervening variables. Regression results suggest that a significant relationship exists, $F(12, 71) = 6.037, p < .01$, as may be seen in Table 8.

The sample multiple correlation coefficient was .71, indicating that approximately 51% of the variance in athlete satisfaction, the dependent variable, was accounted for by the linear combination of measures.

Table 8. Test of Significance for Regression Model

	Sum of Squares	df	Mean Square	F	Sig.
Regression	85886.03	12	7157.17	6.037	.000(a)
Residual	84177.65	71	1185.60		
Total	170063.68	83			

a. Predictors: (Constant), African American, Other, Student-Athlete Gender, Leadership Style of Coach, Team Type (Individual/Team), Season Record, Year In School, Grade Point Average, Injury, Extent of Missed Games (#), Total Academic Satisfaction

b. Dependent Variable: Total Athlete Satisfaction

Results of the final hierarchical regression analysis are presented in Table 9. Of the variance explained by the linear combination of measures, 25% was accounted for by the controlling variables (R^2 change = .25) and 26 % was accounted for by academic satisfaction (R^2 change = .26). Two of the controlling variables were significant predictors: Student-Athlete Gender ($p = .023$) and Extent of Games Missed ($p = .039$). While not significant, one other controlling variable approached the level of significance: Leadership Style of Coach ($p = .077$).

There was an inverse relationship between gender and athletic satisfaction suggesting that females were less satisfied with their athletic experiences than males ($b = -9.073$). Similarly, there was an inverse relationship between extent of games missed and athlete satisfaction ($b = -4.397$). Therefore, the higher the number of games missed, the lower the score on athlete satisfaction. While not significant, there was a positive relationship approaching significance between the leadership style of the coach and athletic satisfaction ($b = 10.406$). Specifically, the higher the score, meaning the greater student input and direction, the higher the score on athletic satisfaction.

Above all, however, the significant relationship between athletic satisfaction and academic satisfaction remained strong ($p < .01$) and positive and was not erased by the

Table 9. Results of Final Hierarchical Regression Analysis

Variables	Unstandardized Coefficients		Standardized Coefficients	t	
	B	Std. Error	Beta	B	Sig.
(Constant)	148.337	56.358		2.632	.010
African-American	9.702	11.185	.085	.867	.389
Other	2.254	12.793	.015	.176	.861
Student-Athlete Gender	-9.073	3.908	-.212	-2.322	.023
Coach Gender	15.161	10.820	.141	1.401	.166
Leadership Style of Coach	10.406	5.808	.172	1.792	.077
Team Type: Individual/Team	-1.463	8.833	-.015	-.166	.869
Season Record	4.109	8.502	.044	.483	.630
Year In School	5.280	3.680	.134	1.435	.156
Grade Point Average	3.100	2.885	.112	1.074	.286
Injury	-53.520	36.456	-.129	-1.468	.146
Extent of Games Missed (#)	-4.397	2.089	-.198	-2.104	.039
Total Academic Satisfaction	.738	.122	.587	6.032	.000

a Dependent Variable: Total Athletic Satisfaction

controlling variables. A high score on academic satisfaction, as measured by the SSI, correlated positively to a high score on athletic satisfaction, as measured by the ASQ. The results suggest that academic satisfaction is the most powerful predictor of athletic satisfaction.

Research Question #3: What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

Gap scores were calculated by subscales for each instrument (importance score minus satisfaction score). Descriptive statistics were used to analyze the gap scores using the framework provided by the authors of the instrument (Noel-Levitz, 2002) to interpret

the results of the SSI. A large positive gap score for a subscale item (i.e., 1.5 or above) indicates that the institution is not meeting the students' expectations. A small or zero gap score (i.e., 0 - 1.4) suggests that an institution is meeting the students' expectations. A negative gap score signals that an institution is exceeding the students' expectations. The same framework was adopted for interpreting the gap scores on the ASQ. The subscales for each instrument are described in Appendix C (ASQ) and Appendix E (SSI).

The results of analyzing the gap scores for the 15 subscales of the ASQ are shown in Table 10. The results suggest that the institution is not meeting the expectations of the student-athletes' in four areas: Budget: ASQ_12 ($\Delta M = 1.96$), Team Performance: ASQ_2 ($\Delta M = 1.61$), Ability/Utilization: ASQ_3 ($\Delta M = 1.55$), and External Agents: ASQ_15 ($\Delta M = 1.46$). There is one other area which should be noted, Individual

Table 10. Mean Differences Between Importance and Satisfaction on ASQ Subscales
($N = 334$)

	ΔM	Std. Deviation	Minimum	Maximum
ASQ_1: Individual Performance	1.4489	1.30349	-2.33	5.00
ASQ_2: Team Performance	1.6168	1.22025	-2.00	5.50
ASQ_3: Ability/Utilization	1.5553	1.57840	-3.20	5.80
ASQ_4: Strategy	1.4232	1.44479	-2.40	5.60
ASQ_5: Personal Treatment	1.0661	1.66625	-4.40	5.60
ASQ_6: Training and Instruction	1.3582	1.67313	-2.67	6.00
ASQ_7: Team Task Contribution	.9499	1.31729	-2.50	5.50
ASQ_8: Team Social Contribution	.0222	1.56253	-5.00	4.50
ASQ_9: Ethics	.5301	1.23227	-3.25	5.00
ASQ_10: Team Integration	1.1036	1.29606	-2.67	5.33
ASQ_11: Personal Dedication	.5458	.95600	-3.25	4.75
ASQ_12: Budget	1.9650	1.84741	-3.00	6.00
ASQ_13: Medical Personnel	.9499	1.46324	-5.25	6.00
ASQ_14: Academic Support Services	.6964	1.47799	-4.25	6.00
ASQ_15: External Agents	1.4635	1.91120	-5.00	6.00

Performance: ASQ_1, since it has a mean difference of 1.45 which approaches the “not meeting expectations” threshold. The areas in which the student-athletes’ expectations are not being met represent aspects of their campus life that an institution may need to address.

Conversely, the expectations of the student-athletes appear to be met in all 10 other areas, particularly Team Social Contribution: ASQ_8 ($\Delta M = .02$), Ethics: ASQ_9 ($\Delta M = .53$), Personal Dedication: ASQ_11 ($\Delta M = .53$), and Academic Support Services: ASQ_14 ($\Delta M = .69$).

The results of analyzing the gap scores for the nine subscales of the SSI are shown in Table 11. The results suggest that the institution is meeting the academic expectations of the student-athletes’ in all nine areas and that they are satisfied with their academic experiences. Campus Support Services: SSI_4 ($\Delta M = .51$), Campus Climate: SSI_2 ($\Delta M = .64$), and Registration Effectiveness: SSI_7 ($\Delta M = .64$) had the strongest mean differences for athletes’ level of satisfaction with their academic experiences.

Table 11. Mean Differences Between Importance and Satisfaction on SSI Subscales
($N = 330$)

	ΔM	Std. Deviation	Minimum	Maximum
SSI_1: Academic Advising Effectiveness	.8534	1.35741	-3.00	5.50
SSI_2: Campus Climate	.6393	1.25778	-3.25	3.75
SSI_3: Campus Life	1.0220	1.41573	-3.25	5.00
SSI_4: Campus Support Services	.5136	1.19347	-2.86	3.29
SSI_5: Instructional Effectiveness	.7558	1.10274	-2.86	3.57
SSI_6: Recruitment and Financial Aid Effectiveness	.8217	1.42734	-3.80	4.60
SSI_7: Registration Effectiveness	.6406	1.22250	-3.00	4.50
SSI_8: Campus Safety and Security	1.3223	1.32306	-3.50	4.75
SSI_9: Student Centeredness	.9183	1.36607	-3.00	6.00

One area, Campus Safety and Security: SSI_8 ($\Delta M = 1.32$), approached the 1.5 level for not meeting expectations and, therefore, warrants special identification. It suggests that this may be an area of concern for the institution.

CHAPTER V

Summary, Discussion, and Conclusions

Student satisfaction is a critical element of any higher education assessment plan. Satisfaction assessment allows institutions to strategically and tactically target areas in need of attention as well as garner positive feedback in places where expectations are being met. Further, it facilitates the fundamental principle of listening to your most important constituent – the students. Student-athletes are both students and athletes. Assessing their satisfaction with both aspects of their experiences (i.e., academic and athletic) is an important dimension of that assessment. While we know some things about student-athletes' satisfaction with their athletic experiences, we know little about satisfaction with their academic experiences.

The purpose of this study was to examine the relationship between academic and athletic satisfaction for Division IA intercollegiate athletes. Student-athletes ($N = 367$; 16 teams) at a Division IA university in the Midwest completed the Athlete Satisfaction Questionnaire (ASQ) (Riemer & Chelladurai, 1998) and the Student Satisfaction Inventory (SSI) (Noel-Levitz, 2005), in addition to a demographic survey. The data were analyzed using a variety of analytical procedures including descriptive statistics, bivariate correlation, and hierarchical regression in order to answer the research questions guiding this study:

1. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?
2. What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic satisfaction controlling for

differences by: ethnicity of athlete, gender of athlete, gender of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, injury incurred, and extent of games missed?

3. What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

Following is a summary of the findings, discussion of the findings, conclusions, implications of the study, and recommendations for further research which are presented in this chapter.

Summary of the Findings

1. The findings suggest that student-athletes who were satisfied with their athletic experiences were also satisfied with their academic experiences. The relationship between their academic and athletic satisfaction was statistically significant at the .01 level.

2. The statistically strong, positive relationship ($p < .01$) between academic and athletic satisfaction remained even after controlling for the intervening variables, suggesting that academic satisfaction was the most powerful predictor of athletic satisfaction.

3. Two of the controlling variables were significant predictors of athletic satisfaction: Student-Athlete Gender ($p = .023$) and Extent of Games Missed ($p = .039$). One additional controlling variable approached the level of significance: Leadership Style of Coach ($p = .077$).

There was an inverse relationship between gender and athletic satisfaction suggesting that females were less satisfied with their athletic experiences than males ($b = -9.073$). Similarly, there was an inverse relationship between extent of games missed and athletic satisfaction ($b = -4.397$). Therefore, the higher the number of games missed, the lower the score on athletic satisfaction. There was a positive relationship approaching significance between the leadership style of the coach and athletic satisfaction ($b = 10.406$). Specifically, the higher the score, meaning greater student input and direction, the higher the score on athletic satisfaction.

4. Mean differences between importance and satisfaction ratings on the ASQ, suggest that the institution is *not* meeting the expectations of the student-athletes in four athletic areas: Budget ($\Delta M = 1.96$), Team Performance ($\Delta M = 1.61$), Ability/Utilization ($\Delta M = 1.55$), and External Agents ($\Delta M = 1.46$). One other area approached the level of not meeting expectations (1.5 or above), Individual Performance ($\Delta M = 1.45$).

Conversely, the expectations of the student-athletes appear to be met in all 10 other areas, particularly Team Social Contribution ($\Delta M = .02$), Ethics ($\Delta M = .53$), Personal Dedication ($\Delta M = .53$), and Academic Support Services ($\Delta M = .69$).

5. Mean differences between importance and satisfaction ratings on the SSI, suggest that the institution is meeting the academic expectations of the student-athletes in all nine areas, particularly Campus Support Services: ($\Delta M = .51$), Campus Climate ($\Delta M = .64$), and Registration Effectiveness ($\Delta M = .64$). One area, Campus Safety and Security ($\Delta M = 1.32$) approached the 1.5 level for not meeting expectations.

Discussion

The study was undertaken to learn whether there was a relationship between student-athletes' satisfaction with their athletic experiences and their academic experiences, something that had not been investigated in the existing literature. As has been discussed earlier in this study, prior research on student-athletes has focused almost exclusively on their athletic experiences (c.f.: Chelladurai, 1980; Black & Weiss, 1992; Bruening, Armstrong, & Pastore, 2005; Eys, Carron, Bray, & Beauchamp, 2003; Riemer & Chelladurai, 1995; Riemer & Chelladurai, 1998; Solomon, DiMarco, Ohlson, & Reece, 1998; Unruh, Unruh, Moorman, & Seshadri, 2005; Weiss & Friedrichs, 1986) and has given almost no attention to their academic experiences. This study fills that gap in the research and literature while providing empirical evidence for the strong, positive relationship between student-athletes' academic and athletic experiences. At the same time, the study suggests that the two dimensions of student-athlete life (athlete; student) are inextricably interrelated.

Of all of the variables examined in this study, the finding that academic satisfaction is the most powerful predictor variable of athletic satisfaction is an interesting and instructive one. Research on athletic satisfaction alone has identified role ambiguity (Eys et al., 2003; Riemer & Chelladurai, 1998), individual and team performance (Chelladurai, 1980), and leadership and team involvement (Chelladurai, 1980; Riemer & Chelladurai, 1995) as critical variables in athlete satisfaction. Without denying the role these factors may play in athletic satisfaction, the findings of this study demonstrate that while several factors in the athletic experience affect overall athletic satisfaction, it is academic satisfaction that plays a defining role.

What might account for this finding? Hopefully, it affirms the notion that student-athletes are students first and athletes second, and that they see themselves in this manner. If true, it is extremely heartening and would counter long-standing criticism that Division IA institutions do not appropriately develop student-athletes academically.

Over the last decade or more, the National Collegiate Athletic Association (N.C.A.A.) has imposed academic legislation on all athletic programs. Its mandates have been directed to ensuring the academic preparation, success and persistence of student-athletes. In response to these mandates, athletic departments, and the universities of which they are a part, have allocated additional resources for academic support services to ensure that their student-athletes meet as well as exceed the academic requirements set forth by the N.C.A.A. The increasing number of academically-related services and the increased attention to the academic experiences of student-athletes may contribute to their understanding of themselves as students and not solely athletes. This may also contribute to institutional expectations and understandings that student-athletes are students as well as athletes.

At the same time, this finding may also be reflective of what the institution is doing to provide academic support which may be influencing this result. For example, the institution in which this study took place has demonstrated a strong and deep commitment towards supporting academic services over the last several years (i.e., fifty new lap-tops for student-athlete travel, additional tutors, increase in the number of full-time staff members, etc.).

As mentioned above, the literature on athletic satisfaction has identified several factors which are important to athletic satisfaction for student-athletes. The findings of

this study suggest that gender, the number of games missed, the extent of involvement in decision making (Leadership Style of Coach), and perhaps, campus safety and security are key variables influencing athletic satisfaction. It is difficult to compare these findings with the findings of the literature on athletic satisfaction. These studies look at different aspects of the athletic experience and define the variables in different ways. Thus, some of the findings of this study relate tangentially to the findings in the athletic satisfaction literature; others are new or inconsistent with those findings.

Studies of student satisfaction, in contrast to studies of athletic satisfaction, have identified gender as a variable in academic satisfaction (Astin, 1993a). Females have been found to be more satisfied with their academic experiences than males. Further, females have been found to have higher GPA's/academic achievement which has been found to correlate with greater levels of academic satisfaction (Benjamin & Hollings, 1997; Pennington, Zvonkovic, & Wilson, 1989). While gender has been used as a variable in a few studies of athletic satisfaction, its use has been directed to discrete aspects of the athletic experience (i.e., trainers and female African-American athletes and their sense of what was different about their experiences) (Bruening et al., 2005; Unruh et al., 2005)). The present study is one of the first to identify gender as a factor in athletic satisfaction, and in contrast to the existing literature on student satisfaction with their academic experiences, to find that female athletes are less satisfied with their academic experiences than male athletes.

In the absence of additional research about why females in the study were less satisfied with their athletic experiences than males, it is difficult to speculate about the reasons for this finding. It may be the case that the nature of social relationships, given

their importance to women (Benjamin & Hollings, 1997) explains this particular finding. In addition, it is interesting to consider whether the four areas that “did not meet” the expectations of the student-athletes in the study - budget, team performance, ability/utilization, and external agents - had a greater impact on female athletes than male athletes. In general, although it varies widely from institution to institution and from sport to sport, female athletic teams do not always receive the same level of budgetary or fan support as their male counterparts. It is conceivable that female athletes may be dissatisfied with any discrepancy that they perceive in the way teams are treated on the basis of gender. At the same time, this finding may relate solely to the institution studied. The need for a greater understanding of the perceptions that underlie this finding in the study is clear and compelling.

The finding that the number of games missed influenced the satisfaction levels of student-athletes with their athletic experiences seems consistent with Chelladurai's (1984) finding that athlete satisfaction was linked to individual performance as well as overall involvement on the team. Clearly, if student-athletes have missed games due to injury there is a feeling of disconnect between the athletes and their teams, which could reasonably lead to a drop in the level of satisfaction experienced. Since many of the respondents in the study believed they were making a contribution to the team, it is not unreasonable to assume that if they missed games they would perceive that their contribution to the team would be lost, contributing potentially to decreased satisfaction with their athletic experience. Further, it would be interesting to consider whether for student-athletes, games missed (number and extent) equates to involvement in campus

experiences, a factor linked to greater academic satisfaction in the literature on student satisfaction (Elliott & Healy, 2001).

In their study of football players, Riemer and Chelladurai (1995) found that the players preferred a more democratic leadership style of the coach, which was linked to greater levels of satisfaction with their athletic experience. The findings of this study appear to support Riemer and Chelladurai's (1995) findings and extend them to all kinds of sports. Student-athletes appear to be more satisfied with their athletic experiences when they perceive that they are more involved in the decisions being made (increase in the democratic leadership style of the coach). It may also be that more involvement is related to greater amounts of feedback to the athlete about his/her performance, which Solomon, et al., (1998) found to be positively related to athlete satisfaction.

The finding that campus safety and security was of some concern to the student-athletes was an unexpected finding of this study. This finding may be idiosyncratic to the institution studied. Three weeks prior to the administration of the instruments used in this study, there were two separate incidents of violence that occurred on or near campus. It may be that the student-athletes responses on campus safety as well as security were strongly influenced by those incidents. The finding may also reflect the growing numbers of transgressions of campus safety and security in colleges and universities across the country reported in the media. All institutions need to be concerned with both the perception and reality of campus safety and security since overall campus life and campus climate have been found to be related to students' overall satisfaction with their academic experiences (Elliott & Healy, 2001).

Finally, the finding that there were differences between importance and satisfaction related to budget, team performance, ability/utilization, and external agents raises potentially important questions that need to be studied. This might have been reflective of a single point in time within this department. Obviously, these athletic satisfaction areas are critical to the overall success of any athletics department.

Conclusions

Based on the findings of the study, it is reasonable to conclude that student-athletes' satisfaction with their athletic experience is intimately related to their satisfaction with their academic experiences. Indeed, their academic satisfaction is predictive of their athletic satisfaction.

Implications of the Study

While the findings of the study are limited to the institution studied, they have far-reaching implications for athletic departments and institutions of higher education nationally. These implications relate to being able to identify areas of student-athletes' academic and athletic experiences that may warrant attention and/or remediation (process) and the value of attending to the academic satisfaction of student-athletes.

Athletic departments could easily employ these two valid and reliable instruments (ASQ and SSI) used in the conduct of this study to identify both student-athletes' levels of satisfaction with aspects of their academic experiences and athletic experiences. In addition, they can determine discrepancies between the student-athletes' expectations with respect to those aspects and their levels of satisfaction with those same aspects. This would provide athletic administrators, coaches, and staff with the specific information that they may need to address these discrepancies. In using the process on a regular basis

to assess the satisfaction of student-athletes, and in addressing the findings, athletic departments would have a way of increasing student-athlete satisfaction.

The strong positive relationship between academic satisfaction and athletic satisfaction found in this study provides empirical evidence to support institutional efforts to attend to the academic needs of student-athletes. Attention to the academic satisfaction of student-athletes pays dividends not only in their levels of satisfaction with their academic experience, but with their levels of satisfaction with their athletic experiences; clearly, this is a win-win situation. It should give colleges and universities confidence that their efforts in providing additional resources to enhance the academic experiences for their student-athletes is making a positive difference.

Recommendations for Further Research

Based on the findings of the study several follow-up studies are recommended:

These include that:

1. The study be replicated with other Division IA institutions to see if the same findings occur.
2. The study be replicated at institutions that compete at levels other than Division IA (e.g., Division II, Division III, NAIA) to see if the results are similar or different from what was found in this study.
3. Qualitative studies be conducted to find out why student-athletes responded the way that they did in this study. In particular, to discover why female student-athletes were less satisfied with their experiences than males, and what student-athletes perceive to be appropriate or desirable levels of involvement in decision making (leadership style of coach).

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APPENDICES

APPENDIX A

Demographic Questionnaire

Please complete the following questions that describe your status and preference by circling the corresponding answer.

1. Your year in school (please select one):

- a) freshman b) sophomore c) junior d) senior

2. Your Gender:

- a) male b) female

Sport you participate in:

3. Please select the category which best describes your ethnic background:

- a) African American b) Caucasian c) Hispanic d) Asian or Pacific Islander
e) American Indian f) Other (please describe) _____

4. Have you been injured this past year?

- a) yes b) no

If yes, for how long? (circle only one answer):

- a) one week or less b) one- two weeks c) two- three weeks
d) four-five weeks e) five- six weeks f) all season

5. Did you miss any games due to your injury?

- a) yes b) no

If yes, how many games?

- a) one b) two c) three
d) four e) five g) six or more

6. Select the GPA that best describes your current overall GPA:

- a) 2.0-2.4 b) 2.5-2.9 c) 3.0-3.2 d) 3.2-3.5 e) 3.5-3.7 f) 3.7-4.0

7. Briefly describe your preference for your head coach's leadership style. For example, autocratic coaches do not involve their athletes in decisions while democratic coaches involve their athletes in decisions.

- a) coach makes all decisions
b) coach makes a majority of decisions
c) coach and student-athletes jointly make decisions
d) student-athletes have majority of say in decisions
e) student-athletes have all say in decisions

APPENDIX B

Athlete Satisfaction Questionnaire (ASQ)
(As Adapted from Riemer & Chelladurai, 1998)

Each item below describes an expectation about your experiences on this campus. Please circle ONE answer for both the satisfaction and importance of each area.

1. The degree to which I reached my performance goals.

Extremely <u>Dissatisfied</u>		Moderately <u>Satisfied</u>		Extremely <u>Satisfied</u>
----------------------------------	--	--------------------------------	--	-------------------------------

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>		Moderately <u>Important</u>		Extremely <u>Important</u>
--------------------------------	--	--------------------------------	--	-------------------------------

1	2	3	4	5	6	7
---	---	---	---	---	---	---

2. The team's overall performance.

Extremely <u>Dissatisfied</u>		Moderately <u>Satisfied</u>		Extremely <u>Satisfied</u>
----------------------------------	--	--------------------------------	--	-------------------------------

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>		Moderately <u>Important</u>		Extremely <u>Important</u>
--------------------------------	--	--------------------------------	--	-------------------------------

1	2	3	4	5	6	7
---	---	---	---	---	---	---

3. The degree to which my abilities were used.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>		Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>		Extremely <u>Important</u>
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1	2	3	4	5	6	7
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4. Coach's choice of strategies during games.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>		Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>		Extremely <u>Important</u>
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1	2	3	4	5	6	7
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5. The recognition I received from my coach.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>		Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>		Extremely <u>Important</u>
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1	2	3	4	5	6	7
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6. The training I received from the head coach during the season.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
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1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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7. The constructive feedback I received from my teammates.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
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1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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8. The degree to which my teammates accepted me on a social level.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
----------------------------------	--	--	--	--	-------------------------	--	--	--	--	------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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9. My teammates' sportsmanlike behavior.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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10. Team members' dedication to work together toward team goals.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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11. The funding provided to our team.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
----------------------------------	--	--	--	--	--	-------------------------------

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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12. The academic support services provided.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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13. The improvement in my performance.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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14. The extent to which our team is meeting its goals for the season.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
---	---	---	---	---	---	---

15. The improvement in my skill level this season.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
---	---	---	---	---	---	---

16. The team's win/loss record this season.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
--------------------------------	--	--	--------------------------------	--	--	-------------------------------

1	2	3	4	5	6	7
---	---	---	---	---	---	---

17. The level to which my talents are utilized.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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18. The degree to which my role on the team matches my preferred role.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
----------------------------------	--	--	--	--	-------------------------	--	--	--	--	------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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19. The tactics used during games.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
----------------------------------	--	--	--	--	-------------------------	--	--	--	--	------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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20. The manner in which coach combines the available talent.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
----------------------------------	--	--	--	--	-------------------------	--	--	--	--	------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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21. Friendliness of coach toward me.

<u>Extremely</u> <u>Dissatisfied</u>			<u>Moderately</u> <u>Satisfied</u>		<u>Extremely</u> <u>Satisfied</u>	
---	--	--	---------------------------------------	--	--------------------------------------	--

1	2	3	4	5	6	7
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<u>Not at all</u> <u>Important</u>			<u>Moderately</u> <u>Important</u>		<u>Extremely</u> <u>Important</u>	
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1	2	3	4	5	6	7
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22. My coach's loyalty toward me.

<u>Extremely</u> <u>Dissatisfied</u>			<u>Moderately</u> <u>Satisfied</u>		<u>Extremely</u> <u>Satisfied</u>	
---	--	--	---------------------------------------	--	--------------------------------------	--

1	2	3	4	5	6	7
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<u>Not at all</u> <u>Important</u>			<u>Moderately</u> <u>Important</u>		<u>Extremely</u> <u>Important</u>	
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1	2	3	4	5	6	7
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23. Extent to which coach is behind me.

<u>Extremely</u> <u>Dissatisfied</u>			<u>Moderately</u> <u>Satisfied</u>		<u>Extremely</u> <u>Satisfied</u>	
---	--	--	---------------------------------------	--	--------------------------------------	--

1	2	3	4	5	6	7
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<u>Not at all</u> <u>Important</u>			<u>Moderately</u> <u>Important</u>		<u>Extremely</u> <u>Important</u>	
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1	2	3	4	5	6	7
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24. My social status on the team.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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25. Extent to which all team members are ethical.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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26. Teammates' sense of fair play.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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27. How team works to be the best.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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28. Degree to which teammates share the same goal.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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29. Team members' dedication to work together toward team goals.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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30. Degree to which I do my best for team.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
----------------------------------	--	--	--	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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31. My dedication during practices.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
----------------------------------	--	--	--	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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32. My enthusiasm during competitions.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
----------------------------------	--	--	--	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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33. My commitment to the team.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
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1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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34. Funding provided to my team.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
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1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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35. Amount of money spent on my team.

Extremely <u>Dissatisfied</u>					Moderately Satisfied					Extremely Satisfied
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1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important					Extremely Important
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1	2	3	4	5	6	7
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36. Fairness of our team's budget.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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37. Competence of the medical personnel.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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38. Fairness with which medical personnel treat all players.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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39. Medical personnel's interest in the athletes.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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40. Promptness of medical attention.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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41. Tutoring I received.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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42. Academic services provided.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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43. Personnel from academic support services (i.e. tutors, counselors).

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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44. Media's support of our program.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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45. Support from university community.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
----------------------------------	--	--	--------------------------------	--	--	-------------------------------

1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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46. Supportiveness of the fans.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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47. Local community's support.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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48. Extent to which my role matched my potential.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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49. How the coach made adjustments during competitions.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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50. The instruction I have received from the coach this season.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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51. My coach's sportsmanship.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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52. The extent to which teammates played as a team.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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53. The amount of time I played during competitions.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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54. My coach's game/competition plans.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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55. The level of appreciation my coach showed when I did well.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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56. The coach's teaching of the tactics and techniques of my position.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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APPENDIX C

Athlete Satisfaction Questionnaire (ASQ) Subscales

1. **INDIVIDUAL PERFORMANCE** – This subscale seeks to measure an individual’s satisfaction with his/her own task performance. Task performance includes absolute, performance, improvements in performance, and goal achievement.
Items: 1, 13, 15
2. **TEAM PERFORMANCE** – This facet refers to an individual’s satisfaction with his/her team’s level of performance. Task performance includes absolute performance, goal achievement, and implies performance improvements.
Items: 2, 10, 14, 16
3. **ABILITY/UTILIZATION** – Satisfaction with how the coach uses and/or maximizes the individual athlete’s talents and/or abilities.
Items: 3, 17, 18, 48, 53
4. **STRATEGY** – Satisfaction with the strategic and tactical decisions made by the coach.
Items: 4, 19, 20, 49, 54
5. **PERSONAL TREATMENT** – Satisfaction with those coaching behaviors which directly affect the individual, yet indirectly affect team development. It includes social support and positive feedback.
Items: 5, 21, 22, 23, 55
6. **TRAINING AND INSTRUCTION** – Satisfaction with the training and instruction provided by the coach.
Items: 6, 50, 56
7. **TEAM TASK CONTRIBUTION** – Satisfaction with those actions by which the group serves as a substitute for leadership for the athlete.
Items: 7, 52

8. TEAM SOCIAL CONTRIBUTION – Satisfaction with how teammates contribute to the athlete as a person.
Items: 8, 24
9. ETHICS – Satisfaction with the ethical positions of teammates.
Items: 9, 25, 26, 51
10. TEAM INTEGRATION – This facet refers to the athlete's satisfaction with the members' contributions and coordination of their efforts toward the team's task.
Items: 27, 28, 29
11. PERSONAL DEDICATION – Athlete's satisfaction with his/her own contribution to the team.
Items: 30, 31, 32, 33
12. BUDGET – Satisfaction with the amount of money provided to the team by the athletic department.
Items: 11, 34, 35, 36
13. MEDICAL PERSONNEL – Satisfaction with the team's medical personnel.
Items: 37, 38, 39, 40
14. ACADEMIC SUPPORT SERVICES – Satisfaction with the academic support services provided to the athletes.
Items: 12, 41, 42, 43
15. EXTERNAL AGENTS – Satisfaction with those agents/elements outside the organization which may contribute to the team.
Items: 44, 45, 46, 47

APPENDIX D

Student Satisfaction Inventory (SSI)
(Noel-Levitz Group, 2002)

Each item below describes an expectation about your experiences on this campus. Please circle ONE answer for both the satisfaction and importance of each area.

1. The caring and helpfulness of the campus staff.

Extremely <u>Dissatisfied</u>		Moderately <u>Satisfied</u>		Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>		Moderately <u>Important</u>		Extremely <u>Important</u>
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1	2	3	4	5	6	7
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2. The convenience of the registration processes and procedures.

Extremely <u>Dissatisfied</u>		Moderately <u>Satisfied</u>		Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>		Moderately <u>Important</u>		Extremely <u>Important</u>
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1	2	3	4	5	6	7
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3. The safety and security of campus for all students.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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4. The content of the courses within my major.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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5. The availability of administrators to hear students' concerns.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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6. The ease of billing policies.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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7. The personalized attention by the Admissions staff prior to enrollment.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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8. The helpfulness and timeliness of financial aid.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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9. The adequacy of library resources and services.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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10. The helpfulness of academic advisor in working towards my academic goals.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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11. Availability of financial aid counseling if needed.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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12. The amount of adequate student parking space on campus.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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13. The adequacy of the residence halls in providing comfortable living conditions (adequate space, lighting, heat, air conditioning, telephones, etc.).

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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14. Accessible and adequate computer labs.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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15. Availability of academic advisor when I need help.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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16. Availability of sufficient courses within my program of study each term.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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17. Well-lit and secure parking lots.

Extremely <u>Dissatisfied</u>			Moderately <u>Satisfied</u>			Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>			Moderately <u>Important</u>			Extremely <u>Important</u>
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1	2	3	4	5	6	7
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18. Concern of residence hall staff for me as an individual.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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19. Readily available tutoring services.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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20. Academic advisor who is knowledgeable about my major requirements.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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21. Access to needed services provided by campus.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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22. Ability for me to register for classes with few conflicts.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

23. Access to help in applying my academic major to my career goals.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

24. Ability to take care of college-related business at times convenient for me.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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25. Availability of counseling center services if I need them.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

26. Help from the institution to identify resources to finance my education.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

27. The adequacy of the campus security staff.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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28. Use of a variety of technology and media in class by instructors.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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29. Adequate selection of food available on campus.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>		<u>Extremely Satisfied</u>	
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1	2	3	4	5	6	7
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<u>Not at all Important</u>			<u>Moderately Important</u>		<u>Extremely Important</u>	
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1	2	3	4	5	6	7
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30. Students being made to feel welcome here.

Extremely <u>Dissatisfied</u>					Moderately Satisfied				Extremely Satisfied
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1	2	3	4	5	6	7
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Not at all <u>Important</u>					Moderately Important				Extremely Important
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1	2	3	4	5	6	7
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31. Timely feedback by faculty about my academic progress.

Extremely <u>Dissatisfied</u>					Moderately Satisfied				Extremely Satisfied
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1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>					Moderately Important				Extremely Important
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1	2	3	4	5	6	7
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32. Accurate description of campus by admissions counselors during recruiting.

Extremely <u>Dissatisfied</u>					Moderately Satisfied				Extremely Satisfied
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1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>					Moderately Important				Extremely Important
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1	2	3	4	5	6	7
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33. Availability of adequate services to help me decide upon a career.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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34. Seldom getting the “run around” when seeking information on campus.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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35. Quality of instruction received in most of my classes.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>

1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>

1	2	3	4	5	6	7
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36. Strong commitment to diversity on this campus.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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37. Receiving ongoing feedback about progress toward my academic goals.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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38. Fair student disciplinary procedures.

Extremely <u>Dissatisfied</u>						Extremely <u>Satisfied</u>
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1	2	3	4	5	6	7
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Not at all <u>Important</u>						Extremely <u>Important</u>
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1	2	3	4	5	6	7
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39. Availability of faculty to student outside of class (during office hours, by phone, or by e-mail).

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>			<u>Extremely Satisfied</u>	
1	2	3	4	5	6	7	
<u>Not at all Important</u>			<u>Moderately Important</u>			<u>Extremely Important</u>	
1	2	3	4	5	6	7	

40. Overall maintenance of the campus.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>			<u>Extremely Satisfied</u>	
1	2	3	4	5	6	7	
<u>Not at all Important</u>			<u>Moderately Important</u>			<u>Extremely Important</u>	
1	2	3	4	5	6	7	

41. Unbiased and fair treatment of individual students by faculty.

<u>Extremely Dissatisfied</u>			<u>Moderately Satisfied</u>			<u>Extremely Satisfied</u>	
1	2	3	4	5	6	7	
<u>Not at all Important</u>			<u>Moderately Important</u>			<u>Extremely Important</u>	
1	2	3	4	5	6	7	

APPENDIX E

Student Satisfaction Inventory (SSI) Subscales

1. **ACADEMIC ADVISING EFFECTIVENESS** – Assesses the comprehensiveness of the academic advising program, evaluating advisors’ knowledge, competence, approachability, and personal concern for students.
Items: 10, 15, 20, 37
2. **CAMPUS CLIMATE** – Measures the extent to which the institution provides experiences that promote a sense of campus pride and belonging.
Items: 30, 34, 36, 40
3. **CAMPUS LIFE** – This scale assesses the effectiveness of student life programs offered by the institution, covering issues ranging from athletics to residence life. In addition, it assesses campus policies and procedures to determine students’ perceptions of their rights and responsibilities.
Items: 13, 18, 29, 38
4. **CAMPUS SUPPORT SERVICES** – Assesses the quality of support programs and services.
Items: 9, 14, 19, 21, 23, 25, 33
5. **INSTRUCTIONAL EFFECTIVENESS** – Measures students’ academic experience, the curriculum, and the campus’s overriding commitment to academic excellence.
Items: 4, 16, 28, 31, 35, 39, 41
6. **RECRUITMENT AND FINANCIAL AID EFFECTIVENESS** – Measures the extent to which admissions counselors are competent and knowledgeable as well as students’ perceptions of the effectiveness and availability of financial aid programs.
Items: 7, 8, 11, 26, 32
7. **REGISTRATION EFFECTIVENESS** – Assesses issues associated with registration and billing and the extent to which the registration process is smooth and effective.
Items: 2, 6, 22, 24

8. **CAMPUS SAFETY AND SECURITY** – Measures the institution's responsiveness to students' personal safety and security on the campus.

Items: 3, 12, 17, 27

9. **STUDENT CENTEREDNESS** – Measures the institution's attitude toward students and the extent to which they feel welcome and valued.

Items: 1, 5

APPENDIX F

IRB Approval Form: Institution of Study

April 21, 2006

MEMORANDUM

TO: James Phillips
Department of Kinesiology & Physical Education

FR: Andrea Bonnicksen, Chair
Institutional Review Board #2

Andrea Bonnicksen

RE: Faculty research involving human subjects for the project titled *An investigation of student-athlete satisfaction with their educational and sport experiences*

This is to inform you that your above-named research project has been approved by Administrative Review as exempt from the Code of Federal regulations (45 CFR 46) for the protection of human subjects. The rationale for exemption is section 46.101b, paragraph 2.

Because this research project has been designated "exempt", this approval is final. You will not need any further review of this project unless you decide to modify it. **If you intend to change the procedures, subject pool, or otherwise to modify the protocol so that it would no longer qualify as exempt, you will need to contact the Office of Research Compliance to obtain approval prior to implementing the changes.**

It is important for you to note that as a research investigator involved with human subjects, **you are responsible for retaining any signed consent forms obtained from your subjects in a secure place for a minimum of three years after the study is concluded.** If consent for the study is being given by proxy (guardian, etc.), it is your responsibility to document the authority of that person to consent for the subject. The committee also recommends that the informed consent include an acknowledgment by the subject, or the subject's representative, that he or she has received a copy of the consent form. In addition, you are required to promptly report to the IRB any injuries or other unanticipated problems involving risks to subjects and others.

Please accept my best wishes for success in your research endeavors.

AB/ska

cc: P. Carpenter
ORC (#2132)

APPENDIX G

IRB Approval Form: University of Tennessee

A. PRINCIPAL INVESTIGATOR(s) and/or CO-PI(s) (For student projects, list both the student and the advisor.):

James J. Phillips

B. DEPARTMENT:

Intercollegiate Athletics

C. COMPLETE MAILING ADDRESS AND PHONE NUMBER OF PI(s) and CO-PI(s):**D. TITLE OF PROJECT:**

An Investigation of the Relationship Between Academic and Athletic Satisfaction Among Division IA Student-Athletes

E. EXTERNAL FUNDING AGENCY AND ID NUMBER (if applicable): N/A**F. GRANT SUBMISSION DEADLINE** (if applicable): N/A**G. STARTING DATE** (NO RESEARCH MAY BE INITIATED UNTIL CERTIFICATION IS GRANTED.):

January, 2007 (or upon IRB approval)

H. ESTIMATED COMPLETION DATE (Include all aspects of research and final write-up.): **March/April 2007****I. RESEARCH PROJECT****1. Objective(s) of Project** (Use additional page, if needed.):

The purpose of this study is to examine the relationship between academic and athletic satisfaction for Division IA intercollegiate athletes. The three research questions are as follows: (1) What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences?; (2) What is the relationship between Division IA intercollegiate athletes' satisfaction with their academic and athletic experiences controlling for differences by ethnicity of athlete, gender of athlete, gender of coach, years of experience of coach, leadership style of coach, nature of sport (individual vs. team-oriented), team win/loss record, year in school, grade point average, and injury history?; and (3) What is the difference between the satisfaction and importance scores Division IA athletes assign to questions about their academic and athletic experiences?

2. Subjects (Use additional page, if needed.):

Student athletes (n=367) representing 17 different sport programs (10–female & 7–male) at _____ will serve as the subjects for this study. Permission has been granted by the University for the conduct of the study (see Appendix A). All of the research participants will be over the age of 18 years old.

3. Methods or Procedures (Use additional page, if needed.):

The 367 student athletes will be in mandatory weight training sessions organized by sport. During these sessions, the Director of Intercollegiate Athletics, who is the principal researcher, will request their participation in the study. He will explain the purpose and nature of the study, how data will be collected (anonymously) and reported (aggregated), how the two established instruments (Athlete Satisfaction Questionnaire (ASQ), and Student Satisfaction Inventory (SSI)) will be distributed and collected, that their participation is strictly voluntary, that there will be absolutely no penalty for not participating, and that safeguards have been included so that no one would even know whether they had participated or not. After answering any questions the student athletes may have about the study, the researcher will excuse himself from the room. The established instruments (ASQ & SSI) will be distributed by an assistant who has previous research experience. The assistant will review the nature and purpose of the study, how the materials will be handled and remind the student athletes that their participation will strictly be voluntary. Completion of the instruments will constitute informed consent. Special precautions will be taken in handling the instruments. A sealable envelope for the placement of each student athlete's questionnaires will be provided. Student athletes who do not wish to participate will be asked to put their blank forms in the envelope so they will not be identifiable as non-participants. The assistant will distribute the instruments and envelope into which to insert all of the materials, allow time for their completion, and request that all of the forms be placed in the envelope upon completion of the questionnaire. All of the data collected from the participants in this study will be kept in a locked steel file cabinet in the researchers office. The exact location is 1525 West Lincoln Highway, Office #200, DeKalb, Illinois 60115-2854. Note: A written copy of the researcher's remarks to the subjects will be included in participant's packet of instruments (see Appendix B).

* Copies of the instruments appear in Appendices B & D

4. CATEGORY(s) FOR EXEMPT RESEARCH PER 45 CFR 46 (See instructions for categories.):

- 2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

J. CERTIFICATION: The research described herein is in compliance with 45 CFR 46.101(b) and presents subjects with no more than minimal risk as defined by applicable regulations.

Principal Investigator: James J. Phillips
Name

James J. Phillips
Signature

1/16/07
Date

Student Advisor: Norma T. Mertz
Name

Norma T. Mertz
Signature

1/22/07
Date

Department Review Committee Chair: Robert L. Williams
Name

Robert L. Williams
Signature

1/24/07
Date

APPROVED:

Department Head:

R. Stanciewicz
Name

R. Stanciewicz
Signature

1/24/07
Date

COPY OF THIS COMPLETED FORM MUST BE SENT TO COMPLIANCE OFFICE IMMEDIATELY UPON COMPLETION.

• Clarification of these points is appended/attached

IRB CLARIFICATION

Point 1: Where the participants will be when completing the instruments:

The participants will be in the Huskey Stadium Meeting Room directly adjacent to the Weight Training Room. The room holds 150+ students.

Point 2: What non-participants will be doing while participants complete the instruments:

Participants will be required to remain in the room until all have completed the instruments or chosen not to complete the instruments. Then they will be directed to seal the instruments in the envelope provided and hand the envelope to the researcher's proxy, the student assistant.

It is not clear what non-participants will be doing while participants complete the instrument, however the room is large enough to afford protection from detection of their non-participation.

APPENDIX H

Language of the Researcher to Participants

Good morning/afternoon and thank you for being here. As you may or may not know, my name is Jim Phillips. Today I stand before you as a doctoral student at the University of Tennessee trying to conduct important research relating to student-athletes. Specifically, the purpose of my study is to examine the relationship between academic and athletic satisfaction for Division IA student-athletes.

In order to collect this data/information, I am asking each of you to consider filling out an anonymous questionnaire. The questionnaire will ask you questions regarding your satisfaction as well as importance ratings on a variety of academic and athletic issues. There is absolutely no penalty for not participating and no one will ever know who did or did not participate. The data will be reported in an aggregate manner. Again, the questionnaire is completely anonymous and should take 20-30 minutes to complete.

The questionnaire will be given to you by an assistant once I have completely reviewed the entire process with you as well as answered any questions or concerns that any of you may have. At that point, I will excuse myself from the room. You are asked to remain in your seats until everyone who wishes to has completed the instruments. Then you will be asked to return the instruments in the envelope provided whether or not you choose to complete them. Finally, you will be asked to seal the envelope tightly, and give the packet to the assistant.

The data that is being collected today will be used in my dissertation as a doctoral student at the University of Tennessee. Again, it is anonymous and will be stored in a locked steel cabinet in my office for which only I have the key. A couple of very critical issues, so please listen carefully. *Completion of this questionnaire/instrument will constitute informed consent. In addition, if you have any other questions about this study, you can contact me or the IRB Office at the University of Tennessee at any time.*

Again, this is a completely anonymous questionnaire which should take approximately 20-30 minutes to finish. Completion of the instrument will constitute informed consent. All questionnaires should be put into the envelope regardless of whether or not you chose to participate. Does anyone have any questions? Thank you again for coming and your willingness to consider taking this questionnaire. I will now excuse myself and wait in the hallway.

APPENDIX I

Data Collection Overview
(Location: Stadium Meeting Room)

TEAM	ENVELOPE # (RED MARKER)	# QUESTIONNAIRES COMPLETED	# STUDENT- ATHLETES ON TEAM	PERCENTAGE %
Women's Tennis	#1	7	7	100%
Men's Tennis	#2	7	7	100%
Men's Soccer	#3	26	26	100%
Men's Basketball	#4	13	13	100%
Men's Golf	#5	9	9	100%
Men's Wrestling	#6	26	26	100%
Men's Baseball	#7	32	32	100%
Women's Cross Country	#8	11	11	100%
Women's Volleyball	#9	12	12	100%
Women's Soccer	#10	25	25	100%
Women's Gymnastics	#11	23	23	100%
Women's Basketball	#12	14	14	100%
Women's Golf	#13	12	12	100%
Women's Softball	#14	19	19	100%
Women's Track & Field	#15	24	24	100%
Men's Football	#16	100	107	93.4%
TOTALS		360	367	98%

APPENDIX J

Model Specification Table

<u>Variable:</u>	<u>Coding Scheme:</u>
Caucasian	0 = Not Present 1=Present
African American	0=Not Present 1=Present
Other	0=Not Present 1=Present
Gender of Athlete	0 = Male 1 = Female
Gender of Coach	0 = Male 1 = Female
Leadership Style of Coach	1 = Coach Makes All Decisions 2 = Coach Makes Majority of Decisions 3 = Coach/Student-Athlete Joint Decision 4 = Student-Athlete Majority Decisions 5 = Student-Athlete Makes All Decisions
Nature of Sport	0 = Team-Oriented 1 = Individual-Oriented
Team Win/Loss Record	0 = Losing Season Record 1 = Winning Season Record
Year In School	1 = Freshman 2 = Sophomore 3 = Junior 4 = Senior
Grade Point Average	1 = 2.0-2.4 GPA 2 = 2.5-2.9 GPA 3 = 3.0-3.2 GPA 4 = 3.3-3.5 GPA 5 = 3.6-3.7 GPA 6 = 3.8-4.0 GPA

Injury Incurred	0 = No 1 = Yes
Extent of Games Missed	1 = One Game Missed 2 = Two Games Missed 3 = Three Games Missed 4 = Four Games Missed 5 = Five Games Missed 6 = Six Games Missed
Academic Satisfaction	A composite variable reflecting respondents' overall score on the SSI; continuous

VITA

James Joseph Phillips was born in Chicago, Illinois to the parents of John and Anita Phillips. He was the tenth and final child in the Phillips family which consisted of six girls and four boys.

His formative education began at Our Lady of Victory Catholic Elementary School on the northwest side of Chicago. His secondary education was at Weber Catholic High School in Chicago. After his high school graduation, he entered the University of Illinois - Champaign where he would go to school and begin working in the athletics department. In May, 1990, he would receive his undergraduate degree from the University of Illinois.

Upon graduating from the University of Illinois, he went on to graduate school at Arizona State University in August, 1990. While at Arizona State University, he would serve as a graduate assistant and receive his master's degree in May, 1992. After obtaining his degree, he served as an assistant basketball coach. He then transitioned into an administrative position within the Arizona State University athletics department until the fall of 1998.

At that time, he accepted a position at the University of Tennessee - Knoxville as an Assistant Director of Athletics. In the spring of 1999, he entered into the doctoral program at the University of Tennessee. In the summer of 2000, he would leave the University of Tennessee to become Associate Director of Athletics and later, Senior Associate Director of Athletics at the University of Notre Dame.

After four years at the University of Notre Dame, he was named Director of Athletics at Northern Illinois University in August 2004. In the summer of 2006, he was promoted to Associate Vice President/Director of Athletics at Northern Illinois University.

He expects to receive his Ph.D. from the University of Tennessee in the summer of 2007. Presently, he and his wife, Laura, reside in Sycamore, Illinois. Laura has earned her undergraduate degree from the University of Illinois – Champaign and her graduate degree from DePaul University in Chicago. They have four children, Luke James, Madeline Margaret, Meredith Anne, and John Patrick.