Athletic Department Practices Related to the Academic Performance and Persistence of Student-Athletes

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ABSTRACT

This research project applies student academic performance and persistence findings present by A. Astin and V. Tinto to the practices of intercollegiate athletic departments and their relationships with faculty and student-athletes. Through survey research of 178 football and men's basketball players, athletic administration, coaches, and faculty in Division I athletic programs, including cross tabulation and frequency analysis of data, this study examines athletic department practices related to the academic performance and persistence of the student-athletes. The findings of this study provide knowledge and understanding of how athletic department practices relate to the persistence and academic success of student-athletes.

INTRODUCTION

When the spirit and mission of intercollegiate athletic departments reflect sincere concerns for the academic and social development of student-athletes, departmental practices have a favorable impact on the academic experiences of student-athletes. As explained by one director of athletic academic services at a Division I institution, certain components of intercollegiate athletic programs reflect a congruent academic ethos that promotes the academic performance and persistence of student-athletes. These components include social and academic preparation, involvement, and support of student-athletes; relationships and communication between athletic department professionals and institution faculty; student-friendly athletic department policies, procedures, practices, and relationships; and promotion of the academic integrity of the institution by athletic department personnel, including coaches and players. A number of recent studies related to student involvement and retention in higher education reflect these components.

The supporting theory for this study included aspects of Alexander Astin's theory of student involvement (1993) and Vincent Tinto's theory of student attrition (1993). These theories suggest that student relationships with peers and faculty from social and academic units at institutions, and the social and academic practices and characteristics of institutions, have an effect on the academic achievement and persistence of college students. According to Astin, "A wide spectrum of cognitive and affective outcomes is negatively affected by forms of involvement that either isolate the student from peers or remove the student [from campus]" (1993). Tinto, indicated that student persistence was most affected by contact with faculty and

peers of various campus communities in informal settings outside of the classroom and by formal, cooperative experiences within the classroom. At the same time, Astin and others noted that the level of involvement in the social system of the institution has a significant impact on educational attainment and persistence (Adler & Adler, 1985; Astin, 1993; Bailey & Littleton, 1991; Pascarella & Terenzini, 1991).

The previous studies focused on academic achievement and persistence of college students in general. This study determined if the same findings hold true when related to student-athletes and departments of intercollegiate athletics at a number of NCAA Division I institutions. While student involvement and attrition theory fit, in many respects, the transition and assimilation of student-athletes into the institution, other constructs were included in this study that addressed the unique relationships student-athletes have with the various constituencies within the institution, including athletic departments and athletic academic services.

These interrelated theories suggest that if or when student-athletes immerse themselves in the campus environment, establish formal and informal connections with faculty and peers, receive academic support services, and perceive the athletic department to be concerned with the academic integrity of the institution, they achieve academically and persisted to graduation.

PURPOSE OF THE STUDY

This study examined relationships between athletic department practices and student-athlete (football and men's basketball) academic performance and persistence at universities in Division I athletic conferences. The study attempted to provide evidence that athletic department characteristics relate to the academic performance and persistence of student-athletes. Athletic department practices that promote academic performance and persistence are measured by the types and number of relationships student-athletes had with peers, faculty, coaches, and administrators; the extent and number of athletic department relationships with academe; the number and intensity of department strategies that promote academic success; the breadth and honesty of recruiting practices; and the availability and use of support services.

Though numerous reports and articles have been written about the academic performance of student-athletes and the problems that exist in intercollegiate athletic departments, none have specifically addressed the salient characteristics of athletic departments mentioned above that may generate the successful academic and athletic performances of student-athletes. By identifying characteristics of athletic departments that reveal a commitment to the whole student, this study is significant in that it produced a discussion of best practices athletic administrators might use to develop programs that enrich campus experiences of student-athletes. This study examined factors that reflect academic-related characteristics of athletic departments and interests in student-athletes as emerging college students. It analyzed how these characteristics and interests relate to the academic performance and persistence of student-athletes. Through this examination and analysis, this study contributes to the knowledge and understanding of how institutional and athletic department leaders affect the persistence and academic success of student-athletes.

METHODS AND PROCEDURES

Sample

Four parallel convenience samples were identified and surveyed during this study. The student-athlete sample (N=106) was stratified to include only football and men's basketball players who were of junior or senior status and had been enrolled at that institution for at least one year, creating a high level of homogeneity, thus reducing possible sampling error (Babbie, 1990).

The sample of football and men's basketball players (n=106) was chosen for this study because these groups consistently generate lower graduation rates than do other athletic groups, programs, or teams at Division I institutions (NCAA Division I Graduation Reports, 1994-1997). Football and men's basketball players represent a broad range of academic abilities. Many enter college with a lower high school core GPA than do student-athletes in other athletic programs, and they often maintain a lower GPA once in college (NCAA Division I Graduation Reports, 1994-1997). As Tinto (1993) suggested of unprepared or misdirected students, football and basketball student-athletes may more often than not be in a state of incongruence, living with what appear to be conflicting roles.

By surveying only junior and senior student-athletes the sample included only those student-athletes who have persisted and have possibly been more affected by athletic department factors than have their underclass counterparts. Student-athletes in this sample were able to draw their responses from two or three years of collegiate experience. This increased the likelihood of substantive responses.

The following samples were used to check the validity of the survey instruments and the reliability of data about the characteristics of athletic departments. The coach sample (n=39) included only football and men's basketball coaches. Three football and two basketball coaches (n=5) comprised each site sample. The administrative sample (n=25) included athletic directors and/or assistant or associate directors responsible for academic support and/or directors or coordinators of academic support programs. Administrators at each site (n=3) were selectively sampled. The faculty representative sample (n=8) included faculty who currently held the position of faculty athletic representative. If a site had more than one faculty member serving in a representative capacity, all were surveyed. The total sample (n=178) provided statistical significance (see Table 1). Table 1 shows data broken down by institution type, which will be explained later.

Institutional Typology

Several Division I intercollegiate athletic departments were identified as sites for the initial step of this study. As institutional representatives were contacted, surveys sent, and follow-ups conducted, significant interest in the project was noted. Of those contacted directly via phone and/or e-mail prior to the sending of the institutional survey, nearly all expressed interest in the project. Of the original 62 contacts, 7 officially declined to participate. During September 1998, 55 institutional survey forms were sent, and 32 contacts responded with the requested institutional data (58 percent of the final 55 institutional contacts).

The first step in this study of athletic department characteristics and practices was to create a typology of institutions for the purpose of establishing profiles used to examine departmental practices that relate to the academic performance and persistence of student-athletes. The typology was defined first by ACADEMIC PERFORMANCE as measured by football and men's basketball teams' annual cumulative GPAs, converted to a percentage (4.0=100 percent), the percent of student-athletes not on academic probation, and an attendance rating, converted to a percentage, derived from responses by site administrators to four questions regarding student-athlete class attendance. (Lang & Rossi (1991) noted attendance as a significant factor in the successful academic performance of student-athletes.) Academic data were collected for the 1996-97 and 1997-98 academic years. Responses were reported from department data when available and self-reported by directors or coordinators of athletic academic services or faculty athletic representatives when departmental data were not available.

The typology was also defined by PERSISTENCE as measured by team graduation rates calculated as a percentage of institution, all-student graduation rates for the same time period and the same institution. The PERSISTENCE rating was determined by dividing the four-year average of the "4-year" (1994-1998) NCAA graduation rates of football and men's basketball teams into the same "4-year" (1994-1998) rates for all students at that institution.

Using a scattergram, institutional scores were plotted on an *X* and a *Y*-axis. The academic performance scores from each institution were dispersed on the *Y*-axis. The persistence scores from each institution were dispersed on the *X*-axis. In order to establish four similar-sized quadrants, the *X* and *Y*-axes intersected at the median score of each variable. The median score for academic performance (*Y-axis*) was 78.5, and the median score for persistence (*X-axis*) was 89.5.

The four quadrants revealed four types of institutions: Type 1: high academic performance and high persistence; Type 2: high academic performance and low persistence; Type 3: low academic performance and high persistence; Type 4: low academic performance and low persistence. Each of the scattergram's four quadrants contained a significant number of institutions (Type 1 included six; Type 2 included six; Type 3 included eleven; and Type 4 included eight). (See Figure 1)

The typology categorized institutions into four institutional types. Convenience samples at institutions were then identified and surveyed, and their responses analyzed.

TABLE 1

Parallel Samples for Survey Research

Institution TYPE	Student-Athlete N	Administrator N	Coach N	Faculty-Rep. N	N
TYPE 1	29	8	14	3	54
TYPE 2	30	4	8	1	43
TYPE 3	32	6	13	3	54
TYPE 4	15	7	4	1	27
Total	106	25	39	8	178

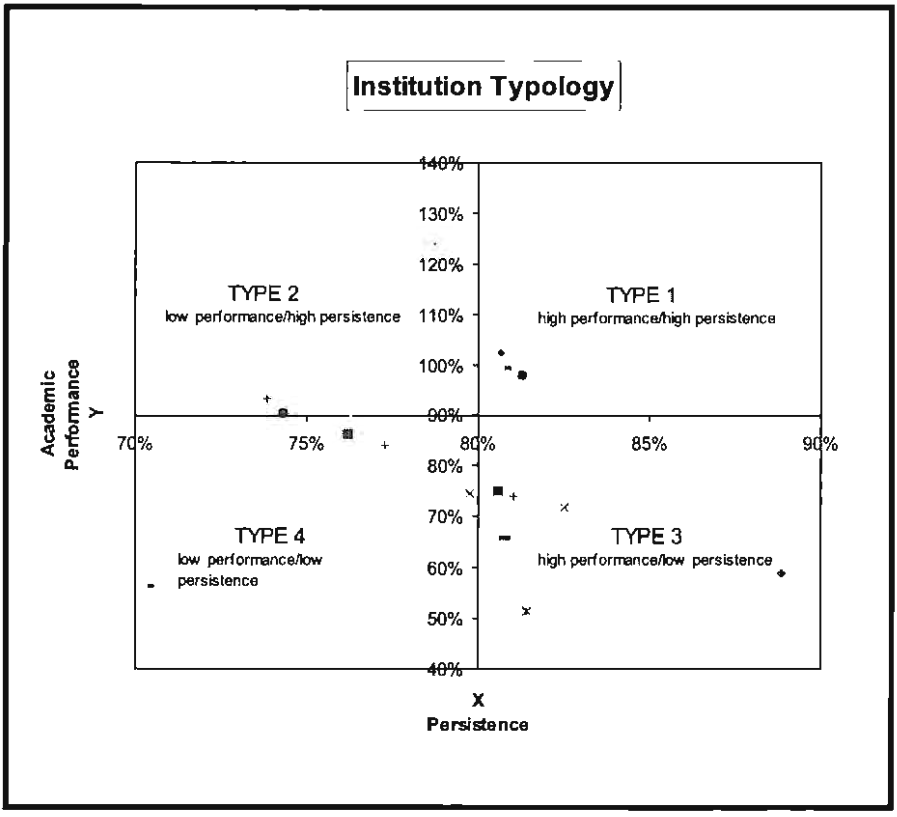
Student athletes at eleven institutions, spread through the four institutional types of the typology, self-administered a cross-sectional survey instrument. A statistical analysis of each variable, by type, was conducted. Statistically significant relationships between independent variables and Type 1 institutions (dependent variables) were found.

Instrumentation and Data Collection

Because no other instruments were identified that would gather data regarding the predictability of environmental, relational, and supportive factors to student-athlete academic performance and persistence, surveys were self designed to meet the requirements of this study. One survey instrument was produced for each of the survey samples—student-athletes, administrators, coaches, faculty representatives.

Each of the four self-designed instruments contained three series of questions focused on personal and departmental characteristics, practices, and relationships relevant to persistence and academic performance according to research completed by Astin, 1993; Tinto, 1993; Pascarella, Terenzini, 1993; and others. Departmental data, acquired as ordinal-level data, were aggregated by questions focused on the personal and environmental factors significant to student involvement, transition, assimilation, and a well rounded, socially diverse, and academically inclined environment. The majority of responses were given in three scales. One 5-point Likert scale rated responses from "strongly agree" to "strongly disagree." The second 5-point Likert scale ranked responses from "always" to "never." The third 3-point Likert scale categorized responses as "yes," "no" and "not sure." A few responses provided interval-level data.

Figure 1: Institutional dispersion based on football and men's basketball academic performance and persistence scores.



Face validity of the instrument was established by administering the survey to the four response groups at one site. The instrument was field-tested with a stratified random sample, N=18 (12 student-athletes, 4 coaches, 1 administrator, and 1 faculty athletic representative). The student-athlete sample came from a population of junior and senior football and men's basketball players who were selected by their respective coaches and had been in respective programs for at least one year. These samples were representative of the target population of the final study. In order to gain additional insight into creating or revising questions, the researcher administered the instruments and listened to comments and noted concerns or problems with survey text or concepts. Each group was informed that their role as respondents was to answer all questions and to comment on the clarity of questions and effectiveness or ineffectiveness of the format of the surveys. Surveys were revised based on appropriate suggestions. Additionally, peer critiques of the surveys by two directors of athletic academic services, one officer of compliance, and one professor of sport psychology established the content validity of the surveys. The surveys were revised accordingly.

Data Collection

To ensure administrative reliability of the survey, instruments were sent in a project prospectus with a cover letter explaining the purpose of the study and a protocol describing the selection of the student-athlete sample and the distribution of the study to student-athletes. Each site administrator was prepared via telephone prior to distribution of the instrument. A site survey administrator, an administrator (associate athletic director, program director, or coordinator), at each site, identified respondents and provided them with the surveys and addressed, stamped return envelopes. Each football or men's basketball player in the sample self-administered the survey and returned it by mail. Surveys for administrators, faculty representatives, and coaches were also self-administered and individually returned by mail.

Data Analysis

Independent variables were organized into five categories: athletic department academic policies, practices, and interdepartmental relationships; athletic department relationships with academe; athletic-academic support services procedures, activities, and responsibilities; student-athlete preparation, development, involvement in campus life, and relationships with nonathlete peers; and coaches' actions, attitudes, and responsibilities.

After the five variable categories for athletic department practices were established and institutional types determined, the study applied frequency and Chi Square (X^2) cross tabulation analyses to examine the data collected from site surveys of student-athletes, athletic department personnel, and faculty athletic representatives (n=178). Using academic performance and persistence by institutional type as dependent variables, frequencies and X^2 analyses of data were conducted to determine the differences between the expected frequencies and observed frequencies of each independent variable as it related to the dependent variables (institutional types). Frequency distributions described collected data and helped determine the level of

incidences of faculty athletic representative, administrator, coach, and student-athlete perceptions of, participation in, or practices with certain departmental policies, functions, and responsibilities. Frequency distributions also helped describe the levels or intensity of participation or perceived participation by department personnel in academe.

When X^2 analyses indicated significant relationships between independent variables and the dependent variable, academic performance and persistence, these relationships were submitted to a X^2 goodness-of-fit analysis. For all X^2 analyses a level of confidence of $p = .05$ was set apriori. These analyses allowed for the explanation of differences between expected frequencies and observed frequencies based on institutional type. Independent variables were also submitted to the X^2 goodness-of-fit analysis if they revealed frequency percentages exceeding 70.

RESULTS

Previous research (Astin, 1993; Tinto, 1993; Adler, et al, 1985) revealed that certain characteristics, practices, and services inherent in institutional cultures of higher education affected the academic performance and persistence of college students. Chi Square (X^2) cross tabulation and frequency analysis of independent variables in all survey categories revealed statistically significant relationships in twenty-two of the sixty-eight independent variables. The X^2 goodness-of-fit analyses of these variables by type revealed fifteen independent variables were significantly related to one dependent variable—Type 1, high academic performance and high persistence, institutions. The comparisons between expected frequencies and observed frequencies of the independent variable analysis in Type 1 institutions revealed elevated X^2 goodness-of-fit coefficients. At the same time, frequency analysis of the independent variables in Type 1 institutions revealed significantly high percentages of favorable responses for the same variables (See Table 2). Frequency and X^2 analyses of Type 2, Type 3, and Type 4 institutions consistently revealed smaller percentages of favorable responses and lower correlation coefficients.

TABLE 2

Statistical Analyses of Independent Variables at Type 1 Institutions

Independent Variables	Total Responses All Types	Cross Tab Degrees of Freedom	Cross Tab Correlation Coefficient	Total Responses Type 1	% Favorable Responses Type 1	Good of Fit Degrees of Freedom	Goodness of Fit Correlational
Deparment Academic Policies, Practices, and Relationships							
1. Departments show interest in the academic lives of student-athletes	106	12	32.75	29	89.60	4	42.21
2. Departments recognize the academic success of student-athletes	168	12	44.16	51	88.30	2	10.94
3. Departments have student-athlete advisory board supporting student-athletes	114	12	18.93	40	87.50	3	27.00
Deparment Relationships with Academe							
1. University faculty support student-athlete academic and athletic endeavors	106	12	42.79	29	93.10	2	13.31
Academic Services, Procedures, Activities, and Responsibilities							
1. Student-athletes talk with professors and/or academic counselors regarding careers, classes, and studies when recruited	106	12	31.70	29	93.10	3	41.48

Table 2 Continued on next page

TABLE 2 ***(continued)***

Independent Variables	Total Responses All Types	Cross Tab Degrees of Freedom	Cross Tab Correlation Coefficient	Total Responses Type 1	% Favorable Responses Type 1	Good of Fit Degrees of Freedom	Goodness of Fit Correlational
2. Student-athletes participate in freshmen and/or transfer orientation	105	12	35.98	29	86.20	3	35.14
3. Student-athletes receive academic advising	104	12	29.46	29	92.90	2	16.36
Student-Athlete Preparation, Development, Involvement, and Relationships	105	12	62.54	29	100.00	1	25.14
1. Student-athletes believe their coaches are honest with them when recruited	106	12	20.52	29	82.70	4	39.45
2. Student-athletes talk with coaches about academic and life issues	106	12	19.43	29	82.80	3	17.48
3. Student-athletes talk with non-athlete peers about academic issues	106	12	26.70	29	79.30	2	17.03
4. Student-athletes would use post-eligibility program if available	106	12	35.91	29	93.10	3	21.62
Coaches' Actions, Attitudes, and Responsibilities	105	12	47.78	29	75.80	–	–
1. Coaches show interest in student-athlete academic performances	106	12	25.84	29	96.50	2	11.86
2. Coaches discuss the academic responsibilities that are part of college life	106	12	20.57	29	92.40	2	20.76

(high academic performance and high persistence) Institutions

IMPLICATIONS

The results of this study indicate that several athletic department practices play an important role in the academic performance and persistence of student-athletes. The findings in this study not only corroborate similar findings in Astin's student involvement research and Tinto's student attrition research of college students, but they reveal positive implications for athletic administrators interested in improving the academic performance and persistence of student-athletes.

In an effort to show interest in the student athlete as a person and reflect the importance of academic performance and persistence in general, athletic department professionals, including athletic department administrators and coaches, might increase and improve their efforts and practices of showing interest in and discussing with student-athletes the academic performances and responsibilities of student-athletes in the college environment. In the same light, coaches should honestly discuss academic rigors and student responsibilities with prospective student-athletes when recruiting them.

Also, athletic departments might initiate, continue, and/or improve practices that provide student-athletes with opportunities to identify nonathlete peers and groups with whom they share common interests. This practice might include involving incoming freshmen in "freshmen interest groups." To improve student-athlete involvement in campus non-athletic activities that encourage student-athletes to initiate and sustain relationships with nonathletes, athletic administrators might identify and communicate with various campus groups that share common academic and public interests with student-athletes. Moreover, they might require new student-athletes to participate in freshmen or transfer orientations for all students, thus providing opportunities for student-athletes to identify non-athlete peers and communities that share common interests outside of athletics. At the same time, athletic administrators might have student-athletes participate in community service projects with non-athletes.

The findings in this report further suggest that athletic departments might initiate or improve the opportunities for recruits to discuss careers, classes, and studies with professors and/or academic counselors in order to help them identify with the academic culture of the institution. In addition, by requiring academic advising for all student-athletes, especially freshmen and sophomores, administrators might provide guidance for student-athletes that will help them make more thoughtful academic and career choices.

Importantly, by providing easy access to computers and technical support, athletic departments can help student-athletes save time in their already cramped schedules and provide flexibility for completing coursework and assignments while on athletic-related trips. In addition, by providing student-athletes with post-eligibility programs, athletic departments can send a clear message to student-athletes that departments are committed to student-athletes' graduation.

Athletic administrators and coaches also might look to improve relationships with faculty on campus. As student-faculty relationships are correlated with student-

athlete academic performance, strengthening the athletic department's relationships with faculty might provide a positive impact on the academic performance and persistence of student-athletes. Administrators might initiate, continue, and improve academic recognition of student-athletes and include institutional faculty as part of recognition programs. By showing interest in the academic environment of their institutions, athletic administrators send a message to student-athletes that members of the athletic department are interested in their lives as students. By initiating or expanding activities and practices suggested above, athletic administrators can establish in athletic departments an academic ethos that promotes positive academic expectations and facilitates academic endeavors of student-athletes.

CONCLUSION

Encouraging and facilitating student-student athlete participation in academic and social experiences in higher education, should be a significant part of the mission of intercollegiate athletics. Athletic administrators, coaches, and athletic academic advisors must begin and continue to attend to the welfare of the whole student-athlete. An athletic department's academic mission is played out each day in the interactions of department personnel with student-athletes, campus faculty, and university administrators as department personnel reflect their interest in and the importance of academic performance and persistence. Athletic administrators, coaches, and athletic academic advisors must continue to provide all student-athletes with improved services that help them academically succeed and persist to graduation.

As athletic departments begin and maintain a mission to facilitate the academic and social lives of their student-athletes, they will help student-athletes meet the challenges brought about by participation in "big time college sports" and by the transition from high school and family life to that of the collegiate student-athlete. All members of the academic community should work to help all student-athletes as they would help all nonathletes. Bart Giamatti, the late president of Yale University and Commissioner of Major League Baseball notes, "We care [about intercollegiate athletes] because all students are important--all young people are valuable...all...should be given the chance to fulfill themselves as human beings" (quoted in Gerdy, 1997)

Murray Sperber (1998) suggests that the emphasis society has placed on intercollegiate sports has contributed to the academic atrophy experienced by many universities. However, in light of growing athletic department budgets, increasing class sizes and faculty-student ratios, the arrival on campus of student-athletes, the majority of whom will succeed as students in college, provides institutions with the opportunity to prepare a unique group of students for societal roles in the next century. Undoubtedly, this student-athlete group, as with other groups on campuses across the country, bring with them social and academic impediments. But, like students in other groups, they can, in many cases, learn the social and academic skills they need to become contributing members of the towns and neighborhoods in which they will live when they leave campus. As professionals in higher education, administrators, coaches, and faculty have an obligation to engage students in the academic world around them.

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