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Applying Student Involvement Theory to Intercollegiate Athletics: Astin's Model and Its Relationship to Developmental Issues

By

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Quality of student effort, though a relatively new area of emphasis within higher education, is a concept deserving much attention. Proponents of this idea contend that students' use of facilities and their response to opportunities within the college framework has great influence on personal development (Astin, 1984; Pace, 1979). This development is not only served by involvement in academic functions but also by various social activities.

Though the importance of the student being an active participant in the learning process can be traced back to the writing of the Student Personnel Point of View in 1937, recent attention was focused on this topic in a report published by the National Institute of Education's Study Group on the Conditions of Excellence in American Higher Education (1984). This group concluded that an outstanding learning environment incorporates three essential conditions: student involvement, high expectations, and assessment and feedback.

Astin (1984) defined involvement as the amount of physical and psychological energy that the student devotes to the academic experience. This idea served as the first of five basic statements composing a comprehensive involvement theory which has its roots in a longitudinal study of college dropouts (Astin, 1975):

1. Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).
2. Regardless of its object, involvement occurs along a continuum: that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.

3. Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the textbook and daydreams).

4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.

5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement (1984, 298).

Understanding this involvement concept is especially crucial for student affairs professionals working with intercollegiate athletes. While all campus subgroups face varying pressures, major college athletes are in a unique situation because, as Rhatigan (1984) contended, they serve two masters. Student-athletes are required to contribute considerable energy to both the academic and athletic aspects of their college experience. They must be enrolled in at least 12 hours per semester or quarter and pass at least 24 or 36 hours per year while spending, in many cases, well over 20 hours per week in practice and games.

This presents an inherent conflict in the life of a college athlete. If involvement is of critical importance, it must be realized that the demands on student-athletes may seriously limit their involvement in campus activities outside of the classroom and practice field. If campus involvement is indeed necessary for personal development, questions arise as to the role of intercollegiate athletics in performing in institutions of higher learning.

This analysis represents an overview of the factors deemed important by Astin's research and applies these topics to student-athletes. The critical theme is not whether intercollegiate athletics should exist, but rather a review of the principles currently practiced in college sports and their impact on the personal development of the young men and women who represent universities in athletic endeavors.

Application of Five Basic Statements

The five basic statements presented in Astin's involvement theory have direct application to athletic academic advising and counseling. By under-

standing the relationship between athletic academic advising policy formation and the variables influencing student involvement, one can better assess the outcomes of their programming efforts.

Statement 1 - In general, the student athletes expend extensive physical and psychological energy in their sport and are expected to do the same in academic pursuits. Specifically, the basic fundamental skills in both areas are prerequisites for success. The FAST advising program at Washington State University (Harney, Brigham, and Sanders, 1986) supported research highlighting that successful college students attend class regularly, take understandable notes in some organized manner, turn in assignments on time, and take tests on time. Successful athletic performance could be said to stem from basic skills gained from consistent practice attendance, repetition of skills, and timely feedback.

Kramer (1986) highlighted three areas of concurrence between performance in the classroom and successful athletic performance. These include: 1) Each includes a basic set of skills, procedures, routines, or knowledge that are prerequisite to later, sophisticated performance; 2) Each challenges the performer to apply the basic skills in some creative manner, to generalize specific skills to emerging performance, and to function as a practiced, but developing participant; and 3) The student participates in assessing, critiquing, or grading his/her performance against some standard of achievement.

Statement 2 - As involvement occurs along a continuum, it appears realistic to say that student-athletes invest various degrees of involvement in their sports as well as the classroom and social arenas. Variables impacting on this concept include academic major, status in sport (starter, substitute, bench sitter, or redshirt), won-loss success of sport, year in school, difficulty of classes, and critical periods of semesters such as mid-term exams and finals. The necessity and pressure of passing hours in summer school to remain eligible could be seen as influential on the degree of involvement.

Statement 3 - In terms of quantity of credit hours attempted, student-athletes measure comparably with non-athletes but the quality of involvement within those hours is a legitimate source of concern. Active participation in class activities and frequency of interaction with faculty are two qualitative features of great importance that can often be difficult to assess.

To promote the quality issue, most universities have established tutorial programs to generate a more active learning process. Additionally, classroom progress reports and/or faculty mentor programs have been instituted to aid in the promotion of more consistent student-faculty interaction.

The conflict of quantitative versus qualitative features is also the basis for the argument surrounding structured study hall programs. Do more hours mean better grades? Does sitting in a room with other freshmen and probationary students and looking at textbooks constitute a legitimate effort at study time? Do mandated hours benefit underprepared students? Does the weekly required number of study hours (usually a randomly selected amount ranging from 6-10 hours) become a goal for student-athletes instead of a starting point?

Statement 4 - The reference to educational programs by Astin includes all endeavors the student-athlete may encounter. Student learning and personal development is highly influenced by the degree of involvement in sport, classroom, social aspects, and the university community.

The amount of learning and development is greatly influenced by the internal motivation of a particular individual. Generating a student-athlete's interest in athletic participation is, for all practical purposes, a given, but encouraging them to apply some of the same enthusiasm and effort toward general campus events is highly challenging no matter how influential these opportunities may be on total development.

Statement 5 - Educational policies and practices for student-athletes must stress a self-help philosophy. Because numerous student-athletes tend to be highly dependent on instructions and guidance from coaches and advisors, programming needs to be established to increase personal involvement and ownership in their various activities.

Policies requiring student-athletes to go through "regular" university channels may at first seem bothersome and unnecessary to the athletes but, in the end, may lead to a variety of formal, or informal, learning situations. Because of "special" admissions, orientation, scheduling, housing, meals, and other policies, student-athletes many times become dependent that others will take care of their affairs. Current practices should be geared toward increasing personal ownership in all campus events. The skills acquired in mastering the university bureaucracy can be very beneficial and transferable to a variety of settings.

Variables Influencing Involvement

Time

Astin suggested that the most precious institutional resource may be student time. If this premise is accepted, the amount of time required for participation in intercollegiate athletics (particularly football, basketball, and, due to numerous daytime game conflicts, baseball) should be carefully examined. Proposals to limit the length of playing seasons have been examined by college presidents and athletic directors (NCAA News, 1987) as these concerned professionals evaluate the sometimes overzealous game preparation and travel expectations which may detract from involvement in the general campus community.

Rhatigan (1984) analyzed major college basketball schedules and found that student-athletes could be required to miss as much as 20% of their classes in a semester. These absences are usually bunched toward the first half of the spring semester forcing them to try to catch up in the classroom after the close of the season.

While Astin points out that intercollegiate athletics has an especially pronounced, positive effect on persistence, his research also highlighted the drop in retention if students work off campus at a full time job. With the current trend of extensive time requirements in athletic programs, it could be argued that intercollegiate athletics is approaching status as a full time job. Retention as an athlete might be outstanding but student responsibilities are continually compromised.

Energy

In a related area, the theory of student involvement suggests that the psychic and physical time and energy of students are finite. With the mental and physical expectations of major college athletic programs, it could be true that student-athletes are being pushed beyond a reasonable limit. Physical expectations such as lengthy practices or "two-a-days" are commonly recognized but the mental exertion associated with memorizing and applying formations, techniques, and opponent tendencies can create mental exhaustion. Surely, reading textbooks or studying notes could be viewed as drudgery by someone who has spent hours visualizing the figures and explanations of a playbook.

Classroom Participation

This drain on time and energy definitely can be reflected in classroom involvement. Lack of energy is obviously a serious detriment to classroom concentration and performance but an additional obstacle of much importance is disinterest. Astin stated that frequent interaction with faculty is more strongly related to satisfaction with college than any other type of involvement and this is a serious concern for all people involved with academic development of student-athletes. If a student has no interest in discussing progress or concerns with an instructor, problems can rarely be solved.

The lack of interest and effort on the part of the student can compound problems generated by missed classes and intimidation (a concept which has great influence from faculty to students and from students to faculty). Combined, these concerns could generate a multitude of academic deficiencies documented by failing grades and poor graduation rates.

Environment

Environmental factors also have great influence on involvement and, ultimately, development. While Astin positively related on-campus living and retention because of time available to develop an attachment to the campus and college life, residence hall issues of student-athletes are a burning topic of controversy.

Most of this controversy stems from the existence of athletic ("jock") dorms on many campuses. While these residences obviously address a common theme and allow for grouping of a particular subgroup with common interests, they also are viewed as providing isolation and preferential treatment for athletes. With Astin (1978) and Nowack and Hanson (1985) having shown that academic achievement is affected by living arrangements, it is understandable why student affairs professionals have such concern as to whether these living arrangements are simply extensions of the practice field.

Additional concerns facing this practice are its impact on diversity and interaction. It may very well be true that these athletic living arrangements, while promoting team unity, may drastically limit a student's personal development. The isolation created by this separation is obvious and it may also lend itself to opportunities for nearly complete control of athletes' lives by the coaching staff.

In general, the issue of challenge and support and its relationship to person-environment "fit" (Moos, 1976; Chickering, 1969; and Sanford, 1967) is influenced by the intercollegiate athletic framework. Recruiting, the heartbeat of

college sports, inherently has almost total disregard for "fit" between person and environment. It seems apparent that athletic skills, athletic "fit," and coach-player relationship take precedence in the recruiting process while environmental congruence is a by-product. Unfortunately, this by-product may seriously impact on the personal and social satisfaction of the student-athlete, especially black students at primarily white institutions as documented in research by Fleming (1984) and Styles-Hughes (1986).

Summary

All in all, the student involvement theory places the opportunity for success of all students in their own efforts and motivation. With Pace (1984) reporting that 95% of students nationwide agreed that their initiative is the key ingredient to success in college, it is evident that this is an important concept to explore.

This involvement concept is certainly a vital link to the academic, personal, and social success of student-athletes. Though student-athletes' college experiences often include unique circumstances as documented by issues influencing time, energy, classroom participation, and environment, they must nonetheless make progress toward becoming an active participant in the University learning process in much the same way as the general student population.

Collegiate athletic departments at all levels, under close scrutiny by the press and public, must view this developmental theory as relevant to their missions as assessment and accountability become necessary goals for the future. Study halls, tutorial programs, and money spent on academic support programs are all indicators of institutional commitment and effort, but they in no way approach the importance of providing the time and means for student-athletes to generate consistent and quality involvement in all facets of the campus experience.

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The NAAAA and the NCAA: Methods of Placing Legislation on the Agenda of NCAA Conventions

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Introduction

Throughout the United States various national and regional associations have been established to heighten the integrity of intercollegiate athletics. The National Collegiate Athletic Association (NCAA), with almost 1,000 member institutions, is one of the most influential of all amateur athletic organizations. The NCAA is constantly revising and adopting legislation at Annual and Special Conventions.

The National Association of Academic Advisors for Athletics (NAAAA), has bestowed upon itself the obligation of representing a growing professional organization of athletic advisors. One very significant responsibility of the NAAAA is to establish methods by which its proposed legislation can be placed on the agenda of NCAA Conventions. Understanding how NCAA Committees, Commissions and member institutions submit proposals will assist the NAAAA in developing methods by which it can place NAAAAA proposed legislations on the floor of NCAA conventions.

NCAA Structure

The main bodies of the NCAA are the:

- Officers
- Council
- Division Steering Committees
- Executive Committee, and the
- Presidents Commission

The officers consist of a president, secretary-treasurer and a vice president from each membership division (I, II, III). The president presides over the meetings of the Association, Executive Committee and Council. The secretary-treasurer is in charge of record-keeping and is responsible for all funds of the Association. The division vice presidents preside at the meetings of their respective division steering committee. The division steering committees act upon matters relating to their respective divisions.

The establishment and direction of the general policy of the Association in the interim between conventions is the responsibility of the NCAA Council. The president and secretary-treasurer are ex officio members and are the chair and secretary, respectively. The other forty-four Council members include twenty-two from Division I, and eleven from each of the other two Divisions. The council serves as one body when acting on matters of overall Association policy and interdivision interest. The forty-four members of the Council represent their respective division as members of subcommittees, called Division Steering Committees.

The Division Steering Committees plan and conduct division business sessions at NCAA conventions. Also, they review legislative proposals that concern and affect their respective divisions. Each Division Steering Committee is chaired by its division vice president, who is one of the members of the Council from that division.

The Executive Committee is entrusted to transact business and administer the affairs of the Association. There are fourteen members of the Executive Committee. The president and secretary-treasurer are ex officio members and are the chair and secretary, respectively. The division vice presidents are also members of the Executive Committee. The remaining nine members of the Executive Committee include seven from Division I, one from Division II, and one from Division III.

The Presidents Commission consists of forty-four members, including twenty-two representatives from Division I, eleven representatives from

Division II, and eleven representatives from Division III. To be a member of the Presidents Commission, an individual must currently be serving an NCAA member institution as the institution's Chief Executive Officer. The Presidents Commission is empowered to review any matter on the agenda for any meeting of the NCAA Council or for any NCAA conventions.

Revision of NCAA Bylaws and Constitution

The NCAA Bylaws and Constitution may be amended at any Annual or Special Convention. Bylaws may be amended or adopted by a majority vote of the delegates. On the other hand, the Constitution can only be revised by a two-third majority vote of delegates. The delegates must be present to exercise their voting privileges. Bylaws 9, 10, 12, 13, and Divisional Championships are common issues of the whole Association, therefore a two-third majority vote of delegates present and voting is required to alter them. A proposed revision to the NCAA Bylaws and Constitution must be submitted to the secretary of the Association by mail or wire transmission and received at the NCAA national office no later than November 1 (any amendment received after November 1 must be postmarked no later than October 25) preceding an Annual Convention. The NCAA Council, by a two-third majority of its members present and voting, may establish a later date for the submission of proposed legislation for an Annual Convention when a Special Convention is held after November 1.

Roll-Call Vote

The Presidents Commission may designate, prior to the printing of the notice of any convention, specific proposals for which a roll-call vote of eligible voters will be mandatory. Voting by roll-call, on issues other than those so designated by the Presidents Commission or secret ballot must be conducted only when so ordered by a majority of eligible voters present and voting, following an undebatable motion for a roll-call vote.

Surrogate Author Method

To achieve its obligation of representing a growing professional organization of athletic advisors, the NAAAA must establish methods of placing NAAAA proposed legislation on the floor of NCAA conventions. Following is a discussion of two methods by which the NAAAA may accomplish this task.

The first method the NAAAA may utilize to place its proposed legislation on the floor of NCAA conventions is the Surrogate Author Method. As discussed previously, the NCAA Council, a Division Steering Committee, or the Presidents Commission may place legislation on the floor of NCAA con-

ventions. The members of the Executive Committee, who are not a member of the NCAA Council or a Division Steering Committee, other member institutions, and non-member institutions may utilize the Surrogate Author Method to place legislation on the agenda at Annual or Special conventions.

The first step for the NAAAA is to develop a professional relationship with members of the NCAA bodies. The second step is to develop a quality proposal which will be of interest to the NCAA. Third, the proposed NAAAA legislation must be introduced to an NCAA member, who is a member of one of the three NCAA bodies, which can place legislation on the floor of NCAA Conventions. The NCAA member, providing the proposal receives a favorable response, will submit the NAAAA proposed legislation to its respective NCAA body. The NCAA member who submitted the NAAAA proposed legislation to the NCAA has been converted into the surrogate author of the proposal. As mentioned earlier, the proposed legislation must receive a majority vote from the NCAA body, to which the NAAAA proposal was submitted, in order to be placed on the floor of an Annual or Special Convention.

Sponsoring Method

Except for proposals sponsored by the NCAA Council, a Division Steering Committee, or the Presidents Commission, each proposed legislation must be sponsored by a minimum of six active NCAA member institutions. The sponsorship method may be the easiest way to place NAAAA proposed legislation on the floor of the NCAA conventions. To accomplish the sponsorship method, the NAAAA must identify a minimum of six active NCAA member institutions which will endorse the NAAAA legislation. If the sponsorship requirement is accomplished and appropriately forwarded to the NCAA, the proposed legislation will be placed directly on the floor of an NCAA Convention, with six sponsors listed as the authors.

Intradivision Proposals

If a proposed amendment concerns only a specific division, that specific division votes upon that legislation. As mentioned previously, Bylaws 9, 10, 12 and 13 apply to all divisions of the Association; thus any amendment of them is to be considered by the entire Association. Only members of a division may submit legislation that is applicable to that division. A bylaw provision adopted by any division is subject to review by the whole Association and may be rescinded by a two-third vote of delegates present and voting.

Conclusion

Placing NAAAA proposed legislation on the agenda of NCAA conventions is a significant responsibility of the NAAAA. There are numerous issues that concern the whole spectrum of college athletics. Strengthening academic requirements, reducing time away from the classroom, and increasing the graduation rate are a few of these common issues. By submitting proposed legislation to the NCAA Annual or Special conventions, the National Association of Academic Advisors for Athletics can make a substantial contribution to the improvement of intercollegiate athletics.

Special note: Information pertaining to this manuscript was obtained from the NCAA Constitution: Article Five, Article Seven, Article Thirteen, and the NCAA Special Rules of Order.

Survey of Five Athletic Academic Support Facilities

By
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Introduction

There is a growing concern about the academic abilities of student-athletes across the country. The focus of this concern is on the student-athlete's lack of academic preparation. Many feel that universities exploit the student-athletes' physical talent and ignore their responsibilities to the student-athletes' intellectual growth. In recent years, athletic departments have responded to the concerns of the public by hiring athletic academic counselors. These counselors represent the institution's commitment to the personal and academic growth of the student-athletes. Some universities have gone one step further by building facilities or adding on to existing facilities specifically for the academic enhancement of the student-athletes. These facilities house the academic counselor's offices and provide an environment conducive to studying.

A survey of academic study facilities was conducted to answer the basic questions: what is the facility used for, who uses the facility, when is the facility used, and what are the primary benefits of having such a facility for the student-athletes. These questions were asked so that those universities who may in the future provide an academic study facility for their student-athletes can utilize this information to create a facility that provides the necessary environment for the achievement of academic success.

Methods of Survey

Questionnaires were mailed to the Directors of the Athletic Academic Support programs at the six universities known to have academic study facilities. The survey participants included: Georgia Tech University, Southern Methodist University, University of Kentucky, University of Minnesota and University of North Carolina-Chapel Hill. No response was received from one university. The questionnaire contained items concerning space, utilization of the space and benefits received from the study facility.

The survey participants were asked to provide specific data concerning space and equipment available to the student-athletes and the academic support staff. Their opinions were solicited regarding such items as: any changes in their facility they would recommend, if they felt more facilities would be built in the future and the benefits they felt the student-athletes received from using the study facility. The respondents were also asked if they had knowledge of any other existing academic study facilities other than those listed above so that those universities might participate in the survey. No one responded with the name of another university with an academic study facility.

Results of Survey

The actual responses of each participant can be found in Table 1. In general, the different programs offered the same types of equipment and utilized the space in the same manner. The opinions of the different directors were also similar as they shared the same basic philosophies in operating their respective facilities.

The average square footage of the five facilities is 4,257.40 square feet. This ranged from 1,090 square feet at the University of Minnesota to 8,000 square feet at the University of North Carolina-Chapel Hill. All of the facilities have private offices for the counseling staff and large rooms or open areas for study hall or individual studying. Four of the facilities have computer rooms with word processors and mainframe-access computers. Individual study carrels and reading lounges are also used in several facilities. Other areas such as bookroom at Southern Methodist University and foreign language labs at the University of North Carolina-Chapel Hill are available. All of the academic support staffs have office access to university records with the exception of the University of Kentucky.

The average number of hours per week the facilities are open is 64.65 hours. The University of Minnesota is the only respondent that did not indicate study hours beyond the normal working hours of the academic support staff. Every respondent utilizes some method of monitoring the usage of the study facility. Four of the facilities have seen an increase in the use of the study facility throughout the years of operation while Georgia Tech University has seen about the same amount of use as in the years past. It is believed that this increase in the use of the facility is due to an increased awareness of the facility and a positive feedback from teammates and staff members. The rooms that are utilized most often are the computer room, large study rooms, and the reading lounge.

At the five responding universities, the average number of varsity sports is 18. The total numbers of athletes at these universities ranged from 300 athletes at both Southern Methodist University and Georgia Tech University to 600 athletes at the University of Minnesota. The number of full-time academic support staff fluctuated from two staff members at the University of North Carolina-Chapel Hill to five staff members at the University of Minnesota. With the exception of the University of Minnesota, all of the facilities permit and encourage all of the student-athletes to utilize the study facility. The facility at the University of Minnesota is for the use of the football team only. There is office space for the staff members working with the other sports in another area and a separate facility for men's basketball is in the developmental stages.

The mean cost of the different study facilities is \$632,200, the most expensive facility being the University of North Carolina-Chapel Hill. All of the facilities were funded by private funds, not university funds.

When the participants were asked what changes they would make if they could, the most popular response was to build additional space for tutoring, computers, and storage space for supplies. The availability of the facility to the student-athletes for more extended periods of time was also mentioned. The respondents seem to feel that larger facilities would promote even more use of the study facility by the student-athletes. It was the consensus of the respondents that more study facilities will be built in the future. They felt that the present emphasis on academic performance would necessitate the building of future study facilities.

The respondents believed the primary benefit of the study facility is that is a centralized place for the student-athletes to go with an atmosphere conducive to learning. Many also felt that by building a study facility, the university makes a commitment to the intellectual growth of the student-athletes. Study facilities allow the support staff to work closer with the student-athletes and to monitor their study habits. The convenience of having a centralized place for the student-athletes to study can be beneficial to both the student-athletes and the support staff.

Analysis of Results

Space is a very important consideration in building a study facility. The study areas should be spacious enough for the student-athletes to use comfortably. The area should be sectioned off for utility. For cost-effectiveness purposes, a larger facility with multiple use rooms should be considered.

Table 1. Responses to Survey Questions

Square Feet	Equipment	No. of Rooms	Purpose	Private Office Space	Office Access to Univ. Records	Office Hours	Monitor Use	How Long In Operation
U. of Kentucky	3,897	11	typewriters, software, computers, main-frame access, phone modem, media equipment for practicing speeches & mock job interviews	Yes	Yes	Sun 6-10 pm, M-Th 8 am-10 pm, F 8 am-4:30 pm, weekends upon request	Yes	5 1/2 years
SMU	3,800	10	typewriters, computers, main-frame terminals, microfiche readers	Yes	Yes	MWF 7 am-11 pm, TTH 8:30 am-11 pm, Sun 7-11 pm	Yes	2 years
Georgia Tech	4,500	7	typewriters, computers, main-frame access	Yes	Yes	Sun-Th 9 am-5 pm & 7-10:30 pm	Yes	4 years
U. of N.C.-C.H.	8,000	20	6 tutor rooms, study carrels, large open area for study hall	Yes	Yes	7:45 am-10:30 pm	Yes	6 months
U. of Minnesota	1,090	6	10 tutor rooms, 1 computer lab, 1 language lab, 1 reading room, 2 counseling rooms, 1 counseling office, reception area	Yes	Yes	8 am-4:30 pm	Yes	3 years

continued on next page

Increase in Use Over Years	Reason for Increase	Top 3 Areas Used, In Order	Varsity Sports	Total Athletes	Fulltime Staff	Total Budget	Cost of Facility	Funded By	Can All Sports Use	If No, Who Can Use	Any Changes, If Possible
Yes	Students have gotten used to utilizing the center & our services, equipment.	Study area Computer room Computer/typing room	14	350-400	—	Unlimited	\$250,000	Private athletic association funds	Yes	—	We are in the process of building an addition to the center which will house 10 tutor rooms, a media center & a larger computer room.
Yes	Students are familiar with the facility & equipment.	Computer/typing room Classroom Reading area	15	300	3	\$150,000	\$500,000	Private funds	Yes	—	I'd change some of the furniture, build more individual study carrels, & have 1 or 2 small tutor rooms.
Same as past	—	Computer room Study carrels Tutor rooms	13	300	4	—	\$350,000	Private funds	Yes	—	Increase the size of the computer room & add a storage closet to it for paper, discs, etc.
Yes	Increased information, positive feedback of and athletes toward academics.	Study hall Computer lab Reading area	27	500+	2	\$175,000	\$2,000,000+	Private funds, athletic association auxiliary funds	Yes	—	More hours available, educational seminars. It needs to be larger just to accommodate a complex for all athletes & counselors & space for word processors, computers, etc.
Yes	Attitude of coaches and athletes toward academics.	—	21	600	5	\$300,000	\$61,000 academic	Private funds	No	Football only	Football only

continued on next page

Table 1. (Continued)

Will More Facilities Be Built		Primary Benefits of Facility	
Yes, there is a far greater emphasis on academic performance & the field of academic support.	Definitely! The status of collegiate athletic-academics demands attention. Facilities of the kind described are necessary.	Utility, convenience. It works!!	It offers athletes a suitable place to study & receive academic support programming. It also represents a university commitment to the academic aspirations of the athletes. It is an exceptional recruiting tool.
	Yes, present facilities are successful. There is increased need. of any program. The facility does dictate function, control, etc.		
Yes, facilities are an important component of any program. The facility does dictate function, control, etc.	Yes, present facilities are successful. There is increased need. of any program. The facility does dictate function, control, etc.	Utility, convenience. It works!!	It offers athletes a suitable place to study & receive academic support programming. It also represents a university commitment to the academic aspirations of the athletes. It is an exceptional recruiting tool.

Private office space for each counselor is necessary. This provides a secluded place for any personal counseling that may occur. The confidentiality of student records is protected because the private office is easily secured.

Office access to university records is not essential, however, it is an asset. With terminals in the office, the counselors can easily check a student-athlete's course schedule or grades from previous semesters.

Study hours beyond the normal working hours are beneficial. Class and practice times may conflict with the normal working hours preventing student-athletes from using the study facility.

All of the study facilities are relatively new, therefore, the true benefits of having the facility may not be felt yet. The newness of the facilities may be one explanation as to why the study facilities have seen an increase in use over the past years. The difference in the student-athletes' academic performance before having the study facility and after having the study facility warrants re-search.

The figures provided for the cost of the study facilities do not specify whether or not they include the cost of the equipment. Areas other than academic support may have been included in the cost of the building, therefore, the true cost of the academic support area was not given. All of the study facilities were funded by private donations and private athletic department monies.

Four of the respondents encourage all of the student-athletes, regardless of their sport, to utilize the study facility. This gives one central, convenient place for the student-athletes to receive academic support. Another important aspect to this is that student-athletes from different sports are able to interact with each other creating peer support and comradeship. The University of Minnesota is building separate facilities for their sports. This raises the question of cost-effectiveness as well as the properness of excluding other sports from using the study facility.

With the exclusion of the University of North Carolina-Chapel Hill, the respondents would like to add on to their existing facilities. The respondents feel that their present space is not adequate enough to meet the demands of all of the student-athletes wishing to use the study facility. With the increase in use over the past years, the present facilities can no longer accommodate the amount of student-athletes using the services of the study facility.

All of the respondents agree that more academic study facilities will be built in the future. With the recent NCAA legislation, there is a much greater

emphasis on academics. This emphasis will lead more universities to lend more academic support to the student-athletes. This positive attitude toward study facilities may lead to more facilities being built in the future. Having a study facility is a physical symbol of the university's commitment to the academic success of their student-athletes.

There are many benefits of having an academic study facility. A central location in relation to the athletic offices and student housing which provides a quiet area away from televisions, phones and other such distractions is the primary benefit of the study facility. Another benefit is the study facility as a recruiting tool. Parents can see there is a commitment to the academic achievement of their child. By the same token, the prospective student-athlete will see that the athletic department is serious about academics as well as athletics. The coaching staff can recruit any type of student because there are resources to benefit all levels of scholastic ability. There are many other benefits received from having a study facility, many of which are individual to that particular university.

General Discussion

The right amount of space, equipment, and location all make up the proper study facility, but it will not be successful without a positive attitude towards the facility by faculty, student-athletes, and coaches. The academic support staff must develop a positive atmosphere and promote a positive attitude toward academics. The coaches share in this responsibility by encouraging their athletes to use the study facility. The student-athletes should feel comfortable with the academic support staff and in using the services and facilities provided. All of these things will increase the amount of time the student-athletes will use the study facility.

The present facilities, although relatively new, have demonstrated that they have the necessary support to be successful. This shows in the survey responses by the program directors. The present emphasis on academic achievement with the support of the academic staff and study facilities will help the student-athletes receive the education they require to be productive citizens upon graduation.

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Can Non-Traditional Predictor Variables (Academic Comfort, Study Habits/Attitudes, and Perceptual Modality Preference) Enhance the Discrimination of Academically Successful and Non-Successful Athletes: A Research Proposal

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Abstract

This article emphasizes the importance of broadening the theoretical domain of variables used to predict college athlete's academic success to include salient individual factors (beyond aptitude and achievement measures) as well as institutional factors which may influence college performance. Moreover, the authors urge the adoption of an interactive perspective in developing a suitable model of academic performance in higher education. Also included is the description of a proposed study of the possibility of improving the predictability of the student-athlete's academic success at the University of Houston by comparing the predictive power of traditional academic criteria with the predictive power of a battery of measures that includes both the traditional academic predictors and three non-traditional predictor variables (academic comfort, study habits/attitudes, and preferred perceptual modality).

While Bylaw 5-1-(j) represents a clear commitment on the part of intercollegiate athletics to improve the probability that student-athletes will possess the minimum standards of achievement and academic preparedness necessary to succeed in college, its implementation does not mitigate the importance of ongoing research designed to enhance the predictability of the student-athlete's retention/attrition in college. In fact, the current controversy over the proposed scores as predictive criteria actually dramatizes the pressing need to improve our overall prediction of college success by identifying additional salient variables that discriminate between those athletes who graduate and those who do not. College student personnel have long been faced with the dilemma posed by the fact that predictive indexes which include only academic indicators (college board scores and high school grades) still leave a large portion (50-75% of the variance in academic performance unaccounted for. Recent research (Weitzman, 1982; Pascarella & Chapman, 1983; Baird, 1984) has demonstrated that the relative validity of SAT/ACT scores and high school performance in predicting college grades is clearly dependent on a multitude of factors—some statistical variables, some individual social and educational variables, and some institutional variables (related to the relative heterogeneity of the college experience itself). A systematic and collaborative research effort among athletic advisement personnel throughout the country is required if we wish to refine and enrich our understanding of both the scope and the relative importance of the range of factors that appear to influence student-athlete success.

In order to enhance our prediction of college success/non-success for student-athletes, it is imperative that we improve our understanding of both the student characteristics and the institutional characteristics which appear to interact to influence academic performance. Until a comprehensive theoretical model of college academic performance clarifies all the salient variables and the interactive effects of the student-athlete and institutional factors on actual achievement, it is critical to approach the predictive task from both a theoretical and a practical perspective. In addition to appreciating the practical value of developing localized (institution-specific) predictive indexes when using traditional academic predictors, we need to be addressing the following research questions in order to broaden our theoretical understanding of the factors that influence student-athlete success in any given setting:

1. What other variables of personality, attitude, and learning style predict the student-athlete's academic performance in college?
2. What institutional variables (e.g., relative heterogeneity of college curriculum, percentage of students in residence, availability of academic support service, etc.) influence the student-athlete's academic performance in college?

3. What are the interactive effects of individual learner characteristics and institutional characteristics on actual college performance?

These research questions indicate the enormity of the theoretical task that still confronts us before we can significantly improve our predictive potential for discriminating between academically successful and non-successful student-athletes. The University of Houston Athletic Department (Division of Academic Advisement) has currently proposed a research project which will primarily address the first of the research questions posed above. The purpose of the study is to identify a discriminant function by which the probability of long-term academic retention of student-athletes can be predicted at this university. In addition to including the traditional academic predictor variables, we plan to assess whether the inclusion of several non-intellective variables (academic comfort, study habits/attitudes, and preferred perceptual modality) will enhance the discrimination of successful and non-successful athletes. By attempting to assess the relative discriminatory power of the classical academic profile versus an index that includes additional attitude and learning style variables, we hope to accomplish two purposes: 1) to improve the predictive and selective function at this particular institution; and, 2) to contribute to the growing body of theoretical research designed to identify additional individual difference variables that influence a student-athlete's achievement in any college setting. Our current study does not endeavor to address all of the vital research questions posed above; we encourage our colleagues to design related studies which address each of these questions. Only through such a collaborative effort can we hope to enhance our theoretical understanding of the critical interaction between student and institutional variables that affect academic success.

Review of Related Research

The relation between classic academic predictor variables and college grades is well-documented; the correlations between SAT/ACT scores and college performance consistently average about .50 (Cattell, 1968) while high school grade-point (or class rank) manifests an even stronger correlation (mean .65) with college grades (Cattell, 1986). Many theoreticians suggest that high school grades emerge as the best single predictor of college achievement because these data reflect a variety of personality and social factors in addition to aptitude (Forehand & McQuitty, 1959; Lavin, 1965). Furthermore, the wide variability in the size of correlations (.20-.70) between both verbal and math aptitude scores and actual college performance in different settings appears to demonstrate that the predictive validity of college aptitude scores is influenced

by both individual and institutional (college) characteristics (Baird, 1984). Overall, the research suggests that the classic academic profile still leaves a large portion of the variance in college performance unaccounted for.

Before 1975, the lack of a comprehensive theoretical model of academic behavior in higher education and the absence of non-intellective variables in predictive batteries probably limited the ability of earlier studies to identify additional salient factors that would enhance the predictive function (Tinto, 1975; Blustein et al, 1986). Furthermore, the failure to acknowledge the probable interaction effect of certain personality, sociological, and institutional factors may have seriously hampered the generalizability of many studies which attempted to measure single-variable associations (Lavin, 1965; Baird, 1984). When the first theoretical model of college academic behavior (Tinto, 1975) was empirically tested, the studies demonstrated that college retention was, as Tinto predicted, a function of a student's "academic and social integration" into the institution; moreover, the effects of the individual's academic and social integration clearly varied as a function of institutional characteristics, but not as a function of student age (Pascarelli & Terrenzini, 1980; Pascarelli & Chapman, 1983). In addition to highlighting the importance of enriching our theoretical understanding of relevant predictor variables, the research being conducted to test this model has suggested the importance of developing predictive batteries which measure a broader scope of salient variables for given student in various given settings.

Tinto's academic integration component suggests the importance of including measures of individual difference beyond aptitude variables; specifically, he recommends including measures of study habits/attitudes, learning style preferences, and motivational factors in indexes which endeavor to predict college success. Few studies have attempted to test Tinto's construct of academic integration by utilizing predictive batteries that combine classic academic predictors with measures of attitudinal and/or cognitive style variables, although the literature does suggest that a relation exists between some of these variables and school performance. Research has demonstrated a clear association between study habits/attitudes and college achievement (Brown & Holtzman, 1967; Kirschenbaum & Perri, 1982; Blustein et al, 1986). Another related attitudinal factor that reflects school attitudes (and possibly educational aspirations) is one defined by Campbell & Hansen (1981) as "academic comfort"; as measured on the Strong Vocational Interest Inventory, this subscale score has successfully discriminated between students who pursue graduate study, students who finish college, students who drop out of college, students who never attend college, etc. (Cambell & Hansen, 1981). Of the twenty dimensions of cognitive style identified in a review of related research by Messick (1976), Keefe (1979) has concluded that perceptual modality preference for learning new information is one of four cognitive style dimensions which shows genuine

potential for improving our understanding of the learning process. Canfield (1977) has demonstrated that four distinct sensory receptive channel preferences continue to persist in college-age student: these are cognitive preferences for learning by listening, by reading, by visual imagery, or by direct experience. Significant reading deficits have been observed in children with one dominant (non-verbal) receptive channel preference, especially when that dominant preference is for tactual/kinesthetic learning (Domino, 1970; Dunn and Dunn, 1978; Nieman & Smith, 1978; Carbo, 1980; Weinberg, 1983). While the reliability and validity of many of the growing number of cognitive style diagnostic tests is still open to question, the existing literature suggests that an individual's preferred receptive channel for processing information, especially when that preference is extreme or when the preference for kinesthetic learning is strong, may impact upon achievement and school attitudes if learning conditions represent an unusually poor "match". In light of the restrictive instructional methodology of most college classrooms (primarily verbal and auditory activities), Canfield (1977) suggests that receptive channel preferences may help to discriminate between students who achieve Tinto's academic integration and those who do not. Since the experience of personnel who comprise the academic support services at the University of Houston has led them to suspect that student-athletes enrolled in that program have a disproportionate preference for non-verbal learning, this cognitive style variable may have interesting implications both for predicting the probability of academic success and for selecting the diagnostic/prescriptive interventions of learning support service personnel.

In light of research reviewed here, it appears that one useful approach to enhancing the predictive potential for distinguishing college success/attrition for student-athletes at this institution (and possibly at others as well) would be to assess the relative discriminatory power of the traditional academic predictor variables compared to the discriminatory power of a predictive battery that includes measures of study habits/attitudes, academic comfort, and perceptual modality preference. The theoretical rationale for the study (improving predictive potential) has practical ramifications for the recruitment of prospective student-athletes as well. In addition to providing an empirical and realistic assessment of probable academic risk (and likelihood of graduation) among entering student-athletes, the results of this study impact upon the cost-effectiveness of recruitment decisions, the rate of attrition of student-athletes, and the nature and scope of learning support services required to address the preventive and remedial needs of student-athletes.

Hypotheses for the Proposed Study

We predict that all four traditional academic predictor variables (verbal aptitude, math aptitude, high school rank, and high school curriculum) will discriminate between academically successful and non-successful athletes. Furthermore, we postulate that the discrimination function can be enhanced by the addition of three non-traditional predictor variables. Specifically, we expect that more positive school attitudes and greater knowledge of study habits will effectively discriminate between academic success and attrition. In addition, we anticipate that greater academic comfort, as well as a mixed preference for perceptual processing of new information, will increase the likelihood of academic success in college; a single, non-verbal dominant perceptual preference (especially if the dominant preference is for tactual/kinesthetic learning) is anticipated to decrease the probability of college success.

Methodology in the Proposed Study

For the purpose of establishing a discriminant function based upon traditional academic predictors, the following data will be gathered for a three-year sample of student-athletes (excluding transfers and foreign students) who entered the University of Houston between August, 1984 and August, 1986 ($N = 187$):

1. SAT verbal and/or English score, (a statistical adjustment will be made for use of separate scores.)
2. SAT math and/or ACT math score, (a statistical adjustment will be made for the use of separate scores.)
3. High school rank (expressed in quartiles.)
4. High school curriculum designation (criteria will categorize the preparation as maximum college-prep, minimum college-prep, or general.)

For the purpose of determining the enhanced discriminant function using the additional variables (study habits, preferred perceptual modality, and academic comfort), only freshmen entering August, 1987 (and thereafter) will be studied; the rationale for this is that the additional variables can be measured prior to subjects beginning their first semester at the university. In this phase of

the investigation, academic comfort will be measured by the subscale of the same name on the SVII (Campbell & Hansen, 1981). Study habits and attitudes will be measured by the overall "study orientation" score on the Brown-Holtzman Survey of Study Habits and Attitudes, Form C, college level (Brown-Holtzman, 1967). The subjects' preferential or customary mode of processing auditory stimuli on the Edmonds Learning Style Exercise will be postulated to measure the subjects' preferred perceptual channel for internalizing new information regardless of the source or nature of the stimulus; scores falling within the bands of +3, +4, -3, and -4 on the stanine chart will be interpreted as strong or weak preferences for visual, verbal, auditory, or tactual/kinesthetic learning.

The procedure for administering the instruments used to measure the non-traditional predictor variables in the second sub-sample will be rigidly standardized to minimize possible contamination from extraneous factors that could systematically influence results (time, conditions of administration, and exposure to learning support service interventions). An internal reliability index will be calculated for each instrument used.

Data analysis will consist of a series of discriminant function analyses to determine:

1. Whether the student-athletes designed as successful (earning a G.P.A. greater than or equal to 1.7 after 3 semesters and 1.9 after five semesters) can be distinguished from those who were unsuccessful based upon their scholastic aptitude scores, high school rank, and high school curriculum.
2. Whether those athletes designated as successful (after three and five semesters, using the same criteria) can be distinguished from those who were unsuccessful based upon the three academic predictor variables in combination with the non-traditional variables of study orientation, academic comfort, and perceptual modality preference.
3. The relative weight of the discriminant potential provided by each of the seven measured.

Univariate F ratios, Wilks' lambda, and discriminant weights will be obtained for each variable. A chi square and Wilks' lambda will be computed to determine the significance level of the function.

Conclusion

In addition to the possibility of improving our predictive potential to discriminate between academically successful and non-successful student-athletes at the University of Houston, we hope that our study will also make a theoretical contribution by suggesting additional individual predictor variables which may account for some of the variance in college performance. Even if some of these non-traditional predictors do demonstrate a significant capacity to distinguish college success/attrition on our campus, the ability to generalize the findings to student-athletes at other institutions will be severely limited; other individual difference factors unique to our student-athlete population as well as unidentified institutional characteristics (that probably influence academic performance) will be contributing to the outcome. This caution serves to remind us of the critical importance of conducting prediction research that is both situation-specific and theoretically relevant. In the long run, we can only hope to improve our predictive potential to the extent that we can identify all of the individual and institutional characteristics which impact upon the student-athletes' college success and integrate these into a theoretical model that acknowledges the interactive effects of both individual learner variables and learning environment factors. In order to achieve this theoretical integration, a systematic and collaborative effort on the part of athletic advisors across the country is imperative.

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Athletic Academic Counseling: A Survey of Members of the National Association of Academic Advisors for Athletics

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The National Association of Academic Advisors for Athletics (NAAAA) has experienced rapid growth since its creation in 1976. In the past two years the association has doubled its membership. Presently there are 240 members (Monhagan, 1985). In an attempt to keep up with this fast growth and because of the youth of this organization of professionals, the need for research and investigation is imperative.

Review of Literature

Only limited studies have been conducted to investigate the status, trends and characteristics of athletic academic counseling in higher education. Gurney, Robinson, and Fygetakis (1983) investigated trends of staffing and academic support services among athletically competitive institutions in a mail survey. A study conducted by Brennan (1983) surveying 85 athletic academic counselors provides a profile of their responsibilities and duties. Demographic information is also presented. Mand and Fletcher (1986) modeled their study after the Brennan study. The purpose of the survey was to identify trends and changes in the field of athletic academic counseling over the association's 10 years of existence.

The rest of the available literature is comprised of reports about individual programs. These reports describe established programs (Sutherland and Carlie, 1986; Lashbrook, 1984; Walter & Smith, 1986); special services offered (Lee and Harvey, 1985; Wilson, 1985; Toscano, 1982); reports regarding the outcomes of different interventions (NCAA News, 1986), and the creation and development of new programs (McGuire and McCoy, 1986).

These reports are beneficial in illustrating different jobs performed by some professionals. However, such glimpses of individual programs do not contribute to the broad structure of professional literature necessary for the growth

of the profession. The present survey adds empirical evidence of the conditions existing in professional programs by sampling a more comprehensive population of athletic academic counselors.

Method

The following survey was designed to gather information regarding the present nature of athletic academic counselling programs within the National Association of Academic Advisors for Athletics.

The questions used in this survey were selected by 10 professionals in the fields of counselling and guidance, educational psychology and athletics. The questionnaire consisted of 29 questions covering five different areas: demographic variables; programs and services provided; interdisciplinary interaction between athletic academic counselor and athletic department staff; discipline methods, goals of athletic academic counselling programs and types of educational training considered important for the profession; athletic academic counselor's perception of level of cooperation by coaches and faculty, and counselor's feelings towards job.

Once the questionnaire had been constructed, it was distributed to athletic academic counselors who were members of the National Association of Academic Advisors for Athletics (NAAAA). The names of 188 counselors were obtained from the associations's official roster for the years 1985 and 1986. One hundred and twelve questionnaires were returned, yielding a response rate of 59.57 percent.

Statistical Procedures

The data was collected and the responses were tabulated according to the requirements of the Statistical Analysis System (SAS).

The SAS produced the frequency and percentage of response to each item. Pearson product-moment correlations were computed to ascertain relationships which exist among counselor's attitudes and program practices. Analysis of variance techniques was applied to investigate the effects of sex and geographic region (as specified by the United States Bureau of the Census,

1985) on counselor responses. In all cases, the .05 level of statistical significance was applied. Where significant relationships were found, Tukey post hoc tests were applied.

Results

AREA 1: Demographic Variables

Analysis of the demographic information shows that there are more male counselors (59.8%) than women counselors (40.2%). The majority of them have a Master's degree (52.7%) and their main areas of academic specialization are counselling and guidance (22%), education (20%), and physical education (18%). Also, their previous areas of employment involved both coaching and teaching (38.7%). 32.4% of the respondent counselors do not know how their salary compares to those of coaches although 56.75% of the counselors are aware that they are remunerated at the level of assistant coaches (27.9%) or below assistant coaches (28.8%). Most athletic academic counselling programs belong to NCAA division I-A institutions (80.7%), serve both men and women student-athletes (92.6%) and have a ratio of 101 to 150 student-athletes per one full-time counselor (30.3%). In general, the plurality of the survey respondents are from the southern regions of the country (38.4%).

AREA 2: Programs and Services Provided

Athletic academic programs from survey respondents provide more services for entering freshman students (94.6%) than for students that have completed their eligibility (88.3%). Also, 89.3% of the participants indicate that they offer some form of counselling services for student-athletes. Of the respondents that offer counselling services, 99 percent provides individual counselling, 52 percent provide group counselling and 66 percent offers crisis counselling. The majority of counselling services are practiced on voluntary basis (75.6%), and deal with academic concerns (62.2%). In addition, 100 percent of the respondents expressed that tutorial services are a very important component in their program. Building team cohesiveness is considered important (26.5%), and somewhat important (27.6%) by the participants. Imagery and relaxation exercises are also considered important (24.5%) or somewhat important (33.7%). Providing programs to improve communication skills among coaches and student athletes is ranked higher in the respondents' priorities than building team cohesiveness or imagery and relaxation exercises, which are ranked similar.

AREA 3: Interdisciplinary Interaction Between Athletic Academic Counselor and Athletic Department Staff

Respondents suggest that when academic concerns are being discussed, the academic counselor deals with the student on one-to-one basis most of the time (92.8%), while the coach also participates, but to a lesser extent (51.6%). Personal concerns are in general discussed in twosomes, either by the counselor with student (38.4%) or to a lesser degree by the coach with the student (29.3%). Injury concerns are addressed mostly by the coach and the student. In addition 14 participants, or 14.5 percent of the participants, suggest that when an athlete is injured, a meeting is held with the student by the coach and the trainer. The athletic academic counselor is not included. Athletic academic counselors (79.8%) report that when a student-athlete is dismissed they are notified either immediately or within a week. Also, survey respondents say that they rarely participate in the decision-making process of the dismissal of a student for athletic reasons. Counselors indicate that most of their participation takes place when dealing with academic dismissal.

AREA 4: Discipline Methods, Goals of Athletic Academic Counseling Program and Type of Educational Training You Consider Important for the Profession

The most often used methods of discipline are extra practice time (68.9%) and extra study sessions (52.8%). Suspension from practice or games is used only in more serious offenses. For the profession of athletic academic counseling, the respondent counselors consider guidance and counseling (essential and/or important 86%) the most helpful academic area of training, followed in order by administration/management (57.7%), educational psychology (52.8%), curriculum and instruction (38.1%), sport psychology (36.3%) and physical education or coaching (25.7%). In reference to the main goals of their academic programs, the participants state that their first goal is motivation of students to improve academic performance (97.1%), followed in order by personal growth of the students (92.3%), improved graduation rate (84.7%), improved student grade-point average (86.4%), selection of career choice (63.5%), and motivation to improve athletic performance (36.4%).

AREA 5: Athletic Academic Counselor's Perception of Level of Cooperation by Coaches and Faculty, as well as, Counselor's Feelings Towards Job.

Athletic academic counselors strongly agree and/or agree that coaches consider athletic academic counseling programs very important (90.1%), while faculty members (86.5%) are perceived as providing more active support to the program than coaches (79.2%). In general, survey participants do not feel enthusiastic about pursuing athletic academic counseling as a permanent career (52.3%). Nevertheless, student-athletes perceive their counseling services as very helpful (92.8%), and athletic academic counseling is considered an essential component to the athletic program (89.2%). The areas of greatest concern for the counselors are poor resources and "study table".

Analysis of Results

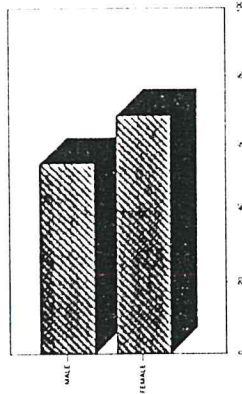
Correlational research was performed to determine the extent to which variables are related to each other. Only correlational values above .50 were included as significant.

When counselors are pleased with the resources they have available to conduct counseling programs, they tend to feel that: 1) Coaches consider academic counseling programs important, $r = .607$; 2) Coaches actively support academic counseling program, $r = .630$; 3) They feel comfortable with their roles as academic counselors in the athletic department, $r = .502$.

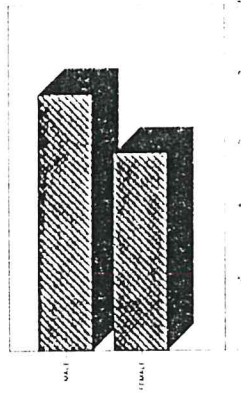
Moderate correlations of $r = .531$ and $r = .565$ were discovered when the group of counselors that feel comfortable with their role of academic counselor within the athletic department was interrelated with counselors that are enthusiastic about pursuing athletic academic counseling as a permanent career, and coaches that actively support the academic counseling program. A strong correlation $r = .789$ was found when counselors believed that coaches consider academic counseling program important and actively support the academic counseling program.

Analyses of variance (ANOVA) were conducted to investigate possible differences between the means of the whole survey, as compared with the means of opposite sex and the means of four different regions. Results revealed two statistically significant findings when the variable sex (male vs. female) was examined. Females considered building team cohesiveness a services more viable

within their program than did males ($F = 4.07, df = 1, 96, p.05$) (see Figure 1). Male athletic academic counselors participate more than female athletic academic counselors in the decision-making process regarding the academic dismissal of a student-athlete ($F = 5.05, df = 1, 105, p.05$) (see Figure 2).



Building Team Cohesiveness (Percent)
Figure 1. Importance of Building Team Cohesiveness



Participation in Academic Dismissal (Percent)
Figure 2. Gender Participation in Athletic Dismissal

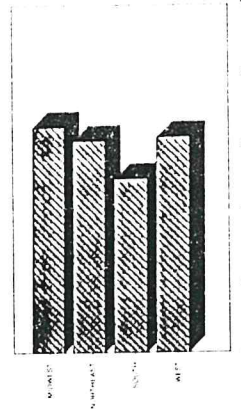
The results of individual ANOVAs performed on the four different regions revealed only four statistical significant findings. A Tukey post hoc test was conducted in each of the four statistically significant variables in an attempt to discover how each of the regions differs from others.

The tendency for only the coach and athlete to meet when there is an injury concern differs by regions ($F = 3.96, df = 3, 85, p = .01$). Tukey tests revealed that regarding injuries, the coach and student-athlete meet alone more often in the Midwest than in the South ($p.05$). The West and Northeast are not significantly different from any other region (see Figure 3).

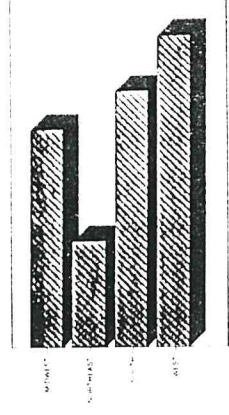
The propensity to use extra practice (i.e. running extra laps) as a form of punishment when a student-athlete fails to meet a commitment previously

agreed upon differs by region ($F = 5.18, df = 3, 102, p.05$). Tukey post hoc comparison showed that the West and South use this type of punishment significantly more when compared to the North-east ($p.05$). The Midwest is not significantly different from any other region (see Figure 4). The usage of suspension from practice as a form of punishment differs by region ($F = 4.04, df = 3, 102, p.05$). The results of Tukey post hoc comparison indicates that the West uses this type of punishment significantly more than the South ($p.05$). The Northeast and Midwest show no significant difference from other regions (see Figure 5).

Regions perceive differently the importance of administration and management as one of the academic areas considered important for the training of athletic academic counselors ($F = 3.06, df = 3, 100, p.05$). Results of the Tukey post hoc test revealed that the South considered administration and management significantly more important than the Northeast ($p.05$). The Midwest and West are not significantly different from the other regions (see Figure 6).



Injury Meetings (Percent)
Figure 3. Meetings Between Coach and Athlete Regarding Injury



Extra Practice (Percent)
Figure 4. Percent of Students Within Region Punished with Extra Practice

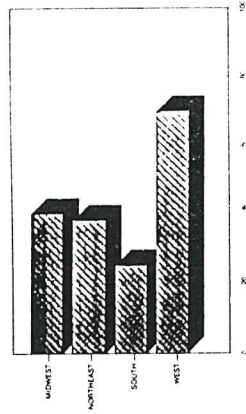


Figure 5. Percentage of Students Within Region Suspended from Practice

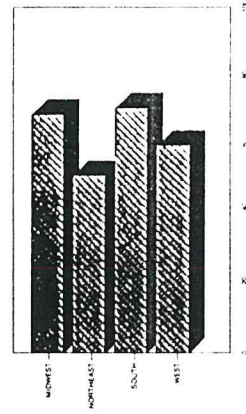


Figure 6. Importance of Administration/Management for Athletic Academic Counseling Profession

Some of the correlations, differences and comparisons which did not prove to be statistically significant may usefully be brought forth as general tendencies. For instance, when analyzing comparisons by sex, almost 60 percent of the respondents are male counselors and 40.2 percent are female counselors. Table 1 provides the breakdown of respondents' sex by different regions.

Table 1. Sex by Region

	Midwest	Northeast	South	West	Total
Male	17	10	25	15	67
Female	14	6	18	7	45
Total	31	16	43	22	112

Male counselors have a tendency to have more advanced academic degrees than their female counterparts (see Table 2).

Female athletic academic counselors have an inclination to have less coaching and teaching experience than male athletic academic counselors. Generally, they come to the profession from other fields. (see Table 3).

Results indicate that female counselors tend to receive lower salaries than men counselors, but they are more aware as to how their salary compares to those of coaches (or they are more willing to share this information) (see Table 4).

Table 2. Sex by Educational Background

	Bachelor's	Master's	Ph.D.	Total
Male	5	37	24	66
Female	6	21	17	44
Total	11	58	41	110

Table 3. Sex by Previous Employment

	Coaching	Teaching	Coaching/Teaching	Other	Total
Male	7	21	27	12	67
Female	1	14	16	13	44
Total	8	35	43	25	111

Table 4. Sex by Salary

Salary of the level of	Head Coach	Assistant Coach	Below Asst. Coach	Don't Know	Total
Male	7	18	17	25	67
Female	5	13	15	11	45
Total	12	31	32	36	N = 111

Analyzing comparisons by different regions, the Midwest is prone to pay higher salaries and to be better informed as to how their salaries compare to those of coaches (or they are more willing to share this information) (see Table 5).

Table 5. Region by Salary

Salary: Region	Head Coach	Assistant Coach	Below Asst. Coach	Don't Know	Total
Midwest	7	7	12	4	30
Northeast	0	5	4	7	16
South	2	12	11	18	43
West	3	7	5	7	22
Total	12	31	32	36	N = 111

The West and Northeast attach less importance to physical education and coaching as areas of academic training necessary for the profession of athletic academic counseling than the South and Midwest.

Discussion

A few common dimensions exist in almost all athletic academic counseling programs, no matter what the geographical location of the program or whether staffed by males or females. This research suggests that most athletic academic counseling programs serve both men and women student-athletes and that the majority of the institutions that belong to NAAAA belong to NCAA division I. Also, the research indicates that there is less interdisciplinary interaction between the athletic staff and counselors when dealing with academic or personal concerns of a student-athlete. Most of the interdisciplinary interaction occurs when dealing with injury concerns of a student-athlete.

Athletic academic counselors consider guidance and counseling the most helpful educational area of training for the profession. Though counselors indicate that they receive support from coaches and student-athletes, they are hesitant in pursuing athletic academic counseling as a permanent career.

However, in regard to other variables male and female counselors seem to have differences. Female counselors tend to come into the athletic academic counseling profession from different professional areas than males, and the

former receive lower salaries. Male counselors have more advanced academic degrees and are more likely to have coaching and teaching experience. Also, female counselors consider building team cohesiveness a service more viable within their program. Male counselors participate more in the decision-making process regarding the academic dismissal of a student-athlete, and they will be more involved in the new NCAA drug counseling program at their institutions.

Regional differences also exist. The Northeast seems to be the region that is least likely to use punitive actions on student-athletes. The Midwest is prone to pay higher salaries, and counselors there are better informed as how their salaries compare to those of coaches. The South, more than other regions, values physical education/coaching and administration/management as educational backgrounds for the profession of athletic academic counseling.

Further study could be directed toward examining the different services already being provided at member institutions, counselors' feelings and attitudes regarding the working atmosphere and profession, the possibility of adding new services such as workshops on stress and time management, improving communication skills and the enhancement of academic and athletic performances, so student-athletes can have an opportunity to receive the well-rounded education they deserve. The review of the literature also made evident some directions for future investigations. More research on the effectiveness of athletic academic counseling needs to be done. Future investigations need to have some methodological improvements. It is necessary to have better designed studies in order to be able to draw more definite conclusions about the implications of athletic academic counseling. Finally, future research could concern itself with how coaches and student-athletes perceive the role and responsibilities of athletic academic counselors.

As members of a young profession, athletic academic counselors should originate new investigations and scholarly work in order to gain support, respect and status in the perception of university administrators, faculty and the professional community. A strength of the present survey is the representation of the population studied. The response rate covers almost 50 percent of the entire association's membership. The results of the survey analyzed herein, together with the wide representation covered allow us to make a cautious hypothesis that athletic academic counseling in the NAAAA is growing beyond what Tutko and Tossi (1976, p. 11) called "the golden age of the physical side of sports" and moving toward a more comprehensive and humanistic attitude regarding athletics.

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