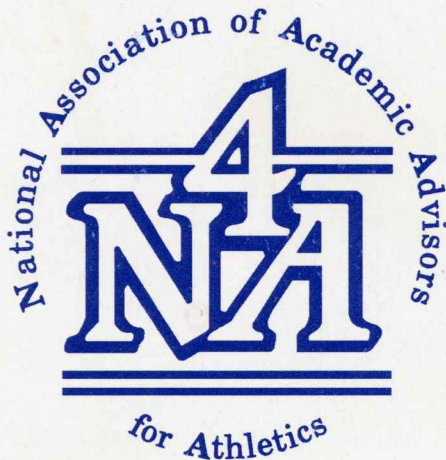




ACADEMIC ATHLETIC JOURNAL

*The Official Publication
of the
National Association of
Academic Advisors for Athletes*

SPRING 2001 ~ VOL. 15, NO. 1
ISSN 0897-165X

TABLE OF CONTENTS

Guidelines for Authors	1
Membership and Subscriptions	4
Editor's Statement	5
Articles	
Sports Counseling Preparation at CACREP Institutions:	
An Initial Analysis	6
H. Ray Wooten & Gary Miller	
A Sampling of Perceptions of Potential Users of the Australian Athlete Career and Education Program	11
Trish Gorely, David Lavallee, David Bruce, Brook Teale, & Ruth M. Lavallee	
Academic Performance and Achievement of Selected Track Athletes	22
Margie Sullivan & E. Newton Jackson, Jr.	
Athletic Department Practices Related to the Academic Performance and Persistence of Student-Athletes	44
Richard L. Unruh	
Student-Athletes with Learning Disabilities:	
Unique Problems, Unique Solutions	59
Holly B. Lane, Sharon L. Blatz, Cheryl Curtis Ziegert, LuAnn Jordan, David H. Allsopp, Tamara A. Moriarty, Duane E. Dede, & Tim W. Conway	

Submission Guidelines for the *Academic Athletic Journal*

AUDIENCE

The primary audience of the Academic Athletic Journal is the membership of the N4A, that is, professionals providing counseling, life skills, and academic support services to student-athletes.

PURPOSE

The primary purpose of the journal is to assist its readers in providing the best possible counseling, advising, and life skills services to student-athletes. Toward that end, articles should add new knowledge, challenge existing opinion, and/or explain the implications of research. The arguments should be well-grounded in theory or research and clearly related to practice. Articles should be original and stimulating, written in a clear and concise style. Where applicable, authors should strive for methodological and statistical soundness, while avoiding unnecessary technical excursions.

SUBJECT MATTER

Relevant topics include, but are not limited to, the following: historical overviews of topics related to student-athletes; reviews of publications related to student-athletes; practical applications of theoretical or research-based conclusions; research on student-athletes and on professionals working in support service capacities, including a full discussion of results and implications.

Do not submit a manuscript that has been previously published, is scheduled for publication elsewhere, or is being considered for publication elsewhere.

REVIEW PROCESS

Manuscripts will be reviewed through the blind review process by at least three members of the editorial board. Their comments will be sent to the authors along with recommendations for acceptance, rejection, or revision.

MANUSCRIPT FORMAT AND STYLE GUIDELINES

Manuscripts should be prepared utilizing the format and style described in the fourth edition of the American Psychological Association Publication Manual. Articles should be 1250-5000 words in length (i.e., roughly 5-20 pages of typed, double-spaced text) with ample margins for comments. Amplify the text with appropriate headings/subheadings, figures, and reference citations. The references and all figures and tables should be typed on separate pages in accordance with the APA Publication Manual. Submissions that deviate substantially from Publication Manual format will be returned to the authors.

Manuscripts must include the following:

- (1) A separate title page with the names and institutional affiliations of the authors.
- (2) An abstract of 50-100 words that briefly summarizes the major points of the

paper. The abstract should be typed on a separate page and appear after the title page.

(3) A brief biographical sketch for each author. Sketches may be combined on one page, but must appear on a page separate from manuscript text.

(4) A cover letter briefly describing the nature of the manuscript. Include relevant telephone and fax numbers and electronic mail addresses.

Submit the original manuscript and four copies to: E. Newton Jackson, Jr., Ph.D., Director, Sport Administration Program, Department of Physical Education, 126 Tully Gym, The Florida State University, Tallahassee, Florida 32306-4280.

Upon final acceptance of the manuscript for publication, authors should provide a copy of the final draft and the electronic version of the manuscript on computer diskette, formatted for IBM (compatible), in MS Word 5.0 or better. Please do not submit diskettes prior to final acceptance.

JOURNAL EDITOR

E. Newton Jackson, Jr., Ph.D

Florida State University

EDITORIAL REVIEW BOARD

Ketra Armstrong, Ph.D.

Ohio State University

Brian Bartolini, M.Ed.

Providence College

Britt Brewer, Ph.D.

Springfield College

Robert L. Ciervo, Ed.D

Temple University

Allen Cornelius, Ph.D.

Springfield College

Paul A. Cotton, Ph.D.

Research Consultant

Jill DeMichele, M.B.A., M.S.

Arizona State University

Ed Etzel, Ph.D.

West Virginia University

Beth S. Eubanks, Ph.D.

Grambling State University

Will M. Goins, Ph.D.

Higher Education Consultant

Carol Gruber, Ph.D.

University of Iowa

Trina Kudlacek, Ed.D.

Oregon State University

Robert Lyons, Ph.D.

Texas A & M University

Delise O'Meally, M.B.A.

NCAA

Danielle A. Mincey, Ph.D.

George Mason University

Abigail Mobley, Ph.D.

Florida A & M University

Don Reed, Ph.D.

Iowa State University

Deborah Rifenburg, Ed.D

University of New Mexico

Rob Sellers, Ph.D.

University of Michigan

David Storm, Esq.

American University

Beverly Yerg, Ph.D.

Florida State University

Graduate Assistant

Chrystal Denmark, M.S.A.

Florida State University

Euidong Yoo, M.S.

Florida State University

Membership and Subscription Information

MEMBERSHIP INFORMATION

To inquire about becoming an N4A member or to change a mailing address, please contact the organization's central office:

Kathi Ley, N4A National Office

14606 Woodlake Trace, Louisville, Kentucky 40245

Phone: (502) 253-9530 Fax: (502) 253-9533 Email: kley2@juno.com

SUBSCRIPTIONS FOR N4A MEMBERS

A one-year subscription (two publications) is included in the annual dues of all N4A members.

All Mailings for members and non-members outside of North America require a surcharge of \$4.

SUBSCRIPTIONS FOR NON-MEMBERS

For those who are not members of the N4A, the following rates apply:

Individual: \$20.

Student: \$13.

SUBSCRIPTION REQUESTS

Your request for a subscription should include your name, address, and a check made payable to the N4A. Mail your request to: N4A Office, National Office, 14606 Woodlake Trace, Louisville, KY 40245

REPRINT REQUESTS

Copies of articles appearing in back issues of the AAJ are available for a charge of \$5 per article. Checks should be made payable to N4A. Mail your request to:

E. Newton Jackson, Jr., Ph.D.

130 Tully Gym – Sport Administration Program, Department of Physical Education
The Florida State University, Tallahassee, Florida 32306-4280

EDITOR'S STATEMENT

E. NEWTON JACKSON, JR., PH.D.

THE FLORIDA STATE UNIVERSITY

The circle of life is moving daily. The question, what have you accomplished today, while preparing for tomorrow? In this evolving athletic world of academic advisement for athletes, there is a constant education of rules and rule changes combining with life long skill management, which keeps each advisor, tutor and mentor often on the cutting edge point. There is always excitement and energy among those working with student athletes, on and off the field of competition. Preparing students for achievement is fundamentally what should concern all higher education staff.

This issue of the *AAJ* examines sports counseling preparation, academic performance of a non-revenue sport group, an athletic department's practice addressing student athlete performance, and an international perspective of athlete career and education programs. The final article of this issue is a moving example of learning disabilities problems and solutions for the student athlete.

Papers examining the advisor experience in addition to those of our student athletes are always strongly encouraged among the membership. The future professionals joining the N4A ranks should be allowed the opportunity to review the documented researched literature provided by role models and experienced professionals like each of you. Therefore, let us begin today to enhance the lives of not only our student athletes for a better tomorrow, but also re-commit to give our best for our current and future colleagues that must and will carry forward our torch of light and hope.

Sports Counseling Preparation at CACREP Institutions: An Initial Analysis

H. Ray Wooten, St. Mary's University

Gary Miller, University of South Carolina

ABSTRACT

Interest in the field of sports counseling is growing in both mental health and athletics communities. Specialized sports counseling preparation has been emphasized in order to work efficiently with athletes. However, it is not clear whether counseling programs have the curriculum, faculty, or departmental support for those interested in becoming sports counselors. This survey of counseling programs accredited by the Council for Accreditation of Counseling and other Related Educational Programs (CACREP) examines the availability of training opportunities for counseling students interested in specialization in sports counseling and the attitudes of the counseling faculty toward sports counseling. Findings reveal a lack of training opportunities in sports counseling at CACREP accredited institutions and only moderate interest by faculty in establishing such programs.

Interest in providing support services to athletes has increased at a rapid rate over the last twenty years (Chartrand & Lent, 1987; Danish, Petitpas, & Hale, 1993; Remer, Tongate, & Watson, 1978; Wittmer, Bostic, Phillips, & Waters, 1981). As a result, sports counseling has emerged as a specialization within the fields of counseling and sport psychology (Petitpas, Buntrock, Van Raalte, & Brewer, 1995). Petrie, Diehl, and Watkins (1995) suggested sport psychology is an "emerging domain" in the field of psychology. This specialization in counseling athletes was a result of the growing concern over developmental problems faced by many student-athletes. These developmental difficulties include academic, social, and personal issues of the athlete.

Although specialized counselor training has been emphasized for working with athletes, it has not been clear whether counseling programs have faculty or departmental support for those interested in research and training for sports counseling. LeUnes and Hayward (1990) addressed these issues in their survey of clinical psychology programs accredited by the American Psychological Association. Their results indicated that sport psychology was viewed positively, yet course offerings were sparse and plans for future classes were limited. Counseling psychology programs holding membership in the Council of Counseling Psychology Training Programs (CCPTP) were surveyed by Petrie and Watkins (1994) to determine the types of training opportunities available to counseling psychology students. Their results indicated that counseling psychology programs do not generally offer, or plan to offer, a course in sport psychology. However, respondents indicated that there would be a high level of openness and acceptance to sport psychology research

and training for faculty and students. In a follow-up study, Petrie et al. (1994) indicated that counseling psychologists had received virtually no coursework or supervision in the field, yet many had worked professionally with athletes. These two surveys provided valuable information concerning training, but were limited by covering only psychology programs.

From the counseling perspective, the Association for Counselor Education and Supervision (ACES) first became involved with sports counseling in the Counselors of Tomorrow Project (Nejedlo, Arrendondo, & Benjamin, 1985). Athletic counseling was defined as "a process, which attempts to assist individuals in maximizing their personal, academic, and athletic potential. This is accomplished through a proactive, growth-oriented approach incorporating the principles of counseling, career development, movement science, psychology, and human development" (Nejedlo et al., 1985, p.5). According to Nejedlo et al. (1985), sports counselors would have specialized knowledge and skills beyond basic counselor preparation. Following the work of the Counselors of Tomorrow Project, Miller and Wooten (1995) proposed the development of an area of specialized studies in sports counseling which included training experiences based on the Nejedlo et al. (1985), paper and selected aspects from the certification requirements from the Association for the Advancement of Applied Sport Psychology (AAASP) (1990).

Petitpas et al. (1995), suggested the future seems bright for those counselors interested in working with athletes. Job opportunities in counseling athletes are increasing due to the National Collegiate Athletic Association (NCAA) mandate, calling on college institutions to devote more resources to the academic and personal development of student-athletes. In addition, the United States Olympic Foundation has funded a program to assist elite athletes in career planning upon retirement from active competition. A study conducted by Petitpas, Danish, McKelvain, and Murphy (1992) found that 75% of the elite athletes they surveyed were interested in attending career assistance programs.

Fundamental training in counseling includes the development of a knowledge base and skill set that can be readily adapted to address specific issues in sports counseling. These include areas such as career development, alcohol and drug prevention, life skills training, and wellness. Nonetheless, questions still remain about the availability of training opportunities for students interested in sports counseling and secondly, how amenable counseling programs are to faculty or students interested in sports counseling training and research. Due to rising interest in sports counseling and increased employment opportunities for sports counselors, these authors thought it imperative to investigate the interest of sports counseling training in counselor education programs. The purpose of this study was to (a) ascertain the extent of sports counseling coursework and training for counseling students, and (b) assess the receptiveness of counseling program faculty to incorporating sports counseling into counselor training.

METHODOLOGY

Participants

The 98 counseling programs sampled were accredited by the Council for Accreditation of Counseling and other Related Educational Programs (CACREP). The CACREP representatives from these programs were identified via a mailing list from CACREP headquarters and subsequently sent the following: (a) a cover letter explaining the purpose of the study, (b) the survey questionnaire, and (c) a prepaid envelope in which to return the completed survey. After an initial mailing and a follow-up postcard, mailed two weeks later, a return rate of 64.28% ($N=63$) was attained.

Survey Instrument

The survey questionnaire was modeled after surveys developed by LeUnes and Heyward (1990) for clinical psychology programs and after Petrie and Watkins' 1994 study of counseling psychology programs. The questionnaire developed for this study consisted of 14 questions addressing the following: (a) the current status of sports counseling in CACREP programs; (b) counseling faculty member's attitudes (as perceived by liaisons) toward teaching, training, and research in sports counseling; and (c) the identification of sports counseling as an interdisciplinary or specialty area in counselor education. Six of the questions required a yes/no response, and seven questions were scored on 7-point Likert-type scales, ranging from 1 (not at all acceptable) to 7 (totally acceptable). A space for comments was provided at the end of the survey.

RESULTS

At the time of the survey, none of the counselor education programs that responded offered preparation in sports counseling at the undergraduate level, Masters level, or Doctoral level. While a few undergraduate and doctoral programs did not respond to the item, 94% to 100% of all respondents reported that they did not offer such programs. In addition, no plans for future classes in sports counseling were indicated at either the undergraduate or Masters level. One doctoral program indicated plans for developing a course in sports counseling during the next two years. Respondents indicated it would be acceptable ($M = 4.71$, $SD = 1.57$) for department faculty to develop and offer a course in sports counseling.

The responses indicated that 40% of the programs surveyed had a favorable perception of faculty being interested in sports counseling. It was reported that 39% of the programs have students interested in sports counseling at the Master's level and 15% reported having doctoral level students interested in the area. According to the data reported by the liaisons, it would be acceptable for faculty to pursue research in sports counseling ($M = 5.93$, $SD = 1.38$). Furthermore, liaisons reported it would be acceptable for their graduate students to: (a) have interest or want to specialize in sports counseling ($M = 5.51$, $SD = 1.46$), (b) propose sports counseling research for a Master's thesis ($M = 5.83$, $SD = 1.52$) or doctoral dissertation ($M = 5.82$, $SD = 1.45$), and (c) take classes related to sports counseling (e.g., exercise physiology) in addition to the CACREP counseling program requirements ($M = 5.62$, $SD = 2.13$).

Only 21% of the programs surveyed reported having practicum or internship sites available with a sport counseling focus. However, liaisons reported positively ($M = 5.64$, $SD = 1.62$) toward the idea of students participating in sports counseling focused experiences.

Programs were asked whether an interdisciplinary program (i.e., counseling and exercise/sport science) or a program solely associated with counseling would offer the most comprehensive training for individuals interested in sports counseling. Of the respondents, 73% suggested that interdisciplinary programs provided the most comprehensive training in sports counseling, 25% suggested that specific counseling programs offered the best sports counseling training, and 2% of respondents indicated that they did not know which of the two programs would offer the most comprehensive training for individuals interested in sports counseling.

DISCUSSION

The authors recognize the general limitations associated with survey research and the biases identified with surveying CACREP liaisons as opposed to entire program faculty. However, the high return rate, consistent responses, and a field tested instrument lead the authors to believe that the data may be representative of the prevailing attitudes at other counseling programs.

It appears that there are some discrepancies between the suggested need for training sports counselors and the actual training opportunities available to individuals interested in providing sports counseling. A comprehensive review of the literature on the field of sports counseling indicates an increased interest in sports counseling as a specialization within the fields of counseling and psychology. In addition, there is increased interest by the athletic community in addressing issues faced by athletes through the assistance of counselors and psychologists. However, it is suggested that many of the mental health professions that are currently providing support to athletes lack specific training in the field of sports counseling. Results of this investigation support this suggestion. None of the CACREP institutions surveyed provided specific training in sports counseling to students at either the Masters or Doctoral levels, even with expressed interest from students.

Perhaps part of the dilemma facing programs in providing such training comes from a lack of direction in terms of preparing students in sports counseling. CACREP institutions adhere to specific standards for preparing counselors in various specialty areas and may not wish to venture into the development of new specialty areas without set guidelines. Thus, the development of specific guidelines for the preparation of sports counselors (and endorsed by CACREP) may encourage CACREP accredited institutions to offer students the option of specializing in sports counseling at the Masters or Doctoral levels. As an alternative, CACREP institutions could tailor the academic preparation of their students in cooperation with other units on campus, such as the sports science faculty, resulting in academic preparation similar to that proposed by Miller and Wooten (1995).

On the positive side, there is obvious acceptance of the institutions surveyed for the development of courses on sports counseling and for research efforts regarding sports counseling. It seems possible for students in counseling who are interested

in sports counseling to tailor their training, with cooperation from sports science faculty, to develop research projects focusing on work with athletes. It also seems possible that increased visibility of the field of sports counseling within graduate programs in counseling may encourage the development of course offerings by interested faculty members. It is possible that a contributing factor to the lack of specific coursework and training in sports counseling is the relative invisibility of the topic of sports counseling during the fundamental coursework of CACREP approved counseling programs. Perhaps if sports counseling were discussed with students as a potential specialization within counseling programs, students might feel more supported in pursuing such a specialization. Such efforts could enhance the literature base of research with athletes at all levels, from elementary aged students in youth sports programs to elite and professional athletes.

REFERENCES

- Chartrand, J., & Lent, R. (1987). Sports Counseling: Enhancing the development of the athlete. *Journal of Counseling and Development*, 66, 164-167.
- Danish, S., Petitpas, A., & Hale, B. (1993). Life development intervention for athletes: Life skills through sports. *The Counseling Psychologist*, 21, 352-385.
- LeUnes, A., & Hayward, S. (1990). Sport psychology as viewed by chairpersons of A PA-approved clinical psychology programs. *The Sport Psychologist*, 4, 18-24.
- Miller, G. & Wooten, R. (1995). Sports counseling: A new counseling specialty area. *Journal of Counseling and Development*, 74, 172-173.
- Nejedlo, R., Arrendondo, P., & Benjamin, L. (1985). *Imagine: A visionary model for the counselor's of tomorrow*. DeKalb, IL.: George's Printing.
- Petitpas, A., Buntrock, C., Van Raalte, J., & Brewer, B. (1995). Counseling athletes: A new specialty in counselor education. *Counselor and Education and Supervision*, 34, 212-219.
- Petitpas, A., Danish, S., McKelvain, R., & Murphy, S. (1992). A career assistance program for elite athletes. *Journal of Counseling and Development*, 70, 383-386.
- Petrie, T., & Watkins, C. (1994). Sport psychology training in counseling psychology programs: Is there room at the inn? *The Counseling Psychologist*, 22, 335-341.
- Remer, R., Tongate, R., & Watson, J. (1978). Athletes: Counseling the over-privileged minority. *The Personnel and Guidance Journal*, 56, 616-629.
- Wittmer, J., Bostic, D., Phillips, T., & Waters, W. (1990). The personal, academic, and career problems of college student athletes: Some possible answers. *The Personnel and Guidance Journal*, 60, 52-55.

A Sampling of Perceptions of Potential Users of the Australian Athlete Career and Education Program

Trish Gorely, Loughborough University, UK &
University of Queensland, Australia

David Lavaller, University of Teesside, UK

David Bruce, University of Queensland, Australia

Brook Teale, University of Queensland, Australia

Ruth M. Lavalley, Leeds Metropolitan University, UK

ABSTRACT

This study evaluated the content, quality, access, and delivery of the Australian Athlete Career and Education (ACE) Program. Employing both qualitative and quantitative methodologies, levels of usage of the program, overall satisfaction with the services provided, and athletes' suggestions for the future were assessed. Results revealed that more than 70% of eligible athletes utilized the program's services within a 12-month timeframe, and that the most used services were career planning, educational guidance, and selected professional development courses. Reasons for using the ACE Program were also found to relate to enhancing the athletes' lives both inside and outside of sport. Overall, the athletes were found to be satisfied with the quality of the services provided by the program. Specific targeting of programs based on age and sport is recommended.

There has been a growing interest in the educational and post-sporting career needs of full-time participants in sport in recent years. Calls have been made to promote the holistic development of athletes by providing academic support services and life skills counseling to this population (Taylor & Ogilvie, 1998). In addition, sports career transition has become an important topic among researchers and practitioners, with over 270 applied and empirical references being identified in a recent literature search (Lavalley, Sinclair, & Wylleman, 1998; Lavalley, Wylleman, & Sinclair, 1998).

During the last 15 years, a number of education and career assistance programs for athletes have been developed by governing bodies and sport institutes around the world. The Olympic Athlete Career Centre, for example, was launched in Canada in 1985 to assist their elite-level athletes in preparing for their life after sport (Olympic Athlete Career Centre, 1991). The United States Olympic Committee initiated the Career Assistance Program for Athletes in 1988 to provide support to retiring athletes during the career transition process (Petitpas, Danish, McKelvain, & Murphy, 1992). In addition, the Lifeskills for Elite Athletes Program was launched in Australia in 1989, and has since merged with the Athlete Career and Education (ACE) Program to

provide a nationally consistent career and education service for Australia's elite athletes (Australian Institute of Sport, 1996). Since 1991, the Olympic Job Opportunities Program has also been developed in Australia, South Africa, and the United States to assist athletes who are committed to developing a professional career as well as achieving their sport-related goals (Olympic Job Opportunities Program, 1996). At the present time, however, there exists a general lack of research on the quality of these programs (Wylleman, Lavalley, & Aflermann, 1999). In an attempt to address this issue, the current research sought to evaluate the content, quality, access, and delivery of the Australian ACE program. More specifically, this study sought to determine levels of usage of the program, identify athletes' perceived needs, determine overall satisfaction with the program, and identify athletes' suggestions for the future.

The Australian ACE Program: The ACE Program is coordinated by the Australian Institute of Sport (AIS) to provide eligible athletes with skills, resources, and contacts needed to pursue educational goals and/or careers outside of their sport. This objective is met by offering services to eligible athletes, including Olympic-level athletes, scholarship holders, and those in development squads at the AIS and state institutes and academies. These individuals, of which there are over 3,000, range in age, education level, and sporting experience. The services of the ACE Program include career planning, educational guidance, business referrals, and a career transition program. In addition, more than 30 professional development workshops are available, each of which is structured to assist athletes in meeting their educational and career aspirations.

METHOD

A two-phase iterative research design was followed to meet the objectives of this study. Phase one was qualitative in nature, and involved six focus group interviews (n=4-8 per interview) with key sub-groups of athletes, and one focus group interview with coaches and administrators (n=5). The athlete groups were formed to include experienced and inexperienced athletes, older and younger athletes, and both users and non-users of the ACE program. Approximately equal numbers of male and female athletes were involved in the focus groups. These interviews were used to develop an understanding of the key issues, and to identify differences that may exist between groups of athletes.

Based on the results obtained in phase one, a survey instrument for use in phase two was developed. Initially, members of the evaluation team independently identified key points from the focus groups and discussions with ACE representatives to be included in the survey. Following a team discussion on these points a draft instrument was developed and sent to the ACE managers throughout Australia. A teleconference with these managers resulted in refinement of both questions and format. A second review of the survey by ACE managers resulted in minor changes and the national manager approved the final version. To further clarify the suitability of the questionnaire an independent expert with knowledge of both evaluation and the ACE program examined the instrument and deemed that it was suitable for the objectives set and required no changes. The final instrument was five pages long and consisted primarily of closed questions focusing on such topics as where athletes

find information about the services provided by the ACE Program, how often they accessed ACE services, how satisfied they were with the services they accessed, and what factors led them to (or limited them from) accessing the ACE services. Some open-ended questions (e.g., "If relevant, think of an ACE service that you found satisfactory and state what made the service satisfactory for you") were also included to allow the athletes to expand on issues of satisfaction and future improvements in the service.

A census approach to distribution of the instrument was taken in phase two, with all 3088 athletes (across 48 sports) eligible to receive the ACE services being sent a survey packet that included the survey instrument, a cover letter, and a reply paid envelope for instrument return. The cover letter explained the purpose of the survey and assured confidentiality and anonymity. The survey packet was either posted (63%) or delivered by hand (37%) to the eligible athletes. Regardless of the mode of administration, all surveys were returned directly to the evaluation team.

During the four-week data collection period 867 (28.1%) surveys were returned. A further 54 (1.7%) were received late or returned by the postal service. Late returns were not included in the data analysis. While the evaluation was conducted at a "quiet" time in the Australian sporting calendar, one of the limitations of a census approach with this target population is that the non-return rate is inflated because, at any given time, a proportion will be abroad due to competition and training commitments. Although a response rate of 28% is within the range of common response rates for this type of survey (Neuman, 1994), the non-return rate of approximately 70% should be remembered when interpreting the results. The final sample is described in Table 1. The national manager of the ACE program confirmed that this sample description was generally representative of the athletes eligible for the ACE program.

Results and Discussion

LEVELS OF USAGE

The majority of athletes (70.7%) reported contact with the ACE program during the 12-month period prior to data collection. As shown in Table 2, the most used services were career guidance/planning, help with school or university, and professional development workshops in nutrition/cooking, time management, goal setting, and finding/establishing a job. Transition services were used by less than one percent of the athletes. This finding is similar to Sinclair and Orlick (1993) who reported that only a small proportion of athletes, in their case 27%, took advantage of the retirement services available to them. In the current study, the low use of these services was also reflected in a low importance (1.6 on a 5 point scale) being placed on career transition and retirement issues when athletes were asked about their current perceived needs. A reason for this lower usage and perceived need could be that athletes might not consider retirement to be an issue until its proximity draws near. If the career transition process of athletes is to be enhanced then it appears critical to educate athletes of the need for long-term retirement planning (Lavalley, Grove, & Gordon, 1997).

As outlined in Table 3, the most frequently cited reason for using ACE services is that "they may help my life outside sport." Other reasons included "they may help my sporting career," "they may help my sporting performance," and "a coach/administrator suggested it." Athletes also indicated that suitable program mechanics such as low costs and the availability of ACE representatives influenced their use of ACE services. The reasons related to life outside of sport and availability are in line with those identified by other researchers (e.g., Petitpas et al., 1992). The high percentage of individuals utilizing the ACE program for performance-related reasons is worthy of more research attention, however. Although Murphy (1995) provides anecdotal evidence of a relationship between planning for careers outside sport and sporting goals, to date only Morris and Anderson (1994) have provided evidence for a relationship between use of an education and career program and perceived sporting performance.

The main reasons for athletes not using the ACE program could be broadly classified as aspects of the program, lack of perceived need, and personal factors (see Table 4). Aspects of the program inhibiting usage include lack of awareness of the services offered, and unsuitable venues or timing of services. Lack of perceived need encompasses the perception by some athletes that they do not need the ACE program. Reasons for this can include having "other priorities," using alternative resources, or simply having no need for the services ACE provides. Personal factors such as "nothing," "not getting around to it," and "laziness" indicate perhaps a lack of motivation on behalf of the individual to utilize the ACE program.

The three categories of reasons for non-use of the program suggest a number of strategies to overcome them. To a degree, issues with aspects of the program can be overcome by ensuring that services are available at times (including after hours and weekends) and locations (preferably close to training sites) convenient to the athletes and increasing awareness (Petitpas & Champagne, in press). The athletes surveyed indicated that their preferred method for receiving information about ACE was by personal contact with an ACE representative or by mailouts. However, some athletes mentioned that a system to make sure athletes were receiving the mailouts would be useful. Lack of perceived need can be addressed by targeting existing services to specific groups of athletes more closely, ensuring that the benefits of services are clearly explained, and adding services to meet the specific needs of different athlete groups. Personal issues may be overcome to a large extent by the above two strategies. Greater perceived benefits and easier access may reduce the inertia experienced by athletes (Mann & Janis, 1982). However, the challenge to a program such as ACE may be to find ways of enhancing athlete's personal motivation before having the opportunity to teach them relevant skills, such as goal setting and time management. Successfully addressing this challenge may rest on creating an environment, in conjunction with coaches and parents, which promotes a balanced personal and social development (Petitpas, Champagne, Chartrand, Danish, & Murphy, 1997; Taylor & Ogilvie, 1998).

Satisfaction with the Program

Overall, 61.2% of the athletes reported that their perceived needs were being well met by the ACE Program (4 or 5 on a 5-point scale). However, 12.2% felt their needs were not being satisfactorily met (1 or 2 on a 5-point scale), suggesting that programs such as ACE would benefit from regular reviews with athletes with respect to their perceived needs and preferred methods for meeting these needs.

The athletes were generally satisfied with the actual services and courses they had attended (mean satisfaction = 3.9 on a 5-point scale). The satisfaction with specific ACE courses (e.g., goal setting, public speaking) was enhanced when athletes felt the information was practical and relevant, that it was individualized and directed to an appropriate level, and that the course was facilitated by a good presenter. Dissatisfaction occurred when these things did not happen and also when the courses were perceived as consisting of "what to" rather than "how to" information.

Satisfaction with individual career guidance was increased with the perception of developing applied skills, identifying options rather than dictating paths, and providing support for work related issues (e.g., letters to employers thanking them for opportunities). Not surprisingly, satisfaction with this service was also enhanced where job applications were successful. The athletes identified a range of issues which created a sense of dissatisfaction with respect to career guidance, including: slow responses; being sent to interviews that had nothing to do with what the athlete wanted; getting jobs that are of no value for the future; jobs being unsuitable in terms of time commitments required; making unasked for contact with established employers that jeopardized current positions; not preparing athletes for referrals; not caring about what the athlete did; and forcing them into jobs they did not want.

Where support was sought with education and university issues, the services athletes appreciated assistance which included organizing exams and assessment, help with applications, identifying options and subject selection, liaison with schools and teachers and organizing special consideration with institutions. A lack of specific information and having only ad hoc liaisons with institutions were considered limiting factors in the program's role in providing support with education and university.

The athletes identified several issues that related to dissatisfaction with the program in general. A perceived lack of proactivity or follow-up from ACE advisors led some athletes to suggest that the program was "simply going through the motions." Related to this some athletes felt that the program did not do enough to keep them informed of what ACE could do for them.

What emerged in both phases of the evaluation was the delicate balance that organizations like ACE must tread between developing an athlete's sense of self-responsibility and actually providing help. There appears to be a segment of athletes who would like ACE to simply give them everything they need, and while this may enhance short-term outcomes, this approach may not be optimal for the athlete's longer term personal development (Danish, Petitpas, & Hale, 1995). On the other hand, forcing athletes to play too large a role in actually implementing the assistance they receive from ACE could alienate some from taking advantage of the available services at all.

ATHLETES' SUGGESTIONS FOR THE FUTURE

There were no clear new areas identified by athletes that could be incorporated into the ACE program. However, athletes were able to make a number of valuable suggestions on improving and expanding the current service. Of particular note, and an issue for all centralized programs, was that athletes in regional/remote areas felt left out and unable to make use of the ACE Program. Possible solutions suggested by athletes included ACE establishing regional stations that would be visited on a regular basis by ACE advisors, taking some of the courses outside of the large cities

or towns, and using a wider range of delivery modes (e.g., reading material, the internet). Athletes felt that there was need for the advisors to be credible, that is, competent and qualified to do the job. Furthermore, the athletes suggested that more empathy could be shown towards their specific needs and desires (e.g., not being sent for a job they don't want to do). There was a strong feeling for ACE advisors being more proactive in initiating individualized contact with athletes. It was also suggested that ACE look at providing progressive courses, that is, courses which build on previously completed courses. Finally, the need for a balance between ensuring everyone has access to the service but not constraining people to use the service was stressed.

CONCLUSION

The Australian ACE program was founded to provide training programs and services that facilitate the development of athletes who possess the skills and resources to pursue educational goals and/or careers outside of sport (Australian Institute of Sport, 1996). It is self-evident that for this and other programs to be successful, athletes must make use of the service and be satisfied with the service they receive. From the results presented it could be argued that the current ACE program has a solid base of usage and satisfaction. However, several key points that are perhaps generic to all such programs emerged. First, career and education programs for athletes would benefit from clarifying the distinction between helping and facilitating, and ensuring that athletes understand the difference. If the models for these programs were based on developing independent self-reliant athletes then it would be beneficial to take a facilitating approach where athletes are expected to exhibit some level of self-responsibility for the outcomes.

Second, within the athlete population a number of segments exist largely based on age and sport. Examining the needs of these different segments, and then targeting and promoting the program services to these specific groups, may be more effective than providing an "all-comers" service. For example, athletes in amateur sports have clear needs to develop skills that assist them to survive financially during their sporting careers and that act as a basis for self-sufficiency after their sporting careers. Those athletes going into professional sports may have less salient needs for these skills, as their expectation may be that they will be financially secure through sport. This may make them more vulnerable to career-ending injuries, or simply not making it to the elite level (Petitpas et al., 1997). Consequently, there may be considerable value in developing strategies to take ACE services to these different groups of

athletes in different ways. In addition, athletes heading into professional or elite amateur sporting careers are tending to do so from a younger age than has previously been the case reducing the opportunity for developing other vocational skills. This has the potential to exacerbate their vulnerability to career-ending events and ensuring young athletes have opportunities to develop some of these skills is critical (Taylor & Ogilvie, 1998).

Linked to this issue is the difficulty that may arise for some athletes if the service provided is centralized. Under these conditions it is important to remember that not all athletes will be located conveniently to the main offices, and athletes in regional areas may therefore feel that they are unable to access the program. Providing alternative means of access should be considered to service all athletes.

To conclude, this research examined athletes' usage and satisfaction with the Australian ACE program but did not attempt to examine the effectiveness of the service in terms of outcomes (e.g., jobs placements made) or changing behavior. Such an examination would be an essential next step in furthering our understanding on how best to help the personal development and performance of athletes through the provision of career and education services. In addition, such information will be critical for arguments of a program's accountability.

TABLE 1

Sample Description

Gender	Male	43.5%
	Female	56.5%
Age (Years)	Average	20.2
	Range	10-68
Experience (Years)	Average	9.1
	Range	1-40
Level of participation	International	51%
	National	32%
	State	16%

TABLE 2

Usage of ACE Services

Service	Usage of Service (%)
Career guidance/planning	33.1
Help with school or university	28.3
Nutrition/cooking	20.9
Time management	20.2
Goal setting	19.0
Finding/establishing a job	15.8
Resume writing	12.6
Media skills	12.6
Sponsorship issues	11.0
Public speaking	10.7
Interview skills	9.0
Motivation	7.8
Money matters	6.6
Department/grooming/hygiene	6.5
Referral to another person/place	6.0
Self-confidence	3.9
Personal issues	3.8
Career transition	0.7

TABLE 3

Reasons for using ACE Services

Reason	Percentage
They may help with my life outside of sport	60.7
They may help my sporting career	37.2
They may help my sporting performance	32.9
A coach/administrator suggested it	32.2
Low costs	27.5
ACE representative is available when necessary	27.3
I do not use the services	26.3
General interest	23.7
Positive professional relationship with ACE advisor	23.3
Venues/locations of services are suitable	22.3
I am kept well informed about what services are available	21.5
Services are conducted at suitable times	18.0
I have been made to	17.0
Good presenter	14.8
Other athletes suggested it	10.3

TABLE 4

Reasons for not using ACE Services

Reason	Percentage
I do not know about the services they offer	32.0
Other priorities	25.9
Nothing	24.3
Timing of service is not suitable	18.2
Not getting around to it	16.7
Venue/location is not suitable	15.0
Other	12.1
I do not require the services offered	12.1
Laziness	8.7
I prefer/choose to do things myself	6.3
ACE representative is not available when necessary	4.1
Course are boring	2.7
Not interested	2.7
Poor professional relationship with ACE representatives	2.2
I have had a bad experience with ACE	1.7
They do not help with my sporting performance	1.5
They do not help my life outside of sport	1.2
Bad presenter	1.0
I have been told not to	0.9
Other athletes have suggested they are not useful	0.9
They do not help my sporting career	0.9

REFERENCES

- Australian Institute of Sport (1996). Athlete Career and Education program: A balanced approach to sporting excellence. Canberra: Author.
- Danish, S., Petitpas, A. & Hale, B. (1995). Psychological interventions: A life development model. In S. Murphy (Ed.), Sport psychology interventions, (pp.19-38). Champaign, IL: Human Kinetics.
- Lavallee, D., Grove, J. R., & Gordon, S. (1997). The causes of career termination from sport and their relationship to post-retirement adjustment among elite-amateur athletes in Australia. The Australian Psychologist, 32, 131-135.
- Lavallee, D., Sinclair, D. A., & Wylleman, P. (1998). An annotated bibliography on career transitions in sport: I. Counseling-based references. Australian Journal of Career Development, 7 (2), 34-42.
- Lavallee, D., Wylleman, P., & Sinclair, D. A. (1998). An annotated bibliography on career transitions in sport: II. Empirical references. Australian Journal of Career Development, 7 (3), 32-44.
- Mann, L. & Janis, I. (1982). Conflict theory of decision making and the expectancy-value approach. In N. Feather (Ed.), Expectations and actions: Expectancy-value models in psychology (pp. 341-364). Hillsdale, NJ: Lawrence Erlbaum.
- Morris, T., & Anderson, D. (1994, October). Career education, perceived performance and mood state in elite athletes. Paper presented at the 9th Annual Conference of the Association for the Advancement of Applied Sport Psychology, Lake Tahoe, NV, USA.
- Murphy, S. (1995). Transitions in competitive sport: Maximizing individual potential. In S. Murphy (Ed.), Sport psychology interventions, (pp. 334-346). Champaign, IL: Human Kinetics.
- Neuman, W. (1994). Social research methods: Qualitative and quantitative approaches (2nd Ed.). Boston: Allyn & Bacon.
- Olympic Athlete Career Centre (1991). Guide to the administration of the Olympic Athlete Career Centre. Toronto: Author.
- Olympic Job Opportunities Program (1996, March). Opportunities, p. 3.
- Petitpas, A. & Champagne, D. (in press). Practical considerations in implementing sport career transition programs. In D. Lavallee & Wylleman, P. (Eds). Career transitions in sport: International perspectives. Morgantown, WV: Fitness Information Technology.
- Petitpas, A., Champagne, D., Chartrand, J., Danish, S., & Murphy, S. (1997). Athlete's guide to career planning: Keys to success from the playing field to professional life. Champaign, IL: Human Kinetics.
- Petitpas, A., Danish, S., McKelvain, R., & Murphy, S. M. (1992). A career assistance program for elite athletes. Journal of Counseling and Development, 70, 383-386.
- Sinclair, D. & Orlick, T. (1993). Positive transitions from high-performance sport. The Sport Psychologist, 7, 138-150.
- Taylor, J. & Ogilvie, B. (1998). Career transition among elite athletes: Is there life after sports? In J. Williams (Ed.), Applied sport psychology: Personal growth to peak performance (3rd ed., pp. 429-444). Mountain View, CA: Mayfield.
- Wylleman, P., Lavallee, D., & Aflermann, D. (Eds.) (1999). Career transitions in competitive sports. Biel, Switzerland: European Federation of Sport Psychology Monograph Series.

Academic Performance and Achievement of Selected Track Athletes

Margie Sullivan

E. Newton Jackson, Jr.

The Florida State University

ABSTRACT

Data on all first time in college (FTIC) track athletes at a major southeastern university over a ten-year period were examined to compare variables of gender, ethnicity, admission scores (high school grade point average and SAT/ACT scores), terminal academic major, graduation rates, and cumulative university grade point averages with those FTIC in the general student body. Reports generated from the university's student database and data from the Registrar's Office were examined. Results of this descriptive and exploratory study may provide valuable information to academic and athletic communities that may help to debunk myths of student-athletes, guide policy, and improve programs.

INTRODUCTION

The focus on the relationship between intercollegiate athletics and academics continues to be provocative and controversial. Headlines in major newspapers "Graduation Rate Drops for Division I Athletes" (Asher, 1998) and titles in academic journals such as, "Athletes on Top-Ranked Teams Lack Grades and Test Scores of Other Students" (Naughton, 1997), "Graduation Rates Hit Lowest Level in 7 Years for Athletes in Football and Basketball" (Suggs, 1999c), and "Scandals Force Colleges to Reassess Roles of Academic Advisers for Athletes" (Suggs, 1999d) underscore the attention this issue has brought.

The interdependent relationship between higher education and athletics has been a focus of discussion since the publication of American College Athletics, a comprehensive and landmark study (Savage, Bentley, McGovern, & Smiley, 1929). Four major national studies completed between 1929 and 1993 have explored the relationship between higher education and athletics. These four studies, American College Athletics (Savage, Bentley, McGovern, & Smiley, 1929), Special Committee on Athletic Policy (1952), An Inquiry into the Need for and Feasibility of a National Study of Intercollegiate Athletics (Hanford, 1974), and the three reports of the Knight Foundation Commission on Intercollegiate Athletics completed between 1991 and 1993 (Knight Foundation, 1991, 1992, 1993) are noteworthy for their depth and impetus for reform in intercollegiate athletics. All of these studies were concerned with the integrity and role of both academics and athletics. Also, these national studies

focused on how higher education incorporates athletics into its mission, as well as concern for the students who must reconcile their dual roles as a student of higher education and intercollegiate athlete.

Profiles (college admission scores and graduation rates) of student-athletes in the revenue producing sports are constantly under scrutiny in the popular and academic literature. The USA Today, Chronicle of Higher Education, and the NCAA all publish graduation rates of football and men's basketball. Many of these articles make inferences to all student-athletes based on the academic successes or failures of athletes participating in these two sports. These inferences often reinforce the stereotypical perception of the student-athlete as a "dumb jock." College faculty and students at "big-time" athletic universities as well as colleges where scholarships are not available are consistent in their perceptions that student-athletes do not meet the same academic standards as the general student population (Edwards, 1984; Engstrom & Sedlacek, 1991; Engstrom, Sedlacek, & McEwen, 1995; Jones, 1998; Sailes, 1993; Sperber, 1990). While the annual graduation rates report published by the NCAA includes the graduation rates for women's sports (basketball and track/cross country) and men's sports (baseball and track/cross country) individually, the remaining non-revenue sports are combined into an "other" category. Combining non-revenue sports (i.e., soccer, swimming and diving, tennis, and volleyball) encourages generalizations to all athletes. Consequently, analysis of the separate sports and their participants is difficult.

The media and the research literature provide coverage of the football and basketball programs' successes and challenges. Currently, 30% of the student-athlete population at this major southeastern public university participate in men's basketball and football. The remaining 70% of the student-athletes participate in non-revenue sports, which historically have been essentially unstudied and obscure.

Attitudes Toward Student-Athletes

The words "dumb jock" portray student-athletes in the minds of many in the general public, administrators in higher education, athletic staff, college faculty, students and even in the minds of student-athletes themselves (Edwards, 1984a; Engstrom & Sedlacek, 1991; Engstrom, Sedlacek, & McEwen, 1995; Jones, 1998; Sailes, 1993). Are student-athletes really less intelligent than the general college student population or is this a stereotype perpetuated and reinforced in the media? Intercollegiate athletics, in the minds of many, is synonymous with football and men's basketball. The constant media attention on these two sports and the academic difficulties of some of their participants reinforce the "dumb jock" stereotype for all student-athletes. Consider the 1997 headline in the Chronicle of Higher Education, "Athletes on Top-Ranked Teams Lack Grades and Test Scores of Other Students." Just reading the headline, the reader assumes the statement to be reflective of all intercollegiate student-athletes. However, the article focused solely on comparing high school grade point averages and SAT/ACT scores of top 25 men's basketball and football collegiate athletes compared to those of 1996 entering freshmen. Published research on the non-revenue or Olympic sports and their participants is lacking.

Recent highly publicized incidents regarding student-athletes' academic performance contribute to the perception of the student-athlete as less competent academically. For example, at the University of Minnesota, members of the athletic academic advisor department completed class assignments for members of the men's basketball team (Suggs, 1999e). A similar incident was investigated at the University of Tennessee, involving the football team only to later find no merit (Farrey, 1999). Sperber (1990) described dishonest measures that are taken so prospective student-athletes can be eligible for competition as freshmen. They include cheating on SAT/ACT exams, substitute test takers, and using fake transcripts (Sperber, 1990). The academic abuses that occur at the secondary school level are used to increase the chances that a prospective student-athlete will be noticed by college recruiters (Hanford, 1974). The Chronicle of Higher Education annually publishes an article that lists the number of schools under NCAA sanctions and the reason. Further examination of these violations at 22 institutions reveals schools penalized for tampering with grades of student-athletes, academic fraud by coaches, certification of ineligible athletes, inflated grades for coursework not completed, and improper enrollment of athletes in correspondence ("22 Institutions Under NCAA Sanctions," 1998). An audit requested by Texas Tech found 76 of its athletes in 8 sports competed while ineligible over the last 6 years mainly due to academic problems (McGraw & Reeves, 1997).

Even with the many reforms and improvements in intercollegiate athletics that have taken place since the landmark Knight Commission reports in 1991, some colleges and universities continue to exhibit low graduation rates among their student-athletes and have difficulty adhering to NCAA eligibility requirements and academic regulations. This contributes to the "dumb jock" perception surrounding student-athletes. This and other continued problems are largely the reason the Knight Commission has been re-convened in this new century.

The perception of student-athletes as "dumb jocks" is evidenced in the attitudes of faculty and college students described in the literature such as, student-athletes are not as smart as other college students, student-athletes are not as well prepared initially to enter college, and student-athletes take easier classes or majors to maintain their eligibility (Edwards, 1984a; Engstrom & Sedlacek, 1991; Engstrom, Sedlacek, & McEwen, 1995; Jones, 1998; Sailes, 1993; Sperber, 1990). Research has noted that these beliefs and attitudes result in prejudice and discrimination against student-athletes (Anderson & South, 1993; Edwards, 1984a; Engstrom & Sedlacek, 1991; Engstrom, Sedlacek, & McEwen, 1995; Harris, 1993; Jones, 1998; Sailes, 1993; Sperber, 1990). Many of the attitudes toward student-athletes are racially based since there are a disproportionate number of Black athletes participating in football and men's basketball (Anderson & South, 1993; Engstrom, Sedlacek, & McEwen, 1995; Harris, 1993; Sperber, 1990). The constant headlines and focus on these revenue-producing sports and their student-athletes' lower admission scores and lower graduation rates, reinforce the "dumb jock" and racially based stereotypes. Therefore, as a matter of survival in a discriminatory environment, many student-athletes are forced to choose between academic or athletic success (Adler & Adler, 1985; Meyer, 1990; Purdy, Eitzen, & Hufnagel, 1985; Sack, 1987; Simons, Van Rheenen, & Covington, 1999). There are many ethnicity- and gender-based stereotypes about athletes in general;

however, a discussion of these complex and emotionally charged issues is beyond the scope of this paper.

Majoring in Eligibility

The perception that student-athletes take easier classes just to remain eligible for competition has been supported by the literature. Brede and Camp (1987) examined a sample of Division I football and male basketball players. Their data revealed that "majoring in eligibility" was one of several common methods of academic survival. At the University of Cincinnati, 7 of 13 student-athletes on the 1998-99 men's basketball team were majoring in criminal justice (a major with the lowest number of total hours required) (Suggs, 1999a). Knapp and Raney (1990) studied a random sample of majors pursued by baseball, men's basketball and football players at the University of Nevada at Las Vegas between 1978 and 1987. They found that the majority of their course work (15%) was in physical education followed by English (8%). Of the 25-35% of Black student-athletes who graduate, 60-65% of them graduate either with physical education degrees or in "Mickey Mouse" jock majors specifically created for athletes and generally held in low esteem. Compare that to the White athletes who graduate: only 33% of them have a "Mickey Mouse" major (Edwards, 1984a). Thomas Haskell, a professor of history who has advocated tougher admission standards for athletes at Rice, believes academic advisors for student-athletes suggest enrollment only in classes where the student-athlete will succeed, rather than where they will receive "an authentic education" (Naughton, 1997b).

Prediction of Academic Performance

The quest continues to find the best means for predicting academic performance in college. Predictors in academic performance include high school grade point average (HSGPA), college entrance exam scores (SAT or ACT), ethnicity, gender, and other non-academic variables. Some examples of non-academic variables or non-cognitive variables, as they are currently referred to in the literature, include gender, ethnicity, goals, support systems, and community involvement (Sedlacek & Adams-Gaston, 1992; Ting & Robinson, 1998). College admission policies, NCAA initiatives, participation in a revenue or non-revenue sport, and an institution's graduation rate also influence academic performance. Researchers have noted that the topic of academic achievement of student-athletes has been researched for over 50 years, with conflicting findings based on the methodology utilized (Brede & Camp, 1987; Mathiasen, 1984). Methodologies and populations varied greatly, i.e., examining first semester success or first and second semester success or graduation rates based on any number of academic and/or non-academic variables. Some of the literature revealed academic or cognitive factors such as HSGPA and/or SAT/ACT scores were the best predictors of success, or explained the most variance (Mouw & Khanna, 1993). While others supported the combination of other factors, such as study habits, personality traits, family variables or life events, in other words non-cognitive or non-academic variables. Gender and ethnicity were important research factors in measuring achievement in HSGPA, college entrance exams, university grade point average, and graduation rates (Sellers, 1992; Ting & Robinson, 1998). Basically, the research supports common sense—students who perform better in

high school will in turn perform better on college entrance exams, and in turn will perform better in college (Mouw & Khanna, 1993). The vast majority of research centered on White male student-athletes or male student-athletes who participated in football or basketball.

STATEMENT OF THE PROBLEM

There was very little focus at this major southeastern public university on 70% of the student-athlete population, the non-revenue participants. Therefore, the focus of this study was to examine demographic variables (gender and ethnicity) and academic variables ((HSGPA), SAT or ACT scores, terminal academic major, cumulative university grade point average (UGPA), and graduation rates) among student-athletes in one representative non-revenue sport, track/cross country who matriculated as FTIC from 1983 through 1993.

METHOD

Academic Records

The data for this study were comprised of the academic records of first time in college (FTIC) track/cross country student-athletes who matriculated between 1983 and 1993. FTIC students are those undergraduate students who matriculated to receive a baccalaureate degree. Transfer student-athletes were not included largely because HSGPAs and college entrance exam scores were not consistently available. International students were also not included because of the unavailability of college entrance exam scores and the incompatibility of HSGPAs. This particular descriptive study focused on men and women's track/cross country because of greater homogeneity of gender as well as ethnic variability. For the period studied, a total of 256 participants were identified, 141 males and 115 females from track/cross country rosters. Approval for the project was obtained from the university Registrar. Approval of the Human Subjects Committee was not required as the data was reported in an aggregate manner and without identifiers.

Timeframe

The timeframe for this study was from 1983 to 1993 because both women's and men's intercollegiate athletics were under the governance of the NCAA. To obtain the most current information and in keeping with the current NCAA graduation allowance of six years, 1993 was chosen as the endpoint of the research timeframe.

Data Set

A Microsoft Access database of student-athletes was developed from track/cross country team rosters housed in the selected university's Registrar's Office. The rosters were reviewed in chronological order to accurately identify student-athletes who may have walked-on and appeared on an early roster, but were then identified as cut on a later roster during the same year. Rosters were available from 1980 through the current year. The type of information on each roster varied with each year and with the requirements of the governing athletic association at that time.

Team rosters were chosen over participation lists to create the list of student-athletes. Participation lists were only available through the Athletics Compliance Office for the timeframe 1988-current, while team rosters were available from 1980. There are advantages and disadvantages to using either list. For example, rosters contained names of redstart athletes who may or may not have participated and walk-ons that only practiced. Whereas, participation lists contain only the names of student-athletes who actually played.

The Regional Data Center database, which contains demographic and academic information on all surveyed students, was utilized as a tool in identifying student-athletes who initially were unable to be found by name or number. Using the master student database, students who underwent a name change were identified and then could be included in the student-athlete database.

A query of the Microsoft Access student-athlete database was performed to determine all track/cross country FTIC student-athletes who matriculated as FTIC between 1983 and 1993. The social security numbers from the query were then matched with the social security numbers in Regional Data Center Database to supplement and verify information. The HSGPA, SAT/ACT scores, cumulative university grade point average, major, gender, and ethnicity from Regional Data Center Database were used to create the student-athlete reports. Conversion tables were used to convert outdated major codes to current major codes. Those students who took honors courses or a higher level sequence of courses received more credit.

The Regional Data Center Database was queried by a programmer to obtain the data for the general student population. The query parameters included all first time in college students who matriculated between 1983 through 1993 and the other study variables (HSGPA, SAT/ACT scores, cumulative university grade point average, major, gender, and ethnicity).

Data Analysis

All data for the two groups were compared and analyzed for each year 1983-1993. Statistical analysis using descriptive statistics (mean, median, standard deviation, percent, and mean differences) was performed in SPSS Version 8.0 for Windows.

RESULTS

Data for the non-revenue student-athlete group was comprised of 115 or 44.9% females and 141 or 55.1% males for a total of 256 (see Table 1). The general student body data, contained 34,068 students of whom 19,491 or 57.2% were female and 14,577 or 42.8% were male (see Table 1). When comparisons were performed using the ethnicity variable, meaningful comparisons were calculated only on students in the White and Black ethnicity groups since the student-athlete sample had a very small number of participants in all of the remaining ethnicity groups. For example, there were no track/cross country student-athlete participants in the Alaskan/Native American group.

TABLE 1

Demographic Profile for Track/Cross Country Student-Athletes and General Student Body 1983-1993

Gender / Ethnicity	Track / Cross Country Student-Athletes		General Student Body	
	N	Percent	N	Percent
Female	115	44.9%	19,491	57.2%
Male	141	55.1%	14,577	42.8%
Gender Total	256	100.0%	34,068	100.0%
White	166	64.8%	28,853	84.7%
Black	84	32.8%	3,200	9.4%
Hispanic	5	2.0%	1,351	4.0%
Asian/Pacific Islander	1	0.4%	584	1.7%
Alaskan/Native American	0	0.0%	67	0.2%
Other	0	0.0%	13	0.0%
Total	256	100.0%	34,068	100.0%

ACADEMIC PROFILE

HSGPA

Track/cross country student-athletes had a mean high school grade point average (HSGPA) of 3.02 and a median of 3.00 (see Table 2). There was one missing HSGPA score in the White male ethnicity category. Comparing the ethnicity subgroups, White track student-athletes had a higher mean HSGPA than Black track student-athletes. As previously noted, the Hispanic and Asian/Pacific Islander student-athlete subgroups were small and consequently were not used in comparisons. White and Black female track student-athletes had higher mean HSGPAs than male student-athletes of the same ethnicity which is illustrated in Table 2. Although not demonstrated in the table, all the distributions were positively skewed suggesting a slightly greater concentration of scores lower than the mean.

The general student body mean HSGPA score was 3.22 while the median was 3.20. Of the 34,068 participants in the general student body sample, 215 were missing HSGPA scores. Since the number of participants in the Hispanic and Asian/Pacific Islander samples are limited, analysis comparison of HSGPAs will focus on only White and Black students.

Females in the general student body had higher mean HSGPAs than males. Higher mean HSGPAs were also noted for White and Black female students in the general student body subgroups when compared with their male counterparts as can be seen in Table 2. Overall, White students in the general student body had higher mean HSGPAs (2.68) than Black students (2.20). The mean HSGPAs for White and Black students in the general student body were positively skewed suggesting a slightly greater concentration of scores lower than the mean. Table 3 illustrates the HSGPA mean differences between the general student body and track/cross country student-athletes by ethnicity and gender.

TABLE 2
HSGPA and University GPA Scores for Track/Cross Country Student-Athletes
and General Student Body 1983-1993

Subgroup	N	Mean HSGPA	Mean HSGPA	Standard Deviation	N	Mean University GPA	Median University GPA	Standard Deviation
Men's Track/Cross Country Total	140	2.98	2.90	0.61	141	2.48	2.49	0.70
White Male Track/Cross Country Total	106	3.05	3.05	0.63	107	2.58	2.56	0.65
Black Male Track/Cross Country Total	31	2.74	2.70	0.52	31	2.07	2.22	0.70
Women's Track/Cross Country Total	115	3.08	3.10	0.23	115	2.67	2.75	0.23
White Female Track/Cross Country Total	59	3.18	3.20	0.61	59	2.85	2.98	0.69
Black Female Track/Cross Country Total	53	2.95	2.90	0.55	53	2.45	2.46	0.65
Male General Student Body Total	14,486	3.10	3.00	0.60	14,577	2.50	2.62	0.84
White Male General Student Body Total	12,416	3.13	3.10	0.59	12,483	2.54	2.65	0.83
Black Male General Student Body Total	1,127	2.79	2.70	0.61	1,134	2.07	2.15	0.78
Female General Student Body Total	19,367	3.31	3.30	0.57	19,491	2.73	2.86	0.81
White Female General Student Body Total	16,281	3.34	3.30	0.56	16,370	2.79	2.92	0.79
Black Female General Student Body Total	2,054	3.08	3.00	0.53	2,066	2.27	2.38	0.78
Track/Cross Country Total	255	3.02	3.00	0.61	256	2.56	2.57	0.70
General Student Body Total	33,853	3.22	3.20	0.59	34,068	2.63	2.76	0.83

HSGPA Similarities

White and Black female students in both the track/cross country student-athlete and general student body groups had higher mean HSGPAs than their male counterparts. Similarly, White students had higher mean HSGPAs in both the track/cross country student-athlete and general body samples when compared to Black students in the track/cross country student-athlete and general student body groups.

Admission Scores

Of the 256 track student-athletes, 78% took the SAT while 52% took the ACT. The admission score data are presented in Table 3. The mean SAT score for track student-athletes was 1039 with a median of 1050. Male track student-athletes, in general, performed better on the SAT (1068) than did their female counterparts (1004). Further, White and Black track males scored higher on the SAT (1097 and 939 respectively) when compared to their female counterparts (1075 and 900). The ACT scores for track student-athletes were symmetrical with a mean and median of 22. However, the male track student-athletes' performance on the ACT (23) was almost identical to that of female student-athletes (22). Mean ACT scores for White male and female non-revenue student-athletes were the same (23), while the mean ACT for Black male non-revenue student-athletes were higher (21) than their female counterpart (19).

TABLE 3

Mean Differences on HSGPA, SAT, ACT, and University GPA Between General Students and Track/Cross Country Student-Athletes by Ethnicity and Gender 1983-1993

Subgroup	Mean Difference HSGPA	Mean Difference SAT	Mean Difference ACT	Mean Difference University GPA
White Male GS versus White Male T/CC	0.08	53	1	-0.04
White Female GS versus White Female T/CC	0.16	43	1	-0.06
Black Male GS versus Black Male T/CC	.05	57	-1	0
Black Female GS versus Black Female T/CC	.13	63	0	-0.18
General Student versus T/CC Student-Athlete	0.2	79	2	0.07

GS = General Student

T/CC = Track/Cross Country Student-Athlete

Table 4 illustrates the distribution of SAT and ACT scores by gender and ethnicity in the general student body from 1983 through 1993. The mean and median SAT scores for the general student body were 1118 and 1110 respectively. The ACT scores for the general student body were symmetric with a mean and median of 24. Of the 34,068 participants in the general student body, 17,370 (51%) took the SAT, 5,622 (16.6%) took the ACT, 10,902 (32%) took both the SAT and ACT, and 134 or .4% did not take either exam. Because of the small number of participants in the Hispanic and Asian/Pacific Islander samples, comparison of SAT scores focused only on White and Black students.

White students had higher mean scores on both the SAT (1132) and ACT (25) than did Black students in the general student population (975 and 20). Mean SAT scores for male students (1138) were higher than female students (1102). However, both males and females in the general student body scored equally well on the ACT with means and medians of 24. In the gender and ethnicity (White and Black) subgroups, the mean SAT scores for males (1150 and 996) were higher than their female (1118 and 963) counterparts. Table 3 illustrates the SAT and ACT mean differences between the general student body and track/cross country student-athletes by ethnicity and gender.

SAT Similarities

Males in the track/cross country student-athlete (1068) and general student body (1138) samples performed better on the SAT than their female counterparts (1004 and 1102 respectively). White and Black male track/cross country student-athletes as well as those in the general student body had higher mean SAT scores than their White and Black female counterparts.

TABLE 4

SAT and ACT Scores for Track/Cross Country Student-Athletes and General Student Body 1983-1993

Subgroup	N	Mean HSGPA	Mean HSGPA	Standard Deviation	N	Mean University GPA	Mean University GPA	Standard Deviation
Men's Track/Cross Country Total	109	1068	1060	139	76	23	23	4
White Male Track/Cross Country Total	85	1097	1100	126	56	24	23	4
Black Male Track/Cross Country Total	21	939	930	118	17	21	20	3
Women's Track/Cross Country Total	90	1004	1015	171	56	21	21	4
White Female Track/Cross Country Total	52	1075	1080	137	23	23	23	4
Black Female Track/Cross Country Total	36	900	890	167	32	20	20	3
Male General Student Body Total	12,432	1138	1130	129	6,552	24	25	4
White Male General Student Body	10,781	1150	1140	120	5,549	25	25	3
Black Male General Student Body	826	996	990	147	573	20	19	4
Female General Student Body Total	15,840	1102	1100	124	10,012	24	23	4
White Female General Student Body	13,571	1118	1110	114	8,282	24	24	3
Black Female General Student Body	1,422	963	960	126	1,199	20	20	3
Track/Cross Country Total	199	1039	1050	157	132	22	22	4
General Student Body Total	28,272	1118	1110	128	16,564	24	24	4

SAT Differences

The relationship between SAT scores of students in the general student body and non-revenue student-athletes remained consistent across gender and ethnicity for White and Black FTIC students.

ACT Similarities

Black males and females in the general student body had the same ACT mean of 20. The mean ACT for Black females in the track/cross country and general student body samples was the same (20).

ACT Differences

Black male track/cross country student-athletes had a higher mean ACT score (21) compared to Black male students in the general student body (20). The opposite was true for White females and males track/cross country athletes whose ACT means were 23 and 24 respectively compared to White females (24) and males (25) in the general student body.

University GPA

Table 2 illustrates the mean and median university GPA scores for students in track/cross country and the general student population. The mean university GPA for the student body was higher (2.63) compared to track/cross country student-athletes (2.56). However, when examining means by ethnicity, White and Black track/cross country students had higher university GPA means compared to their counterparts in the general student body and Black males in both groups had a mean university GPA of 2.07. Table 3 illustrates the University GPA mean differences between the general student body and track/cross country student-athletes by ethnicity and gender.

University GPA Similarities

In both samples, the highest mean university GPA score was seen in the White ethnicity group. Focusing only on the gender subgroup, in each sample, females had higher university GPA means than males. When comparing samples by gender and ethnicity subgroups together, White females had a higher university GPA mean. Black females, whether in the track/cross country student-athlete or general student body sample, had higher university GPA means than their Black male counterparts. However, Black males in the track/cross country student-athlete and general student body samples had the same university GPA means (2.07).

University GPA Differences

Males in the general student body had a higher university GPA mean (2.50) than did male track/cross country students' (2.48). The mean university GPA for women in the general student body was higher, 2.73, than for women in the track/cross country student-athlete sample, 2.67. Black track/cross country females had a higher university GPA mean compared to Black females in the general student body (2.45 and 2.27 respectively).

Graduation Rates

Graduation rates among the track/cross country student-athlete and general student body samples and their subgroups are illustrated in Table 5. Track/cross country students (69.9%) had a higher graduation rate compared to the general student body (64.5%).

Graduation Rate Similarities

Both male and female track/cross country student-athletes graduated at higher rates (70.9% and 68.7% respectively) than their general student body counterparts (61.9% and 66.4%). Black females in both the track/cross country and general student body samples graduated at higher rates than their male counterparts (73.6% vs. 54.8% for track/cross country student-athletes and 60.5% vs. 50.0% for the general student body).

Graduation Rate Differences

Male track/cross country student-athletes graduated at a higher rate (70.9%) compared to their female counterparts (68.7%). Conversely, data revealed higher graduation rates for females in the general student body (66.4%) compared to males (61.9%). White general student body females (67.2%) graduated at a higher rate than their track/cross country counterpart (64.4%). Black female track/cross country students (73.6%) had a higher graduation rate compared to White female track/cross country students (64.4%) and Black females in the general student body (60.5%).

TABLE 5
Graduation Rates and Years to Graduation of Track Student-Athletes versus
General Student Body 1983-1993

Subgroup	N	Graduation Rate	Mean Years to Graduation	Median Years to Graduation	Standard Deviation
Men's Track/Cross Country Total	100				
White Male Track/Cross Country Total	80	70.9%	4.59	4.00	1.02
Black Male Track/Cross Country Total	17	74.8%	4.53	4.00	0.89
		54.8%	4.82	5.00	1.51
Women's Track/Cross Country Total	79				
White Female Track/Cross Country Total	38	68.7%	4.56	4.00	1.34
Black Female Track/Cross Country Total	39	64.4%	4.24	4.00	0.63
		73.6%	4.90	5.00	1.74
Male General Student Body Total	9,024				
White Male General Student Body Total	7,869	61.9%	4.57	4.00	1.17
Black Male General Student Body Total	567	63.0%	4.53	4.00	1.14
		50.0%	5.05	5.00	1.51
Female General Student Body Total	12,939				
White Female General Student Body Total	10,998	66.4%	4.26	4.00	0.95
Black Female General Student Body Total	1,250	67.2%	4.22	4.00	0.91
		60.5%	4.60	4.60	1.17
Track/Cross Country Total	179				
General Student Body Total	21,963	69.9%	4.58	4.00	1.17
		64.5%	4.39	4.00	1.05

ACADEMIC MAJOR

The top 5 academic majors (with ties) for track/cross country students and students in the general student body are illustrated in Table 6. There are three majors both groups have in common: Biological Science, English, and Risk Management/Real Estate. Forty one percent of the academic majors of track/cross country student-athletes were accounted for, while 35% of the academic majors of the general student body were accounted for in Table 6. Therefore, wide variability exist in the remaining over 60% of the academic majors of both samples. Of the 256 track/cross country student-athletes, 13 or 5.1% and 134 out of 34,068 or .4% of the general student body majored in Physical Education. This is in direct contrast to the stereotypical belief described in the literature that student-athletes major in only one subject (Edwards, 1984, Engstrom & Sedlacek, 1991; Engstrom, Sedlacke, & McEwen, 1995; Jones, 1998; Sailes, 1993; Sperber, 1990).

TABLE 6

Top 5 Academic Majors for Track/Cross Country Student-Athletes and General Student Body 1983-1993

Track/Cross Country Student-Athletes		
Major	N	Percent
Biological Science	19	7.4%
Risk Management/Real Estate	17	6.6%
Criminology	15	5.9%
Marketing	14	5.5%
Undecided	14	5.5%
Physical Education	13	5.1%
English	13	5.1%
General Student Body		
Communication	2,479	7.3%
Risk Management/Real Estate	2,449	7.2%
Biological Science	1,883	5.5%
Psychology	1,840	5.4%
Social Science	1,714	5.0%
English	1,710	5.0%

DISCUSSION

This study demonstrated that the academic achievement of track athletes at a major public southeastern university over a ten-year period did not consistently conform to the previous limited findings in the literature regarding non-revenue sports. Higher means in HSGPA, ACT/SAT scores, and cumulative university GPA did not necessarily mean higher graduation rates. The higher graduation rates among Black females compared to White females who had higher means in HSGPA, university GPA, SAT and ACT, but lower graduation rates, may be explained by the fact that historically track has been one of the few opportunities which was accessible and available to Black female athletes (Smith, 2000). However, some results were similar to the literature such as lower academic achievement among Blacks. Minorities, in general, do not perform as well on standardized college entrance exams. Minority student-athletes, based on initial eligibility requirements (HSGPA and SAT/ACT scores) report to college with lower scores (Harris, 1993; Sellers, 1992).

Over the ten-year timeframe there was a general upward trend in means for HSGPAs, university GPAs, SAT and ACT scores. These results reflect higher university admissions standards and National Collegiate Athletic Association initial eligibility standards for student-athletes during the ten years examined.

The literature notes minority male student-athletes are more likely to participate in revenue sports (Kiger & Lorentzen, 1986). That finding explains the distribution of ethnicity in this study of non-revenue participants, White 64.8%, Black 32.8%, Hispanic 2%, and Asian/Pacific Islander .4%. Coakley (1998) stated that presently over 90% of African American women participating in intercollegiate sports perform on track and field and basketball teams.

The terminal academic majors chosen by participants in this study help debunk the "dumb jock" perception that student-athletes majors are less academically challenging (Edwards, 1984a; Engstrom & Sedlacek, 1991; Engstrom, Sedlacek, & McEwen, 1995; Jones, 1998; Sailes, 1993; Sperber, 1990).

This study was noteworthy because it focused on a population of college student-athletes that has received extremely little research. Additionally, this study is unique with the inclusion of track/cross country student-athletes regardless of whether they received athletics aid (full or partial athletics scholarship) and for the timeframe examined, a ten-year period, at one public university. Sufficient evidence has been presented in this paper to suggest that the "dumb jock" generalizations being made to student-athletes based on data from revenue sports is invalid. Results in this study may not match others since transfer and international students were not included.

Future research on participants in non-revenue sports is especially necessary. Examples of studies which could be performed include: a longitudinal work using random samples of different schools which would allow generalizations and inference, replication of this study, plus including a comparison to the general student body.

REFERENCES

- Adler, P., & Adler, P. A. (1985). From idealism to pragmatic detachment: The academic performance of college athletes. *Sociology of Education*, 58(4), 241-250.
- Anderson, A., & South, D. (1993). Racial differences in collegiate recruiting, retention, and graduation rates. In D. Brooks & R. Althouse (Eds.), *The African-American Athletes Experience* (pp. 79-100). Morgantown, WV: Fitness Information Technology.
- Asher, M. (1998, November 9). Graduation rate drops for Division I athletes: First decline since study started in 1984. *The Washington Post*, p. C6.
- Brede, R. M., & Camp, H. J. (1987). The education of college student-athletes. *Sociology of Sport Journal*, 4, 245-257.
- Coakley, J. J. (1998). *Sport in Society: Issues and Controversies*. St. Louis, MO: C. V. Mosby.
- Division I athletes continue to graduate at higher rate than overall student body. (1999, August 30). *NCAA News*, pp. 1, 15.
- Edwards, H. (1984). The black "dumb jock": An American sports tragedy. *The College Board Review*, 131, 8-13.
- Eligibility case lawyer wants a rehearing. (1999, December 24). *St. Petersburg Times*, p. 8C.
- Engstrom, C. M., & Sedlacek, W. E. (1991). A study of prejudice toward university student-athletes. *Journal of Counseling and Development*, 70(1), 189-193.
- Engstrom, C. M., & Sedlacek, W. E., & McEwen, M. K. (1995). Faculty attitudes toward male revenue and non-revenue student-athletes. *Journal of College Student Development*, 36(3), 217-227.
- Farrey, T. (1999, September 28). Memos uncover alleged UT violations. Accessed online at: <http://espn.go.com/ncf/news/1999/0926/80631.html>
- Hanford, G. H. (1974). *An Inquiry into the Need for and Feasibility of a National Study of Intercollegiate Athletics*. Washington, D.C.: American Council on Education.
- Harris, O. (1993). African-American predominance in collegiate sport. In D. Brooks & R. Althouse (Eds.), *The African-American Athletes Experience* (pp. 79-100). Morgantown, WV: Fitness Information Technology.
- Jones, D. C. (1998). Bridging the gap between academics & athletics. *Strategies*, 11(4), 9-12, 28.
- Kiger, G., & Lorentzen, D. (1986). The relative effects of gender, race, and sport on university academic performance. *Sociology of Sport Journal*, 3, 160-167.
- Knight Foundation Commission on Intercollegiate Athletics. (1991). *Keeping faith with the student-athlete. A new model for intercollegiate athletics*. Charlotte, NC: Knight Foundation.
- Knight Foundation Commission on Intercollegiate Athletics. (1992). *A solid start. A report on reform of intercollegiate athletics*. Charlotte, NC: Knight Foundation.
- Knight Foundation Commission on Intercollegiate Athletics. (1993). *A new beginning for a new century. Intercollegiate athletics in the United States*. Charlotte, NC: Knight Foundation.
- Mathiasen, R. E. (1984). Predicting college academic achievement: A research review. *College Student Journal*, 18(4), 380-386.

- McGraw, M. (1997, October 10). Athletes' academic advisers given little clout, money. *The Kansas City Star*, p. A18.
- McGraw, M., & Reeves, G. S. (1997, October 10). Sacrificing academics for victories: Rules bent for talented athletes. *The Kansas City Star*, p. A1.
- Mouw, J. T., & Khanna, R. K. (1993). Prediction of academic success: A review of the literature and some recommendations. *College Student Journal*, 27(3), 328-336.
- NCAA. (1997). *1997-98 NCAA Division I Manual*. Overland Park, KS: National Collegiate Athletic Association.
- NCAA. (1998). *1998 NCAA Divisions I, II, & III Graduation Rates Summary*. Overland Park, KS: National Collegiate Athletic Association.
- NCAA. (1999). *1999 NCAA Division I Graduation Rates Report*. Indianapolis, IN: National Collegiate Athletic Association.
- Naughton, J. (1997, July 25). Athletes on top-ranked teams lack grades and test scores of other students. *The Chronicle of Higher Education*, p. A43-44.
- Purdy, D. A., Eitzen, D. S., & Hufnagel, R. (1985). Are athletes also students? The educational attainment of college athletes. In D. Chou, J. O. Segrave, & B. J. Becker (Eds.), *Sport and Higher Education* (pp. 221-234). Champaign, IL: Human Kinetics.
- Sack, A. L. (1987-88). College sport and the student-athlete. *Journal of Sport and Social Issues*, 11(1-2), 31-48.
- Sailes, G. A. (1993). An investigation of campus stereotypes: The myth of black athletic superiority and the dumb jock stereotype. *Sociology of Sport Journal*, 10(1), 88-97.
- Savage, H. J., Bentley, H. W., McGovern, J. T., & Smiley, D. F. (1929). *American College Athletics*. Bulletin Number 23. New York: The Carnegie Foundation for the Advancement of Teaching.
- Sedlacek, W. E., & Adams-Gaston, J. (1992). Predicting the academic success of student-athletes using SAT and noncognitive variables. *Journal of Counseling & Development*, 70, 724-727.
- Sellers, R. M. (1992). Racial differences in the predictors for academic achievement of student-athletes in Division I revenue producing sports. *Sociology of Sport Journal*, 9, 48-59.
- Simons, H. D., Van Rheenen, D., & Covington, M. V. (1999). Academic motivation and the student athlete. *Journal of College Student Development*, 40(2), 151-162.
- Smith, Y. R. (2000). Sociohistorical influences on African American elite sportswomen. In D. Brooks & R. Althouse (Eds.), *Racism in college athletics: The African American Athlete's Experience*, (pp. 173-197). Morgantown, WV: Fitness Information Technology.
- Sperber, M. (1990). *College sports inc.: The athletic department vs. the university*. New York: Henry Holt.
- Suggs, W. (1999a, March 26). College basketball on the line. *The Chronicle of Higher Education*, p. A53-55.
- Suggs, W. (1999b July 16). Once again, University of Minnesota asks why its athletes are scandal-prone. *The Chronicle of Higher Education*, p. A41.

Suggs, W. (1999c, September 10). Graduation rates hit lowest level in 7 years for athletes in football and basketball. The Chronicle of Higher Education, p. A58-62.

Suggs, W. (1999d, December 3). Scandals force colleges to reassess roles of academic advisers for athletes. The Chronicle of Higher Education, p. A51-A52.

Thelin, J. R. (1994). Games colleges play: Scandal and reform in intercollegiate athletics. Baltimore, MD: The John Hopkins University Press.

Ting, S. R., & Robinson, T. L. (1998). First-year academic success: A prediction combining cognitive and psychosocial variables for Caucasian and African American students. Journal of College Student Development, 39(6), 599-610.

22 institutions under NCAA sanctions. (1998, December 11).

The Chronicle of Higher Education, p. A64.

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

Richard L. Unruh

Central Washington University

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

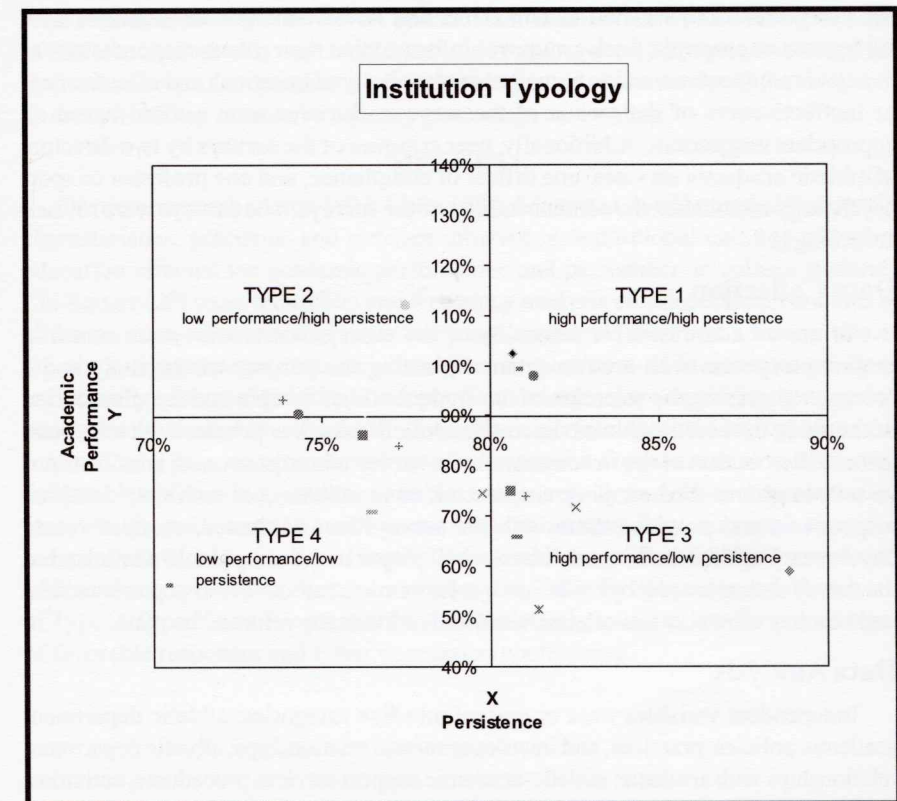
Student athletes at eleven institutions, spread through the four institutional types of the typology, self-administered a cross-sectional survey instrument. A statistical analysis of each variable, by type, was conducted. Statistically significant relationships between independent variables and Type 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
Department Academic Policies, Practices, and Relationships							
1. Departments show interest in the academic lives of student-athletes	106	12	32.75	29	89.60	4	42.24
2. Departments recognize the academic success of student-athletes	168	12	16.44	15	88.30	2	10.91
3. Departments have student-athlete advisory board supporting student-athletes	141	12	18.93	40	87.50	3	27.00
Department Relationships with Academic							
1. University faculty support student-athlete academic and athletic endeavors	106	21	62.74	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	21	70.13	29	93.10	3	84.14

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							
3. Student-athletes receive academic advising	105	12	35.98	29	86.20	3	35.14
Student-Athlete Preparation, Development, Involvement, and Relationships							
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	35.91	29	79.30	2	17.03
4. Student-athletes would use post-eligibility program if available	105	12	47.78	29	93.10	3	21.62
Coaches' Actions, Attitudes, and Responsibilities							
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.

REFERENCES

- Adler, P., & Adler, P.A. (1985). From idealism to pragmatic detachment: The academic performance of college athletes. Sociology of Education, 58, 241-250.
- Astin, A.W. (1996). Degree attainment rates at American colleges and universities: Effects of race, gender, and institutional type. UCLA, Los Angeles, CA: Higher Education Research Institute, Graduate School of Education & Information Studies.
- Astin, A.W. (1993). Higher education and the concept of community. Lecture: Fifteenth Henry Dodds Lecture. Champaign-Urbana, IL: University of Illinois.
- Astin, A.W. (1993). What matters in college? Four critical years revisited. San Francisco, CA: Jossey-Bass Publishers.
- Babbie, Earl. (1990). Survey research methods. Belmont, CA: Wadsworth.
- Carodine, K. & Hughes, A. (1994). Florida's freshman year experience. Presentation at: The freshman year experience: National forum on new student athletes. Columbia, SC.
- Cavanaugh, M.J. (1994). Milestones in maturity. Presentation at: The freshman year experience: National forum on new student athletes. Columbia, SC.
- DeBrock, L. & Koenker, R. (1996). Graduation rates may not reflect athletes' academic abilities. College Sports News. Urbana, IL: University of Illinois-Champaign.
- Druehl, G.S. (1992). The effect of academic advising on student-athlete scholastic achievement: a community college study. Doctoral dissertation, University of San Francisco, San Francisco, CA.
- Frost, S.H. (1991). Academic advising for student success: a system of shared responsibility. Washington D.C.: ASHE-ERIC Higher Education Report No. 3.
- Gerdy, John, R. (1997). The successful college athletic program. Phoenix, AZ: American Council on Education, Oryx Press.
- Kirk, W.D. & Kirk, S.V. (1993). Student-athletes: shattering the myths and sharing the realities. Alexandria, VA: American Counseling Association.
- Knight Foundation. (1992). A solid start. Charlotte, NC: Knight Commission on Intercollegiate Athletics.
- Lang, E.L., & Rossi, R.J. (1991). Understanding academic performance: 1987-88 national study of intercollegiate athletes. Paper presented at the Annual Meeting of the American Education Research Association, Chicago, IL.
- Leach, E.J. (1996). The dual role of student and athlete: an exploration of the survival strategies of student-athletes in a community college. Doctoral dissertation, University of Texas, Austin, TX.
- Maloney, M.T. & McCormick, R.E. (1992). An examination of the role that intercollegiate athletic participation plays in academic achievement. The Journal of Human Resources. #, pp .
- Mand, R.S. (1994). The academic preparation and performance of student-athletes participating in football and men's basketball at Florida State University from 1986-1990. Doctoral dissertation, Florida State University, Tallahassee, FL.

- National Collegiate Athletic Association Academic Performance Study, Report 91-02. (1992). A statistical analysis of the predictions of graduation rates for college student-athletes. (ERIC Document Reproductive Services No. ED 335 991).
- National Collegiate Athletic Association, Division I Graduation-Rates Report, 1994-1997. Overland Park, KS: NCAA Publications.
- Pascarella, E.T., & Terenzini, P.T. (1991). How college affects students. San Francisco, CA: Jossey-Bass.
- Role of athletics in college life: Hearing before the Subcommittee on Postsecondary Education, House of Representatives, 100th Cong., 1st Sess. 2 (1989) (testimony of Dr. Donna A. Lopiano, Director of Intercollegiate Athletics for Women, University of Texas-Austin).
- Sheffield, D.E. (1990). The effect of sports participation on the academic performance of freshmen. Doctoral dissertation, Pennsylvania State University, College Park, PA.
- Sperber, M.A. (1987). The college coach as entrepreneur. Academe, 73, (4), pp .
- Sperber, M.A. (1998). Onward to victory: The crisis that shaped college sports. New York, NY: Henry Holt and Company.
- Tinto, V. (1993). Leaving College. Chicago, IL: University of Chicago Press.
- Tinto, V. & Goodsell, A. (1993). Freshman Interest Groups and the First Year Experience: Communities in a Large University. Paper presented at: The annual meeting of the college reading and learning association. Kansas City, MO.
- Waggoner, R.G. (1994). Selected institutional persistence predictors of NCAA division 1-A football student-athletes. Doctoral dissertation, University of Northern Colorado, Greeley, CO.

Student-Athletes with Learning Disabilities: Unique Problems, Unique Solutions

Holly B. Lane, University of Florida

Sharon L. Blatz, University of Florida

Cheryl Curtis Ziegert, University of Florida

LuAnn Jordan, University of North Carolina-Charlotte

David H. Allsopp, James Madison University

Tamara A. Moriarty, University of Florida

Duane E. Dede, University of Florida

Tim W. Conway, University of Florida

ABSTRACT

This paper explores the issues facing student-athletes with learning disabilities and their academic counselors. Understanding the nature of learning disabilities and their effects can enhance the counselor's ability to address the complex needs of the student-athlete with a learning disability. The increasing numbers of college student-athletes who have diagnosed learning disabilities demands notice. This paper provides an explanation of the problems of diagnosis and treatment. Suggestions for academic counselors are provided, as well.

STUDENT-ATHLETES WITH LEARNING DISABILITIES: UNIQUE PROBLEMS, UNIQUE SOLUTIONS

"Tim" is an 18-year old incoming freshman arriving at a Division I university on a football scholarship this fall. He has met the NCAA Division I requirements for his 13 core courses and he has the academic core GPA to meet eligibility requirements. However, his SAT composite score is below State of Florida's University System Minimum Freshman Eligibility Index required for admission to the university (his 2.4 high school academic GPA requires a corresponding composite score of 1030). Consequently, he (like any other incoming student at the university who has not met this index) is required to attend summer school immediately prior to his freshman year.

Because Tim has not met the minimum university quantitative subtest score requirements on the SAT, an individual learning plan will be developed to address his math deficiency. Tim's math performance in summer school and in the tutorial program remains extremely weak. Tim's academic counselor suspects that Tim has a learning disability and refers him for evaluation. When the evaluation confirms these suspicions, the academic counselor must provide or coordinate the supports necessary to promote Tim's academic success.

Purpose

The purpose of this paper is to provide academic counselors with information about learning disabilities (LDs) and their effects on student-athletes like "Tim." Understanding the nature of learning disabilities and their effects can enhance the counselor's ability to address the complex needs of the student-athlete with a learning disability.

Prevalence of Learning Disabilities

Learning disabilities are the fastest growing disability category on college campuses in the United States. This growth does not reflect an actual increase in the incidence of learning disability in the college-age population. Instead, the growing numbers of students identified with learning disabilities can probably be attributed to two primary factors: (a) the Americans with Disabilities Act of 1990, in addition to Section 504 of the Rehabilitation Act of 1973, ensures that any student with a documented disability will receive reasonable accommodations to allow him or her equal access to a college education, thus making college an option for many students who had previously been denied access; and (b) a more accepting atmosphere on college campuses and access to accommodations has led more students, including many who had previously attempted to hide their disability, to disclose their disability to college personnel.

Current estimates of the incidence of LD range from 5% (Smith, 1998) to 15% (AACAP, 1997) of the general population. More than 100,000 students with learning disabilities graduate from high school each year, and between 160,000 and 300,000 students with learning disabilities were enrolled in college as of 1993 (Richard, 1997). The NCAA has also seen an increase in student-athletes with learning disabilities. Gerdy (1996) reported 1,200 requests for either nonstandard tests or nonstandard core course reviews were made by student-athletes with learning disabilities in 1995-96. This is a significant increase from the 300 requests in 1993-94.

In a 1998 Consent Decree (*United States of America v. NCAA*, 1998), the NCAA agreed to stop several practices that discriminated against student-athletes with learning disabilities. For example, the NCAA will no longer deny certification of core courses based entirely on references to special education in their titles. Since that time, well over 10,000 courses for students with learning disabilities have been certified as core courses by the NCAA or the Initial Eligibility Clearinghouse, compared with fewer than 900 before the agreement (Pullen, Lane, Rapport, & Sutherland, 2000). The changes that have resulted from the 1998 Consent Decree are likely to contribute to continued growth in the population of student-athletes with learning disabilities,

both because NCAA rules are more accommodating and because college athletic programs are developing programs to address their needs.

The number of student-athletes with learning disabilities making requests of the NCAA does not provide a complete picture of the prevalence of learning disabilities among college student-athletes. Many student-athletes go undiagnosed until after entering college or transfer from a community college. Unlike non-athletes with learning disabilities, whose entrance into four-year colleges despite their learning disabilities may be indicators of exceptional motivation and strong academic support systems, student-athletes may lack such advantages required to be successful at these more competitive college programs. Attending a community or smaller college directly out of high school seems to be common among college students with learning disabilities (Greenbaum, Graham, & Scales, 1995; Vogel, Leonard, Scales, Hayeslip, Hermansen, & Donnellis, 1998). Exceptional athletic prowess may, however, propel many student-athletes with learning disabilities, diagnosed or undiagnosed, directly into larger four-year institutions.

Sanders (1996) suggests that the "dumb jock" stereotype contributes to many students' lack of diagnosis and, thus, lack of academic preparedness. In addition, student-athletes may be recruited to attend college solely on the basis of their athletic prowess, with little regard for their academic needs or achievement records. These factors may leave student-athletes with learning disabilities feeling overwhelmed by and alone in the academic arena.

UNDERSTANDING LD

To address the needs of students with learning disabilities, an understanding of the nature of learning disabilities and their effects on student learning and achievement is essential. The definition of learning disabilities that is most widely accepted in the field includes two main components: a *discrepancy* component (i.e., a minimum discrepancy between a student's expected and actual level of achievement), and an *exclusion* component (i.e., evidence that the discrepancy does not have an external cause, such as cultural or economic disadvantage, visual or hearing impairment, or mental or emotional disability) (Hammill, 1990).

In 1977, the U. S. Office of Education (USOE) released regulations for defining and identifying students with learning disabilities:

"Specific learning disability" means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems, which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, or emotional disturbance, or of environmental, cultural, or economic disadvantage. (USOE, 1977, p. 65083)

This definition was originally part of Public Law 94-142 and published in the *Federal Register* in 1977, but it has since been incorporated into Public Law 101-476,

also called the Individuals with Disabilities Education Act (IDEA, 1990). This definition is currently used in administering programs for individuals with learning disabilities in most states. The Americans with Disabilities Act (ADA, 1990) and Section 504 of the Vocational Rehabilitation Act (Vocational Rehabilitation Act, 1979), which govern postsecondary programs, do not offer a definition of learning disabilities. Both acts simply refer to individuals with a documented disability allowing each state to determine qualification standards.

The initial indicator of a learning disability is a deficit in academic achievement resulting in poor or failing grades. As the student-athlete moves from high school to college, the increasing intensity of course work demands at the postsecondary level often exacerbates this deficit. For example, advanced levels of reading are required for most college classes. A student with a disability in reading—the most common type of learning disability—may be overwhelmed by the reading demands of college-level course work. Less time spent in class and in contact with the instructor, dropping from 20 to 25 hours a week in high school to 12 to 15 hours in college, requires students with learning disabilities to learn and master skills independently (Brinckerhoff, 1996; Brinckerhoff, Shaw, & Mc Guire, 1992). Unfortunately, independent self-management and skill development can be a weakness for many individuals with learning disabilities. Students may also exhibit difficulties in using spoken or written language as a result of a disability, which may affect their ability to successfully complete writing assignments (e.g., theme writing, thesis papers, reports, essay questions, or notetaking) or speaking assignments (e.g., class presentations or speeches).

Problems with visual and/or auditory perception or processing create problems for the postsecondary student in many aspects of college life. Perceptual deficits may affect how the student learns information presented in class lectures and activities. For example, a student with visual processing difficulties may have trouble decoding critical information from written information presented on the chalkboard or screen. Deficits in auditory processing may affect the student's ability to gain information from lectures, class activities, or in study groups. The student with a learning disability may also experience difficulties attending to information presented in class lectures. The student may appear to be listening, but may not be able to recall what he heard or saw. The time required for a student with a learning disability to process information often causes notes to be incomplete. Difficulties sorting out all the information being processed can lead to difficulties determining main ideas, supporting details, or notes with extraneous information. Gathering information from lectures can be hindered by any one of many possible processing problems.

Students with learning disabilities may exhibit **poor memory skills**. Memory skills may be compromised because students lack memory strategies (effective encoding, organization and retention of memory traces); language problems may also affect the student's ability to remember (Torgesen & Kail, 1980). If memory deficits are present, the student must devote more time studying to adequately store information in memory. **Deficits in metacognition (planning and organizing information) can affect a student with learning disabilities ability to organize class information, ability to budget time to work on assignments, and ability to complete assignments on time.**

The postsecondary setting provides a host of demands on student time and energy. College students with learning disabilities are especially vulnerable to academic and social situations that most students find challenging, including time management, organization of academic work, living independently without parental support and supervision, and making responsible choices about relationships and activities. Students with learning disabilities demonstrate less maturity and fewer skills than their same-age peers (Richard, 1997). These deficits, coupled with an inability to process quickly all the demands of an academic or social situation, may make students with learning disabilities more impulsive and more likely to make poor judgments. It is common for students with disabilities to require more time to process a situation, determine possible outcomes, and make a choice of what action to take. Students with learning disabilities also have fewer problem-solving strategies to choose from (Schumaker, Deshler, Alley, & Warner, 1983), which makes adjustment to college life even more difficult.

Social-emotional problems often accompany a learning disability and may have significant impact on the college student with learning disabilities ability to cope with the demands of the postsecondary setting. Rappaport (1975) asserts that individuals with learning disabilities often develop emotions in a different pattern than individuals without learning disabilities. Emotional difficulties in students with learning disabilities include poorly developed social skills, irritability, impatience, difficulty interpreting non-verbal messages, higher rates of substance abuse, lowered self-esteem and heightened levels of anxiety (Gregg, Hoy, King, Moreland & Jagota, 1992; Goldstein, 1997). A different pattern of development could certainly complicate the manner in which the student-athlete addresses college life on social and emotional levels.

STUDENT-ATHLETES WITH LEARNING DISABILITIES

Life as a college freshman student-athlete with a learning disability poses unique and daunting challenges (see Table 1). Beginning college at a large university can be an overwhelming experience for any freshman. Beginning that experience in the glare of the media spotlight and with expectations for success in multiple endeavors can be even more difficult. Beginning that experience with a learning disability intensifies the overwhelming experience and feelings of anxiety about not being able to meet the high expectations of others. Learning disabilities at the college level may cause problems in the acquisition and demonstration of knowledge, in organization of time and materials, in the fulfillment of requirements, and in interpersonal relationships. This can be especially problematic for the student-athlete, whose schedule is already packed with courses, practice, training, and other responsibilities. The demands of these multiple roles are often oppositional and new and creative solutions must be found. One common example of oppositional role demands is needing more time to acquire and master new material while being provided less time (inflexible) to devote to studying and completing assignments. College student-athletes with learning disabilities need unique strategies, efficient service providers, and a complete understanding of their own learning needs in order to successfully manage the challenges in front of them.

TABLE 1.

Challenges of life as a college freshman student-athlete with a learning disability.

The Typical College Freshman • faces the daily challenges of life as a student at a major research institution with thousands of students and living independently in a college town.	The College Freshman Student-Athlete • faces the daily challenges of life as a student at a major research institution with thousands of students and living independently in a college town; and • faces additional challenges of balancing school commitments and team commitments, balancing study time and practice time, being a celebrity on campus (or being unknown for the first time), dealing with the media, and the physical demands of sport at a new level.
The College Freshman with a Learning Disability • faces the daily challenges of life as a student at a major research institution with thousands of students and living independently in a college town; and • faces additional academic and social challenges of coping with a learning disability in a community of individuals who excel at academic endeavors.	The College Freshman Student-Athlete with a Learning Disability • faces the daily challenges of life as a student at a major research institution with thousands of students and living independently in a college town; • faces additional academic and social challenges of coping with a learning disability in a community of individuals who excel at academic endeavors; and • faces additional challenges of balancing school commitments and team commitments, balancing study time and practice time, being a celebrity on campus (or being unknown for the first time), dealing with the media, and the physical demands of sport at a new level.

In addition to challenges already mentioned, Parham (1993) listed some social/emotional challenges that face student-athletes, managing success or lack of success, satisfying multiple relationships (coaches, parents, friends, teachers, fans, & media), and obsessive bodily concern (i.e., weight, injuries). When a student-athlete has a learning disability that has affected social/emotional development, these challenges can become significant problems. The vulnerability facing the non-athlete with a learning disability increases significantly for an athlete with a learning disability. Choices, especially bad ones, made by student-athletes can end up as front-page news. Student-athletes with learning disabilities are aware of this problem, which adds stress to their already complex problems. These student-athletes with learning disabilities face significant stress trying to hide their disability due to fears that individuals (e.g.; coaches, future coaches, and teachers) who do not understand learning disabilities will think less of them. Students with learning disabilities who

hide their disability and attempt to function without the proper strategies and support systems have high levels of anxiety, and prolonged increased levels of anxiety and stress leads to hypersensitivity or insensitivity to one's environment (Gregg et al., 1992).

Clearly, student-athletes with learning disabilities face a unique set of challenges. In addition to making the transition from the relatively protective environment of high school and home to the more impersonal and demanding environment of a large university, student-athletes with learning disabilities must cope with the challenges their disabilities present along with the demands of college-level academics and intercollegiate athletics. The new role requires a great deal of independence, self-sufficiency, and self-advocacy, as well as tremendous organizational skills and perseverance. Despite increasing awareness among faculty about appropriate services and accommodations (Benham, 1997; Cullen, Shaw, & McGuire, 1996; Houck, Asselin, Troutman, & Arrington, 1992; Vogel, Leyser, Wyland, & Brulle, 1999), few colleges and universities provide adequate support for students with learning disabilities. Even fewer consider the unique needs of student-athletes with learning disabilities.

SUCCESSFUL ADULTS WITH LEARNING DISABILITIES

Gerber, Ginsberg, and Reiff (1992) evaluated vocational outcomes of successful adults with learning disabilities and uncovered seven overarching themes that contributed to the vocational success of the individuals they studied. These themes revealed two categories of personal control: internal and external. Internal control themes comprise personal habits of success such as the development of persistence and determination, the ability to develop short and long term goals, and reframing—the understanding and acceptance of one's learning disability. External themes of control address the creation of supports that contribute to attainment: (a) creating environments that are 'friendly'; (b) identifying mentors who are role models and knowledgeable advisors; and (c) developing skills in manipulating the environmental system in which they find themselves. Researchers focusing on college students with learning disabilities found many of the same attributes contribute to the success of college students with learning disabilities (Aune & Kroeger, 1997; Brinckerhoff, Shaw & McGuire, 1992; Sanders & DuBois, 1996).

The student-athlete with learning disabilities possesses many of the attributes of the successful adult and college student with learning disabilities. Through persistence and hard work, he or she has risen to a very high level of achievement in sports. To rise to such a level demands not only raw talent but also an ability to set long- and short-term goals and to identify mentors to help them realize their potential. Student-athletes must be able to understand the limits of their talent, to compensate for weaknesses and to emphasize their strengths. Learning to apply compensatory skills to academics is a challenge, but to be successful, college students with learning disabilities must discover ways to understand and compensate for academic deficits.

Successful athletic performance often allows student-athletes with learning disabilities to compensate for or avoid the negative outcomes that are usually experienced by non-athletes with learning disabilities. Often celebrated and revered in high school because of their success on the playing field or in their individual sport, student-athletes with learning disabilities move into adulthood with little of the stigma and low overall self-concept that can characterize non-athletes with learning disabilities. In contrast, student-athletes with learning disabilities are more self-assured and self-determined than non-athletes with learning disabilities (Blatz, 2000).

It is true that student-athletes with learning disabilities may have poor grades and marginal scholastic outcomes that put them at high risk for academic failure in the college setting. Fortunately, however, they have developed other attributes that increase their likelihood for academic success in college, especially when supported and fostered by the professional support system provided to most college student-athletes. Recognition and Initial Referral Considerations for Academic Advisors of Student-Athletes with Learning Disabilities

Student-athletes with learning disabilities are uniquely suited to learn to adapt the successes they've had in athletics to the academic arena. Academic skill deficits notwithstanding, student-athletes may experience fewer negative consequences due to their learning disabilities and, consequently, may develop higher self-concepts than typical adults with this impairment.

Why, then, has the student-athlete with learning disabilities historically had so little success academically despite their undisputed abilities and success in sports? Retention of student-athletes continues to plague major collegiate athletic programs, and the student-athlete with learning disabilities has been particularly vulnerable. The answer lies partially in the difficulty of diagnosing a learning disability.

Some students with learning disabilities manage to make it through elementary and high school without being diagnosed. Amazing as it may seem, many students reach college before their disability becomes evident. Often student-athletes' learning disabilities are not diagnosed until college, particularly if they come from academically marginal high school backgrounds. The support systems surrounding many student-athletes at the high school level can mask academic difficulties. In addition, a lack of knowledge in some school districts about appropriate assessment and treatment for learning disabilities persists more than 20 years after services for these students was federally mandated. Some students are identified in elementary school but are dismissed from special education programs by the time they reach high school. In addition, other students only begin to struggle when presented with the challenges of college-level work. The academic advisor's ability to detect the presence of a possible learning disability and to make an appropriate referral for assessment is essential. Because of his or her access to information from many sources related to the student-athlete (e.g., course progress, tutoring reports, contacts with professors, tutors, and coaches), the academic advisor should be the first professional at the postsecondary level to suspect the presence of a learning disability. The early detection of learning disabilities will result in higher retention rates and, ultimately, increased levels of "academic self-esteem" in student-athletes. Unfortunately, student-athletes are often referred by athletic department personnel for services

only after students have "gotten in trouble" academically with grades falling below the minimum standards for continued enrollment and athletic eligibility. A learning disability may be manifested in a variety of ways for the student-athlete in college. Areas of academic performance, language or verbal skills, visual and auditory perception or processing, attention, memory, metacognition, and social relationships may be affected. Academic advisors should be sensitive to signs of a possible learning disability among the student-athletes they advise. Some of the characteristics that an academic advisor might observe may be found in Table 2.

TABLE 2.

Examples of characteristics that an Academic Advisor may observe.

Academic performance	• Demonstrates significant difficulty with courses that rely heavily on one particular area of learning (e.g., <i>reading</i> for History or Literature courses, <i>math</i> for algebra or physical science courses) • Poor reading ability or poor comprehension • Problems with syntax or grammar in oral or written communication • Difficulty organizing thoughts in writing • Problems with sentence structure, writing mechanics, and organization • Difficulty with arithmetic, math language, and math concepts • Difficulty with time, sequencing, and problem solving
Language or verbal skills	• Difficulty describing complex events or abstract concepts • Can explain things orally, but not in writing • Difficulty telling or understanding jokes or stories • Misinterprets or has poor comprehension of what is said • Responds in an inappropriate manner, unrelated to what is said, or only responds partially to what is said
Visual and auditory perception or processing	• Difficulty in attending to sounds that occur simultaneously • Difficulty understanding spatial relationships • Confuses directions from one location to another • Difficulty responding to multi-step directions
Attention	• Short attention span or impulsively • Difficulty conforming to routines • Easily distracted • Stress on extended mental effort • Difficulty "tuning out" extraneous activity

Table 2 continued on next page

TABLE 2 (continued)

Memory	• Able to learn information presented in one way, but not in another • Difficulty memorizing information (e.g., phone numbers) • Unable to repeat what has just been said • Difficulty demonstrating knowledge in testing situations
Metacognition and Organization	• Acquires new skills slowly • Unaware of or unable to explain own strategies for learning • Confuses time or sequence of events • Difficulty following a schedule or being on time • Difficulty organizing belongings • Lack of planning ahead for assignments or examinations
Social relationships	• Difficulty with social interactions • Misinterprets or is unaware of nonverbal social cues • Experiences social isolation • Does not use appropriate eye contact • Difficulty controlling impulsive behaviors • Poor social judgment

In addition to recognizing the characteristics provided in Table 2 academic counselors have other opportunities to perceive that a student might have a learning disability. The academic counselor reviews a student's academic history by evaluating academic records. Although not a definitive indicator of a learning disability, repeated attempts at obtaining a qualifying score on college entrance exams (i.e., SAT or ACT) may serve as a warning signal. Academic counselors have first hand knowledge of students' struggling because many student-athletes consult with their academic counselor when they are having difficulty. When problems arise, counselors are able to use their professional judgment to examine possible underlying issues. For example, "Tim" may express confusion about why he is performing poorly when, in fact, he is attending class, studying regularly, motivated, and trying. The academic counselor may realize that there is a discrepancy between the student's perceived abilities and the student's achievement (i.e., the student has the ability but does not have the achievement). Furthermore, the academic counselor may follow up with the student's subject area tutors on a regular basis to evaluate the student's progress. When the tutor says, "I have reviewed content regularly with this student, he is well prepared for class and for the exams, but he is not performing adequately" the counselor's suspicions are further supported.

For students with existing diagnoses, the academic advisor's role may begin even before the student-athlete begins college. Familiarity with the college's admissions policies for students with learning disabilities can be useful during the recruiting process. As a result of the 1998 Consent Decree and the more accepting climate for students with disabilities on most college campuses, the NCAA has begun to address the issues related to student-athletes with learning disabilities. The academic advisor must stay apprised of NCAA policies as they are developed.

When a student-athlete is finally diagnosed with a learning disability, few athletic programs have the specialized facilities or programs to address his or her unique needs. Once a student-athlete is diagnosed with a learning disability, the development of a strong support plan is necessary.

Support for Student-Athletes with Learning Disabilities

Many student-athletes with learning disabilities can be taught to adapt the skills for success they have learned within their sport; they understand success, they just need the tools and understanding to generalize from an athletic setting to an academic one. Programs and services can be created that build upon the themes of success (Gerber et al., 1992). Better services at an earlier point in their academic careers can provide a prevent failure in the college setting. It is much harder to dig out of an academic hole that has already been made than to never fall in the first place.

Service coordination and academic counseling. Academic counselors have a significant role in the academic progress of student-athletes with learning disabilities. A sound support program for student-athletes with learning disabilities requires a well-trained and highly qualified cadre of support personnel and carefully designed, individualized educational programs. The academic counselor is the person mostly likely to coordinate those services. The academic counselor is familiar with the many different facets of the student's life. The academic counselor is not expected to

provide the services directly, but student-athletes with learning disabilities will require guidance through the bureaucracy of professionals and services. Strong lines of communication must be maintained among the key players: the academic counselor, the diagnostician, course instructors, the tutor, and the student-athlete. Clear, honest, and frequent communication can significantly enhance the likelihood for the student's academic success. College students with learning disabilities have identified the coordination of services as essential in their successful adjustment to college (Aune & Kroeger, 1997; Sanders & DuBois, 1996).

The academic counselor must first ensure that a thorough evaluation is conducted by qualified diagnosticians, usually licensed clinical or school psychologists, who are familiar with the unique needs of student-athletes with learning disabilities. The diagnostician should develop individualized recommendations for services and accommodations, and the academic advisor can provide important information to assist the diagnostician in the development of recommendations. Documentation of the results of psychoeducational testing is required by most colleges' Student Disability Services offices before accommodations in course work and testing can be allowed.

Because the academic counselor works as an advisor to the student-athlete, it is essential for the counselor to be familiar with the needs of student-athletes with learning disabilities. Information about learning disabilities should be offered to all athletic academic counselors. College students with learning disabilities consider their counselors' knowledge about learning disabilities as very important (Sanders & DuBois, 1996).

A thorough understanding of learning disabilities in general and the specific learning disabilities of their advisees will affect every decision an academic advisor makes with or for a student-athlete with a learning disability. When doing academic advising, it is important to provide the student with a learning disability a balanced schedule that will emphasize strengths rather than weaknesses. Creating a schedule that balances highly demanding classes with less demanding classes, and limits the number of back-to-back classes is often beneficial to the success of student-athletes with learning disabilities. Recognizing when a student-athlete with learning disabilities is in need of a reduced course load and helping the student to initiate the course load waiver process can be critical. Reduced course loads are common among successful college students with learning disabilities (Vogel & Adelman, 1992). Although the NCAA allows for reduced course loads for student-athletes with learning disabilities, the waiver process can be complicated (Hishinuma, 1999), so a thorough understanding of learning disabilities will assist the academic advisor in making appropriate recommendations for waiver requests.

Academic advisors' knowledge of learning disabilities can be helpful in many other roles. For example, knowledge of learning disabilities and understanding of the college or university's programs and services can help the academic advisor to make appropriate referrals. Knowledge about learning disabilities is considered very important for advisors who provided academic counseling as well as other types of counseling (Sanders & DuBois, 1996). Academic advisors often do the referring for other types of counseling so consideration of this fact is important when referring

students to a counselor. Finding a mental health counselor with knowledge of learning disabilities can be critical to the success of the counseling experience.

The academic advisor may also be called upon to consult with coaches. Knowledge of learning disabilities can help the advisor suggest appropriate accommodations or modifications to coaching methods to promote enhanced athletic learning and performance. The learning difficulties that contribute to failure in the classroom can contribute to failure on the practice field. Some of the same instructional accommodations that promote academic success may promote athletic success.

Tutoring. Academic support programs for student-athletes must include tutors who are learning disabilities specialists and who are sensitive to the challenges facing their tutees. Tutors who are content specialists seldom have the teaching skills necessary to address the learning needs of students with learning disabilities. Learning disabilities specialists focus on the student's development of strategies that may be generalized across a variety of content areas. College students with learning disabilities have expressed extreme frustration with tutors who do not understand learning disabilities and have found this lack of knowledge to be a major barrier to their adjustment to and success in college (Aune & Kroeger, 1997; Sanders & DuBois, 1996). Knowledgeable tutors can provide student-athletes with learning disabilities with appropriate remedial instruction and strategy development.

Self-awareness development. Another essential component to the support program for student-athletes with learning disabilities is self-awareness development. Successful college students with learning disabilities are reported to be persistent, self-aware, and effective self-advocates. (Cullen, Shaw, & McGuire, 1996; Vogel, Hruby, & Adelman, 1993). College student-athletes with learning disabilities must have those characteristics to be successful and self-awareness training that includes disability awareness can promote their acquisition (Blatz, 2000). Because few high schools provide self-awareness training and because many student-athletes are not diagnosed until after entering college, it is imperative that training be offered at the postsecondary level. The academic counselor can collaborate with professionals who can assist the student in acquiring self-awareness. Fear of others discovering their disability—and the anxiety this fear produces—often hinders students from taking advantage of the services available (Adelman & Vogel, 1993; King et al., 1992). This fear and anxiety are significantly compounded when the individual with the learning disability is also a high-profile athlete. Combating the fear and anxiety can only be done through self-awareness training and effective counseling.

Interdisciplinary collaboration. At the University of Florida service providers have come together to form the Florida Interdisciplinary Effort for Learning Disabilities (FIELD) group to study, assess, and support student-athletes with learning disabilities. This FIELD group establishes a foundation of interdisciplinary communication. The FIELD group members represent the many disciplines that support the student-athlete with learning disabilities, including special education, psychology, athletic academic counseling, exercise and sport science. Other members of the group are statisticians, learning disabilities specialists, and graduate students. The FIELD group promotes a better understanding of student-athletes with learning disabilities, increases the effectiveness of communication, and allows for

interdisciplinary research into successful student-athletes with learning disabilities. Most importantly, members of the FIELD group have worked together to develop and implement a variety of effective services for student-athletes with learning disabilities. This type of interdisciplinary collaboration is possible at any college or university and it's perhaps the best way to ensure that the academic, social/emotional, and athletic needs of student-athletes with learning disabilities are being addressed.

CONCLUSION

Student-athletes with learning disabilities face unique challenges at the college level. They also present unique challenges for academic athletic advisors. Advisors must be alert for the problems that may be evidence of the presence of LD. They must recognize the issues that student-athletes with learning disabilities face. Finally, academic advisors must provide the supports required to promote academic success.

Future research must develop better screening criteria (i.e., particular patterns of high school grades and test scores that are associated with learning disabilities) that academic counselors may use with entering student-athletes. Research should also be the basis for the development of enhanced interventions for this unique population.

REFERENCES

- AACAP. (1997). Learning disabilities. *American Academy of Child and Adolescent Psychiatry: Facts for Families*. Available at: <http://www.aacap.org/factsfam/ld.htm>.
- Adelman, P. & Vogel, S. (1993). Issues in the employment of adults with learning disabilities. *Learning Disability Quarterly*, 16, 219-231.
- Americans with Disabilities Act of 1990, s 42 U. S. C. s 12101-12213 (1990).
- Aune, B., & Kroeger, S. (1997). Career development of college students with disabilities: An interactional approach to defining the issues. *Journal of College Student Development*, 38, 344-355.
- Benham, N. (1997). Faculty Attitudes and knowledge regarding specific disabilities and the American with Disabilities Act. *College Student Journal*, 31(1), 124-127.
- Blatz, S. L. (2000). *The effects of a self-determination intervention on postsecondary students with learning disabilities*. Unpublished doctoral dissertation, University of Florida, Gainesville.
- Brinckerhoff, L. (1996). Making the transition to higher education: Opportunities for student empowerment. *Journal of Learning Disabilities*, 29, 118-136.
- Brinckerhoff, L., Shaw, S., & McGuire, J. (1992). Promoting access, accommodations, and independence for college students with learning disabilities. *Journal of Learning Disabilities*, 25, 417-429.
- Cullen, J., Shaw, S., & McGuire, J. (1996). Practitioner support of self-advocacy among college students with learning disabilities: A comparison of practices and attitudes. *Journal of Postsecondary Education and Disability*, 12 (2), 2-15.
- Gerber, P., Ginsberg, R. & Reiff, H. (1992). Identifying alterable patterns of employment success for highly successful adults with learning disabilities. *Journal of Learning Disabilities*, 25, 475-487.
- Gerdy, J. (1996). Time-out for freshman eligibility. *The College Board Review*, 179, 20-27.
- Greenbaum, B., Graham, S., & Scales, W. (1995). Adults with learning disabilities: Educational and social experiences during college. *Exceptional Children*, 61, 460-471.
- Gregg, N., Hoy, C., King, M., Moreland, C., & Jagota, M. (1992). The MMPI-2 profile of adults with learning disabilities in university and rehabilitation settings. *Journal of Learning Disabilities*, 25, 386-395.
- Goldstein, S. (1997). *Managing attention and learning disorders in late adolescence and adulthood: A guide for practitioners*. New York: John Wiley & Sons, Inc.
- Hammill, D. D. (1990). On defining learning disabilities: An emerging consensus. *Journal of Learning Disabilities*, 23, 74-84.
- Hishinuma, E. (1999). An update on NCAA college freshman academic requirements: The impact on students with LD. *Journal of Learning Disabilities*, 32, 362-371.
- Houck, C., Asselin, S., Troutman, G., & Arrington, J. (1992). Students with learning disabilities in the university environment: A study of faculty and student perceptions. *Journal of Learning Disabilities*, 25, 678-684.

- Parham, W. (1993). The intercollegiate athlete: A 1990s profile. The Counseling Psychologist, 21, 411-429.
- Pullen, P. C., Lane, H. B., Rapport, M. J., & Sutherland, D. (2000). The NCAA and student-athletes with learning disabilities: Conflicts and compromises. Unpublished manuscript.
- Rappaport, S. (1975). Ego development in learning disabled children. In W. M. Cruickshank & D. P. Hallahan (Eds.), Perceptual and learning disabilities in children: Vol. 1. Psychological practices (pp. 355-376). Syracuse, NY: Syracuse University Press.
- Richard, M. M. (1997). College programs and services. In S. Goldstein (Ed.), Managing attention and learning disorders in late adolescence and adulthood: A guide for practitioners. New York: John Wiley & Sons, Inc.
- Sanders, G. (1997). Learning disabilities and athletes. *Self-Help & Psychology Magazine*, 7-8.
- Sanders, K., & DuBois, D. (1996). Individual and socio-environmental predictors of adjustment among college students with disabilities. Journal of Postsecondary Education and Disability, 12(2), 28-42.
- Schumaker, J., Deshler, D., Alley, G., & Warner, M. (1983). Toward the development of an intervention model for learning disabled adolescents: The University of Kansas Institute. Exceptional Education Quarterly, 4, 45-76.
- Smith, D. D. (1998). Introduction to special education: Teaching in an age of challenge. Needham Heights, MA: Allyn & Bacon.
- Torgesen, J. K., & Kail, R. V. (1980). Memory processes in exceptional children. In B. K. Keogh (Ed.), Advances in special education: Vol. 1 Basic constructs and theoretical orientations. Greenwich, CT: J. A. I. Press.
- United States Office of Education. (1977). Assistance to states for education of handicapped children: Procedures for evaluating specific learning disabilities. Federal Register, 42, 65082-65085.
- United States of America v. National Collegiate Athletic Association, Civil Action No. 98-1290 (D. DC, May 26, 1998).
- Vogel, S., & Adelman, P. (1992). The success of college students with learning disabilities: Factors related to educational attainment. Journal of Learning Disabilities, 25, 430-441.
- Vogel, S., Hruby, P., & Adelman, P. (1993). Educational and psychological factors in successful and unsuccessful college students with learning disabilities. Learning Disabilities Research & Practice, 8(1), 35-43.
- Vogel, S., Leonard, F., Scales, W., Hayeslip, P., Hermansen, J., & Donnellis, L. (1998). The national learning disabilities postsecondary data bank: An overview. Journal of Learning Disabilities, 31, 234-247.
- Vogel, S., Leyser, Y., Wyland, S., & Brulle, A. (1999). Students with learning disabilities in higher education: Faculty attitude and practices. Learning Disabilities Research & Practice, 14(3), 173-186.