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In the next issue:

- Special Issue covering Popular Culture in Sport and Media
- And much more!
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The SMART Journal

Spring/Summer 2008

Volume 4, Issue 2

Editor's Corner: Taking a Break
Jason W. Lee, Editor

The Sport industry has been growing immensely and this growth has sparked an unprecedented foundation for the development of sport based academic programs, publications, and others forms of discourse. As this growth continues, academic and professional areas such as Sport Management has continued to flourish. Since SMART first began several years ago, the journal has hosted a wide spectrum of articles associated with the study of Sport Management (and associated aspects). Since SMART's beginnings, the field of Sport Management has been fortunate to benefit from the development of various informational outlets including numerous academic journals which have emerged. As editor and founder of SMART, I am pleased by this. I am also pleased by the contribution that SMART has been able to make.

Through providing a forum for the investigation and exploration of the such aspects of sport and life, SMART has sought to help fill the existing gaps and provide a forum where individuals are brought up to date on the latest research and information, while being prompted to explore, discuss, and analyze contemporary aspects of Sport Management and related areas of involvement.

[Continued on p. 89]

Guest Editor's Comments: Facility Issues
John Miller, Guest Editor- “Issues in Facilities” Special Edition

This issue features a special edition about sport facilities representing such important topics as sport venue security practices as well as green design and sustainability. While these are just two of the potential myriad of choices that could have been included in this issue they epitomize the changes that society today expects in sport facility design and management. The first two articles deal with the changes that have occurred in the United States over the past seven years. Just this past March, a joint assessment by the Federal Bureau of Investigation and the Department of Homeland Security issued a report entitled “Potential Threats to Popular Sports and Entertainment Venues” which indicated that such arenas and stadiums were attractive targets during the events. Specifically, the report revealed that such intercollegiate sports as football and basketball as well as the Super Bowl and Kentucky Derby may be high on a list because of the numbers of spectators they attract as well as citing that operational planning against sport facilities is usually difficult to detect. It is interesting to note that the articles in this special issue, while relating to the same topic, take different perspectives. The “Sport Venue Security: Planning and Preparedness for Terrorist-Related Incidents” identify potential indicators, vulnerabilities, and security improvements from the facility managers view. However, “Spectator Perception of Security at the Super Bowl After 9/11” stresses the need to include spectators in recognizing potential facility vulnerabilities to improve security at sport stadiums. By taking different ends of the spectrum both articles combine to make security aspects of facility management safety informative and practically based.

The “green” movement has recently burst on the facility scene due to the availability of green materials and procedures as well as the increased awareness by the general public. A prime example of the need for a paradigm shift towards green design was found in a report by green@work magazine which revealed that buildings in the United States accounted for 37% of all energy, 68% of all electricity, 12% of all freshwater supplies, 88% of all potable water supplies, and 40% of all raw materials. To counter these trends, facility green design has been shown to decrease costs while increasing building marketability and sustainability. The article found within this issue touches on these and other important considerations for future sport facility design and management.

Finally, I have appreciated the opportunity to be the guest editor of this special issue. While there are a number of fine texts regarding facility management, the continued need for research in this area is becoming more essential. Hopefully, this journal will continue to serve as an effective forum for continued sport facility management research. I would like to extend my thanks to Editor Jason Lee as well the manuscript reviewers for their patience and diligence. Thank you.
INTRODUCTION

American sports events are susceptible to various threats, such as terrorism, natural disasters, and fan violence (Fried, 2005; Lipton, 2005). Previous research indicates that terrorism is a concern for sport venue managers (Baker, Connaughton, Zhang, & Spengler, 2007). Researchers have reported that there is a lack of security personnel training at sport stadiums relative to guarding against terrorism (Baker et. al, 2007; Cunningham, 2007; Phillips, 2006; Phillips, Hall, Marciani, & Cunningham, 2006). With the uncertainty of terrorist actions and fan behavior, it is impossible to ensure a risk-free environment at sports venues. It is therefore a matter of how one prepares, responds, and recovers to mitigate the consequences of emergencies (Schwab, Eschelbach, & Brower, 2007). Terrorist activity indicators, common sport venue vulnerabilities, and protective facility security measures will be presented to aid sport venue managers in their operational planning and preparedness for emergency incidents.

TERRORISM

The Federal Bureau of Investigation (FBI) defines terrorism as “the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population or any segment thereof, in furtherance of political or social objectives” (WMD Threat and Risk Assessment Manual, 2005, p. 2-4). Organized terrorism has two distinct goals: inflicting the maximum amount of humiliation and publicizing the terrorists’ cause to the widest possible audience (Spangler, 2001). Those involved in terrorist activity do so to achieve some type of objective such as gaining recognition, coercion, intimidation, and/or provocation (WMD Threat and Risk Assessment Manual, 2005). According to Arquilla, Ronfeldt, and Zanini (1999), the phenomenon of terrorism appeals to its perpetrators for three principal reasons: (1) to harm and defeat superior forces; (2) to assert identity and command attention; and (3) to achieve a new future order by trying to wreck the present. Motivations are a key factor when trying to determine whether a group or individual will commit an act of terrorism. The FBI identified five categories of threat motivations: (1) political, (2) religious, (3) racial, (4) environmental, and (5) special interest (WMD Threat and Risk Assessment Manual, 2005). Religiously-motivated terrorists are considered to be the most dangerous because of their fanaticism and willingness to die for their cause (Kennedy, 2006).

Terrorists tactics are only limited to the their imagination (Johnson, 2005). Conventional means such as knives, guns, and bombs are frequently used. However, the probability of terrorists using weapons of mass destruction (chemical, biological, radiological, nuclear, or explosives) has significantly increased in the past decade (National Strategy for Combating Terrorism, 2003). Recent worldwide events, like the October 2001 mailings of anthrax-tainted letters in the United States and the release of sarin gas in a Tokyo Subway in 1995, signify that weapons of mass destruction are now real-world risks (Sidell, Patrick, Dashiell, Alibek, & Layne, 2002). Suicide terrorism has also become an effective means for terrorists to achieve their goal of mass casualties and mass
humiliation. Suicide attacks accounted for 3% of all terrorist attacks from 1980 to 2003, but were responsible for 48% of all fatalities (Kennedy, 2006).

According to Johnson (2005), “perhaps no time in history has seen so much effort and so many resources dedicated to terrorism preparedness” (p. 6). On November 25, 2002, President George W. Bush signed the Homeland Security Act of 2002. The Act created the Nation’s 15th cabinet-level Department of Homeland Security (DHS), consolidating 22 existing entities with homeland security missions (The National Strategy for Homeland Security, 2002). The administration “reorganized in a very dramatic fashion – called by many the largest federal reorganization in more than fifty years” (Cwiek, 2005, p. 9). For the first time in United States history, the reorganization established a single federal department whose primary mission is to protect the United States from terrorist threats.

THE TERRORIST THREAT TO SPORTS

Since terrorists follow the motto of mass casualties and mass exposure of humiliation, large scale sporting events provide a potential target for terrorist activity. In fact, “Al-Qaeda’s Manual of Afghan Jihad proposed football stadiums as a possible terrorist attack site, and the FBI issued an alert in July [2002] warning that people with links to terrorist groups were downloading stadium images” (Estell, 2002, p. 8). In March 2005, the Department of Homeland Security identified a dozen possible strikes it viewed most devastating, “including detonation of a nuclear device in a major city, release of sarin nerve agent in office buildings and a truck bombing of a sports arena” (Lipton, 2005, p. A-1). Additionally, the Department of Homeland Security developed a National Planning Scenarios (2005) document to examine potential threat scenarios to the United States. The document specifically addressed the potential of a biological attack on a sports arena, stating that the spreading of pneumonic plague in the bathrooms of a sports arena would potentially kill 2,500 people.

The most notable sport-related terrorist incidents include the 1972 Munich Olympics and the Centennial Olympic Park bombing at the 1996 Atlanta Games. According to Spangler (2001), terrorists perceive the Olympics as a huge target because it is sponsored by international corporations that symbolize American capitalism and are attended by political leaders from other nations that support the American political agenda. There have been less serious incidents at U.S sport stadiums/arenas. Minutes after a bomb threat was made against Continental Airlines Arena in June 2003 during Game 5 of the NBA Finals, police found 10 cars on fire in the Arena parking lot (SI.com, 2003). More recently, an Oklahoma University student killed himself by prematurely detonating a bomb strapped to his body outside an 84,000 packed stadium in October 2005 (Hagmann, 2005). In October 2006, the National Football League received a dirty bomb threat indicating the use of radiological bombs at seven NFL stadiums (Associated Press, 2006).

POTENTIAL CONSEQUENCES

According to Michael Chertoff, Secretary of Homeland Security, “the consequence of another terrorist incident would far outweigh the cost of investing in back-up systems, alternative operating locations, and additional protective measures” (Philpott, 2007a). The consequences of an incident at a sports event could result in mass casualties and destruction of buildings and infrastructure. Targeting sports can negatively affect future attendance at sports events, subsequently decreasing ticket sales and the demand for airline, travel, tourism, lodging, dining, and recreation services, as experienced after 9/11 (Sauter & Carafano, 2005). Additionally, the target site faces the problem of reengineering sport programs and ensuring continuity of operations by relocating, rebuilding facilities, rescheduling games, and assisting with the displacement of players and employees. These recovery operations are similar to those implemented post Katrina for sport programs in the southern Mississippi and Louisiana region (Steinbach, 2006). The economic aftershock of an attack could have a ripple effect throughout the country ultimately halting a multi-billion dollar industry. Although sport is not
recognized as an official industry in the Census Bureau North American Classification System (Howard & Crompton, 2005), the total economic activity related to sport in the U.S was estimated at $213 billion (Sport Business Journal, 1999) at the beginning of 2000. The financial cost could be catastrophic to the sport organization and the U.S sports industry through the potential loss of revenue streams. The 9/11 attacks cost New York City economy $83 billion and the total U.S. economy in excess of $100 billion (Sauter & Carafano, 2005). Furthermore, the U.S. sporting industry may witness a paradigm shift towards security standards and regulations for sports events, as proposed by Hall (2006), and currently in practice in Britain. British sporting authorities established and published the *Guide to Safety at Sports Grounds* (1997), to which facilities must adhere for operational acceptance and inclusion in safety certificates.

To effectively secure a sport facility may be very cost-prohibitive. The average college athletic department budget would not lend itself to implementing extreme security measures, such as antiterrorism squads and bioterrorism detection equipment (Pantera, M.J. Ill, Accorsi, R., Winter, C., Gobeille, R., Griveas, S., Queen, D., Insalaco, J., & Domanoski, B., 2003). For example, security at the Utah Winter Olympics cost $300 million and the 2002 Super Bowl in New Orleans $6 million (Iwata, 2002). Even at the professional level, increased security has received some opposition. The mandatory pat-downs recently implemented by the National Football League have created some controversy for the Tampa Bay Buccaneers who requested that taxpayers absorb the extra $9,597 per game for security (Snel, 2005). Sport venue managers face the problem of financing security improvements and may find that the cost of implementing security initiatives diverts investment from more plausible areas, such as new facilities, better coaches, and athlete recruitment. However, it can be argued that good countermeasures and contingency planning can protect sports activities from disruption and financial burden, and ultimately enhance spectator confidence.

**SPORT VENUE SECURITY**

There are approximately 1,347 sport stadiums and arenas in the United States, excluding high school stadiums and other small venues (worldstadiums.com, 2006). These stadiums may be used for other functions besides sports events, such as graduations, concerts, or political events. Facility ownership and location also varies. Facilities may be privately or publicly owned and located in major cities, small towns, and on college campuses (DHS, 2007). The Department of Homeland Security has identified sport stadiums/arenas as a key asset in the critical infrastructure/key resource sector (Office of Domestic Preparedness Information Bulletin, 2003). Key assets are defined as individual targets whose destruction “could create local disaster or profoundly damage our Nation’s morale or confidence” (CRS Report for Congress, 2004).

Sport venue managers and spectators perceive terrorism as a foreseeable threat to U.S. sport facilities and believe it is only a matter of time before they are attacked (Baker et. al, 2007; Phillips et al., 2006). However, it has been documented that some facilities are lacking in terms of staff training related to terrorism (Baker et al., 2007; Cunningham, 2007; Phillips, 2006). Since 9/11, sport venue managers realize their security policies and procedures need to be reviewed and have requested help regarding access to timely security information, assistance in conducting vulnerability assessments, and the provision of training for emergency response planning (Baker et. al, 2007; Phillips, 2006).

Security operations vary across facilities depending on location, ownership, and extent of use. Over 60% of the security personnel employed for game day operations at Division I-A and I-AA collegiate programs in the U.S. are outsourced (Phillips, 2006). Close to one-third of professional sport stadiums fail to perform background checks on part-time staff and less than 10% of those responsible for security at major university athletic facilities check all part-time staff. There was also a difference in screening of full-time staff. Eighty-eight percent of professional stadiums and arenas check all full-time staff compared to 27 percent at major college facilities (Gips, 2003).
TERRORIST INDICATORS

Specific terrorist threats, such as explosives, suicide bombers, arson, WMD agents, hostage taking, and active shooters, are a major concern to sport stadiums and arenas (Estell, 2002; Kennedy, 2006; Lipton, 2005; National Strategy for Combating Terrorism, 2003; National Planning Scenarios, 2005; Philpot, 2007a). According to Baker et al. (2007), designated security personnel should be trained to recognize potential terrorism threats and how to respond to such threats. It is therefore imperative that sport event managers are aware of the potential indicators of terrorist activity presented by Kennedy (2006). The seven signs of terrorist activity are: (1) surveillance, (2) elicitation, (3) tests of security, (4) acquiring supplies, (5) suspicious persons, (6) trial run, and (7) deploying assets. These signs are discussed below:

Surveillance: someone may observe the target area to determine the strengths and weaknesses, and number of personnel that might respond to an incident. It is therefore important to take note of anyone recording activities, taking notes, or using video/camera/observation devices.

Elicitation: involves individuals attempting to gain information about certain operations. For example, terrorists may acquire knowledge about a stadium structure and the location of security personnel during game time.

Test of Security: usually conducted to measure reaction times to breaches of security and to test physical security barriers for weaknesses. For example, individuals trying to access unauthorized areas of your facility.

Acquiring Supplies: someone has purchased or stolen explosives, weapons, or ammunition near your site; this may also include acquiring security passes or uniforms that make it easier for entrance to prohibited areas of your facility.

Suspicious People: this may be someone on your staff that does not fit in because of their unusual behavior, language usage, or unusual questions they are asking.

Trail Run: before the final attack, terrorist normally conduct a “dry run” to address any unanticipated problems. This may include recording emergency response times.

Deploying Assets: people and supplies are getting in position to commit the act. This is the final sign and last chance to thwart an attack.

COMMON VULNERABILITIES

Today’s terrorists can strike anywhere at anytime with a variety of weapons. Vulnerable facilities include government buildings, hospitals, restaurants, malls and sports arenas (Philpott, 2007b). In order for sport venue managers to effectively improve security measures at their respective sites they must first identify vulnerabilities in their security systems (National Infrastructure Protection Plan, 2006). A vulnerability is defined as an exploitable capability; an exploitable security weakness or deficiency at a facility, entity, venue, or of a person (General Security Risk Assessment Guideline, 2003). In January, 2005, the Department of Homeland Security launched the first on-line Vulnerability Self-Assessment Tool (ViSAT) for large stadiums. The tool incorporates industry safety and security best practices for critical infrastructure to assist in establishing a security baseline for each facility. It focuses on key areas such as information security, physical assets, communication security, and personnel security (DHS.gov, 2005). Site-specific conditions to consider when assessing vulnerabilities are presented in Table 1 (U.S. Department of Homeland Security, 2004).
In the aftermath of 9/11, most leagues, teams, and venues conducted threat assessments and updated security practices (Hurst, Zoubek, & Pratsinakis, n.d.). Hall et al. (2007) identified common vulnerabilities at collegiate sport venues. These included:

- Lack of emergency and evacuation plans specific to sport venue;
- Inadequate searching of venue prior to event;
- Inadequate searches of fans and belongings;
- Concessions not properly secured;
- Dangerous chemicals stored inside the sport venue;
- No accountability for vendors and their vehicles; and
- Inadequate staff training in security awareness and response to Weapons of Mass Destruction (WMD) attacks.

**PROTECTIVE MEASURES**

Protective security measures include resources and procedures designed to protect a facility against threats and to mitigate the consequences of an attack. Protective measures are designed to promote the DHS strategy to effectively prevent, prepare, respond, and recover from terrorist attacks (National Strategy for Homeland Security, 2002). A number of associations and organizations are concerned with facility security, including the World Council for Venue Management, International Association of Assembly Managers, and sport league governing bodies such as the NFL, NBA, and NCAA. These entities issue security guidelines or “best practices” for their members. For example, NFL teams have planned and practiced various disaster scenarios (Pantera et. al, 2003); the National Hockey League conducts monthly security audits; and the National Basketball League follows strict bomb emergency procedures (Iwata, 2002). However, these guidelines are not always mandatory. The lack of mandatory guidelines results in varying degrees of security at each facility across the United States.

General protective security measures promoted by the Department of Homeland Security (Homeland Security Information Bulletin, 2003) can be categorized into four different areas: (1) Communication and Notification, (2) Planning and Preparedness, (3) Access Control, and (4) Surveillance and Inspection (see Table 2). Sport-specific security measures being shared as “best practices” by the Department of Homeland Security include: (1) conducting security assessments, (2) increasing perimeter security, (3) enhancing detection monitoring capabilities, (4) establishing access control, and (5) reinforcing employee procedures to ensure knowledge of emergency protocol (DHS.gov, 2004). Furthermore, Hall et al. (2007), during their research of college sport venue security, recommended the following countermeasure improvements: (1) identify a sports event security action team (SESAT) to organize and communicate security efforts on campus; (2) initiate a responsible vendor program with adequate identification, access control, and training; 3) encourage participation in an information sharing analysis center (ISAC); and 4) developing and exercising emergency and evacuation plans.

**CONCLUSION**

Catastrophic incidents, including 9/11, serve as constant reminders that sporting venues are vulnerable to man-made disasters, resulting in significant damage to property and loss of life. Sport organizations must act in a professionally and prudent manner by fulfilling their legal responsibility to provide a safe environment for spectators, officials, players, and surrounding community. According to Hurst, Zoubek, and Pratsinakis (n.d.), regardless of the analysis conducted after an incident, “the fundamental question will always be whether or not reasonable steps were taken to protect against an incident in light of the availability of security measures, the industry “standards” for security, and the potential threat of terrorism” (p. 5). Assessing risk, reducing vulnerabilities, and increasing the level of preparedness will help minimize potential threats to sport venues.
nationwide. Sport venue managers must be familiar with terrorist activity indicators, common sport venue vulnerabilities, and possible protective security measure improvements.

REFERENCES


TABLE 1
SUMMARY OF CONDITIONS TO CONSIDER FOR ASSESSING VULNERABILITIES

<table>
<thead>
<tr>
<th>Emergency Preparedness</th>
<th>External Environment</th>
<th>Parking</th>
</tr>
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<tbody>
<tr>
<td>response plan</td>
<td>surrounding areas</td>
<td>controlled lots for visitors</td>
</tr>
<tr>
<td>response capabilities</td>
<td>lighting around property</td>
<td>standoff from facility</td>
</tr>
<tr>
<td></td>
<td>type of traffic in vicinity</td>
<td>lighted areas</td>
</tr>
<tr>
<td>Access to Property/Buildings</td>
<td>Building Systems</td>
<td>Hazards Present</td>
</tr>
<tr>
<td>controlled</td>
<td>HVAC intakes</td>
<td>CBRNE (chemical, biological,</td>
</tr>
<tr>
<td>security guards</td>
<td>air, water, utility intakes</td>
<td>radiological, nuclear, explosive)</td>
</tr>
<tr>
<td>background checks</td>
<td>emergency operations</td>
<td></td>
</tr>
<tr>
<td>number of entrances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hours of access</td>
<td></td>
<td></td>
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<tr>
<td>cameras/alarms</td>
<td></td>
<td></td>
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<tr>
<td>delivery screening</td>
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<tr>
<td>visitor management</td>
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## TABLE 2
### PROTECTIVE MEASURES

<table>
<thead>
<tr>
<th>Communication and Notification</th>
</tr>
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<tbody>
<tr>
<td>Maintain situational awareness of world events and ongoing threats</td>
</tr>
<tr>
<td>Encourage personnel to be alert and report suspicious behavior, packages, or devices</td>
</tr>
<tr>
<td>Ensure all personnel are aware of protective measures and changes in threat conditions</td>
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<table>
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<th>Planning and Preparedness</th>
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<tr>
<td>Increase number of visible security personnel wherever possible</td>
</tr>
<tr>
<td>Develop or update emergency response and evacuation plans</td>
</tr>
<tr>
<td>Develop or update current contingency plans</td>
</tr>
<tr>
<td>Conduct internal training exercises with local emergency responders to ensure multi-agency collaboration in executing plans</td>
</tr>
<tr>
<td>Establish partnerships with local authorities to develop intelligence and information sharing relationships</td>
</tr>
<tr>
<td>Conduct vulnerability studies</td>
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<table>
<thead>
<tr>
<th>Access Control</th>
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<tbody>
<tr>
<td>Arrange exterior vehicle barriers, traffic cones, and road blocks to control access</td>
</tr>
<tr>
<td>Limit the number of access points and control ingress and egress from the facility</td>
</tr>
<tr>
<td>Strictly enforce access control procedures for secured areas through photo identification</td>
</tr>
<tr>
<td>Conduct background checks</td>
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<tr>
<th>Surveillance/Inspection</th>
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</thead>
<tbody>
<tr>
<td>Increase perimeter lighting</td>
</tr>
<tr>
<td>Provide video surveillance systems for facility</td>
</tr>
<tr>
<td>Implement mail and package screening procedures</td>
</tr>
<tr>
<td>Screen all patrons entering the facility</td>
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</table>
INTRODUCTION

The Super Bowl has become one of the world’s most significant and influential sporting events by placing the participants and the host city on an international stage. Because of this worldwide influence and recognition, events such as the Super Bowl as well as soccer’s World Cup, and the Olympic Games are considered mega-events. Mega-events are high profile events that are conducted in a short, fixed amount of time that increases tourism, civic pride, and the international image of the host city (Persson, Anderson, & Sahlberg, 1998). However, due to their notoriety, mega-events have reportedly become attractive targets for potential terrorist attacks (Appelbaum, Adeland, & Harris, 2005; Atkinson & Young, 2002). Supporting this contention was a 2005 report by the Department of Homeland Security that recognized sports stadiums as potential terrorist targets. The statement indicated that the safety of patrons attending a sporting event could be severely compromised by the discharge from a truck bomb targeting the structural integrity of a stadium or arena (Lipton, 2005). This would be analogous to the 1995 truck bombing of the Murrah Federal Office Building in Oklahoma City that claimed 168 lives, including 19 children (Rosenblatt, 2000).

Terrorism has been linked to the threat of carnage to achieve political objectives by way of fear, intimidation or coercion (Alexander, Valton, & Wilkinson, 1979; Gibbs, 1989; Keet, 2003). According to the Department of State (2002) terrorism is “…premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience” (p. xvi). It is through this process that terrorists create an atmosphere of fear and vulnerability thereby, extending their influence as far as possible (Arce & Sandler, 2005).

MOTIVATIONS FOR TERRORISM

Sporting events have been considered significant targets of terrorism because they are so strongly connected with the American economy and culture (Masters, 2002). Corporations such as Coca-Cola, Hewlett-Packard, Pepsi, Anheuser-Busch, and General Motors are among those that symbolize American capitalism, nationally and internationally, and with their in events such as the Super Bowl through the sponsoring of television advertisements, there may be an association between the sponsor and the event.

There are other compounding issues as to why a sport mega-event may be a prime target relate to the huge national and international media attention directed to the mega-event as well as how the media frames the event. The frivolous festivities and pageantry that accompany the events are often showcased on the televised broadcasts of the game and may be in direct opposition to the cultural beliefs of other population segments. Given that ten of the most watched television programs in history are Super Bowls (Super Bowl Information, 2007) it is little wonder why individuals may assume that it symbolizes American values. This assumption creates an opportunity for terrorists to spread their message and forever become martyrs (Atkinson & Young, 2002).

A second incentive for an attack may be the potential for mass casualties (Schneider, 2002). With a few early exceptions, the Super Bowl attracts sell-out crowds as well as numerous others who attend event related parties or activities in a relatively small area. Additionally, the cities that have been selected to host the Super Bowl on more
than one occasion [Miami (9 times), Los Angeles (7 times), Houston (2 times) and Detroit (2 times)] also ranked in the 50 most populated cities in America (U.S. Census Bureau, 2006). By combining an event that attracts crowds attending the game numbering 70,000 to 100,000 with many more people reveling in the accompanying festivities being hosted in cities who have large populations it is easy to understand how mass fatalities could occur from a terrorist attack.

A third recognized motivation of international terrorist groups relates to the impact that a terrorist attack may have on national and international economies (Schneider, 2002; Suder, 2004). One of the primary premises recognized for the September 11th attack specific to the World Trade Centers was the ability to cripple economic industry in the United States. As a result of the significant property totaled insurance claims were estimated at $40 billion dollars (Zolkos, 2003). A large segment of the telecommunications industry located in lower Manhattan was rendered useless for several days after the 9/11 attack, directly affecting service to the New York Stock Exchange (General Accounting Office, 2003). This resulted in the closing of the New York Stock Exchange as well as the NASDAQ Stock Market. Additionally, because so many offices important to government securities trades were obliterated, the failure to distribute U.S. government securities increased from $1.7 billion per day the week of September 5 (2001) to $190 billion two weeks later (Fleming and Garbade, 2002).

While not at the same national or international level of the New York Trade Center attack, economic harm would certainly occur if a terrorist strike would occur at a mega-event such as the Super Bowl. Previous research indicated that the economic impact on South Florida due to Super Bowl XXXIII was of $393 million (Super Bowl Information, 2007). Moreover, Steeg (1999) reported that Super Bowl patrons are generally wealthier, spend more, and hold more influence over future business activity than spectators attending any other event in the United States. Thus, the potential economic loss of an attack at the Super Bowl could include the economic loss to the general geographic areas surrounding the event as well as significant business transactions in the future. This takes even greater meaning when populations and national economic importance of the host cities, as previously identified, are added to the equation.

This section has identified and briefly explained several reasons why a terrorist attack could occur at a mega-event like the Super Bowl. However, because no significant terrorist-related attempts, specifically relating to previous Super Bowls, have been made public, the uncertainty of such an attack may be called into question. The next section will recount other terrorist assaults that have taken place at previous sport mega-events.

TERRORIST ATTACKS AT OTHER SPORTS MEGA-EVENTS

One of the most tragic examples of terrorism at a mega-event occurred in 1972. During the Olympic Games in Munich, Germany, a Palestinian group known as “Black September” stormed the Olympic Village killing two Israelis and taking others hostage. After a 20-hour standoff the German government attempted a rescue at a nearby airfield, the failed attempt resulted in nine Israeli athletes killed, along with the five terrorists (Guttmann, 1984). Another more recent terrorist attack occurred at the 1996 Olympic Games held in Atlanta, Georgia in which a detonated bomb resulted in causing one fatality and injuring 110 individuals (Hospitals respond to emergency, 1996).

In 1998 the World Cup tournament was held in France despite reports of evidence that actions had been planned by the Armed Islamic Group (AIG), a noted terrorist organization, to bring the competition to a halt. Importantly, an editorial was circulated that described the AIG as specifically targeting civilians and foreign residents (Voice of America, 1998). The targeting of non-military personnel is a strategy that is not new as many terrorist attacks are committed against such “soft targets” as tourist points, businesses and other non-secured targets (United States Department of State, 1991). The term “soft targets” refers to venues that are not well-protected thereby providing relatively easy access to potential terrorists (Clonan, 2002).
DEFINING RISK

To understand how to manage it, the concept of risk must first be addressed. Some have recognized risk as the potential harm of valuable items resulting from an individual's actions (Kates & Kaspenson, 1983). In fact, Klinke and Renn (2002) stated that risk is something that people fear and may be extended to an event that has not yet occurred. Risk can be separated into risk as feelings and risk as analysis (Slovic & Peters, 2006). According to Slovic and Peters (2006) whereas risk as feelings are associated with a person's natural reaction to a harmful situation, risk as analysis applies the integration of items of logic, reason, and scientific forethought to determine how to handle a dangerous situation.

Risk can also include such items as uncertainty, catastrophic potential, and controllability (Slovic, 2001). Certainly the catastrophic potential of a terrorist assault may be perceived as immeasurable in regards to loss of life and economic considerations. This immeasurability strongly relates to the concept of uncertainty (Nohria & Stewart, 2006). It is through uncertainty that fear arises (Lerner, Gonzalez, Small, & Fischhoff, 2003; Lerner, & Keltner, 2000). A terrorist strike at a mega-event may be analogous to the attack on the Twin Towers but with greater catastrophic potential in terms of the damage and/or destruction to human life.

To the extent that an attack is thought to be unique or isolated, the immediate impact may be limited and fleeting (Liesch, Steen, Knight, & Czinkota, 2006). This may result in uncertainty and accompanying fear to be contained at a lesser level. For example, the Oklahoma City bombing in 1995, while a tragic occurrence, affected a relatively small number of individuals. If on the other hand, attacks are perceived by fans to be directed at more vulnerable or 'soft targets' such as the sport stadium in which a mega-event takes place which may have upwards of 100,000 attendees, the more insidious the uncertainty would be thereby increasing the level of fear among the people (Ip, 2004).

MANAGING THE RISK OF A TERRORIST ATTACK

Despite only the Olympic Games having the unfortunate distinction of an actual strike having taken place, the possibility of an assault on a mega-event venue exists (Atkinson & Young, 2002). When the 2002 World Cup was hosted by South Korea, President Kim Dae Jung expressed apprehension that terrorists might target the mega-event by stating that:

We can see now that there is no boundary, that no country in the world is safe from international terrorism and from these heinous terrorists. We are a very tempting target to these international terrorists, and we are very much aware of this fact (Wiseman, 2001).

Thus, a potential terrorist attack may be considered a foreseeable risk at sporting mega-events. To prepare against an attack, risk management has been cited as the most effective approach (Decker, 2001).

Risk management has been viewed as the process of decreasing a foreseeable risk to a point that is regarded by society as acceptable (Kolluru, 1995). The key issue in deciding the most effective course to follow in managing a risk is the contribution of the public in delineating appropriate levels of risk and safety (Lynn, 1990; Slovic & Peters, 2006). In theory, since it is the individuals who are most affected by a foreseeable harm, they should be allowed to participate with an organization in determining levels of acceptable safety (Webler, 1999).

PURPOSE OF THE STUDY

Due to the Super Bowl’s stature as one of the preeminent mega-events in sports, the safety and security of those attending the game itself, the festivities accompanying the event, or simply living in the immediate area may be compromised. Primarily this is a reflection of the difficulties inherent in securing the event venues due
to the large groups of people that gather around, enter and leave the premises. Specifically, a person with malevolent intentions could enter the venue, observe security patterns, and identify vulnerable areas without detection.

Presently there is a void in research examining spectators' perceptions of security at sporting events or if they are satisfied with security measures taken to keep them safe. This investigation theorizes that with the assistance of those attending the game, areas of vulnerability may be more readily identified. Prior reports concerning the management of risks have rejected the idea that risk is absolutely objective (Krimsky & Golding, 1992; Pidgeon, Hood, Jones, Turner, & Gibson, 1992; Slovic, 1992). As such, the identification of any vulnerabilities or threats should be measured solely by one person but include the perceptions of those attending the mega-event. Thus, the purpose of this study was to analyze the perception of sports fans attending the Super Bowl game regarding the management of risks associated in providing a reasonably safe environment.

METHODOLOGY

The researcher developed a 23-item questionnaire, consisting of five multiple choice and 18 Likert scale-type items. To ensure the reliability of the questionnaire, a test-retest protocol, which is an acceptable means of determining reliability (Patten, 2000), was given to seven football season ticket holders. A two-week period between the test and re-test was provided for the subjects. The scores from the first test and the following re-test resulted in a Pearson's product-correlation coefficient of .85. Thus, the questionnaire was determined to be reliable (Patten, 2000).

To make certain that the questionnaire measured what it was supposed to measure, a face validity option was selected using spectators attending intercollegiate football games. The primary reason for this selection related to the homogeneity between the test group and the population to be studied. In other words if football fans in the test group reported that the questionnaire appeared to measure what it was supposed to measure, the researcher was confident that football fans attending the Super Bowl would also.

DATA COLLECTION

A convenience sampling technique was employed as spectators attending the 2006 Super Bowl were surveyed about their perceptions concerning security measures. The questionnaire consisted of sections relating to the following areas: demographic information, perceptions of security equipment at the game, perceptions of security policies and security issues at the Super Bowl game. In order to be eligible to partake in the survey each individual had to produce a ticket to the event. Written and verbal instructions were provided to all participants. Of the 250 surveys that were returned to the investigator, 138 (55%) were fully completed. Reasons for discarding a survey included incomplete answers, inappropriate responses, and indecipherable replies.

RESULTS

DEMOGRAPHICS

The first section of the survey asked the respondents to indicate demographic information such as gender, age, income, and race. Additionally, subjects were asked the number of professional football game previously attended in the past three years. The results indicated that 78 (57%) were males and 60 (43%) were females. By age group 27 (20%) were between 18-34 years of age, 39 (28%) were between the ages of 35-44, and 72 (52%) were over 45 years old. With respect to income 12 (9%) of the respondents average an income of $25,000 to $50,000, 40 (29%) averaged $50,001 to $100,000, 51 (37%) averaged $100,001 to $200,000 and
35 (25%) average over $200,001. Thirteen (10%) of the respondents were non-Caucasian and 125 (90%) were Caucasian. The respondents were asked how many professional football games they have averaged attending the past years. The results revealed that 70 (51%) attended 1-3 home football contests, 31 (22.5%) were attended 4-6 games while 37 (26.5%) attended 6 or more games in the previous years. Only 46 (33%) of the participants have entered a Super Bowl since 9/11.

PERCEPTIONS OF TERRORIST ATTACK

Ninety-six percent of the respondents perceived a strong likelihood that a terrorist attack would be attempted or occur at a Super Bowl within the next three to five years. However, 72% agreed that they would not change travel plans even if the Department of Homeland Security raised the terrorist threat level to red. Despite the previous responses, 64% indicated that they felt safe attending the Super Bowl.

PERCEIVED LEVELS OF SECURITY

Seventy-four percent of the respondents indicated that security has not become more relaxed at sporting events since 9/11 and that 86% were satisfied with the level of security. To increase security, only 35% were willing to pay an increase in ticket price for better security. When asked to identify an organization that should be responsible for the security aspects of the Super Bowl, 64% believed that the host city should be followed by the federal government (43%) and the National Football League (36%). Thirty-five percent indicated that mega-events such as the Super Bowl should have security provided by national federal agencies such as the Transportation Security Administration (TSA) which is extensively used at most airports, while 30% did not.

PERCEPTIONS OF SECURITY EQUIPMENT MEASURES

All of the participants that completed this section indicated that stadiums in the NFL and all other agencies should use any security equipment necessary to provide a safe and secure atmosphere. When asked about the implementation of certain security measures at the Super Bowl, 79% of the respondents were aware of the increase in security. Specifically, 84% of the participants noticed the use of closed-circuit televisions (CCTV) for security use outside the stadium. While a much smaller percentage of the respondents (32%) noticed the use of CCTV’s inside the stadium, 63% reported that using such an item could assist in creating a safer and more secure environment. In contrast, less than half of the respondents felt that closed-circuit televisions should be used in downtown venues of the host city. It was evident that spectators were aware of the increased level of security measures in the parking areas, as 66% noticed that cars were being checked thoroughly. Nearly the same number (62%) reported that security personnel were visible in and around the parking lot area.

Sixty-seven percent of the respondents indicated that stadiums have the right to check items being brought into the stadium to protect the public from acts of violence. As such, 71% did not agree that carry-in checks were a nuisance that may explain why 64% agreed that all spectators carry-ins should be checked before entering the stadium. When participants were asked about the use of metal detectors at the Super Bowl, 74% indicated that such security equipment should be used. Fifty-one percent indicated that the Super Bowl venue should use face recognition equipment to protect the spectators. Eighty-one percent of the respondents did not believe that their personal privacy was violated by any of the security issues noted previously.

DISCUSSION

Sporting events have become vulnerable to terrorist attack for three main reasons (Schneider, 2002). First, the venues are symbolic targets. American sports symbolize American culture (Sage, 1998). Second, these venues are difficult to secure because large groups of people gather entering and leaving the facilities. Third, sporting venues have been attacked in other countries demonstrating their attractiveness as a target. Thus, sporting
venues, especially those hosting mega-events, may be chosen as targets because of their representative economic value, public image, and ease of access.

Previous claims have indicated that it is just a matter of time before a sport facility is targeted (Hurst, Zoubek, and Pratsinakis, 2002). Similarly, more than 95% of the respondents in this study believed that a terrorist-related assault will be attempted at the Super Bowl in the next three years. Of particular interest to the sport facility manager is that more than 50% would travel to and attend a mega-event such as the Super Bowl despite this belief. Additionally, the results revealed that they would continue their plans to travel to and attend the Super Bowl even if the Department of Homeland Security were to raise the threat level to red. While the latter is not surprising as every Super Bowl since September 11th has been conducted under the red level, it is noteworthy that the spectators would continue to travel and attend a mega-event such as the Super Bowl despite the belief that an attack was likely. A rationale for this finding may be that the respondents believed that security has become more lax since 9/11 they were generally satisfied with the level of security at the event. For these reasons, venue managers must continue to try to stay one step ahead in all facets of safety and risk management measures.

Most sport venues have not been designed with high levels of security in mind, particularly regarding the ability to control access and visibility of attendees (Then & Loosemore, 2005). One of the available ways to increase the safety of spectators is through the utilization of closed-circuit televisions in the immediate area of the event. Technological measures and strategies need to be part of the overall facility and event security strategy. Some of the measures that may be included are automated technologies that provide barrier protection, surveillance, employee identification, inspection of goods and fans, and alarm systems (Fischer & Green, 1992). Today, metal detectors and wands are seen at stadium entrance points making today’s sport environment similar to airport security (Deckard, 2000). However, Velslid (2003) suggested that terrorists with resources and knowledge can easily get around current security measures and may even use our own technology against the facility. This has prompted security personnel at sporting events to be less reactive and more proactive and incorporate initiative education training of employees to cultivate security consciousness and capability to effectively respond to a crisis (Levitt, 1997).

It has been proposed that in attempting to secure sport venues from terrorist attacks, the price of admission would increase, resulting in a decrease in attendance (Miller, Veltri, & Phillips, 2007). While a majority of respondents in this study would not be interested in paying more for a ticket to the Super Bowl despite the potential of increasing security, it is highly doubtful that the game would not be sell-out. However, as the results of this study has revealed, the spectators’ perception of the probability of a terrorist attack has increased and facility managers have an obligation to provide spectators with a safe and secure environment. Thus, sport facility managers need to take proactive measures when it comes to security and have the necessary tools to reduce security threats.

It is important to note that the majority of respondents did not feel that their right to privacy was compromised neither by carry-in or car checks nor by the use of closed-circuit television or face recognition equipment. Previously, a question has been called regarding the legality of physical searches as well as video surveillance of Super Bowl attendees (Claussen, 2006). However, it has been argued that technological surveillance as “an invisible wall” should not be thought of as a separation from American tradition but as the next step in protecting the United States (Bewley-Taylor, 2005). While these are significant concerns, it is not the intent of this study to determine the legality of such security practices.

LIMITATIONS AND FUTURE RESEARCH

As with many investigations there are limitations. First, only 138 responses to the survey were useable. However, Alreck and Settle (1985) have posited that even a small percentage of a sample population may yield
accurate results. Despite the accuracy of the information, the results of this study cannot be generalized towards larger audiences without further investigation. Moreover, it can only be assumed that the respondents responded in a truthful and honest fashion. Future research may include not only future Super Bowl contests but also other sport mega-events such as the intercollegiate basketball's Final Four or Bowl Conference Series (BCS) championship games. Additional investigations may include any of the professional golf majors, NASCAR, the World Series, National Basketball Association finals or the Olympics. Finally, more extensive research could be conducted regarding the awareness of Super Bowl spectators regarding the accumulation of their personal identity information and using it as a means to digitally frisk that individual (Uncle Sam, 2001).

CONCLUSION

Current world events such as the war in Iraq have resulted in heightened security tensions and have challenged existing security measures worldwide. Mega-events such as the Super Bowl are held despite the backdrop of growing concerns regarding international terrorism, and the increased possibility of a terrorist attack. As a result, there is a general belief that terrorism has overshadowed traditional security issues and the physical protection of the sports fans has become a critical infrastructure issue (Viuker, 2002).

The events of 9/11 have shown venue and event managers that a terrorist attack is not just a virtual possibility, but also an actual possibility, and its prevention will be extremely difficult (Boyle, 2005). However, to become more proactive, an effective risk management plan must not work in a vacuum. Venue managers and sports fans have to realize that even with the greatest security in the world, stopping a terrorist attack may be nearly impossible. Effective risk management needs to involve not only those individuals in sport facility management, but federal or regional law enforcement as well. It should also involve the individuals attending the contest. Webler (1999) stated that since it is the individuals who are most affected by a foreseeable harm, they should be allowed to participate with an organization in determining levels of acceptable safety.

Slovic (2001) revealed that as the societies in industrialized countries have attempted to make lives healthier and safer, more people have become more concerned about risks. While quantifiable assessments are essential elements in some decision-making situations, relying on the safety attitude of spectators attending games to recognize potentially dangerous situations and report them is often quicker and more efficient method of addressing potential risks. Promoting an inclusionary aspect of the risk management program will increase the sport facility manager’s ability to assess potential threats and vulnerabilities, thus creating a reasonably safe environment, especially at a sport mega-event.

REFERENCES


INTRODUCTION

Sport and recreation organizations have traditionally attempted to construct functional and innovative facilities to meet the needs of patrons. Over the past few decades, the concepts of green design and sustainability have evolved as a mechanism to deal with limited resources and reduce the impact on the environment (Kessenides, 2005). Architects, engineers, and consultants have begun practicing social responsibility by incorporating green design concepts and technologies for their client’s projects. Sport and recreation professionals can benefit by gaining an understanding of the potential benefits of green design and sustainability. This article is an attempt to answer many of the commonly asked questions related to the design, construction, and maintenance of green facilities.

DEFINING “GREEN” AND “SUSTAINABILITY”

A “green” or “sustainable” facility is a structure designed, built, renovated, or operated in an ecologically and resource-efficient manner (Dick, 2007). These buildings often utilize energy-efficient processes to accomplish long-term cost savings (Yost, 2002) Sustainability has also been defined as a “holistic approach to protecting the environment by incorporating design practices and materials that use energy most efficiently” (Fried, 2005, p.182). Sustainable initiatives work with the environment rather than against it (Suttell, 2006). Green buildings can be designed to protect occupant health, improving employee productivity, utilize resources more efficiently, and reduce environmental impacts (Environmental Building News, 1999).

GREEN FACILITY BENEFITS

Ries and Bilec (2006) suggest three possible benefits of green facility construction: 1) conservation of natural resources, 2) increased energy efficiency and water conservation, and 3) improved indoor environment. They suggest green design can lead to substantial cost-savings over the life-span of a building and improve productivity for the building’s inhabitants. These potential benefits are discussed in the following sections.

NATURAL RESOURCE CONSERVATION

The efficient use of natural resources is a fundamental tenet of green design. Conventional construction practices consume large quantities of steel, wood, plastic, cardboard, paper, water, and other natural resources that unnecessarily lead to resource depletion (del Monte, 2006). Design professionals have the option to select environmentally-conscience building materials such as recycled products. Reutilization of beams, lumber, flooring, paneling, doors, brick, steel, insulation, and other products often lend quality and durability exceeding...
conventional materials (del Monte, 2006). Sustainable construction products can also include recycled plastics and crushed rock aggregates (U.S. Green Building Council, 2007). The rapidly developing recycled product market is also diverting waste from landfills as mandated by the Integrated Waste Management Act (Environmental Management, 2007). Designing adequate space for recycling collection and incorporating a solid waste management program can reduce waste generation over the lifespan of facility.

**ENERGY EFFICIENCY AND WATER CONSERVATION**

Energy efficiency and water conservation are cornerstones of any green building project. Generation and use of energy are major contributors to air pollution and global climate change. Improving energy efficiency and using renewable energy sources are effective ways to reduce the potential of energy supply interruptions, improve air quality, and reduce the impacts of global warming (Ries & Bilec, 2006). Lowering utility expenses allows organizations to reap the financial benefits of sustainability on a continual basis. Examples of increased energy efficiency measures include installing top grade insulation, glazed and low-emissive (low-E) double-paned windows, and high-efficiency water heaters and other appliances (Ries & Bilec, 2006).

LaRue, Sawyer, and Vivian (2005) describe how the building “envelope”—the windows, doors, walls, floor, foundation, and roof—must balance requirements for ventilation with providing thermal and moisture protection appropriate to a facility’s climatic conditions:

> The role of mechanical systems and purchased energy is to make up the difference between that which the envelope can provide in occupant comfort and what is required...[therefore the] quality of the envelope, then, is a major factor in determining energy used for heating, cooling, lighting, and ventilation. Improvements to the envelope can significantly reduce energy demand. (p. 172)

An optimal designed building envelope provides significant reductions in heating and cooling loads, which in turn can allow downsizing of heating, ventilation, and air-conditioning (HVAC) equipment (Loftness, Hakkinen, Ada, & Nevalainen, 2007).

Large volumes of water are often consumed at recreation and sport venues making water conservation a major issue. Builders can take advantage of a new generation of high-efficiency appliances and landscape water management systems (Dick, 2007). Dual plumbing using recycled water for toilet flushing or a gray water system that recovers rainwater or other non-potable water for site irrigation are efficient methods of water conservation. Wastewater can be minimized by using ultra low-flush toilets, low-flow shower heads, and other water conserving fixtures (Dick, 2007; LaRue et al., 2005). Additional measures such as reminding patrons to turn faucets off completely, repairing drips and leaks, and shutting down water supplies outside of operating hours can go a long way toward conservation and cost reduction (LaRue et al., 2005).

**ENHANCED INDOOR ENVIRONMENT**

The purpose of a building is not only to provide shelter for its occupants, but also to provide an environment conducive to high performance of all intended occupant activities (Kessenides, 2005). Recent studies reveal that buildings with good overall environmental quality can reduce the rate of respiratory disease, allergy, asthma, sick building symptoms, and enhance worker performance. High-efficiency in-duct filtration systems and heating and cooling systems that ensure adequate ventilation can have a dramatic and positive impact on indoor air quality (Fisk & Rosenfeld, 1998).

Poor indoor air quality can be caused by the off-gassing of chemicals found in many building materials as well as mold and mildew that build up in poorly designed and maintained heating and cooling systems. Selection of
appropriate microbial resistant materials can prevent this indoor microbial contamination. Effective drainage from the roof and surrounding landscape, installing adequate ventilation in bathrooms, allowing for proper drainage of air-conditioning coils, and designing building systems to control humidity can also work to improve indoor conditions.

Choosing construction materials and interior finish products with zero or low emissions improve indoor air quality (Dick, 2007). One of the most common interior pollutants is formaldehyde, a suspected human carcinogen. Cabinetry, shelving, and furniture are all typically made from particleboard held together by formaldehyde-based adhesives. The formaldehyde is released into the facility for years after these products have been installed. Many building materials and cleaning/maintenance products emit toxic gases, such as volatile organic compounds (VOC) and formaldehyde. The “new building smell” is actually the odor of these VOC’s off-gassing, and is a sign that there are harmful chemicals in the indoor environment detrimentally impacting occupant health and productivity (Loftness et al., 2007). The building products industry has responded to these indoor pollution problems by developing alternative paint, finish, and adhesive products. For example, solvent-free adhesives used in flooring can eliminate many of the suspected and known human carcinogens. Paints, varnishes, and cleaners that do not contain volatile compounds are now commonly available from most major manufacturers at costs comparable to conventional products (Dick, 2007).

Additional measures specific to new construction and major facility upgrades are: investigate the use of separate outside-air and conditioned-air distribution systems; ensure fresh air intakes are located away from loading areas, exhaust fans, and other contamination points; ensure parking lot and garage usage cannot generate pollutants that affect fresh air intake; investigate the use of a permanent air quality monitoring system to ensure acceptable levels of carbon dioxide (CO2) for an indoor office environment are maintained continuously; and replace filters on a periodic basis (Loftness et al., 2007).

AUTOMATION OF BUILDING SYSTEMS

Five areas of emphasis exist to attain a Leadership in Energy and Environmental Design (LEED) certification, a benchmark for green construction created by the U.S. Green Building Council; however, two of these areas, Energy and Atmosphere and Indoor Air Quality, are heavily influenced by controls and hold more potential for cost savings due to automation than the other sections (Dorsey, 2006). In the pre-green period of commercial and institutional facility design, the building envelope drove decisions regarding lighting, temperature, and ventilation. In today’s climate, “zoning” has become a key word. Zoning is defined as grouping areas of like use for to enhance comfort and cost-effectiveness (Dorsey, 2006). Green buildings take these comfort factors to the next level, demanding more personal control of systems. Such measures not only lead to greater comfort and more productivity, they also tend to use energy more efficiently and create an improved indoor air quality (LaRue et al., 2005).

Some of the automated control systems that can be incorporated into a green facility energy management plan are: Programmed Start-Stop, which allows the facility operator to schedule starting and stopping of equipment according to occupancy; Energy Monitoring, which is the systematic collection of data in order to analyze and make improvements to energy consumption; Duty Cycling, is the utilization of software that starts and stops equipment cycles; Optimized Start-Stop, which works to calculate the best times to start and stop facility pre-heating or pre-cooling; Optimized Ventilation, is software designed to maximize usage of blended air; Supply Water Temperature Optimization, which regulates chilled water and hot water supply temperatures; and Temperature Setback-Setup, which allows for controls to modify building temperatures according to scheduled time periods (LaRue et al., 2005).
POTENTIAL COST AND SAVINGS

Initial costs of green buildings vary significantly depending on the specific project goals. While there are many significant benefits requiring no additional cost (e.g. south facing windows), some features will cost more in both design and materials. Some aspects of design have little or no initial investment, including site orientation and window and overhang placement. Other sustainable systems that may cost more in the design phase, such as an insulated shell, can be offset by the reduced cost of a downsized mechanical system. This concept is known as “right sizing” of infrastructure and mechanical systems. Sustainable buildings can be assessed as cost-effective through the life-cycle cost method, a way of assessing total building cost over time. It consists of initial design and construction costs; energy, water and sewage, waste, recycling, and other utilities operating costs; maintenance, repair, and replacement costs; and other environmental or social benefits (impacts on transportation, solid waste, water, energy, infrastructure, worker productivity, outdoor air emissions, etc.) (Dick, 2007).

Green construction can be a beneficial collaboration between those looking for funding and those agencies willing to provide it. Grants, programs, and partnerships exist through federal, state, and local entities to assist and encourage green construction. When environmental criteria are met, support is offered from the Department of Commerce, the Department of Defense, the Department of Energy, the Environmental Protection Agency, the Office of Energy Efficiency and Renewable Energy (EERE), the Federal Energy Management Program, and the Federal Network for Sustainability, and the General Services Administration (Dick, 2007). Numerous state and local sustainable building programs exist as well, fostering green development within their communities. The Database of State Incentives for Renewable Energy (DSIRE) is an example of one state level resource. There are also a large number of local-based incentives, as well as several foundations dedicated to green construction funding (Suttell, 2006). Some of these incentives include: decreased inspection fees, free counsel and design assistance, expedited permit review, developer tax waivers, and subsidized training in green building practices (Dick, 2007).

Deciding how much to green a facility will ultimately depend on company values, as well as time and budgetary limitations (Suttell, 2006). As in all planning and design approaches, a methodical analysis must be conducted prior to construction. First, you must establish a vision that embraces sustainable principles and an integrated design approach. The vision should include a clear statement of the project’s goals, design criteria, and priorities. From the vision, a project budget that covers green building measures while allocating contingencies for additional research and analysis of specific options must be developed. Selecting a design and construction team that is committed to the project vision is paramount and facilitates the successful creation of an environmentally sound, sustainable structure.

Greening a facility as a whole rather than piecemeal will render the project much more practical and cost-effective (Suttell, 2006). Savings can only be fully realized when methods are incorporated at the project’s conceptual design phase with the assistance of an integrated team of professionals. Currently, major architectural players in sport and recreation facility design are dedicating staff committed to the new design approach of the sustainability movement. This integrated systems approach ensures the building is designed as one system rather than a collection of stand-alone systems (LaRue et al., 2005). Utilizing the holistic approach emphasizes the philosophy that all building systems are interdependent, and that these systems can either adversely or favorably impact their surroundings (Monroe, Madsem, Garris, Suttell, Gesener, & Easton, 2004).

At times, the Request for Quote/Request for Proposal (RFQ/RFP) selection process may need to be modified to make certain contractors have appropriate qualifications to identify, select, and implement an integrated system of green building measures (Dick, 2007). Ensure that the project schedule allows for systems testing and commissioning—a process to ensure buildings are designed to meet the needs of their users, and are
built, operated and maintained as originally intended (Dick, 2007). Within the contract plans and specifications, ensure that the building design is at a suitable level of building performance. Last but not least, create effective incentives and oversight of the project to ensure its success.

GREEN FACILITY RATING SYSTEMS

Green facility designers exceed federal, state, and local building codes to improve overall building performance (Gowri, 2004). Currently, there are more than 80 different green building organizations and at least three different national groups promoting what constitutes a green building. The three systems that have emerged to bring about standardization within the green movement are: Building Research Establishment Environmental Assessment Method (BREEAM), The Green Building Challenge, and Leadership in Energy and Environmental Design (LEED) (Gowri, 2004).

BREEAM is the earliest building rating system for environmental performance assessment. This standard was developed by the British Research Establishment (BRE) in 1990. Since that time, BREEAM has evolved from a design checklist to a comprehensive assessment tool to be used in various stages of a building’s life cycle (Gowri, 2004). The Green Building Challenge is a collaborative of more than 20 countries committed to developing a global standard for environmental assessment. The first draft of the assessment framework was completed in 1998 and a spreadsheet tool—GBTool—was developed for participating countries to adapt the framework by incorporating the regional energy and environmental priorities (Gowri, 2004).

Perhaps the best-known group in green construction is the U.S. Green Building Council (USGBC), a non-profit group that developed the LEED point rating system for commercial projects. Many consider the LEED certification as the national benchmark for green construction. The success of LEED has created demands for adapting the rating system for existing buildings, commercial interiors, and residential buildings. LEED has also been adopted by federal agencies, states, and local jurisdictions in the U.S. and Canada mandated to implement green building programs (Gowri, 2004; Yost, 2002).

IMPLEMENTING GREEN PRACTICES IN EXISTING FACILITIES

Green conversion is substantially different in older buildings as compared new construction. Facility managers have much less opportunity to change most envelope components in existing buildings. Reducing outside air infiltration into the building by improving building envelope tightness is usually quite feasible. During re-roofing, extra insulation can typically be added with little difficulty. During re-roofing, extra insulation can typically be added with little difficulty. Windows can be upgraded during more significant building improvements and renovations (Loftness et al., 2007).

Savings can also be achieved incrementally through the modification or replacement of many of the building’s systems. Installing more efficient chiller systems, packing walls with better insulation, affixing reflective window film to reduce heating from the sun, introducing more efficient lighting, and equipping the building with occupancy sensors are all examples of incorporating sustainable practices into existing facilities (del Monte, 2006). High-efficiency lighting systems with advanced lighting controls, motion sensors tied to dimmable lighting controls, and task lighting reduce energy utilization. The installation of screw-in compact fluorescent lamps, hardwired fluorescent fixtures, high-intensity discharge (HID) fixtures for exterior lighting, LED Signs, high-efficiency exit signs, and the use of T-8 or T-5 lamps with electronic ballasts are all easily incorporated measures (Loftness et al., 2007).

MAINTAINING GREEN FACILITIES

Good operating and maintenance procedures can strengthen a well-planned green construction or renovation project. Effective maintenance is necessary for a sustainable-built environment to ensure equipment operates
more efficiently and continues to consume less energy (LaRue et al., 2005). While maintenance personnel were once focused solely on basic upkeep, today’s professional needs to be well-versed in a number of environmentally friendly techniques and materials. They must be up-to-date on the latest energy issues, toxic materials, storm water drainage methods, and the best ways to operate modern heating, ventilating, and air-conditioning systems. Finding facility managers who are familiar with green buildings can be challenging as well (Rossenfeld, 2004).

Over time, building performance can be assured through the measurement, adjustment, and upgrading processes (Dick, 2007). Aside from the financial and environmental benefits, facility managers contend most green building systems do not require an excessive amount of upkeep. A preventive maintenance schedule can be put in place with little effort and minimal expense (Rossenfeld, 2004).

SUMMARY

Every project can have sustainable aspects regardless of the budget. With construction costs almost parallel with conventional building techniques and the promise of reduced life-cycle costs, green buildings represent not only a socially responsible choice, but a smart fiscal decision (Dorsey, 2006). Improved energy usage and occupant productivity are other tremendous reasons to invest in the green movement. It is important to explore environmentally and economically feasible design and development techniques in order to create structures that are sustainable, healthy, and functional (Kessenides, 2005). Facility personnel who commit to becoming more informed can play a significant role in designing, constructing, and operating the green design facilities of the future.

REFERENCES


APPENDIX 1

LINKS RELATED TO GREEN DESIGN AND SUSTAINABILITY

www.managinggreen.com
www.whygreenbuildings.com
www.dgs.state.pa.us/dgs/cwp/view.asp?a=3&q=118184
www.seco.cpa.state.tx.us/re_sustain_info.htm
ciwmb.ca.gov
www.greenbuilding.com
www.usgbc.org
www.buildinggreen.com
www.epa.gov/greenbuilding
www.greenbuildingservices.com
www.letsgreenthiscity.com
www.oikos.com
www.sbicouncil.org
The SMART Journal
Part 2 of the Double Issue
INTRODUCTION

Should athletes with diagnosed medical disorders or physical abnormalities that threaten their health and life be permitted to play sports? This question has been asked by many athletes and sport sponsoring organizations at different levels of competition (Bishop, 2004; Downey, 1990; Gorman, 2001; Hatch, 2004; Thomsen, 2003). The very public deaths of Hank Gathers and Reggie Lewis (in 1990 and 1993, respectively) on the basketball court forced college institutions to consider preventing student-athletes with physical abnormalities (such as heart disorders, one eye, one kidney, etc.) from participating in college athletics. NBA star Reggie Lewis’s death led to a legal dispute between the Boston Celtics, the Lewis family, doctors, insurance companies, and fans revolving around his right to participate in athletic competition despite a physical abnormality that exposed him to risk of injury or death. Athletic administrators fear potential legal liability for resulting injury if they allow an athlete with physical abnormalities to play a sport, especially if allowed contrary to team physician recommendations.

College athletes with physical abnormalities who have been denied participation in athletics have challenged the program’s right to restrict their participation and have brought action under the Rehabilitation Act of 1973 since this act applies to recipients of federal funds. Student-athletes claim that, having met the definition of disabled under the law (having a physical or mental impairment that substantially limits one or more of the major life activities), their participation cannot be restricted because athletic participation constitutes learning, a major life activity. Therefore, the university violated the Rehabilitation Act by imposing a substantial limitation on a major life activity (Zumpano, 2002).

Claims may be brought under the Americans with Disabilities Act of 1990 (ADA) if the claimant can prove that the defendant (in this case the sport sponsoring organization) is covered under Title III (public entity or place of public accommodations). In other words, if the athlete seeks to participate in an amateur athletic event sponsored by an institution that does not receive federal funds (i.e., Little League Baseball, Pop Warner Football, etc.) then the challenge would be made under the ADA.

The purpose of this paper is to inform athletic administrators and sport managers of the issues surrounding claims of discrimination by student-athletes suffering from a physical abnormality that precludes them from competition. It is hoped that this understanding will promote diversity in sport and recreation and will allow athletes with disabilities a fair chance to compete by reviewing cases on an individualized basis. The legal implications of a decision to bar a student-athlete with a disability from participation in intercollegiate athletics include potentially expensive, time-consuming, and embarrassing claims of discrimination being filed against sport sponsoring institutions. A complete understanding of the criteria necessary to consider before making the decision and the implications of such a decision are important points for the athletic administrator to understand.
FEDERAL LEGISLATION

REHABILITATION ACT OF 1973

The passage of the Rehabilitation Act in 1973 (29 U.S.C. 701) marked the first time that Congress recognized people with disabilities as a legitimate minority group deserving protection from discriminatory practices in employment, education, and access to buildings and programs. The Act protects people with disabilities from being excluded, solely by reason of their disability, from participation in any program or activity that receives federal financial assistance, and provides opportunities for people with disabilities to join mainstream society.

To prevail under the Rehabilitation Act, an individual must prove that (a) he or she is disabled; (b) he or she is otherwise qualified for the position or services sought; (c) he or she has been excluded from the position solely because of the disability; and (d) the position exists as part of a program or activity receiving federal financial assistance. The Rehabilitation Act and its regulations provide many of the concepts and definitions that were later adopted into the Americans with Disabilities Act.

AMERICANS WITH DISABILITIES ACT OF 1990

The Americans with Disabilities Act (42 U.S.C. 12101) was designed to increase the opportunities available to Americans with disabilities so that they may participate more fully in the activities of everyday life. The Americans with Disabilities Act (ADA) broadened the scope of the Rehabilitation Act by extending the rights of the disabled against discrimination by the private sector. Qualified people with disabilities were given legally enforceable rights that provided for equal opportunities, full participation, independent living, and economic self-sufficiency in the public and private sector.

These federal disability laws have a major impact on sports by balancing the responsibility of the sponsoring institutions to enforce safety and eligibility rules against the rights of the individual to participate in athletics (Weston, 2005).

DEFINITIONAL TERMS

For an understanding of federal legislation affecting the issue of sport as a major life activity, key definitional terms must be presented.

DISABILITY

The ADA defines a disabled individual as one whom (a) has a physical or mental impairment that substantially limits one or more of the major life activities; (b) has a record of such impairment; or (c) is regarded as having such an impairment (Americans with Disabilities Act, 1990). Possessing a physical disability under one of these definitions, however, does not automatically qualify someone as disabled under the ADA. The disability must limit a major life activity to be considered a disabling condition. Also, importantly, minor conditions and temporary impairments, such as broken limbs and sprains, are not considered disabilities (Americans with Disabilities Act, 1990).

MAJOR LIFE ACTIVITY

Determining whether or not an individual qualifies as a person with a disability under the ADA is a three-step process. The Supreme Court defined the process in Bragdon v. Abbott (1998). First, an individual must have a physical or mental impairment. Secondly, the individual must identify the major life activity in which he or she experiences a limitation. Third, the individual must show that the impairment substantially limits the ability to perform a major life activity.
The ADA does not define the term “major life activity.” The relevant definition appears in the ADA Regulations and defines major life activity as functions “such as caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working” (ADA Regulations, 45 C.F.R. 843 (j)(2)(i) (1985)). The list is not exhaustive and applies to activities which the general population can perform with little or no difficulty. According to the ADA Employment Provisions (1996) other major life activities include, but are not limited to, sitting, standing, lifting, and reaching. Since courts have no clear standards to guide them on what constitutes a major life activity, their decisions are often confusing and contradictory (Edmonds, 2002). Athletic administrators should be careful to assess each case on an individualized basis, as courts may view similar claims differently. This paper will examine two leading cases in this area, specifically as major life activity status applies to intercollegiate athletics.

QUALIFIED INDIVIDUAL WITH A DISABILITY

The ADA, unlike the Rehabilitation Act, defines “qualified individual with a disability” as:

[A]n individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provisions of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity. (42 U.S.C. 12131(2))

In other words, a disabled individual is otherwise qualified if reasonable accommodations enable the individual to meet the essential requirements of the program.

In determining whether someone is a qualified individual with a disability, the risk of injury may be a decisive issue (Zumpano, 2002). In *School Board of Nassau County, Florida. v. Arline* (1987), the Supreme Court ruled that the Rehabilitation Act does not prohibit disparate treatment of the handicapped if necessary to avoid exposing others to significant health and safety risks. In *Arline* (1987), the court held that the decision to exclude an individual from participating in a particular program or activity must be based on reasonable medical judgment. The nature, duration, probability, and severity of the risk from participation, and whether they can be effectively reduced by reasonable accommodation, are factors to consider if someone is otherwise qualified (Mitten, 1998).

REASONABLE ACCOMMODATION

Once a court finds that a plaintiff is disabled under the Rehabilitation Act or the ADA, it must be determined whether a reasonable accommodation or modification would enable him or her to become otherwise qualified. While the ADA does not specifically define reasonable accommodation, it does give examples. Reasonable accommodation may include (a) making existing facilities readily accessible to and usable by individuals with disabilities, (b) job restructuring, (c) reassigning an employee to a vacant position, and (d) modifying qualifying exams (Americans with Disabilities Act, 1990). An unreasonable accommodation would be one that imposes undue financial burdens or fundamentally alters the nature of the privilege or program.

If eligibility rules can be modified without sacrificing the integrity of the game, and can be considered a reasonable accommodation, then the rules of eligibility should not exclude the competitor unless necessary (Barnes, 2001). What is necessary is decided only in an individual basis. To meet the requirement of a reasonable accommodation, the ADA requires that auxiliary aids and services be provided to a qualified person with a disability, as long as the aids are neither a fundamental change to the activity nor an undue burden (Americans with Disabilities Act, 1990). Many examples of these types of reasonable accommodations appear in competitive sport. Blind runners run with sighted runners who describe the running path (United States Association of Blind Athletes, n.d.). Blind golfers are given oral instructions by sighted assistants (USGA,
Deaf and hearing-impaired football players receive plays signaled by hand. Major League Baseball granted a one-handed pitcher an exception from the “motionless” rule and allowed him to adjust his grip on the ball behind his back (Bernotas, 1995). Another notable occurrence was the PGA being required to allow Casey Martin to ride in a golf cart during competition (PGA Tour, Inc. v. Martin, 2001).

Athletic administrators should make the decision as to whether an individual is otherwise qualified for a particular position in employment or to participate in a program on a case-by-case basis so that the accommodation can be tailored to the needs of the disabled individual. For example, in PGA Tour, Inc. v. Martin (2001) and in Olinger v. United States Golf Association (2000) two claimants with degenerative disorders that precluded them from walking long distances filed suit against the golf sanctioning bodies seeking to use a golf cart during tournament play. The outcomes of the cases were different. In Martin’s case, the Supreme Court ruled that use of a golf cart was a reasonable accommodation that provided no competitive advantage (PGA Tour, Inc. v. Martin, 2001). In Olinger (2000), the appellate court ruled that using a golf cart served as an unreasonable accommodation as it would have a direct impact on the other tasks involving golf competition, such as fatigue and stress (Olinger v. United States Golf Association, 2000).

Reasonable accommodations do not detract from the event itself, but instead allow qualified individuals with a disability access to programming and facilities otherwise off limits to them. To some critics these exceptions may seem arbitrary and possibly open the door to other outrageous accommodations for the athlete with disability. The ideas that basketball goals may be lowered for athletes with a height impairment, that fins may be allowed for swimmers born without legs, that two bounces may be allowed in tennis for people with mobility disorders, or that the distance between bases may be reduced for baseball players with heart ailments are not likely. These alterations can and do upset the fundamental nature of the competition, and may even give the disabled athlete an advantage in play. Therefore, they are not likely to be allowed in competitive sport. Only accommodations that do not undermine the essence of the athletic competition are likely to be permitted (Stone, 2005). Athletic administrators should keep this in mind when considering the rules modifications that allow athletes with disabilities equal access to programs.

INTERCOLLEGIATE ATHLETICS

The role that intercollegiate athletics plays in a student-athlete’s overall development cannot be overlooked. The relationship between athletic participation and academic performance is a much-researched topic in sport sociology. Research shows that high school athletes tend to have a slightly higher GPA than non-athletes (Eitzen & Sage, 1993; Snyder & Sprietzer, 1989). They also tend to develop aspirations for continuing education beyond high school (Snyder & Sprietzer, 1989). Participation in intercollegiate athletics helps student-athletes to maximize their learning and career potential while developing a successful career path in or out of professional sports. Athletics and education are sufficiently intertwined such that they constitute a major life activity for many student-athletes playing interscholastic or intercollegiate sports (Mitten, 1998).

CASE LAW

The two cases from the area of intercollegiate athletics to be explored under the issue of allowing athletes with physical abnormalities to participate in sport competition are Pahulu v. University of Kansas (1995) and Knapp v. Northwestern University (1996).

In Pahulu v. University of Kansas (1995) the public university’s decision to prohibit a football player from playing college football after being medically disqualified by the team physician was upheld in court. After experiencing transient quadriplegia following performing a tackle, the team physician, with consultation from a
A neurosurgeon determined that Pahulu was at an extremely high risk of suffering irreparable harm, including permanent quadriplegia, if he continued playing college football. The university agreed to honor his scholarship, but prohibited him from playing football. After consulting other medical specialists who concluded that he was at no greater risk of permanent paralysis than any other player, Pahulu wanted to continue playing college football. Pahulu filed a Rehabilitation Act claim contending that he was being barred from participating in a major life activity. That is, his ability to learn was adversely affected by his exclusion from playing football.

The court first considered the plaintiff’s claim that he had a physical impairment that limited a major life activity. The court recognized his narrow cervical canal as a physical impairment that limited his major life activity of learning through participation in intercollegiate football. However, since the university honored his athletic scholarship, allowing him continued access to all academic services, the court ruled that his exclusion from football did not substantially limit his opportunity to learn. Therefore, the court held that he was not disabled under the Rehabilitation Act.

Additionally, the court held that the student was not “otherwise qualified” because he could not satisfy all of the football program’s requirements in spite of his disability, namely, medical clearance from the team physician to play football. In *School Board of Nassau Co., Fla. v. Arline* (1987) the Supreme Court held that to determine whether an individual is otherwise qualified, one’s condition should be evaluated in light of medical evidence, and the decision should be based on reasonable medical judgments. In *Pahulu*, the court found that the team physician’s “conservative” medical opinion was “reasonable and rational” and “supported by substantial competent evidence” for which it was “unwilling to substitute its judgment” (*Pahulu v. University of Kansas*, 1995, p. 480).

Another leading case concerning the issue of intercollegiate athletics as a major life activity is *Knapp v. Northwestern University* (1996). As a high school senior, Nicholas Knapp suffered sudden cardiac arrest during a recreational basketball game and required CPR and defibrillation to restart his heart. Knapp had an internal cardioverter defibrillator implanted in his abdomen to regulate his heart rate. He continued to play recreational basketball for two years without incident, and received medical clearance from three cardiologists to play college basketball. Northwestern University agreed to honor its scholarship with Knapp, but on the advice of its team physician, adhered to a medical disqualification from intercollegiate basketball based on the conclusion that Knapp exposed himself to significant risk of ventricular fibrillation or cardiac arrest during competition.

Knapp sued the university on the basis that he was disabled under the Rehabilitation Act, and that its refusal to allow him to play basketball substantially limited a major life activity. For Knapp, intercollegiate basketball was a major life activity because it was an important aspect of his educational and learning experience. The lower court held that Knapp was disabled under the Rehabilitation Act because of his physical impairment. Medical experts disagreed on whether the risk of injury to Knapp was substantial enough to justify his exclusion from intercollegiate basketball. After hearing expert medical testimony, the court held that Knapp’s risk of injury was not medically substantial and that his heartbeat could be restored to normal by the implanted defibrillator. Since Northwestern disallowed Knapp from practicing with the team and competing in games, the trial court held that Northwestern’s refusal to allow Knapp to play substantially limited his ability to learn through playing college basketball.

However, on appeal, the Circuit Court reversed and remanded the case stating that Knapp’s condition could not be considered a disability under the Rehabilitation Act. Although medically ineligible, Knapp did not meet the legal definition of disabled because he was not substantially limited in a major life activity (i.e., learning). Northwestern’s decision to deny Knapp the opportunity to play did not deprive him of a major life activity; rather it protected him from a risk of death (Hekmat, 2002). The court ruled that learning was the affected major life activity, not basketball play, consistent with *Pahulu* (1995), and the court held that Knapp was not disabled because playing intercollegiate basketball is not considered a major life activity. Learning was “only one part of the education available to Knapp at Northwestern” (*Knapp v. Northwestern University*, 1996, p. 480), and did not limit his ability to learn.
Not everyone values athletics in the same way as walking, breathing, and speaking. Preventing someone from playing intercollegiate basketball does not mean that he or she has not learned. The appellate court, thus, applied an objective, rather than subjective, standard as to whether sport participation is critical to one's learning by considering the weight that the average person puts on competitive athletics, not just how the individual considers athletic competition.

The court held that a university may establish legitimate physical qualifications (i.e. pre-season physicals, consent waivers) for an individual to satisfy in order to participate in its athletic program (Mitten, 1998). In Knapp, rather than challenge the rationale of the university's expert medical opinions, the court re-framed the issue as a question of who should make this assessment. The court ruled that if the university has reviewed the medical evidence with "reason and rationality and with full regard to reasonable accommodations", then "the university has the right to determine that an individual is not otherwise medically qualified to play without violating the Rehabilitation Act" (Knapp v. Northwestern University, 1996, p. 480).

DISCUSSION

The previous cases demonstrate that courts realize the value of athletics in many students' educational experiences, but that playing intercollegiate sport is not in and of itself a major life activity. The courts applied a balancing test that considered the athlete's interest in sport participation with the institution's interest in protecting the health and safety of the participants. Playing intercollegiate sports did not pose a direct threat to other competitors, team personnel, or spectators, however, it did pose a direct threat to the athletes' own individual health and safety. Neither the Rehabilitation Act nor the Americans with Disabilities Act addressed the question of whether harm to oneself should preclude an otherwise qualified individual from access to programming or employment. Drawing on the reasoning applied in Arline (1987), the courts in Pahulu (1995) and Knapp (1996) held that the severity of the potential injury was high—paraplegia or death—and therefore the student-athletes were not otherwise qualified to participate because they did not receive medical clearance to play.

In a more recent ruling, the Supreme Court clarified the “direct threat” defense in Chevron v. Echazabal (2002), ruling that a disability that endangers an employee's own health is not extended coverage under the ADA. This allowed employers to impose a requirement that prohibited individuals with disabilities from working if their disability posed a direct threat to themselves, regardless of the threat posed to other individuals in the workplace. The ADA defined direct threat as significant risk to the health or safety of others which cannot be eliminated by reasonable accommodation (Americans with Disabilities Act, 1990). With this ruling, the employee's safety supercedes the employee's right to work. Applying this Supreme Court reasoning to the Pahulu (1995) and Knapp (1996) courts, both courts made the correct ruling in protecting the student-athletes from a self-imposed threat. This case from the employment context is likely to be applied to other similarly-situated athletes in the future (Walker, 2005).

While administrators should be aware of the direct threat defense, they should also be aware of the three tests to use when analyzing whether intercollegiate athletics should be considered a major life activity (Zumpano, 2002). When balancing the institution's interest against the student-athlete's overall experience, the courts use “an objective test as to the average person” (p. 7), which allows courts to prevent athletics from being classified as a major life activity for everyone. The objective test as to the average person, used in Pahulu and Knapp, is the more practical approach, weighing the costs associated with reasonably accommodating the student-athlete while considering that the average person does not typically value competition as much as the individual student-athlete bringing the suit (Zumpano, 2000). Zumpano (2002) also described a more subjective test that focuses on an individual's feelings towards the role of athletics, called “the objective standard as to the individual” (p. 7). This test is not used because it would allow any activity to be ruled a major life activity just because the person said so. The objective test to the individual acknowledges that athletics may be a major life
activity for some individuals. Courts must measure the importance of athletics for the individual student-athlete on an individualized basis. Here, the focus is on the athlete and the individual’s interests take priority.

Athletic administrators faced with making decisions regarding the participation of an athlete with a physical abnormality should be careful when only considering the weight that sport participation holds in the athlete’s life. For instance, just because a large part of the athlete’s identity is tied to athletics, and that removing this part of his/her identity interferes with him/her in such a way that it interferes with learning, does not mean that it legally qualifies as a major life activity. The administrators should consider the weight athletic participation holds for the average person, not just the individual. In Toyota Motor Manufacturing v. Williams (2002), the Supreme Court ruled unanimously that major life activities are basic tasks “central to daily life,” not just tasks of a particular job. Thus the Knapp decision was supported by the Supreme Court ruling that playing a particular sport is not a major life activity covered by the ADA.

The key issue to arise from the Knapp case was “Who should decide whether to allow a physically impaired athlete to participate in athletics?” Does the decision belong to the sponsoring institution, the team physician, the athlete’s physician, the athlete’s family (if a minor), or, ultimately, the student-athlete? The question of allowing athletes with physical abnormalities to play raises issues of free will, medical ethics, and legal liability. Kranhold & Helliker (2006) asked “What’s the difference between competing with a heart defect and pursuing risky adventures like climbing Mount Everest?” (p. 1). Should medical professionals, including athletic trainers, instruct consenting adults not to play sports? Should athletes in pursuit of a professional career and following their passion to play sports be allowed to make that decision? Should the institution impose its jurisdiction on an athlete’s personal decision, even with liability waived? As long as the decision to prohibit athletic participation is based on sound medical judgment and not based on fear or paternalistic good intentions, the institution’s decision will be supported in court (Weston, 2005).

Mitten (1998) described three models of decision-making regarding the issue of medical assessment that have been adopted by the courts. In Knapp, the court used the judicial/medical fact-finding model to settle conflicting medical testimony regarding the question of whether the student-athlete’s condition created a risk of substantial injury while participating in the sport. In this model the court that determines if there is a legitimate basis for medically disqualifying someone from practice or competition. The athlete informed consent model allows the athlete to decide to participate if given clearance by a medical authority. The athlete, however, must waive any potential legal claims against the educational institution or event sponsor for any injury occurring as a result of the physical impairment. Finally, the team physician model allows the educational institution to exclude an athlete if medically disqualified by the team physician. This model places legitimate health and safety concerns above an athlete’s personal independence, but may lead to conflicts of interest for the team physician.

In both court cases, the courts failed to address whether the university can reasonably accommodate the student-athletes. Assuming that a reasonable accommodation can be made, they did not address the individual costs in accommodating the athletes. A reasonable accommodation is one that does not fundamentally alter the nature of the program or create an undue financial burden for the institution. Zumpano (2002) provided the examples of purchasing emergency equipment specific to the disorder, the presence of emergency personnel at practices and competitions, and alterations in conducting team practices as possible reasonable accommodations. The student-athletes may argue that these added costs are minimal and standard auxiliary aids and that the alteration of practice for a person with a heart defect is no different than altering practice for a person with a minor sprain. Administrators, however, may argue that these aids and alterations may create an undue financial burden on the institution, and thus be unreasonable. Again, this requires a case-by-case evaluation.
Finally, both the Pahulu and Knapp cases occurred prior to three landmark Supreme Court rulings: Sutton v. United Air Lines, Inc. (1999), Murphy v. United Parcel Service, Inc. (1999), and Albertson’s Inc. v. Kirkingburg (1999), commonly referred to as the Sutton trilogy. The central holding of the Sutton trilogy is that determinations of whether a person is disabled should be made with “reference to measures that mitigate the individual’s impairment” (Sutton v. United Air Lines, Inc, 1999, p. 475). Such “mitigating measures” may include eyeglasses, artificial limbs, medication, and a heart defibrillator, among others. Thus, considering the mitigating measure of a defibrillator that regulates an athlete’s heartbeat, making a case for the individual as being disabled becomes more difficult. Today, under the Sutton trilogy, athletes like Knapp may not meet the legal definition of disabled simply because their defibrillator regulates their heart rate such that they can no longer be considered as having a physical impairment.

CONCLUSIONS

The Rehabilitation Act and the Americans with Disabilities Act apply to individuals who have been unjustly treated because of a disabling condition. Their purpose is to integrate individuals with disabilities into society and allow them fair and equal treatment in all aspects of society. The purpose of this paper was to provide athletic administrators (specifically in intercollegiate athletics) with a basic understanding of the issues regarding the question of sport participation for individuals experiencing physical abnormalities. Legal terms and two leading cases regarding the issue were presented. Although in the two cases presented the claimants did not win their battle to be reinstated to intercollegiate athletic competition, future suits may have very different outcomes, as each case’s merits is evaluated individually, as discussed in the following paragraphs.

It is difficult to deny that athletic participation provides an avenue for learning in a variety of unique ways. Many virtues can be learned through athletics that may not be so easily attained in other parts of society. Thus, in utilizing the objective test as to the individual, as described by Zumpano (2002), courts acknowledge that intercollegiate athletics may be a major life activity for some student-athletes. Since neither the Rehabilitation Act, the ADA, nor other federal guideline provides an exhaustive list of major life activities, each court is left to determine what constitutes a major life activity on a case-by-case basis. One essential point courts consider in their ruling is “significance” (Edmonds, 2002), therefore, one could argue that athletics significantly contributes to an individual’s social, emotional, and educational growth. A case-by-case analysis leaves the door open for courts to rule in favor of the claimant.

In Knapp (1996), the court favored the judicial/medical fact-finding model to settle conflicting medical evidence regarding the student-athlete’s overall risk of injury. It could have ruled that the claimant’s medical evidence favoring participation outweighed the university’s medical evidence for excluding the student-athlete. The court in Olinger v. USGA (2000), after hearing medical testimony from both sides, accepted the USGA medical expert’s testimony while citing an insufficient show of reliability to scientific principles from Olinger’s medical expert (Waterstone, 2000). Administrators who bar a disabled student-athlete from competition should base their decision on reasonable medical judgment, and not out of a paternalistic fear of injury or death.

What does all this mean for the athletic administrator faced with a student-athlete with a disabling, and possibly life-threatening, condition who wants to compete in intercollegiate athletics? First, the administrator should be well-versed in the criteria necessary to be considered disabled under either the Rehabilitation Act or the ADA.

Second, the student-athlete’s own interests should be considered against the interests of the institution. If the athlete places a significant amount of weight on athletics as a learning tool, and the institution can reasonably accommodate the individual, then perhaps this objective approach as to the individual that promotes diversity in the athletic setting is the best choice for all. However, courts applying the balancing test may reach divergent conclusions when comparing the significance of sport participation to the athlete versus the interests of the institution.
Third, the student-athlete’s risk to self and to others should also be considered, compliant with the *Chevron* (2002) court’s ruling. If harm to oneself is a factor, regardless of the threat of injury to others, then the institution may legally bar the athlete from participation. Also, if there is risk to the health and safety of others that cannot be eliminated by a reasonable accommodation, the athlete may be barred from participation.

Fourth, administrators who decide to bar a student-athlete with a disability or medical condition from competition should have substantial medical evidence to support their decision. After reviewing the medical evidence, if an organization decides to allow a disabled individual to participate in competition, then the athlete should be fully informed of the risks of playing in regard to his or her physical condition. The organization should also be sure to have a signed consent waiver to minimize potential legal liability.

Fifth, the purpose of eligibility requirements and rules of competition should be explained. When this is not enough, proof that accommodating the individual would fundamentally alter the nature of the program or cause an undue burden on the institution should be prepared. If modifications can be made to the rules or program in ways that otherwise protect an individual from harm to self or to others, then these should be considered.

Recreation league, intramural league, interscholastic and intercollegiate program administrators should consider the program’s expectations before barring an individual from competition. If the purpose of the competition is for leisure, improved fitness, or recreational activity, perhaps allowing a reasonable accommodation or a moderate rule of compliance is the best solution for all, as long as the athlete does not gain an unfair advantage. This solution serves to meet the interests of the disabled individual and provides fair and equitable treatment to all athletes.

Additionally, it should be noted that the courts in *Pahulu* (1995) and *Knapp* (1996) ruled that learning, not intercollegiate sports participation, was the affected major life activity. Thus, claims of discrimination are not necessarily limited to intercollegiate athletics. Administrators in high school and middle school sports, intramural competition, and even private sports leagues are susceptible to similar claims. Administrators should bring together specialists in athletic training, medicine, law, athletic administration, and disability education to develop and adopt a set of policies and procedures to deal with the disabled student-athlete that ensures each case will be reviewed on a case-by-case basis and that each athlete will receive full protection under federal disability law.

REFERENCES


Knapp v. Northwestern University, 101 F. 3d. 473 (7th Cir. 1996).


INTRODUCTION

One of the most important aspects of a faculty member’s reward and recognition system is securing tenure and promotion. Among the major criteria used to evaluate candidates for tenure and promotion, especially at research intensive universities, is the number of publications in refereed journals. For sport management faculty, an increased emphasis is often placed on the number of published manuscripts due to difficulty securing external funding. Acquiring external funds equivalent to other areas of specialization within the department (e.g., exercise science) and the university is often a struggle for sport management faculty. Thus, more publishing expectations are placed on some sport management faculty at more research-centered universities to compensate for a likely lacking of external funding. As this “publish or perish” mentality continues to be upheld in higher education, faculty members have pursued various strategies to increase their success rate of publishing in refereed journals. One strategy that has caught the attention of academicians is the growing number working in collaborative groups or teams (Creamer, 2005). After initial examination, this move toward collaborative endeavors appears to go against the traditional solitary nature in higher education. The solitary process is seen throughout graduate school, reinforced in the dissertation process, and continues into tenure track positions with classroom teaching and developing independent research lines (Bohen & Stiles, 1998). Also, the reward structure has primarily been based on individual effort. However, this trend is changing as the need to publish has contributed to the increase in collaboration as a prevalent phenomenon (Sever, 2005). Therefore, the purpose of this study was to examine single versus multiple authorship differences in sport management faculty research. Specifically, professional presentations and refereed journals from 2000-2005 were examined with the hope this study would serve as a foundation for future research.

COLLABORATION AND NEGOTIATED ORDER THEORY

Faculty collaboration is a joint endeavor which involves like goals, cooperative efforts, and outcomes in which collaborators can share the responsibilities, as well as the benefits (Austin & Baldwin, 1992). According to Creamer (2005), collaboration can take two forms. The first is known as a functionalist perspective where maximum efficiency is achieved by dividing labor. Essentially this form serves as a management directed approach where the “team” is actually serving more as a group. One clear leader is appointed who makes most of the decisions, jobs are distinct, and individual members complete their part of the work (Gomez, Kirkman, & Shapiro, 2000). The second form of collaboration is referred to as a collaborative approach which places more emphasis on theoretical insight and scholarship. This second form takes a true “team” approach where the collaborators are self directed. Leadership is shared, jobs are fluid and overlap, and members perform interdependent tasks. According to Daprano, Bruening, Pastore, Greenwell, Dixon, Jae Ko, Jordan, Lilienthal, & Turner (2005) “collaborative processes within a team context consist of dynamic, interwoven, and disciplined exchanges of knowledge and information, participative decision making, and co-created solutions to emerging problems” (p. 302). Both of these perspectives fit within the framework of negotiated order theory (Strauss, 1978). According to negotiated order theory, all group/team interactions and decisions are worked out and negotiated. Strauss defines negotiation as a method of working out issues by dealing with each other to get
those things done efficiently and effectively. Negotiation therefore becomes the framework of collaborating amongst members of a group/team. Austin and Baldwin (1992) utilized this theory in their description of collaborators working out the details of executing a shared project or activity.

Two major elements to negotiated order theory are the structural context and the negotiation context (Strauss, 1978). The structural context refers to the organizational and societal components that could shape and be shaped by negotiations. In terms of faculty collaboration, organizational components might be an institution's resources, emphasis on publishing, incentives and rewards, or time provided to publish. The negotiation context refers to the interactions that are constantly at work to (re)create social order. Some of the specific characteristics of these interactions are the number of negotiators, the experience of the negotiators, the balance of power exhibited by the negotiators, how often the negotiations are repeated, the number and complexity of the issues negotiated, and the clarity of the boundaries negotiated (Strauss, 1978). In his research, Strauss welcomes researchers to select from this list of characteristics that impact their context of study. Therefore, this study aims to investigate faculty collaboration from a “number of negotiators/collaborators” standpoint. An understanding of this initial characteristic will allow the researchers to grasp the context of collaboration in sport management and thus propel an investigation into other contextual negotiated aspects of faculty collaboration.

ADVANTAGES OF COLLABORATION

All groups/teams must work through various steps in the collaborative process, some of which are negotiated as mentioned previously. These include: choosing colleagues or team members, dividing the labor, establishing work guidelines, and terminating the collaboration (Austin & Baldwin, 1992). How these decisions are made impacts the possible advantages of the collaborative effort.

The advantages of collaboration in assisting with scholarly production have been frequently noted in the research. Some of the individual benefits are enhanced motivation, development of enhanced research skills by working with others, enhanced understanding of philosophical and cultural perspectives of fellow collaborators, and the total number of publications are increased by achieving more efficient research techniques (e.g., Crase & Rosato, 1992; Creamer, 2005; Daprano et al., 2005; Gelman & Gibelman, 1999; Sever, 2005). Another advantageous element to faculty collaboration is the process of expanding, strengthening, and reinforcing professional relationships. This can occur with fellow co-workers at the same institution or colleagues at other schools. Of note, Knoppers (1989) indicated that an individual's relationship with colleagues at his/her institution can impact the ability to produce scholarly research. Welsh and Bremser (2005) in studying accounting faculty, noted the likelihood of an article having multiple authors to occur where researchers were at the same institution, as they found 70% of authors at the same institution when they began a project. Conversely, collaborating with colleagues at different institutions can also expand possible networking opportunities.

Pursuing collaborative relationships early in ones career can have the advantage of developing into a mentoring relationship. Although there is a danger of conflict occurring between the mentor and mentee over power and order of authorship (especially in the dissertation process), the practice develops the negotiating skills vital to future collaboration. In fact, mentoring has been found in the literature to have a positive impact on career development in academia (Hodge, 1997; Kartje, 1996; Kram, 1985; Waldeck, Orrego, Plax, Kearney, 1997; Weaver & Chelladurai, 1999). The benefits of mentoring can enhance career progression in the areas of salaries, success, and power within an organization (Dreher & Ash, 1990; Weaver & Chelladurai, 1999).

Some of the team benefits to faculty collaboration include (1) creating an accepting forum where new ideas are formed, shared and questioned; (2) overall increased quality that produces more highly cited research; (3)
support and resources; and (4) increased accountability to complete the project (Bohen & Stiles, 1998; Daprano et al., 2005; Gelman & Gibelman, 1999; Sever, 2005; Wuchty, Jones, & Uzzi, 2007). These aspects enrich the overall research process as a whole as opposed to individually. However, both individual and team benefits are related. For instance, a typical collaborator experiences team benefits such as new ideas being shared, and additional support and resources from fellow collaborators. This promotes and instigates individual benefits of enhanced motivation and research skills and understanding of philosophical and cultural perspectives of fellow collaborators. All of this can then lead to the potential benefit of an increase in number of publications.

ETHICAL ISSUES

The questionable practices related to collaboration in assisting with scholarly production have also been frequently noted in the research. Based upon trends being seen in collaboration, these disadvantages often result in some ethical issues arising. Numerous articles have addressed some of these issues. The questions of credit, order of listing on a publication, amount of contribution, single versus multiple authored publications, establishment of guidelines, institutional reward and tenure systems, and power are being examined more closely as collaboration increases in higher education (Austin & Baldwin, 1992; Bohen & Stiles, 1998; Crase & Rosato 1992; Gelman & Gibelman, 1999). Some of these issues such as questions of credit, order of listing on a publication, and institutional reward systems have not been adequately addressed and lack needed guidelines. However, the field of economics has addressed the problems associated with order of listing. Over 80% of all manuscripts in this field follow a pattern of credit utilizing alphabetical order (Endersby, 1996). On a similar note, Crase and Rosato (1992) addressed the trend of multi-authored papers by suggesting more emphasis should be put on the quality of work instead of the quantity. Occasionally research results have been sliced up into their least publishable units to provide multiple publications when one would suffice. This term has been called “salami science” and is widely used in higher education (Gelman & Gibelman, 1999). Also, some papers have been slightly altered (different title and some different content) and sent for publication to different journals. Although some of these practices related to faculty collaboration are yet to be worked out, the overwhelming consensus is that the benefits are worthwhile and collaboration is here to stay.

COLLABORATION TRENDS IN HIGHER EDUCATION

Because the advantages of collaboration have been apparent, researchers have conducted studies on various collaborative efforts in their respective fields. The consensus is that multiple authorships are growing in almost all academic fields (e.g., Austin, 2001; Austin & Baldwin, 1992; Baldwin & Austin, 1995; Endersby, 1996; Gelman & Gibelman, 1999; Knoppers, 1989; Mendenhall & Higbee, 1992). This trend does not appear to be slowing especially with the omnipresent “publish or perish” mentality and resource crunch (Crase & Rosato, 1992; Sever, 2005). Gelman and Gibelman (1999) suggested the trend in collaboration may result from the increased pressure to publish. In fact, they studied the field of social work and determined there was a 50% increase in multiple authorships over a ten year span. They attributed this increase to a more complex and sophisticated research environment in the field of social work. Also, Crase and Rosato (1992) noted the importance of singular research productivity, but also indicated that as the body of knowledge in the field of physical education expanded, more collaboration would naturally occur. The researchers conducted a content analysis of several journals in the Health, Physical Education, Recreation, and Dance field. They determined that the Journal of Sport History had the highest percentage (94%) of single-authored articles while the Journal of Sports Medicine and Physical Fitness had the lowest at 11%. Their study revealed the more scientifically oriented journals in the field (Journal of Sport and Exercise Psychology, Journal of Sport Sciences, Research Quarterly for Exercise and Sport) had a higher percentage of multi-authored manuscripts. Although there has been research published in the greater field of Health, Physical Education, Recreation, and Dance, there has been a lack of investigation into the sub discipline of sport management. Though Quarterman, Jackson, and Chen (2006) examined individual contributors and their institutions, and Daprano et al. (2005) examined
collaboration in terms of benefits and challenges to the research process; nothing has examined the topic of single or multiple authorship within sport management.

To add depth to understanding the research environment for faculty members in sport management higher education, the following research questions were asked:

RQ1: What was the total number of multiple-authored and single-authored manuscripts and presentations?

RQ2: Were there yearly differences in the total number of multiple-authored and single-authored manuscripts and presentations?

RQ3: What was the total number of multiple-authored and single-authored manuscripts for each journal?

RQ4: Were there yearly differences in the total number of multiple-authored and single-authored manuscripts for each journal?

METHODOLOGY

This study used a content analysis to investigate accepted presentations from the North American Society of Sport Management (NASSM) conference and all research articles from five refereed sport journals from 2000-2005. The type of content analysis utilized was analysis of communication, which is commonly used to examine written documents in an unobtrusive manner (Babbie, 2005). According to Riffe, Lacy, and Fico (2005), content analysis is the objective, systematic, quantifiable, and replicable analysis of symbols (e.g., written documents) to describe and draw inferences about the communication. The conference presentation list was ascertained from the official programs of NASSM's annual conference. The journals included the Journal of Sport Management, International Journal of Sport Management, Sport Marketing Quarterly, Journal of Sport and Social Issues, and the Journal of Legal Aspects of Sport. The conference and journals selected represent a cluster sample which is common and appropriate to content analysis of communication (Babbie, 2005). Additionally, the journals selected represent the broad array of diverse disciplines in the field. Lastly, other journals in the field of sport management that one might expect to be included in this study did not exist in the year 2000.

The study required two trained investigators working independently of each other to code every presentation and journal article. It is common for content analysis to use one, two, and more than two coders (Riffe, Lacy, & Fico, 2005). For the journal articles, the coders only analyzed the research sections of each volume. For the Journal of Sport and Social Issues, focus articles, commentary essays, and trend articles were included in the analysis. Each article and presentation was coded according to five measures. These included the year of the article and presentation, the number of single authored articles and presentations, the number of two authored articles and presentations, the number of three authored articles and presentations, and the number of four or more authored articles and presentations. Descriptive statistics, including frequency counts and percentages were tabulated.

To address intercoder reliability, a simple analysis was conducted that measured agreement between the two coders. The two coders independently examined the same 20% of the journal articles and presentations. The agreement between the coders in each of the measures was 91% for articles and 98.4% for presentations, well within acceptable standards for content analysis (Riffe et al., 2005).

RESULTS

Results indicated in journal articles (N = 573) and the North American Society for Sport Management conference presentations (N = 887) that multiple authored manuscripts and presentations outnumbered individual efforts.
RQ1: MULTIPLE AND SINGLE AUTHORED MANUSCRIPTS AND PRESENTATIONS

The first research question investigated the total number of multiple and single authored manuscripts and presentations. There were 216 (37.7%) single-authored manuscripts compared to 357 (62.3%) multiple-authored manuscripts. Similar results were found for NASSM conference presentations. It was determined that 278 (31.3%) were solo presentations while 609 (68.7%) were collaborative efforts.

RQ2: YEARLY DIFFERENCES IN MULTIPLE AND SINGLE AUTHORED MANUSCRIPTS AND PRESENTATIONS

The second research question examined the yearly differences in the number of multiple and single authored manuscripts and presentations. According to Table 1, the number of single-authored manuscripts dropped from 46 in the year 2000 to 28 in the 2005. Another result of the analysis indicated that the number of multiple-authored manuscripts increased from 47 in the year 2000 to 66 in the 2005. One other major difference was determined when analyzing the category having three authored manuscripts. These increased from 10 in the year 2000 to 27 in 2005. Table 1 indicates a slight trend of decreasing numbers of single-authored manuscripts, and an increase in multiple-authored manuscripts.

Regarding NASSM presentations, Table 2 shows the number of solo presentations decreased from 52 in the year 2000 to 31 in 2005. Multiple presentation efforts remained relatively stagnate decreasing from 104 in the year 2000 to 93 in 2005. However a difference was noticed when analyzing four or more presenters. These increased from 12 in the year 2000 to 21 in 2005.

RQ3: NUMBER OF MULTIPLE AND SINGLE AUTHORED MANUSCRIPTS FOR EACH JOURNAL

The third research question investigated the number of multiple and single authored manuscripts for each journal. According to Table 3, there were differences based on journal. Specifically, the journals with the most collaborative efforts were Sport Marketing Quarterly at 85.6%, followed by International Journal of Sport Management at 74.7%, then Journal of Sport Management at 71.6%, and Journal of Legal Aspects of Sport at 63.9%. The journal with the least amount of collaborative efforts was Journal of Sport and Social Issues at 27.7%.

RQ4: NUMBER OF MULTIPLE AND SINGLE AUTHORED MANUSCRIPTS FOR EACH JOURNAL BY YEAR

The fourth research question examined the yearly differences in the number of multiple and single authored manuscripts for each journal. According to Table 4, the Journal of Sport and Social Issues was the only journal to maintain a relatively high and consistent number of single-authored manuscripts published throughout the six years. Also, IJSM was the only journal to have a consistent decline in the number of single-authored manuscripts throughout the six years. There were no evident patterns of single versus multiple efforts by year for Sport Marketing Quarterly and Journal of Legal Aspects of Sport. However, for IJSM the number of collaborative manuscripts increased throughout the six years, especially in the three-four or more authored categories. For the Journal of Sport Management the number of multiple-authored manuscripts remained constant but the numbers have dispersed from two authors more toward three-four or more throughout the six years.

DISCUSSION AND RECOMMENDATIONS

This purpose of this study was to examine single versus multiple authorship differences in sport management faculty research. Key findings included: 1) Collaborative efforts were more common than solo efforts for both
published manuscripts and NASSM presentations; 2) Presentations were more likely to be collaborative efforts than published manuscripts; 3) A slight trend of decreasing numbers of single authored manuscripts, and an increase in multiple-authored manuscripts; 4) A slight trend of decreasing numbers of single-authored presentations; and 5) The Journal of Sport and Social Issues contained a much higher percentage of single-authored manuscripts than the other four journals, 6) A trend of more collaborative efforts for IJSM and a trend of increasing 3-4 authored manuscripts for the Journal of Sport Management.

Based on the results of this study, it is evident that collaboration is growing in sport management research. This trend appears to be on the rise especially in presentations. Perhaps collaborators have been successful in developing and creating many of the social order elements required as part of negotiated order theory early in the research process. This most likely begins with boundaries being set and negotiated from the beginning stages of the research process (ideas generation). This success is evident in that the results indicated that presentations were more likely to be collaborative efforts than manuscripts. Because publishing a manuscript requires more effort and work into the final stages of the research process, it is possible that elements of both the structural context and negotiated order context are hindering the collaborative method necessary later in the research process to produce completed and published manuscripts. For instance, researchers typically submit their work to be presented at a professional conference. Most likely this results in a chance to interact with other researchers and to gather feedback on the potential manuscript. This process would no doubt be enhanced with a collaborative research process due to the presence of multiple perspectives and an increased chance to engage in scholarly activity. However, if aspects of negotiated order theory were not evident such as emphasis on publishing, resources, and time, it might impact the researcher from continuing the research project into the publication phase.

The only sure way to determine why there was a difference in collaborative efforts between presentations and published manuscripts and why there was an overall increasing trend in collaboration is to conduct future research. This research should utilize a more in depth questionnaire or perhaps utilize the interview methodology. Questions could be based on the structural and negotiated order context elements not addressed in this exploratory study. Questions relating to institutional resources, time allotment, institution's emphasis/requirements on publishing, experience with collaborative efforts, gender of collaborators, balance of power, and how often negotiations take place could all be incorporated into a more complete understanding of these results. Essentially, the next step is to understand the how and why, as opposed to the situation, of which this study has investigated.

One aspect of the results focused on each specific journal. Perhaps the most interesting element of the results was the fact that the Journal of Sport and Social Issues has the least amount of collaborative efforts of any of the journals analyzed in the content analysis. One thought for why this journal encompasses mostly solo efforts is due to the research usually found in the journal. Several manuscripts published in this journal use a qualitative approach to research as opposed to a more data driven quantitative type of research typically found in the other journals analyzed. Perhaps researchers feel the need to collaborate more when undertaking more quantitative research efforts due to the amount of data sometimes collected. The collection, analysis, and interpretation of this data can be overwhelming. There are also several opinion/issue based manuscripts published in the Journal of Sport and Social Issues as opposed to the other journals which may have impacted the results.

This study did have limitations in that it was limited to five journals over a six year period, in the field of sport management. A more extensive sample of journals, particularly now that sport management and the number of journals have increased significantly, could be utilized in the future. Additionally, the analyses of the conference presentations included only one professional organization, NASSM. A larger, more extensive analysis is warranted for future studies. It would not be appropriate to generalize the findings of this study to the other journals or conferences in the field of sport management.
REFERENCES


### TABLE 1

**NUMBER OF MULTIPLE AND SINGLE AUTHORED MANUSCRIPTS BY YEAR**

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### TABLE 2

**NUMBER OF MULTIPLE AND SINGLE AUTHORED PRESENTATIONS BY YEAR**

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### TABLE 3

**NUMBER OF MULTIPLE AND SINGLE AUTHORED MANUSCRIPTS FOR EACH JOURNAL**

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INTRODUCTION

A growing body of literature has focused on how sport organizations might manage diversity in the workforce (Cunningham, 2007a; Cunningham, 2007b; Cunningham & Sagas, 2004; Doherty & Chelladurai, 1999; Fink, Pastore, & Riemer, 2001). Another growing body of research has begun to examine sport marketers’ efforts to reach a more diverse fan/spectator consumer base (Armstrong, 1998; Armstrong & Stratta, 2004; McCarthy, 1998). An extensive body of research in sport sociology has attempted to provide explanations for differential participation patterns in sport based on race and gender (Goldsmith, 2003; Harrison, Lee, & Belcher, 1999). Most of these researchers have identified socio-structural concerns as causes for a lack of diversity, such as environmental barriers and socio-economic status, as well as discrimination itself. However, little research exists that specifically examines diversity considerations in the context of marketing and promoting sport participation to primary consumers. This paper seeks to establish the importance of conducting culturally sensitive consumer behavior research in order to more effectively promote sport participation by ethnically and culturally diverse consumer groups.

THE IMPORTANCE OF DIVERSITY

Culture is a complex concept that encompasses shared ways of achieving meaning in people’s lives. According to Coakley, “culture consists of the ways of life that people create as they participate in a group or society” (2007, p. 5). Culture thus includes ethnicity – that is, “the cultural heritage of a particular group of people” (Cunningham, 2007a, p. 83) – along with such things as the different meanings different groups attach to social undertakings like sport.

Diversity is also a complex notion that entails differences of many types, including physical attributes (e.g., race, sex, age, physical ability), social attributes (e.g., education, income level), and cultural attributes (e.g., beliefs, values, preferences). In addition to actual differences, perceptions of difference may play a role in diversity (van Knippenberg, De Drue, & Homan, 2004). Such differences may make a difference in organizational outcomes by affecting individual performance within a group, as well as group creativity and cohesion. Thus, diversity is perhaps best defined as “the presence of differences among members of a social unit that lead to perceptions of such differences and that impact…outcomes” (Cunningham, 2007a, p. 6). Diversity thus includes both demographic differences and cultural differences. According to Cunningham (2007a), these types of differences are likely to be interdependent, so managing diversity involves attending to both demographic and cultural diversity as interrelated phenomena.

In recent years, scholars have documented an awareness of the importance of increasing and successfully managing diversity in sport. This interest has been fueled by the recognition of legislative changes requiring equity as well as by rapidly changing demographics in America. Recent projections based on demographic data indicate that by the year 2007, the spending power of ethnic minority groups in the United States will
exceed $2 trillion, and that 49.9 % of the American population will be comprised of people from non-white
ethnic groups by the year 2050 (Willis, 2004). As a result of these legislative changes and demographic trends,
sport organizations have begun to explore ways to meet the demands of an increasingly diverse pool of
potential employees, fans, and participants.

Typically, responses to the rising demand for accommodating increasing diversity come from two perspectives:
a moral imperative or a business justification. Based on notions of social justice and ethically fair treatment of
individuals, some scholars have called for sport organizations to proactively manage diversity simply because it
is the right thing to do (DeSensi, 1994; Mai-Dalton, 1993). In the United States, legal barriers to sport
opportunities have been removed by the passage of several federal anti-discrimination statutes including the
Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, the Age Discrimination in Employment
Act, the Americans with Disabilities Act of 1990, and section 504 of the Rehabilitation Act of 1973. Additionally,
progress has been achieved by the courts as they have decided cases interpreting constitutional and civil rights
in the context of access to opportunities required by the law. However, ethical considerations can and often should go
beyond minimum levels of barrier removal required by the law. While breaking barriers may partly overcome an
ethnocentric worldview in which one cultural perspective is preferred and naturalized, eliminating exclusiveness
falls short of embracing inclusiveness. According to Donnelly and Coakley (2002), physical activity providers
ought to strive to be socially inclusive – which means going beyond merely removing barriers to participation to
attempting to ensure that all potential participants are valued and respected. DeSensi (1995) asserts that sport
organizations need to move beyond ethno-relativism, in which difference is accepted and adapted to, to a state
of true integration in which differences are valued and promoted.

While the aforementioned scholars ground their recommendations in the existence of a moral imperative,
others advocate greater effort to increase and manage diversity in order to further the survival and profit needs
of sport organizations as business entities. They suggest that diversity is an asset that can be used
strategically to gain a competitive business advantage (Fink, Pastore, & Riemer, 2001). An increasingly diverse
society presents untapped new markets for sport organizations to target (Armstrong, 1998; Brenner, 2004;
McCarthy, 1998). Greenwald and Fernandez-Balboa (1998) suggest that sport sponsors are beginning to de-
emphasize elite sport and celebrity endorsements; instead, they are turning to grassroots sports phenomena,
with a focus on local communities and participants rather than spectators, in order to gain long-term benefits by
marketing to youth who will eventually become the major consuming audience. Moreover, sponsoring
grassroots special events allows companies to target certain demographics and psychographics that are not
easily reached due to market fragmentation resulting in part from increasing ethnic and cultural differences
(Greenwald & Fernandez-Balboa, 1998). Thus, diversity initiatives are gaining acceptance as sound business
and marketing strategies. The 2000 United States Census indicates that 28.2% of the U.S. population is
comprised of Hispanics, black non-Hispanics, and Asians (Brenner, 2004). According to Brenner, “there is one
certainty for any league with national reach and every team and event in a market with a significant ethnic
population: If you don’t have a multi-cultural marketing strategy now, you’re missing the boat” (p. 16).

OBSTACLES IN MEETING THE CHALLENGES OF DIVERSITY

The literature refers to three types of obstacles to successfully meeting the challenges of diversity in sport:
difference itself, resistance, and failure to acknowledge the complex role of cultural (as opposed to merely
demographic) diversity. Difference itself is problematic because of the tendency of people to prefer to interact
with others they perceive as like themselves with respect to both values and demographic characteristics, or
who belong to their self-defined in-group (Cunningham & Sagas, 2004). According to Cunningham and Sagas
(2004), these homosocial forces contribute to a lack of unity unless difference is embraced or de-categorization
of individuals occurs through increased interpersonal communication.
Resistance, both to diversity measures themselves and to change in general, is another obstacle to accommodating diversity. “Organizational culture is not quickly or easily manipulated and changed, because it involves understanding and sharing basic values and assumptions about the organization” (Doherty & Chelladurai, 1999, p. 293). Additionally, individuals have many reasons for resisting change, including emotional, social, status, economic, security, and perceived competence concerns (Gray & Starke, 1988). Thus, an organization's leadership cannot simply dictate successful culture change; rather, organizational culture is an ever-evolving, negotiated outcome of various intra-organizational interactions and shared experiences (Doherty & Chelladurai, 1999).

The difficulties presented by difference itself and by resistance to change are arguably more relevant to workforce diversity considerations than to attracting diverse consumers as sport participants. However, the third obstacle – failure to acknowledge the complexity of cultural diversity – has direct relevance in the context of organizational efforts to attract and retain diverse groups as consumers of sport. Efforts to target diverse market segments that are based on assumptions about consumer behavior grounded only on demographics are fraught with the potential to fail. Such assumptions are often based on stereotypes and ignore the role of human agency in embracing or opposing various facets of a culture. Nevertheless, personal characteristics that form the basis for demographic categorical data are the necessary starting point for understanding diversity. This is because demographics are surface-level characteristics that are easily observable and can act as markers for the deep-level diversity characteristics with which they are usually intertwined, such as attitudes, values, and cultural differences (Cunningham, 2007a).

Too often, demographic data collected on sport consumers has been limited to the categories of age, race, and gender. Obviously, many other types of personal characteristics are salient to decisions regarding whether or not to consume sport, either as a fan or a participant or both. Other worthy demographic categories to examine could include: disability, religion, sexual orientation, marital status, socio-economic status, parental status, life in a one- versus a two-earner household, educational background, national origin/immigrant status, language differences, and ethnic heritage (e.g., Doherty & Chelladurai, 1999; Fink, Pastore, & Riemer, 2001; Pons, Laroche, Nyeck, & Perreault, 2001). Additionally, psychographic variables are necessarily part of consumer behavior, and could include lifestyle preferences, group identification, values orientation, self-esteem/perceived self-competence, psychological traits, self-schema definitions, and learning/thinking styles (see e.g., Gladden & Sutton, 2005; Harrison, Lee, & Belcher, 1999; Pitts & Stotlar, 1996). Finally, it is essential to recognize the role of human agency in people’s choices to identify with a culture, or with some facets of it and not others, or to create and identify with a cultural amalgam, or to create oppositional subcultures within a larger cultural context (Doherty & Chelladurai, 1999; Pons, Laroche, Nyeck, & Perreault, 2001). Cultural factors are linked to demographic categories, but often those linkages are expressed in ways that differ across geographic region, age groups or age-based generations (e.g., baby boomers versus generation X’ers), and real world contexts/situations (e.g., sport versus work versus home), among others (Claussen, Ko, & Rinehart, 2007; Cunningham, 2004).

Over-reliance on the use of simple demographics to shape diversity initiatives frequently results in condensing people with widely varying ethnic heritages and cultural patterns into broad categories, conflating complex cultural diversity into uni-dimensional constructs. For example, using the broad category “Hispanics” would miss the fact that Hispanics in Dallas includes a predominance of people with Mexican heritage, whereas in Miami the same category consists largely of people from a Cuban background – a cultural heritage which might manifest itself quite differently from Mexican cultural expressions (Brenner, 2004). To address such issues, scholars and industry analysts have begun to call for research that, in addition to demographics, uses different approaches to analyzing diversity in sport contexts. These analytical perspectives include the following: decision variables – e.g., self-schema based versus utilitarian based decision making (Harrison, Lee, & Belcher, 1999; Kang, 2004); relational demographics (Fink, Pastore, & Riemer, 2001); compositional
demographics (Cunningham & Sagas, 2004); racial relations theory versus social structural explanations for consumer behavior (Goldsmith, 2003); psychographics and motivational constructs (Florenthal & Shoham, 2000; Lim & Turco, 1999; McDaniel, 2003; McDonald, Milne, & Hong, 2002; Shoham & Rose, 2000); and cultural characteristics (Brenner, 2004; Doherty & Chelladurai, 1999).

**APPROACHES TO ANALYZING DIVERSITY IN SPORT CONTEXTS**

**ORGANIZATIONAL AND SOCIOLOGICAL APPROACHES TO DIVERSITY IN SPORT**

Decision variables, relational and compositional demographics, and race relations theory have been used to examine diversity within sport organizations. Analyzing decision variables in linkage with demographics would involve analyzing whether certain groups, using self-schema, tend to envision themselves as a possible fit for a sport consumer role, such as a participant in snowboarding. The literature indicates that “possible me” self images are utilized to evaluate value-expressive products (e.g., action sports offerings), whereas people evaluating useful products (e.g., sports equipment) tend to utilize utilitarian decision making criteria. Additionally, individuals with high physical self-esteem are more likely to employ both self-schema and utilitarian processes in consumer decision making, whereas people with low physical self-esteem tend to use only utilitarian criteria (Kang, 2004). Harrison, Lee, and Belcher (1999) found that junior high school students' self-schema evaluations of sport participation options tended to align with stereotypes about gender-appropriate and race-appropriate sports.

Examining relational demographics enhances the traditional use of demographic data by adding consideration of relative demographic similarity to or difference from those in leadership positions in an organization (Fink, Pastore, & Riemer, 2001). This perspective might also be applied to evaluations of sport consumption options in which individuals might gauge potential enjoyment and/or success on the basis of relative demographic similarity to existing participants.

Compositional demographics is conceptually similar to relational demographics in that it relies on the similarity-attraction paradigm and social categorization processes (identification with an in-group in contradistinction to outsiders) to posit that individuals will be more comfortable and choose to affiliate with others similar to themselves in values and personal demographical characteristics (Cunningham & Sagas, 2004). Cunningham and Sagas (2004) found that using compositional demographics illuminated the negative consequences of diversity in a group, and suggested that to overcome the natural negatives of difference, efforts must be made to promote the valuing of differences and to encourage interpersonal communication that will result in de-categorizing individuals. Providers of sport consumption options that entail united participation (e.g., traditional team sports) might render their sports offerings more attractive by structuring participation accordingly.

Race relations perspectives involve analyzing diversity by adding group dynamics relative to race relations to consideration of socio-structural constraints on sport participation. According to this approach, socio-economic status and elements of social stratification like neighborhood inequality must be analyzed together with an examination of the cultural division of labor or struggles over racial hierarchies in order to acquire a more complete understanding of race differences in sport participation patterns (Goldsmith, 2003). Using this approach to examine racial differences in high school sports participation, Goldsmith found that low socio-economic status (SES) partially explained black students' lack of participation in sports whites tend to play more (e.g., swimming and soccer); however, high SES students also participated in the more “low brow” sports of baseball and football that blacks tend to play more. So SES alone was an unsatisfactory predictor of racial disparities in participatory sport consumption. It appears that high SES individuals are “omnivorous” when it comes to sport consumption; that is, they are willing to consume both “high brow” and “low brow” sports.
Adding an examination of the cultural division of labor to this inquiry attempts to discover whether there is a race effect on participation even if SES and other structural and environmental factors were equal between the racial groups. Utilizing this approach, Goldsmith found no race effects in the sports whites play more, which suggests that structural variables like SES and neighborhood inequality account for blacks’ lack of participation in those sports. However, in sports blacks play more (e.g., basketball, football, cheerleading), there were also no race effects except for in basketball. In basketball, all other factors being equal, race relations in the form of a cultural division of labor – that is, in schools with a strong racial hierarchy – do predict high levels of black student participation.

Goldsmith (2003) explains that the cultural division of labor perspective posits that “the subordinate group reacts to high levels of racial hierarchy by developing an oppositional culture to demonstrate their superiority or equality with the dominant group” (p. 163). This implies that blacks use basketball as symbolic of black equality/superiority – which would take on greater importance in contexts where blacks experience greater subordination. Cultural studies theorists have asserted that basketball has become one of the most salient “symbolic representations of ‘blackness’ in popular culture” (Goldsmith, 2003, p. 163). That the cultural division of labor only predicts higher levels of black participation in basketball and not other sports that blacks play more than whites, like football, “suggests that racial hierarchy only creates cultural differences in activities that symbolically show the equality or the superiority of the subordinate group” (Goldsmith, 2003, p. 166). Goldsmith also found that as the proportion of blacks in the school population rose, race effects were stronger in channeling blacks and whites into stereotypical race-appropriate sports, which indicates that cultural differences are exacerbated by racial group competition. These findings suggest that in sporting environments with more diversity among potential participants, the importance of race-linked cultural factors as determinants of race-appropriate participation may rise.

Goldsmith’s (2003) findings are lent support by recent research on diversity in college athletics settings that found dysfunctional diversity climates coinciding with highly diverse demographics (Cunningham & Sagas, 2005; Fink, Pastore, & Riemer, 2001). Realizing that this situation demands further explanation, Cunningham has called for research on diversity in sport to go beyond demographics to include analysis of diversity in attitudes, values, and cultural backgrounds (2007b).

CONSUMER BEHAVIOR APPROACHES TO DIVERSITY IN SPORT

So far, most sport marketing research that has been focused on ethnicity has failed to pay serious attention to cultural differences among subgroups (such as Cuban Hispanics versus Mexican Hispanics) within broad demographic ethnic categories, such as Blacks (Armstrong, 1998; Armstrong & Stratta, 2004), Hispanics (McCarthy, 1998), and Asians (Clarke & Mannion, 2006). Additionally, while giving mention to the role that might be played by variables other than demographics, in the end these studies were largely limited to demographic analyses.

From a marketing perspective, using psychographics (e.g., lifestyle preferences, attitudes, values, psychological traits, and motivational constructs) in addition to demographics is considered a more comprehensive strategy for understanding diversity in consumer behavior than simple reliance on demographics. However, the literature examining psychographics in sport tends to ignore potentially salient linkages between certain psychographic and demographic variables.

Lim and Turco (1999) suggested using psychographics to analyze diversity in sport consumption based on such variables as “coolness,” quality, comfort with electronic media, and preferred uses of leisure time. McDaniel (2003) examined sport preferences relative to the psychological trait of sensation-seeking, and found that males preferred viewing violent-combative sports (e.g., football and hockey) over stylistic sports (e.g.,
figure skating and gymnastics), while females preferred to watch stylistic sports. However, the results also indicated that viewership of violent-combative sports was linked with the sensation-seeking personality trait for both sexes. Therefore, differences in sensation-seeking do not explain gender differences in viewing preferences for televised violent-combative sports. Additionally, McDaniel reported that white males had a greater interest in viewing violent-combative sports than males from ethnic minority groups, who preferred viewing violent-aggressive sports like basketball and soccer (as did female ethnic minorities). Whites of both sexes reported a significantly greater interest in viewing stylistic sports than did the ethnic minorities studied. As his focus was on reporting gender differences, McDaniel did not report links between the sensation-seeking trait and the viewing preferences of ethnic minorities.

Shoham and Rose (2000) and Florenthal and Shoham (2000) examined the role of the values of thrill-seeking, excitement, and security in Israeli sport participation choices. They found that in their predominantly male samples, thrill-seeking was a better predictor of participation in non-risky individual sports (e.g., biking, jogging, swimming) than enhancement of social standing, and a better predictor of participation in risky sports (e.g., parachuting, hang-gliding, deep water diving, and mountaineering) than security and self-respect. However, these values were not linked with ethnic or gender demographics in their reported results, probably because of the homogeneous nature of the population studied.

McDonald, Milne, and Hong (2002) identified a lengthy list of motivational constructs found in the literature, and suggested that these psychographic variables be used in addition to demographics in studying consumer behavior. Their list includes: physical fitness, risk taking, stress reduction, aggression, affiliation, social facilitation, self-esteem, competition, achievement, skill mastery, aesthetics, value development, and self-actualization. The authors found large variances between sports in the relative importance of these motivational factors to participants, but identified basic sport needs (aggression, competition, risk taking, and achievement) as central to both sport participation and spectatorship choices. Limitations of their work include that they neither analyzed risky, extreme-type sports, nor did they attempt to link the motivational constructs to demographic variables.

To summarize, the organizational and sociological literature on diversity in sport has tended to focus on demographic and structural variables, while the consumer behavior research has added psychographics; however, neither body of literature has adequately addressed linking such variables with relevant cultural considerations.

A CULTURAL DIVERSITY APPROACH TO DIVERSITY IN SPORT

In a notable exception to the typical research on organizational diversity in sport, Doherty and Chelladurai (1999) advocated the use of a cultural diversity approach to studying diversity in sport organizations. Brenner (2004) has called for the application of a similar perspective in the context of consumer behavior in sport. This approach expressly links cultural characteristics with demographic variables for the purpose of gaining an even more discerning analysis of the effects of diversity. Failure to do so can be costly. For example, the Dallas Mavericks “Tienda Program,” designed to use local retail stores to sell tickets and merchandise in predominantly Hispanic neighborhoods, resulted in low sales because the Mavericks did not know that their Hispanic fans preferred to buy from traditional team distribution outlets (Brenner, 2004). In this way, making unexamined assumptions about the interests of demographically diverse groups puts marketing efforts at risk by neglecting the complex role of cultural factors. Thus, “marketing must make culturally relevant connections to be effective” (Brenner, 2004, p. 15).

Cultural diversity is an important complement to demographic diversity in that it reflects not just differences in personal characteristics, but also cultural factors specifically associated with those characteristics. “Cultural diversity reflects the unique sets of values, beliefs, attitudes, and expectations, as well as language, symbols,
customs, and behaviors, that individuals possess by virtue of sharing some common characteristic(s) with others” (Doherty & Chelladurai, 1999, p. 281). According to Doherty and Chelladurai (1999), culture as a set of shared understandings shapes the cognitive schemas people use in ascribing meaning, adopting values, and making choices about their behavior. Behavioral cultural expressions in turn reinforce that culture.

Diversity in cultural characteristics, on the other hand, can challenge the prevailing culture and necessitate organizational adaptation. Adding to the adaptation challenge for sport organizations is the fact that “individuals in a group vary in the extent to which they identify with its culture” (Doherty & Chelladurai, 1999, p. 281). That is, adopting values and identifying with a culture is a choice, not a given. According to Doherty and Chelladurai (1999), equating people’s demographic information with their identification with a corresponding social group is a fallacy prevalent in the research literature. Instead, cultural identification may vary for several reasons: lived-in geographic region or country of origin (Armstrong & Stratta, 2004; Brenner, 2004); sensation/thrill seeking (Florenthal & Shoham, 2000; McDaniel, 2003; Shoham & Rose, 2000); and self-schema (Harrison, Lee, & Belcher, 1999; Kang, 2004). Additionally, one’s cultural identity may consist of a patchwork of characteristics adopted from varied cultures (Pons, Laroche, Nyeck, & Perreault, 2001). Moreover, differences in the saliency of personal characteristics often depend on the cultural context in which a person is situated, the nature of some personal characteristics (immutable or easily altered or hidden), the relevant group’s socialization processes and behavioral norms, and/or perceived challenges to some aspect of a person’s cultural identity (Doherty & Chelladurai, 1999). As a result, the formation and existence of subcultures within an organization can be expected, and these subcultures are likely to undergo periodic reformulation as organizational leadership and personnel change over time.

Consumer behavior research can make good use of this cultural diversity approach suggested in the organizational diversity literature. In so doing, it is important to recognize that certain aspects of culture are typically emphasized more often than others. “According to Loden and Rosener (1992), individuals identify most strongly and persistently with the culture(s) associated with personal characteristics that cannot be changed, such as age, gender, race, sexual orientation, physical disability, and ethnic heritage” (quoted in Doherty & Chelladurai, 1999, p. 283). So, it is unnecessary for sport marketers to despair in the face of the overwhelming variety of subcultures that intermingle in potential desired markets.

Instead, sport marketers can use consumer behavior research aimed at identifying links between a demographic category and salient aspects of the corresponding culture, and can rely on the resulting data in targeting their desired sport consumer base. For example, a sport marketer could be effective using a link between ethnicity and behavior, if he or she knew that whereas Chinese-American ticket buyers in San Francisco prefer to buy their tickets well in advance of a sports event, some Hispanics groups tend to wait until the last minute before purchasing tickets (Brenner, 2004). Thus, early promotion efforts would succeed with the San Francisco Chinese, but not the Hispanic, population. A cultural diversity approach to consumer behavior highlights the importance of conducting culturally sensitive marketing research on target groups to find linkages like these.

Recently, Clarke, and Mannion (2006) noted the existence of differences within the Asian demographic category, but dismissed the importance of different Asian subcultures by suggesting that accommodating language differences would be sufficient to expand into the overall Asian American market segment. Sport marketers in the field, however, have recognized the inadequacy of such a surface-level “fix.” According to Dave Howard, executive vice-president of business operations for the New York Mets, “It starts with the language, but you have to go beyond that and understand what is culturally relevant” (King, 2007b, p. 16). Consequently, the Mets, with a large Hispanic fan population, provide Spanish-language advertising and ticket sales, but also host a “Fiesta Latina” night with popular Puerto Rican music and a separate “La Noche de Merengue” night tailored to their Dominican fans (King, 2007b). Dario Brignole, director of IMG’s Hispanic, Latin
American and soccer divisions, stressed the importance of going beyond language-based outreach in marketing to reach customs and ethno-cultural backgrounds. In his words:

"The key is to understand that because we all speak the same language, that does not mean we all like the same things. In the United States, you have Canadians, Australians, and British, and you also have Americans from the South, the Northeast and the West. All speak English, but they're all different. So why should Brazilians, Argentinians, and Dominicans like the same things?" (King, 2007b, p. 24).

A more nuanced analysis is enabled by the recent ESPN Deportes Poll on Hispanic sports, reported by King (2007b). This poll found that 67% of Hispanic sports fans who live in households where speaking Spanish is dominant are fans of World Cup soccer, compared to only 33% of Hispanic sports fans who live in predominantly English-speaking households (p. 19). Conversely, the NFL is popular with fans in 73% of English-dominant homes but only in 40% of Spanish-dominant homes (p. 19). These results indicate that level of cultural assimilation is a highly relevant factor in sport preferences for Hispanic fans. A similar conclusion was reached by Pons, Laroche, Nyeck and Perreault (2001) based on their comparison of French-Canadians and Italian-Canadians relative to their orientation toward ice hockey. Their results reflected:

in the case of sporting events that the choice of events and the ways these sporting events are consumed and shared...is strongly influenced by the ethnic origin of the individual. But more importantly...all individuals in all ethnic groups do not react in the same way to sporting events because of the process and the pace of their integration into the host culture (p. 238).

These findings illustrate the importance of linking cultural factors, such as level of cultural assimilation, with demographic categories to acquire a more accurate, in-depth understanding of diversity in sports market segments.

**PROPOSAL FOR USING A CULTURAL DIVERSITY APPROACH TO UNDERSTANDING CONSUMER BEHAVIOR OF PARTICIPANTS IN AN ACTION SPORTS CONTEXT**

The cultural diversity approach is perhaps especially appropriate in analyzing a phenomenon like action sports, in comparison to traditional sports, because of the fundamental nature of action sports as reflective of an alternative lifestyle. Understanding the action sports culture, and linking aspects of that culture with demographic data on participants and spectators, should provide rich insights into why the consumer base is what it is demographically with regard to diversity (Claussen, Ko, & Rinehart, 2007). That, in turn, should enable sport marketers to target the most receptive consumer groups most effectively.

Effective use of the cultural diversity approach should also provide information that might enable non-profit and/or education-based action sports providers to create alternate "alternate sports" that will extend the reach of such opportunities to a broader base of potential participants. For example, we know that cooperation within the community is valued over competition by the Navajo (Boeck, 2007b; Coakley, 2003). Perhaps “team skateboarding” rather than individual competitions could be developed as a new “alternative sport” to be provided in areas with a high concentration of Navajo Indians in the population in order to attract those students to participate.

Many secondary school districts are now considering adding a few action or alternative sports to their traditional menu of sport offerings in an attempt to engage a higher percentage of students in physical activity. For example, the Oregon Interscholastic Snowboard Association is involved in sanctioning high school snowboarding club team competitions (Read, 2001). School districts would benefit from the availability of culturally informed consumer behavior research to use in deciding which alternative sport forms might attract...
the most students, given their particular diversity mix. University athletics programs would also benefit by having such information available, inasmuch as they have been criticized for failing to consider the participation preferences of females from diverse ethnic groups when adding sports to move toward compliance with Title IX (Suggs, 2001).

If encouraging participation in physical activity for a broader spectrum of our nation’s youth is one of our valued goals, then using an action sports cultural diversity profile in this fashion is not just an effective marketing tool – it might be legitimately considered an ethical obligation. However, very little data on ethnic diversity in consumers of action sports has been reported in the literature. The authors found only four references to spectatorship data that included ethnicity-based demographics (American Sports Data, Inc., 2004; ESPN Deportes Hispanic Sports Poll, 2007, reported in King, 2007b; ESPN Sports Poll, 2002; Messner, et. al, 1999). Furthermore, very few references to demographic categories other than age or gender were found that pertained to action sports participants.

Several authors have, however, discussed the culturally diverse values and attitudes of Generation Y (those born in 1982 or later), and of action sports participants, and have noted that action sports providers, advertisers, and sponsors view members of Generation Y as their primary target market (Bennett & Henson, 2003; Bennett, Henson, & Zhang, 2002; Bennett, Henson, & Zhang, 2003; Claussen, Ko, & Rinehart, 2007; Lim & Turco, 1999; Neuborne & Kerwin, 1999; Petrecca, 1999; Rinehart, 1998; Stapinksi, 1999). Generation Y (also known as the Millennial Generation), is thought to differ significantly from its predecessors, Generation X (those born in 1961-1981) and the Baby Boomers (those born in 1943-1960). According to Howe and Strauss (2000), each of these groups exhibits a distinct “generational persona” – a cultural “creation embodying attitudes about family life, gender roles, institutions, politics, religion, culture, lifestyle, and the future” (p. 40). These authors go on to say that Generation Y differs sharply from Generation X because the Millennials feel a special sense of purpose, are more sheltered, have higher levels of confidence and optimism, are less inclined to rugged individualism, are higher achieving, and are more inclined to support social rules and conventional values. Millennials tend to reject sloganeering and crass commercialism in favor of fact-based advertising and authenticity (Claussen, Ko, & Rinehart, 2007; Howe & Strauss, 2000). This attitude may explain their attraction to participation in action sports over the more commercialized (until very recently) “big-time” traditional sports.

Recent figures indicate that approximately 58 million members of Generation Y participate in action sports, including board sports, in-line skating, mountain biking, rock climbing, and trail running (McCarthy, 2001). Between 1990 and 2000, Generation Y participation in action sports increased (e.g., inline skating grew by 407% and skateboarding by 14%), while participation in mainstream team sports declined (e.g., soccer by 10%, softball by 41%, and baseball by 41%) (Youth Sports Participation Trends, 2004). Additionally, from 1987 to 2002, snowboarding participation increased by 221% and mountain biking by 309%, whereas volleyball participation declined by 33% and downhill skiing by 25% (American Sports Data, Inc., 2002). Approximately one-third of the sporting goods sold in the U.S. in 2003, totaling more than $14 billion, were related to action sports (Liberman, 2004). Generation Y fans helped the inaugural 2005 season of the Dew Action Sports Tour attract an average attendance over five events of over 46,000 live spectators, outdrawing the average attendance of all teams in the NHL, NBA, and Major League Baseball (except for the New York Yankees) (Nisenson, 2006). Members of Generation Y are projected to comprise 34% of the population by 2015, and their buying power is currently estimated at $250 billion per year (Gen Y, 2002; Raymond, 2002). Currently, 38% of Generation Y is non-white (Gen Y, 2002). Thus, this coveted market segment is quite ethnically diverse (Wolburg & Pokrywczynski, 2001; Stone, Stanton, Kirkham, & Pyne, 2001).
Because they have a financial incentive to use a cultural diversity approach to target a more diverse participant and fan base, the attempts by ESPN and NBC to commercialize action sports through the X Games, Gravity Games, and Gorge Games could actually assist in accomplishing both the business objective of making action sports financially lucrative for the networks, sponsors, advertisers, and athletes, and the moral imperative of extending sport participation opportunities to a broader constituent base. However, if these networks are making use of diversity-based information to target desired markets, their efforts seem to have been focused on age and gender data. It appears that only very recently have ESPN and the Sporting Goods Manufacturer’s Association (SGMA) begun to collect demographic data on action sports participants that includes ethnicity. The 2004 release of the Lifestyle Segmentation Report and the Sector Analysis Report that are based on the Superstudy of Sports Participation commissioned by the Sporting Goods Manufacturer’s Association include data on ethnicity (American Sports Data, Inc., 2004a & 2004b). Also, the TNSI sportspoll.com website indicates that ESPN has been collecting data on action sports consumption in recent years (ESPN SportsPoll, 2002). These data are for sale at the websites of the American Sports Data, Inc. and TNSI’s sportspoll.com.

According to Claussen, Ko, and Rinehart (2007), data from these studies indicate that action sports participation is increasing among Generation Y Blacks, Hispanics, and Asian Americans. The Superstudy, which groups Hispanics and Blacks into one category called “Hip-Hop Generation” (Age 13-19), indicated that Hip-Hop participation in roller hockey was 2.45 times that of the total segment population, with skateboarding 2.6 times and BMX bike riding 4.29 times that of the total segment population (American Sports Data, Inc., 2002, p. 164). According to the same study, some of the greatest recent increases in sport participation for Asian Americans have been in action sports, including in-line skating, BMX bike riding, mountain/rock climbing, artificial wall climbing, kayaking, snowboarding, boardsailing, surfing, and wakeboarding (American Sports Data, Inc., 2002, pp. 232-234). For unknown reasons, the Superstudy did not group Asian Americans by age as it did for “MTV Nation” [Age 13-19, White Only] and “Hip-Hop Generation” [Age 13-19, Black/Hispanic].

Primary consumption of sport in the form of participation is thought to contribute to secondary, economic consumption by spectators and fans. Researchers in Spain attempted to ascertain the extent of the tie between sport participation and consumer expenditure on sport, and found that though education and age were important factors, there was not necessarily a strong overall relationship. However, their study was limited to subjects in Spain where sport is not as commercialized as in America; also, it focused on consumer expenditures relating to actual sport participation (e.g., equipment, clothing, instruction) and expressly excluded spending on spectatorship and fan-related merchandise (Lera-Lopez & Rapun-Garate, 2007).

Marketers in the sport industry are convinced there is a link between participation and expenditures by secondary consumers, as is evident in their efforts to promote sport to diverse target markets. The Sporting Goods Manufacturer’s Association (SGMA) includes sports participation rate data in its market reports (see, for example, “The Hispanic Market Report 2006” reprinted in King, 2007b, p. 24). Carol Albert, the senior vice president of advertising, marketing development, and integration for the NBA, uses such data in targeting marketing efforts based on the idea that “Hispanic youth play basketball and grow into NBA fans” (King, 2007a, p. 25). The NBA, therefore, engages in grassroots efforts to develop this participant base into an economic consumer base by, for example, sponsoring renovation of basketball courts in Hispanic neighborhoods (King, 2007b). For similar reasons, Major League Soccer uses its MLS Futbolito grassroots participation program to attract nearly 100,000 participants and spectators per year (Garber, 2007). And since 2003, Nike has attempted to establish brand presence with Native Americans by sponsoring uniforms for the annual Native American Basketball Invitational tournament at a cost of $200,000 per year (Boeck, 2007a).

With respect to secondary consumption of action sports, as of 2001 viewership had increased each year for the X Games on ESPN and the Gravity Games on NBC. From 1997-98 to 2000-01, television ratings for all four major professional sports playoffs declined among youth ages 12 to 17 (Youth Sports Participation Trends, 2004). In contrast, the 2001 Gravity Games averaged a 1.7 household rating (about 2 million households) – up
from a 1.6 rating in 2000. The Winter X Games VI held in 2002 was the most-watched Winter X Games ever telecast on ESPN (Raymond, 2002). Most recently, King (2007b) reported results from the ESPN Deportes Poll on Hispanic sport indicating that 45% of sports fans in Spanish-language-dominant households follow action sports, along with 54% in bilingual and English-dominant homes (compared with 45% of sports fans in the general U.S. population) (p. 19).

Understanding why these demographic groups are increasingly attracted to participation in action sports could help sport providers more effectively reach individuals from these populations. However, understanding how salient subcultures within these populations (e.g., more or less culturally assimilated Hispanics) vary with regard to consumer preferences for marketing and promotion strategies and for different action sport offerings would make such efforts even more effective. The practical implications include the potential for more successful target marketing for action sports providers and the achievement of the moral objective of extending action sports opportunities to a broader audience of participants and spectators.

CONCLUSION

In conclusion, this paper has sought to demonstrate the importance for sport marketers and sport providers of supplementing the use of demographics with linked deep-level culturally relevant information when targeting marketing and promotional efforts to diverse groups of sports participant consumers. In particular, we proposed that the cultural diversity approach to managing diversity in sport organizations described by Doherty and Chelladurai (1999) be adopted when conducting consumer behavior research on diverse market segments of sports participant consumers. We used the example of diversity in action sports participants to illustrate how linking a cultural diversity perspective with the use of demographic information might be especially effective in that sport industry niche. The cultural diversity approach facilitates more nuanced (hence more accurate) analyses of consumer behavior. The resulting information can assist sport providers and marketers in more effectively attracting diverse groups of people to participate as primary consumers of sport, thereby achieving greater social justice while at the same time doing good business.

REFERENCES


BEYOND DOLLARS AND CENTS: EXAMINING THE IMPACT OF THE MOVE TO DIVISION I ON STUDENT-ATHLETES

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INTRODUCTION

Each university has established its academic philosophy guided by its mission statement. Similarly, within each university's athletic department is also a mission statement. The scope of this philosophy varies from school to school and division to division. Schools in the National Collegiate Athletic Association's (NCAA) Division III do not offer athletic scholarships to its athletes and simply do not place much emphasis on this facet of the university. On the other end of the spectrum is Division I. Division I schools offer many scholarships to its athletes and sometimes rely on their athletic departments for a significant source of revenue. Division II schools lie somewhere in the middle, offering some scholarships but generally not relying on revenue from their athletic events.

When a school considers a move from one division to another, the effects are felt throughout the university. The most common situation involves a school moving up from Division II to Division I. In this situation, the balance between increased expenses and increased earnings potential becomes the critical issue. Current and future students are often asked to pay more money to make their school's facilities on par with Division I standards through increased tuition and student fees. Further, most schools expect to see a significant deficit during their first few years as a Division I school due to an immediate rise in the number of scholarships, an increase in the number of sports (including coaches and equipment), and any necessary facility changes. This rapid increase in expenses can seriously impact the budgets of other departments throughout the university. The hope is that in the long run, these changes will lead to an increase in revenue for the athletic department from ticket sales, sponsorship sales, media rights fees, and alumni donations, an increase in public exposure for the university as well as its athletic department, and an increase in student enrollment (Orszag & Orszag, 2005).

However, lost amidst all of these changes is the effect that this move has on the athletes at the university at the time of the transition. These athletes are often asked to compete against superior competition, risk injury against more physically-imposing athletes, spend more time traveling than they otherwise would have, and have increased expectations in terms of practice and athletic performance. The players who will generally see the most significant changes are the football players. Not only are they subject to the aforementioned changes, they are also subject to increased pressure to perform. The effects on these athletes have yet to be examined; however, the impact on these athletes cannot be overlooked. This study focused on one athlete's experience playing college football for a university during a transition period from Division II to Division I.

LITERATURE REVIEW

From an extensive review of literature, most of the existing research that discusses a university moving from one division to another focuses on the financial aspects of this decision. In Tomasini's (2005) investigation on economic differences associated with reclassification to NCAA Division I-AA (DI-AA), the author reported that member universities which reclassified from 1993 to 1999 failed to achieve significant differences in terms of
donations to the university, attendance at football games, incoming freshmen applications, and undergraduate enrollment in the first three years following the reclassification. In a more recent analysis of moving from Division II to Division I, Orszag and Orszag (2005) examined 20 schools that reclassified between 1994 and 2002 and found that the selected institutions experienced an average decrease of $1.2 million in net revenue with institutional support and an average decrease of more than $3 million when institutional support was excluded. Their report further revealed that schools that switched divisions did not experience a significant increase in enrollment or alumni donations.

In addition to the impact on university finances, there are other consequences for many different groups in switching from Division II to Division I such as the impact on the general student population, faculty and staffing issues, facility issues, as well as a variety of other details associated with such a transition. In a review of SUNY Buffalo’s ascension to Division I-A (DI-A), Lords (1999) disputed the impression that a move to Division I-A would help attract more applicants, better faculty members, and more donations from alumni. In particular, Lords argued that the shift to Division I-A made it more difficult for students to get tickets to games, impeded major hiring and expansion plans, and even made the university unable to control its alumni. In Wong’s (2002) more recent review on Buffalo’s move to Division I, the author further confronted the necessity of Buffalo’s $4 million stadium renovation. As Wong commented in his article: “Thousands of empty seats. Eleven losses and no wins. Big-time college football wasn’t supposed to be like this” (p. A55).

Despite the fact that the issue of division transition can be approached from the various perspectives above, these are exactly the types of data and research that this study is looking to avoid. In all of this, one group tends to get overlooked: the current student-athletes who were recruited to play Division II sports who are now playing in Division I. The impact on their experience cannot be ignored. Unfortunately, there is currently a dearth of literature that addresses the plight of these individuals.

METHODOLOGY

TYPE OF STUDY

Although gathering quantitative data on the overall performance (academic and athletic) and expectations (academic and athletic) on student-athletes would be a valuable complement to this research, this particular study used a biographical case study approach of one particular former student-athlete at the University (Creswell, 1998). This individual's perspective on the situation was invaluable as a 4-year varsity player and currently as a coach.

His ability to address some of the unique aspects of the move to Division I made doing a biographical study much more appealing. Assessing the overall mood and expectations of the team are hard to quantify in any other type of research. Further, gaining access to an adequate number of responses from student-athletes who competed during a transitional period at a school is a complicated task.

Although there are several types of biographical case studies, this research is considered a life history (Creswell, 1998). This research was not concerned with the entire life of the participant; instead, it was focused on his life during his time as an intercollegiate athlete and as a young assistant coach. Creswell stated that this approach “reports on an individual's life and how it reflects cultural themes of the society, personal themes, institutional themes, and social histories” (p. 49). The primary goal of this research was to identify these themes. The society being examined was the smaller society of an intercollegiate football team. What was the general mood of the team? How did the team dynamics change when the program moved to Division I? The personal themes were also important. How was this athlete along with his teammates impacted by the move to Division I? Finally, the institution changed during this time as well. What were the athlete’s perceptions of the institutional themes during the drastic transition? Open-ended, biographical questions were the key to unlocking some of these answers.
THEORY

This study was viewed using an interpretivist epistemology. Crotty (1998) stated that this is a theoretical perspective in which "social reality is regarded as the product of processes by which social actors together negotiate the meanings for actions and situations" (p. 11). He also stated, "The interpretivist approach looks for culturally derived and historically situated interpretations of the social life-world" (1998, p. 67). This research sought to do exactly that by examining the culture of a football team and trying to determine how the participant interpreted the changes that surround him.

The interview questions were developed with this approach in mind. The questions were designed to find not only what the changes were for the athletes but also the participant's interpretation of why and how these changes affected his teammates, coaches, other athletes, the athletic department, and the university. This approach was symbolic of why the study was done as qualitative research as opposed to quantitative research. We were not simply trying to find out what the changes were (something you might find using a quantitative approach that identifies common statistical measures of intercollegiate athletes, such as graduation rates, GPA, and number of hours spent with the team). Instead, this study sought out some of the intangible effects on the student-athlete, such as pride, success, enjoyment, injury, and frustration. These emotions and experiences were best examined using a qualitative design featuring in-depth interviews and examining the participant's interpretations of his social life-world.

PARTICIPANTS

There was one participant for this biographical case study. He was a four-year varsity football player who was in the unique position of playing before and after the University changed its division status. Further enhancing his value as a participant in this particular study was his status as an assistant coach for the university's football team. He will be referred to as "Jim" throughout this study; however, a non-descript pseudonym is being used.

SETTING

In an effort to enhance his memory and perhaps enable him to recount pertinent stories, the interview was held at the university's athletic facilities. This setting made him feel more comfortable and he spoke quite openly and freely about his experiences. He was also very visual in his responses, frequently pointing at various parts of the campus and athletic facilities. We did believe that this setting helped him to recall his experiences more vividly, which was a tremendous advantage to the interview.

METHOD

Seidman (1998) stated that "interviewing provides access to the context of people's behavior and thereby provides a way for researchers to understand the meaning of the behavior" (p. 4). Interviews can range from highly-structured to informal. Merriam (1998) claimed that most often "interviewing in qualitative investigations is more open-ended and less structured" (p. 74). The interview in this study was conducted using an interview guide (see Appendix); however, using a semi-structured interview format allowed us to respond to the "situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic" (Merriam, 1998, p. 74). Amis (2005) stated, "The utility of this type of interview is that there is a structure that ensures that certain themes will be covered and helps to develop questions as new themes emerge in the course of the interview" (p. 108). In addition to the interview being semi-structured, the interview questions were open-ended in nature in order to gather the facts of the situation in addition to the opinions, emotions, and experiences of this athlete (Yin, 2003).
This semi-structured interview lasted just over one hundred minutes. The interview length allowed the participant ample time to answer questions regarding the various aspects of a student-athlete's life. His answers were immediately transcribed and field notes were included throughout the course of the transcription process.

ANALYSIS

Merriam (1998) stated that “the right way to analyze data in a qualitative study is to do it simultaneously with data collection” (p. 163). The observations that were recorded during the transcription process represent this. These field notes represented our first effort to make sense of the statements that were made by the participant.

The data were examined using two methods of analysis. First, we used a narrative approach (Merriam, 1998). The interview transcript was essentially a story of this student-athlete's life over the course of his four years as a player (his first year as a red-shirt freshman was not included in the analysis because he was not playing or traveling with the team). It was critical to tell that story and find out what the story meant. However, to gain a better understanding of exactly what the story meant, we thought it was best to attempt to pull out several themes or categories that emerged from the story. Therefore, we also used a thematic approach to analyze this data (Merriam). These themes gave a better sense of exactly how he felt about his experience. What were the dominant themes of his time as a student-athlete? Did he identify more with the “student” side of the term “student-athlete” or did he become engulfed in his role as an athlete? Is the program about winning and success or about participation and creating a positive experience? As such, it was critical to identify exactly which themes emerged from the participant’s experience.

The data was coded using open and axial coding (Strauss & Corbin, 1998). In the first step (open coding), data are “broken down into discrete parts, closely examined, and compared for similarities and differences” (Strauss & Corbin). These individual parts were then grouped into categories. In the second step (axial coding), these categories were then compared and contrasted to try to gain a deeper understanding of the phenomena (Strauss & Corbin). By first deconstructing our data, we were able to then rebuild the information into our identified themes or categories.

INTERNAL VALIDITY

Internal validity addresses the issue of whether or not the findings in a research study match the reality of the situation (Merriam, 1998). Merriam poses the question: “Are investigators observing or measuring what they think they are measuring” (p. 201)? There are two primary ways that this study with address internal validity.

First, we gave the participant every opportunity to speak to any different facet of his intercollegiate athletic experience. Further, the questions were framed so that he addressed many of the pertinent aspects of a student-athlete’s life, both academically and athletically. The questions raised in this study were unique in that they do not address many ambiguous terms or events. There should be little question about what the participant’s responses address.

The second method of addressing internal validity was through peer examination. Seeking the feedback of peers is a useful way to ensure the internal validity of a study. The data, interpretations, and findings were shared between the authors in order to enhance the validity.

EXTERNAL VALIDITY

According to Merriam (1998), external validity is “the extent to which the findings of one study can be applied to other situations” (p. 207). This concept is also referred to as generalizability or transferability. External validity
will be difficult to determine in this study. Experiences are subjective and one person's interpretation of an event or situation may be vastly different from the next. While the participant may not be able to speak to the individual experiences and opinions of other members of the football team, our hope was that he could speak to the general “feel” of the group in addition to his own personal experiences and opinions.

It is important to reiterate that generalization is not the primary objective of this study, nor are we seeking to draw any particular conclusions about the situation in general. This study sought to find specifically how the changes at this University impacted the lives of this individual and his teammates and coaches so that universities that make this transition in the future do not neglect these student-athletes. By raising awareness of the experiences of these athletes, our hope was to remind universities that the mission of their athletic department should revolve around creating a positive academic and athletic experience for its student-athletes and not solely around revenue generation.

**FINDINGS**

**NARRATIVE ANALYSIS**

Our participant, Jim, is an imposing figure standing a little over six feet tall and weighing what appears to be at least 230 pounds. He looked like a football player: big, strong, and athletic. Jim was also confident, almost cocky, in the way that he carried himself. He is a younger guy, only two years out of college so before the researchers, we were worried that he might not have much to say in the interview. As soon as the researchers saw him, we did not worry anymore as they knew he would have a lot to say.

Jim's story as a college athlete is a story of growth. He was always big but wasn't always an athlete. Entering college, Jim did not picture himself as a Division I caliber football player. He had actually decided to attend a Division III school because that's where he “really wanted to go to school.” Football was merely an afterthought. However, a spontaneous visit to the university led to the spontaneous decision to play for a championship caliber Division II school. Although the university was a good fit academically, Jim admitted that he “mainly came for football.” Each year, Jim was faced with difference challenges as a football player (injury, lack of playing time, winning, losing, etc…) but by the end of his tenure as an athlete, he proudly admits that he was a DI-AA player on an NFL (National Football League) Scout Watch List. Further, once he graduated, he changed roles and became an assistant coach for the university's football team.

**YEAR ONE**

Judging by his body language and frequent laughter, Jim's experience during his first year was not indicative of the typical year of a DI-AA football player. However, at this point, Jim was not a DI-AA football player as the University had yet to make the switch from Division II. He did not do well in school and was overwhelmed by the spectacle of college football he stated, “It was novel: the traveling, going to stadiums. It was really exciting.” For the first time, he traveled with the team (usually by bus) and “wasn't hyper-responsible” so he performed poorly academically. This did not seem to be an issue as the academic expectations were quite low. Jim said, “[T]here's really not that much talk about 'get A's.' It's 'get a degree.' That's the expectation. I guess, stay eligible and get a degree.”

Despite the apparent lack of academic expectations, there were lofty expectations for football-related activities. He spent as many as six hours on a regular day on these activities during his first year as a player (he did red-shirt during the previous year, which means that he was a member of the team but did not play and therefore did not use a year of eligibility). The pressure to perform, especially as one of the younger and less experienced players, was overwhelming for Jim at times but he described the experience as “really fun.”
Despite the high level of commitment by the players, the football program at the university remained unsophisticated. This lack of sophistication had a significant impact on Jim’s first year. He described long bus rides, outdated equipment, and a lack of manpower on the coaching staff. This led to a lack of organization, particularly during the off-season when players were urged to complete their workouts without supervision from the coaching staff. However, the way Jim spoke of these off-season workouts left little doubt that most athletes completed them. It was just a matter of where and with whom.

YEAR TWO

When asked about his experience during his first year, Jim’s first adjective was “fun.” When asked about his second year, the first words out of his mouth were: “We had a really good team.” The focus had changed from his individual experiences to the overall team experience. This was not surprising considering he spent the first part of the year recovering from injury which prevented him from excelling individually. Again, he took advantage of the opportunity to let us know that he was a premier player on the team despite the injury saying, “I was actually alternating starts with (another player). He was an All-American his senior year.” After that, his focus shifted quickly back to the team and its success. During this final year as a Division II school, the team lost in the semi-finals of Division II and lost only one other game all year. Jim explained how the team success affected his experience saying, “Everything was really smooth. When you’re winning, everything is really smooth, I think.”

Jim also took a positive approach to his personal experience. The experience was an enjoyable one despite the injury. He described less pressure since he was not playing as much and had a year of experience under his belt. Plus, he pointed out that “you don’t get graded that hard when you’re winning by 20.” It seemed as though part of him wanted to be the star and the one with all the pressure on him. However, there was another part of him that was content to simply be associated with something successful without much personal recognition.

YEAR THREE

The struggle for balance between personal success and team success took another turn during Jim’s third year. This was the first year that the University’s football program was DI-AA as opposed to Division II. Convinced that the team would have won the National Championship had it remained in Division II, Jim describes a new type of motivation. No longer a contender for a championship because of their status as a DI-AA school, the team’s focus shifted to merely winning a few games against these tougher opponents. There was some uncertainty going into that year about how the team would fare against tougher competition. Jim stated, “we’re gonna play these I-AA teams every week and it’s a big deal if we beat one of these teams.” Despite playing tougher opponents, the team was still successful, achieving a 9-2 record and a ranking of #16 among DI-AA schools, both tremendous accomplishments for a team in its first year of DI-AA. That year’s team had tremendous talent and “sent a lot of guys to the pros.”

Personally, Jim’s junior year was his best. He was healthy and in the best shape of his life. He stated:

Out of high school, I never thought I was that good of a player. Like, I didn’t expect to go to like a good DII or a DI... so then it’s like DII, this is cool. But then going to DI-AA, I was like ‘are these guys gonna be a lot better than me?’ And then that year, since I improved so much, I was like I’m as good or better than these guys.

It was during this year that Jim found himself on an NFL Scout Watch List.
Still under the same coaching staff, off-season and academic expectations did not change significantly during this third year; however, there were policy differences between Division II and DI-AA that affected a number of players. Specifically, Division II allows athletes to finish their degree in five years while DI-AA insists that you maintain a pace to finish in four. Subsequently, some players became academically ineligible during the transition period. Jim was fortunate to avoid this predicament.

YEAR FOUR

Regarding the fourth year, Jim stated that it was “basically a huge disappointment.” Once an up-and-coming DI-AA program, the University saw its football team go 2-9. The smoothness that was described during the winning years, was now replaced by a very bumpy road. There was a transition new coaching staff, as well as an adjustment to becoming a losing program. Jim suggested that while many players were committed to the team, there were players who would rather not try and lose instead of trying and losing. This caused bitterness and conflict amongst the players. Expectations appeared to be high for the university's football team after an incredible first year in DI-AA. A tougher schedule was partially responsible for the lack of success but Jim has other theories saying, "I don't want to say that guys weren't trying or something but it was terrible though. I think in general, we're getting to the point where we have a lot of Division II talent playing DI-AA. Those guys are just bigger, stronger, and faster than our guys." This seemed to be a painful memory for Jim as his answers became shorter and his tone less confident and enthusiastic. The stunned expression on his face along with the brevity of his responses indicated to us that Jim was not quite sure what happened between year three and year four that changed everything.

THEMATIC ANALYSIS

Throughout the course of the interview, certain themes became apparent. Some were more prominent than others. In this following section, the strongest themes will appear first. The themes have been titled Winning, Funding and Accountability, Coaching Changes, and Pride.

WINNING

The interview was structured so that the participant isolated his experiences from year to year. Several questions were asked to probe deeper into the experience of that particular year. For example, to begin a discussion on a particular year, the participant was asked to describe his overall experience during that year. After that, he was asked to address other facets of his experience during that year such as academic performance, team expectations, and off-season requirements. A copy of the interview guide is available in Appendix.

With the exception of his first year, Jim began the discussion of each year by discussing team success. Beginning to discuss his second year, Jim stated: “Second year, we had a really good team.” About the third year, Jim said, “We had a better team. I’m convinced that if we had stayed in DII, we would’ve won the National Championship because we were so much better than the year before.” Finally, Jim stated that his fourth year was “basically a huge disappointment because we went 2 and 9.”

It seemed as though the transition had little to do with an expectation of success. Even though the team played against tougher competition, Jim still evaluated each year based on team success and wins and losses. However, especially during that fourth year, the losses were attributed to playing against tougher competition. This seemed to be one of the detrimental effects of the university's transition. Once a proud and successful Division II program had quickly become one of the weaker DI-AA schools. The university's struggles continued in the years following Jim's graduation and into his years as a coach. Players once competing for a National Championship were now struggling to win any games. Not only is the team struggling, but Jim claimed:
There's some (players) that are passed by the quality of football that's played. I don't know if they're enjoying themselves or not. I wish I could tell them to go play at a DII and have a great time being a good player as opposed to being passed by at IAA.

Though failure is certainly a part of any intercollegiate athlete's career, success is also an important experience for young student-athletes. Jim’s discussion of his third year dwelled on the fact that he felt the team would have won a championship. He stated his desire for success, by stating, "It would've been nice to have that season actually get a championship. I've never had that." The University's decision to move to DI-AA cost this student-athlete (and likely many others) an opportunity to achieve high levels of success both personally and collectively.

FUNDING & ACCOUNTABILITY

As the University transitioned to DI-AA, they were required to make certain changes to their program. Among them were an increase in the number of scholarships and an increase in the capacity of their facilities. While players on the team saw some of the benefits of increased support for the program, they did not benefit from the increase in the number and amount of the scholarships. With some bitterness, Jim explained:

I came in on a $2,000 scholarship to start. So if you start for 4 years, they'll bump you up if you're doing well and if they can to where my senior year, I got $5,000 which is helpful, it's good but by my senior year we brought in 2 recruiting classes who are Division IAA guys so they guys who are getting full rides who were terrible and on the practice squad. Some of them, I understand, some of them are projections. It wouldn't have bothered me if I saw that we were bringing in true Division I talent, guys that are going to be better athletes than me. But I think we brought in guys that were of equivalent talent and they're getting a full ride as where I've been giving my life to the program for 5 years and I'm getting $5,000... Like I'm better than the guy at Montana State who's getting a full ride but because I'm here this transitional place, I'm getting kind of screwed.

Although Jim claimed that he had no bad feelings for any individuals, jealousy is a dangerous ingredient among teammates.

However, Jim saw many benefits associated with DI-AA schools that athletes at the university had not seen before. After the transition, the Athletic Department started to provide “a better support system for the athletes.” The team was now flying to games as opposed to making eighteen hour bus rides. The program hired a full-time strength and conditioning coach and the players were given better equipment and apparel. Jim eloquently explained the difference when stating, “When you’re in Division II, you have to support yourself and then do your football as opposed to having the football support you back.”

However, there is a level of accountability associated with this increased level of support. Jim noticed this first from the player perspective and then, once he became an assistant coach, he noticed the increased pressure on behalf of the coaching staff. He stated:

I don't know if it's the change in personnel around here but it's just more professional... More money, more accountability for people's actions from top to bottom: players, the AD (Athletic Director), that type of thing...I think it's just back to the balance of the higher it gets the more professional it gets which means you have more support but it also means it's more cutthroat.

Players are now expected to perform at a high level or risk being cut and losing their scholarship. In Division II, there are higher roster limitations so even if you are not one of the best players, you can still be a part of the team and reap the benefits of the intercollegiate athletic experience. A Division II player "can slide by by saying
‘hey I just don’t have the money.’” On the other hand, Jim claimed, “In Division I, you really have to take it as your job…I mean, this money comes in and people invest and you have to be successful.”

COACHING CHANGE

One of the unanticipated aspects of this study was the fact that in their second year as a DI-AA school, the university also changed football coaches. Although he did not mention it initially as one of his primary recollections of his fourth year, Jim referred to the coaching change on more than one occasion as “more of a transition than just the move (to DI-AA).” He also suggested that in hindsight, the reason for the team’s success in the first year as a Division I-AA school was due to the players’ loyalty to the coaching staff despite the fact that there was a possibility that they would not be as competitive as a DI-AA school. The “loyalty to old coaches” carried over into Jim’s fourth year as several key players from his third year moved to along with the coach that left, which was certainly a possible cause for the team’s poor performance during that year. The previous coach became the head coach at a DI-A school and Jim felt that many of his teammates thought: “I don’t want to play for nothing. Here’s my chance to go play I-A.” As a result, they transferred with the coach.

Jim seemed uncomfortable talking about the coaching staff that came in during his fourth year likely because he is now a member of this coaching staff. When he talked about the effects of the coaching change, he talked exclusively about the previous coach. Jim appeared to have a strong sense of loyalty to both coaching staffs because one recruited him to play and the other recruited him to coach.

PRIDE

Pride is prevalent in Jim’s responses on more than one level. First of all, he was obviously proud of the team’s success as was discussed in the first theme: winning. Secondly, Jim is proud of his personal accomplishments. Although he always mentioned team success first, he was not bashful about mentioning his personal accomplishments. He discussed being scouted by the NFL and boasted confidently that he was better than many DI-AA players. He even admitted: “I think there’s some (players) that take pride in that ‘yeah, I’m at a I-AA school.’”

Interestingly, Jim did not mention any personal details about his fourth season. His responses regarding his fourth year were quite brief and he did not provide any information about how well he played or even if he played at all. The researchers believe this to be a result of him not wanting to be associated strongly with a losing team rather than a result of a lack of personal success, which is consistent with the notion of cutting off reflected failure introduced by Cialdini, Borden, Thorne, Walker, Freeman, and Sloan (1976) and Richardson and Cialdini (1981). He did not play much during his second year due to injury and lack of playing time; however, he still managed to brag about the times that he did play (“I was actually alternating starts with... an All-American.”). He was so proud of the team’s success during his second and third year that he wanted his career to be associated with those years only, an understandable desire.

Jim wore his heart on his sleeve when he discussed his career at the university. His stories clearly showed his loyalty to the program and his continued interest in its success. However, the tone of his voice, along with his nonverbal expressions, was striking. Specifically, the tone and volume of his voice along with his facial expressions and body language changed drastically between year one and year two from casual and light-hearted to intense and proud. The mood changed again between year three and year four, when his answers became shorter and quieter reflecting the team’s lack of success during that year. During years two and three, he was leaning forward and telling long stories of success. During years one and four, he was leaning back, seeming almost disinterested. His chin and his eyes also instantly indicated whether or not the year in question was a good one or a bad one. He proudly held his chin high and looked out across the facilities while recalling his most successful years. Conversely, he looked down and seemed to be trying to make sense of the disaster which was his fourth and final season as a player.
REFLECTIONS

40-60-80 RULE

One of the really sad side-effects of the move to DI-AA is a result of Division I’s 40-60-80 rule. Jim described why this was an issue during the transition:

It’s an after-effect, is the 40-60-80 rule where by your sophomore year you have to complete 40% of your requirements for your major. So when you’re division II, everybody red-shirts. Everybody in the system knows that so you come in, you’re a football player, and, ok, you’re on the 5-year plan. You can red-shirt, we’ll space it out, that sort of thing. But if you’re on the 5-year plan in Division I, you’re academically ineligible.

Coaches, advisors, administrators, parents, and athletes were simply not thorough enough about the impact that this rule would have on the athletes. Jim described situations where teammates were doing well in school but were academically ineligible because they were on the 5-year plan common to Division II. The university likely knew about a possible change in division status prior to Jim’s third year and should have been more helpful in advising students on the requirements for eligibility. The NCAA also has a responsibility to educate transitioning schools about the differences in academic requirements for the different divisions.

FOOTBALL AS A JOB

Jim mentioned on more than one occasion that the transition to DI-AA made football a “job” for the student-athletes since they were now better funded. The use of the term “job” for an intercollegiate athlete is an alarming one and should immediately remind players, coaches, and administrators that these people are students first and athletes second. If anything, these student-athletes should feel as though school is their job. This pressure to perform on the field of play is a lot to put on the shoulders of a teenager. In reality, if this is the perception at this lower-echelon DI-AA university, it could be even worse for athletes at highly-competitive institutions. This scenario once again begs the question originally asked by Representative Bill Thomas to NCAA President Myles Brand: “How does playing major college football or men’s basketball in a highly commercialized, profit-seeking, entertainment environment further the educational purpose of your member institutions” (Thomas, 2006, p. 2)? It seems as though this particular member institution has failed to enhance the educational value of this particular student-athlete.

FINAL THOUGHTS

The transition to DI-AA indeed affected Jim during his playing career. The university’s football team was unique in that it did see significant success early on in Division I-AA. However, the struggles that Jim faced in his fourth year continue to plague the University’s football program years later with only seven wins in three years since its successful first year as a DI-AA program. While Jim and many others at the university think that the transition will ultimately help the school overall, the early effects on the student-athletes, in this case the football players, appear to be quite negative despite the additional funding for the program. Players are devoting more time to their football activities instead of their academic responsibilities and consequently, even though there are more full scholarships to give to student-athletes, many are not able to take full advantage of the educational opportunities provided to them.

Also, as is the case at the university, players have to grow accustomed to failure. Many of these athletes were football standouts in high school and, as Jim pointed out, many of them are now simply “passed by the quality of football that’s played.” As a result, neither the individual nor the team is seeing much success. The negative tone of Jim’s responses regarding his fourth year might reflect the entire experience of some of these athletes.
that are faced with failure after failure on the football field, even after spending hours upon hours in preparation. As was mentioned earlier, experiencing both success and failure is a critical component of life as a student-athlete. It is discouraging to see athletes devote so much of their life to one thing without seeing significant success which, for college football, is often measured in wins and losses.

FUTURE RESEARCH

This study was conducted several years after the university's transition. Th researchers were fortunate to find Jim who was in the middle of the transition as a student-athlete and remained on as a coach. His perspective was valuable; however, a more developed case study in which a researcher follows a team during the course of a transition and interviews athletes and coaches during the experience may shed more light on this topic. Using a case study of this nature would help to address in more detail the psychological effects of the transition on the athletes such as pride and confidence as well as other positive or negative effects such as academic performance, time spent on football-related activities, and injuries. Research that examines the effects of winning and losing on college athletes may also be an appropriate follow-up to this study or a more expansive case study.

Another intriguing aspect to this research was Jim's discussion of the coaching change. A future study could examine the phenomenon of loyalty to coaches. How is it established? Does winning impact loyalty? What does impact loyalty, positively or negatively? We found Jim's perspectives on the effects of the coaching change to be fascinating and hope that someday this phenomenon will be studied in more detail.

REFERENCES


Appendix

Interview Guide

1. Did you play football in HS? What was your experience like there?

2. Did you come to (the University) to play football?
   a. What were your expectations when you started?

3. Describe your participation in intercollegiate football at (the University).
   a. Years?
   b. Position(s)?

4. Describe your experience as a freshman.
   a. During this year, what was the status of the team in terms of Division I or II?
   b. Hours/day?
   c. Hours/week?
   d. Off-season expectations?
   e. Academic expectations?
   f. Team expectations?
   g. Summarize this season...

5. Describe your experience as a sophomore.
   a. During this year, what was the status of the team in terms of Division I or II?
   b. Hours/day?
   c. Hours/week?
   d. Off-season expectations?
   e. Academic expectations?
   f. Team expectations?
   g. Summarize this season...
Interview Guide (cont.)

6. Describe your experience as a junior.
   a. During this year, what was the status of the team in terms of Division I or II?
   b. Hours/day?
   c. Hours/week?
   d. Off-season expectations?
   e. Academic expectations?
   f. Team expectations?
   g. Summarize this season...

7. Describe your experience as a senior.
   a. During this year, what was the status of the team in terms of Division I or II?
   b. Hours/day?
   c. Hours/week?
   d. Off-season expectations?
   e. Academic expectations?
   f. Team expectations?
   g. Summarize this season...

8. What were the primary differences each year?

9. What do you see as the primary differences overall between your freshman year and your senior year?
   a. What do you think was the cause of these differences?

10. How did the transition from Division II to Division I impact your intercollegiate athletic experience?

11. What was your overall experience at (the University) like?

12. Now that you are a coach, how has your perspective of (the University's) switch changed?

13. Are your motivations as a coach in any way affected by (the University's) status as a DI school? If so, how?

14. Is there anything else you'd like to add?
First in Thirst, provides detailed information about how Gatorade was born, and includes stories and examples for assessing and evaluating Gatorade's past, present, and future. Author, Darren Rovell, covers many aspects of Gatorade's sport drink business to give readers thorough information. Each chapter is supported by well-structured stories and cases that introduce the readers to a deeper understanding of Gatorade's marketing efforts and popularity.

Two of the most significant and interesting points of the book are 1) the story of the scientifically trusted product and 2) the book's deep look at the business strategies, the sport drink wars, mergers and acquisitions, and the company's history. An overview of significant points captured in this work is highlighted in the following sections.

Ch. 1 – 3: Development & Growth

The first chapter tells about why and how Drs. Robert Cade, Dana Shires, Alex DeQuesada, and Jim Free created Gatorade. In 1965, the University of Florida's football team had serious problems: heat exhaustion and dehydration. The four doctors found a formula to solve the problems. The simple idea of the sport drink (Gatorade) was to replace fluids lost through perspiration.

After the successful test using the entire football team, Gatorade started its second year on the Gators' sideline. In addition, the University of Florida football coaches started using Gatorade throughout the state as a recruiting tool. In 1966, Gatorade was even introduced in a Miami Herald article as "a liquid solution that tastes like mint and works like a miracle."

Dr. Cade believed that his drink could become a very profitable success.

And in 1967 the Gatorade formula was sold to the Stokely Van-Camp company, who went on establish the Gatorade Trust the same year. Gatorade was ready to become a revenue producer. However, Stokely Van-Camp had to figure out how to make Gatorade product tastier.
In 1967, Stokely executives negotiated a $25,000-a-year deal for Gatorade to be called the official sport drink of the NFL. The contract stated that all NFL teams would have to put coolers on their sidelines and as a result, players used coolers and cups with the Gatorade logo on them.

Further, Stokely considered other markets to be possible revenue sources. For example, one of Gatorade’s earliest advertisements appeared in Playboy, “Gatorade: It can take care of any kind of thirst you can work up. Any kind.” However, this ad was not effective at all. After that, Gatorade was never advertised in Playboy again.

Ch. 4 – 6: Sport Marketing

As expected, Gatorade had turned into a blue-chip brand. However, all was not good between Dr. Cade and the University of Florida. Cade was collecting money from Stokely on the royalties from the sales, but the University of Florida was not and subsequently filed suit against the Gatorade Trust and Stokely Van-Camp in 1971. The suit continued until July 1972 when the University of Florida received a 20% percent share of Gatorade’s royalties, resulting in a large fortune making its way to Gator Country.

The dumping of the Gatorade cooler on the coach has become a tradition in every state. The Gatorade dunk was born when New York Giants’ Jim Burt poured a cooler on his coach, Bill Parcells. A move which has become a traditional victory celebration.

In 1983, Quaker Oats acquired Stokely Van-Camp for $220 million. In 1984, Quaker Oats began to use the popular “Thirst Aid” campaign, explaining the spirit of Gatorade. In 1988, Quaker opened the Gatorade Sports Science Institute (GSSI). Sales continued to rise under the “Thirst Aid” campaign. By 1990, sport marketing was quickly changing. Specifically, companies were using professional athletes to help sell their products. As a result, in 1991, Michael Jordan signed a $13.5 million deal: “Be like Mike. Drink Gatorade.” Michael Jordan was used as part of Gatorade’s development into the international marketplace. Signing the most popular sport athlete in the world could have helped stop the growth of other competitors (e.g., POWERade) in the sport drink market. Later, Gatorade added Peyton Manning, Yao Ming, Derek Jeter, and Mia Hamm creating a “halo effect” through transposition of feeling from an athlete or sporting event to the Gatorade brand.

Ch. 7 – 8: Sport Drink Business & Rules

The Gatorade brand has gone on to dominate the U.S. sports drink market, holding a market share of 83%. This success has flourished because 1) Gatorade had the science behind it to prove to the consumer that Gatorade worked, 2) Gatorade had become part of the athlete’s work ethic, and 3) Gatorade executives mastered the strategy of when and where to advertise. For example, The scope of Gatorade expanded even further in 2001 when Quaker merged with PepsiCo.

In the Chapter 8, Rovell introduces readers to the nine Gatorade rules. These principles have helped Gatorade become a dominant brand in the sport drink market. I believe that those rules could be applied to other industries for achieving greater brand equity. The nine rules, including a notable example of each, are:

1. **Make sure your product, service, or brand is unique and know what makes it unique:** After Quaker Oats acquired the Gatorade brand from Stokely Van-Camp, the company opened the Gatorade Sports Science Institute (GSSI) to build up and research the brand.

2. **Never stop researching the marketplace:** Gatorade invests in research to identify their current and future consumers.
3. **Identify drivers of the business and take care of them**: Gatorade uses professional athletes and professional team trainers who influence the sport drink market.

4. **Never stop working to get your next consumer**: Gatorade is interested in the children's market and the Hispanic market.

5. **Packaging counts**: Quaker Oats believed that several types of bottles could influence the success of Gatorade.

6. **Learn from your mistakes**: Gatorade learned important lessons from the failed brand, Gatorade Light.

7. **Seek to connect emotion and passion to the brand**: Throughout the effective ads, Gatorade connects affinity for the brand with consumers.

8. **Stay disciplined**: There were temptations to use the successful brand name in different places and products. However, Gatorade stays firm as the sport drink.

9. **Form smart strategic alliances**: Gatorade put the ESPN logo into its bottles, which had boosted sales.

**Ch. 9: Gatorade Critics & Future**

Gatorade has prevailed in the sport drink battles through its storied history, its intricate marketing plan, its innovative sales team, and its scientific institute. Each of these aspects have added in a very complex way to making Gatorade one of the strongest sport brands there is. In 2005, Gatorade celebrated the 40th anniversary of its invention. Gatorade is now available in more than 30 flavors and more than 50 countries. Its gross retail sales surpass $3 billion in the United States alone.

**Conclusion**

In conclusion, *First in Thirst: How Gatorade Turned the Science of Sweat into a Cultural Phenomenon* is complemented by various stories of the sport drink industry and Gatorade. Readers will get information about how Gatorade created and built a sport drink brand awhile gaining insight into the methods Gatorade used to deal with rival brands. If readers have an interest in sport, business, branding, and/or marketing—the *First in Thirst* is for them.
Over the last 4+ years, this journal has been able to fulfill its designed purpose by providing a forum for the stimulation and dissemination of research concepts, practical information, and theory relating to the examination of Sport Management and peripheral areas of study and providing an outlet for academic and practical exploration addressing the needs and interests of the field. With that said, SMART will go on a hiatus following the next issue (Volume 5, Issue 1). That issue is a special issue focusing on Sport in Popular Culture and Media. This special issue is to include a “SMART extra” component containing the remaining accepted articles as well. As for the future of SMART, time will tell; but regardless of the future direction, I wish to thank all who have helped make SMART the successful venture that it has been thus far. I wish to thank all members of the review board, guest reviewers, and contributors. Your involvement has been essential, and greatly appreciated.

I am proud of this double issue, as I think it provides some interesting and informative articles. I wish to thank John Miller for serving as a guest editor for the facilities component. Furthermore, I also anxiously await the publication of the next issue as we have been fortunate to receive many quality submission for the Sport in Popular Culture and Media special issue. As always, I appreciate any comments or questions pertaining to SMART. Feedback can be sent to me at jason.lee@unf.edu. Thanks once again to all of you for being SMART.