

MOTIVATIONS FOR PARTICIPATION IN INFORMAL SPORTS WITHIN CAMPUS

RECREATIONAL SPORTS

by

Ashley N. Donaldson

Submitted in partial fulfillment of the requirements
for the degree
Master of Science in the School of Public Health
Indiana University
August 2013

Accepted by the faculty of the School of Public Health-Bloomington, Indiana University, in partial fulfillment of the requirements for the degree of Masters of Science of Recreation.

Dr. Sarah J. Young, Chair

Masters Committee:

Dr. Craig M. Ross

Dr. William D. Ramos

July 10, 2013

Copyright © 2013

Ashley N. Donaldson

ACKNOWLEDGEMENTS

This work would not have been possible without tremendous support. It is with much gratitude that I acknowledge and thank the many people who helped me along the way. First, I would like to thank Dr. Sarah Young for her patience and guidance. She “stuck” with me through the entirety of this project and words cannot express how appreciative I am for everything that she did to help me to this point. She motivates me to continue to ask questions and never stop learning.

I would also like to thank Dr. Craig Ross and Dr. William Ramos for serving on my committee and providing assistance to help strengthen this study. Recognition and thanks also go out to Dr. Charles Chancellor and Chris Geary for providing additional guidance on this project.

Both Sikirat Kazeem and Dr. Susan Mahoney have been amazing mentors, colleagues and friends. I am indebted to them for helping to make my graduate and professional experiences meaningful and rewarding. I would not be who I am today without their leadership.

I would not have finished this project without the love and support of my family. Special recognition goes out to my parents, Dennis and Dee, who have always encouraged me to pursue my dreams. I am especially grateful for my mother’s continued faith in me. She was willing to do whatever she could to help me finish. She never stopped believing.

As I look back at completing this project in its entirety, I am filled with emotion. I feel truly blessed by the outpouring of support that I received from so many. While there were many days that I felt defeated, I found the courage to try again. In the words of Thomas Edison, “Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time.”

Ashley N. Donaldson

MOTIVATIONS FOR PARTICIPATION IN INFORMAL SPORTS WITHIN CAMPUS
RECREATIONAL SPORTS

This study examined the varying motivational factors among college students participating in informal sports. The Leisure Motivation Scale (LMS) developed and tested by Beard and Ragheb (1983) was the instrument used to direct the data collection for the study. The LMS identified four main factors that motivated people to participate in recreational activities: (a) intellectual, (b) social, (c) competence-mastery, and (d) stimulus-avoidance. Students enrolled in a Midwestern university during the spring 2009 semester were systematically and randomly selected to participate and only those who indicated participation in campus recreational sports were asked to complete the survey. An ANOVA was conducted to compare the means among various demographic items and the four motivational sub-areas to determine any significant differences.

Based on the results, motivations for all of the four-sub areas (intellectual, social, competence-mastery and stimulus-avoidance) were indicated. Overall, social and competence-mastery were shown to be the sub-areas with the highest motivators for students. Several of the independent variables (gender, class standing, place of residence and ethnicity) were shown to have an effect on motivations for participation within the sub-areas. Physical fitness motives were some of the highest motivators for participation across all independent variables. While many of the results were intuitive, some were not as expected. Such results were that males stated they were more likely to participate for social reasons than females and that females were more driven to participate in order to gain a sense of achievement. The findings from the study

help gain insight into why students are motivated to participate in self-directed recreational sports. The results should aid recreational sports administrators in cultivating and enriching student involvement as well as modifying program offerings and facility availability to enhance student participation.

TABLE OF CONTENTS

Chapter	Page
1. INTRODUCTION	1
Statement of the Problem	3
Purpose of the Study	4
Justification for the Study	4
Delimitations	7
Limitations	7
Assumptions	8
Hypotheses	8
Definition of Terms	10
2. REVIEW OF LITERATURE	12
Campus Recreation	12
Benefits to Campus Recreation	16
Health Benefits	20
Leisure and Sport Motivation	23
Summary	27
3. METHODOLOGY	29
Sample Selection	29
Instrumentation	31
Administration of the Instrument	32
Treatment of the Data	33

4. DATA ANALYSIS	34
Response Rate	34
Demographic Information	36
Gender of Informal Sports Student Participants	36
Class Standing of Informal Sports Student Participants	36
Place of Residence of Informal Sports Student Participants	37
Ethnicity of Informal Sports Student Participants	37
Informal Sports Participation Demographics	38
Informal Sports Student Participation by Sport	39
Frequency of Participation in Informal Sports by Student Participants	40
Duration of Participation in Informal Sports by Student Participants	40
Motivations for Student Participation in Informal Sports	40
Intellectual Motivation and Gender	41
Intellectual Motivation and Class Standing	43
Intellectual Motivation and Place of Residence	47
Intellectual Motivation and Ethnicity	50
Social Motivation and Gender	52
Social Motivation and Class Standing	55
Social Motivation and Place of Residence	59
Social Motivation and Ethnicity	63
Competence-Mastery Motivation and Gender	64
Competence-Mastery Motivation and Class Standing	66
Competence-Mastery Motivation and Place of Residence	70

Competence-Mastery Motivation and Ethnicity	72
Stimulus-Avoidance Motivation and Gender	75
Stimulus-Avoidance Motivation and Class Standing	77
Stimulus-Avoidance Motivation and Place of Residence	80
Stimulus-Avoidance Motivation and Ethnicity	82
Hypothesis Testing	85
Discussion	88
Summary	95
5. SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	96
Summary	96
Findings	97
Conclusions	99
Implications	100
Recommendations	101
REFERENCES	104
APPENDICES	116
Appendix A: Leisure Motivation Scale	117
Appendix B: Study Instrument	120
Appendix C: Study Information Sheet	128
Appendix D: Email Correspondence	130

INDEX OF TABLES

Table

1. Class Standing of Informal Sports Student Participants	37
2. Place of Residence of Informal Sports Student Participants	37
3. Ethnicity of Informal Sports Student Participants	38
4. Informal Sports Student Participation by Sport	39
5. Frequency of Participation in Informal Sports by Student Participants	40
6. Duration of Participation in Informal Sports by Student Participants	40
7. Comparison of Means for Gender and Intellectual Motivation	42
8. Analysis of Variance for Intellectual Motivation and Gender	43
9. Comparison of Means for Class Standing and Intellectual Motivation	44
10. Analysis of Variance for Intellectual Motivation and Class Standing	45
11. Tukey's HSD among Class Standing Groups and Intellectual Motives	46
12. Comparison of Means for Place of Residence and Intellectual Motivation	47
13. Analysis of Variance for Intellectual Motivation and Place of Residence	49
14. Tukey's HSD among Place of Residence Groups and Intellectual Motives	50
15. Comparison of Means for Ethnicity and Intellectual Motivation	50
16. Analysis of Variance for Intellectual Motivation and Ethnicity	51
17. Tukey's HSD among Ethnic Groups and Intellectual Motives	52
18. Comparison of Means for Gender and Social Motivation	53
19. Analysis of Variance for Social Motivation and Gender	54
20. Comparison of Means for Class Standing and Social Motivation	55
21. Analysis of Variance for Social Motivation and Class Standing	57

22. Tukey's HSD among Class Standing Groups and Social Motives	58
23. Comparison of Means for Place of Residence and Social Motivation	60
24. Analysis of Variance for Social Motivation and Place of Residence	61
25. Tukey's HSD among Place of Residence Groups and Social Motives	62
26. Comparison of Means for Ethnicity and Social Motivation	63
27. Comparison of Means for Gender and Competence-mastery Motivation	65
28. Analysis of Variance for Competence-mastery Motivation and Gender	66
29. Comparison of Means for Class Standing and Competence-mastery Motivation	67
30. Analysis of Variance for Competence-mastery Motivation and Class Standing	68
31. Tukey's HSD among Class Standing Groups and Competence-mastery Motives	69
32. Comparison of Means for Place of Residence and Competence-mastery Motivation	70
33. Analysis of Variance for Competence-mastery Motivation and Place of Residence	72
34. Comparison of Means for Ethnicity and Competence-mastery Motivation	73
35. Analysis of Variance for Competence-mastery Motivation and Ethnicity	74
36. Tukey's HSD among Ethnic Groups and Competence-mastery Motives	75
37. Comparison of Means for Gender and Stimulus-avoidance Motivation	76
38. Analysis of Variance for Stimulus-avoidance Motivation and Gender	77
39. Comparison of Means for Class Standing and Stimulus-avoidance Motivation	78
40. Analysis of Variance for Stimulus-avoidance Motivation and Class Standing	79
41. Tukey's HSD among Class Standing Groups and Stimulus-avoidance Motives	80
42. Comparison of Means for Place of Residence and Stimulus-avoidance Motivation	80
43. Analysis of Variance for Stimulus-avoidance Motivation and Place of Residence	82
44. Tukey's HSD among Place of Residence Groups and Stimulus-avoidance Motives	82

45. Comparison of Means for Ethnicity and Stimulus-avoidance Motivation	83
46. Analysis of Variance for Stimulus-avoidance Motivation and Ethnicity	84
47. Tukey's HSD among Ethnic Groups and Stimulus-avoidance Motives	85
48. Summary of the Results for ANOVA Tests of the Null Hypotheses	85

Chapter 1

INTRODUCTION

Since the 1980's, campus recreational sports programs have become increasingly common at institutions of higher education across the country and as a result the field of campus recreation has experienced tremendous growth (Barcelona & Ross, 2002; Arterberry, 2004). Through this growth, campus recreation facilities have become much more than simply a place to exercise and improve fitness levels. Practitioners and campus administrators have recognized the important role that these programs have on factors such as student recruitment and retention, holistic wellness, personal and social diversity, and competence and mastery of leadership skills (Haines, 2001). These facilities also serve as a venue for education; allowing participants a place to enhance their social relationships, develop self-esteem and improve interpersonal skills and contribute to a sense of community (Dalgarn, 2001). Participation in recreational sport activities has also been shown to play an important role in helping students balance and improve the quality of their lives as well as contribute to a feeling of community within the university (Iso-Ahola, 1989; Elkins, Forrester & Noël-Elkins, 2011). With such an array of benefits to participation, campus recreational sports have become established as an important aspect of college life for the 21st century student.

Campus recreational sports include a broad spectrum of activities in which students can participate. These areas of participation are divided into specific categories based on the cooperative and competitive activity involved, level of direction from the participant, and the goals or outcomes from involvement (Mull, Bayless, & Jamieson, 2005). Intramural, informal, club, instructional and extramural sports are all program areas of participation available to college students. One of the most common areas of participation in campus recreational sports is

informal sports, which are completely self-directed in nature. Although they are often not recognized as a sport activity or program area, informal sports allow participants to determine their own needs and interests. The level of cooperative and competitive play as well as the goals and outcomes are completely controlled by the participants (Mull et. al, 2005). Despite the fluidity of informal sports, many students are highly motivated to participate regularly and repetitively.

One motivation for student participation may be the health benefits. In a study by Coghill and Cooper (2009), health was found to be the main motivating factor for continued physical activity. With the dramatic rise in obesity over the past several decades (Flegal, Carroll, Ogden & Curtin, 2010; Dixon 2010), the health benefits of campus recreational sports have become increasingly important. The Center for Disease Control (2013) reported via the National Health and Nutrition Examination Survey (NHANES) that 35.7% of adults and 16.9% of children in the United States were obese in 2009-2010. Those who suffered from obesity were at a higher risk for a multitude of health consequences which included cardiac diseases, type-2 diabetes, cancer, osteoarthritis, psychological conditions, decreased years of life and mortality (Berenson, 2012; Dixon 2010).

Research suggests that there may be more to participants' motivations than simply health benefits. Bocarro, Kanter, Casper and Forrester (2008) found that participants were interested in participating in order to have fun, learn and improve sport skills and play as part of a team. Similarly, Weiss and Ferrer-Caja (2002) found developing physical competency, social acceptance and enjoying the experience were factors that led to participation. This begs the question: what really does motivate students choose to participate in campus recreational sports?

The study of leisure motivation has been a center of research for decades (London, Crandall & Fitzgibbons, 1977; Tinsley & Kass, 1978; Iso-Ahola & Allen, 1982; Beard & Ragheb, 1983; Mitchell 1983; Deci & Ryan 1985; Iso-Ahola 1989; Driver, Tinsley & Manfreda 1991; and Ewert 1994; Weiss & Ferrer-Caja, 2002). Beard and Ragheb (1983) found particular interest in researching leisure motivation “because there are no obvious external factors compelling individuals to engage in particular leisure activities” (p. 219). Fueled by their interests, Beard and Ragheb set out to develop an instrument to measure leisure motivation thus being able to assess the psychological and sociological foundations for participation. The Leisure Motivation Scale created by Beard and Ragheb determined that, while there are many reasons for participation in leisure activities, it can be classified broadly into four main categories: intellectual, social, competence-mastery, and stimulus-avoidance. Since its inception, this scale has been used in a variety of leisure studies (Lounsbury & Polik, 1992; Hsieh, 1998; Ryan & Glendon, 1998; Murray & Nakajima, 1999; Starzyk, Reddon, & Friel, 2000; Wickham, Hanson, Shechtman, & Ashton, 2000), including some in campus recreation (Iso-Ahola & Allen, 1982; Kanters & Forrester, 1997; Beggs, Stitt & Elkins, 2004). However, there has been little previous research within campus recreation for the motivations of students who participate specifically in informal sports. It is unclear as to whether differences in motivation for participation by these students even exist, and furthermore what these differences are.

Statement of the Problem

The problem of this study was to determine if differences existed in motivational factors for students who participated in informal sports in a campus recreational sports setting.

Purpose of the Study

The purpose of this study was to examine and identify the motivational factors of participants based on Beard and Ragheb's (1983) four categories of motivational factors (i.e., stimulus-avoidance, competence-mastery, intellectual, and social). The independent variables being studied included: gender, class standing, place of residence, ethnicity, type of recreational sports participation, and frequency of participation. The dependent variable was the motivational factors that provided the incentive for participation. Although previous studies (Iso-Ahola & Allen, 1982, Kanters & Forrester, 1997, and Beggs, Stitt, & Elkins, 2004) have explored the motivational factors for participation in various areas of campus recreational sports, the purpose of this study was to focus on the motivations for participation solely in informal sports. By harnessing this information, recreational sports professionals will be able to identify why students participate in their programs resulting in improved programming for recreational sports departments.

Justification for the Study

The argument for studying leisure motivation was perhaps best expressed by the National Academy of Science (1969) stating that in order to understand recreation better we must recognize "the forces that drive it, springing from the behavior patterns of people who engage in it, the social and psychological needs they seek to satisfy, and the established and encouraged forms of consumption" (p. 2). In the discussions of a self-esteem and frequency of participation study (Collins, Valerius, King & Graham, 2001), it was noted that future investigations should explore the underlying motivations for student participation in leisure, sport and recreation activities. Discovering and understanding leisure motivation can only be found through both theoretical and empirical research. Such research is lacking in almost all areas of the recreational

sports field (Barcelona & Ross, 2002). According to Haines and Fortman (2007), it is vital that research expand in order to ensure a stable future for collegiate recreational sports. Research in leisure motivation has been conducted in a wide variety of settings, but studies focusing on motivations for participation within campus recreational sports have been few and far between (Beggs et al., 2004). The studies that have focused on campus recreational sports (Iso-Ahola & Allen, 1982; Kanters & Forrester, 1997) have either focused on intramural sports participation, benefits received by participants from involvement or negotiation of constraints to participation (Beggs et. al, 2004; Hackett 2007; Young, Ross, & Barcelona, 2003).

It was not until 2004, that Beggs et al. looked at the motivations for participation in campus recreational sports. However, this study focused on the motivations of participants and non-participants in recreational sports and did not solely focus on informal sports participation. For their study, recreational sports was defined as “any cooperative/competitive activity in the game form participated in voluntarily, such as intramural sports, outdoor adventures, sport clubs, or informal/fitness activities,” (Beggs et al., 2004, p.70). This definition sufficed for their study because of the focus on understanding both motivations and constraints to general recreational sports participation. However, there may have been underlying external motivations for participation in some of the programs grouped under this definition. Specifically, most intramural and club sports programs both require additional fees in order to participate. Although students do pay a fee to participate in informal sports, this fee is usually automatically assessed and not a voluntary or out-of-pocket fee as is the case with entry fees in intramural sports and membership fees in club sports. In addition, the results found in the study by Beggs et al. (2004) indicated that competence/mastery was the most important motivating factor for participation in recreational sport as a whole. Although these results echoed those found by

Kanters and Forrester (1997), due to the broad definition of recreational sports by lumping all campus recreational sport program areas together, the results of both these studies cannot help to determine whether the same motivating factors would exist for participation specifically in informal sports.

Justification for an informal sports specific study can be found in the number of students that participate in informal sports. According to Campus Recreational Sports at a Midwestern institution, their informal sports program recorded 1,790,665 individual participations in 2006, far more than any other program area. The high proportion of students participating in informal sports programs is likely replicated on college campuses around the United States and Canada.

Gaining an understanding of students' individual motivations for participation in informal sports may not only help to develop a deeper conceptualization of leisure motivation in a campus recreational sports setting but may also provide valuable information to administrators of campus recreational sports programs (Beggs et al., 2004). Such information regarding the leisure motivation of students in informal sports may also help practitioners develop and shape programs that have the greatest likelihood of minimizing conflicts to participation and ultimately yielding the highest benefits to participants (Manfredo & Driver, 1996). By minimizing these conflicts, this may also help combat the battle against obesity raging in the United States today. Specifically, nearly one-third of college students were reported by the American College Health Association to be overweight or obese (2011). Finally, understanding why students are motivated to participate may ultimately help to better understand what students perceive they are gaining from their participation. Developing research that highlights a better understanding of campus recreational sports and their importance may also be needed to defend the existence of their current funding and programs as well as allowing ability for future growth (Haines, 2001).

Delimitations

This study was delimited to the following:

1. A random sample of Indiana University-Bloomington undergraduate and graduate students enrolled in the 2009 spring semester.
2. Responses on the instrument provided by subjects in this study.
3. The Leisure Motivation Scale (Beard & Ragheb, 1983) used to determine motivational factors of the study.

Limitations

This study was limited to the following:

1. Selected subjects' responses to the online questionnaire within the time frame of the study.
2. The ability of respondents to understand and interpret the items comprising the instrument used in this study.
3. The degree to which the subjects responding represented the Indiana University-Bloomington student population.
4. Selected subjects did not have direct contact with the researcher which may have impacted the response rate.
5. The results of the study cannot be inferred outside of Indiana University-Bloomington.
6. Selected subjects taking the time to respond to the online questionnaire.
7. The number of subjects completing the questionnaire.
8. Due to the "other" category being undefined for place of residence and ethnicity, the results of this population should not be generalized.

Assumptions

This study was based on the following assumption:

1. Respondents were honest and accurate in their responses.
2. Respondents represented the diversity of the campus and represented each class standing at Indiana University-Bloomington.
3. Beard and Ragheb's (1983) motivational factors were comprehensive for the population studied and the instrument was appropriate for the study.
5. An electronic survey was the most appropriate method for data collection.

Hypotheses

The following null hypotheses were tested:

1. Respondents will not report intellectually motivating factors for participating in informal sports.
 - a) There are no significant differences for intellectually motivating factors between genders.
 - b) There are no significant differences for intellectually motivating factors between class standing groups.
 - c) There are no significant differences for intellectually motivating factors between places of residence groups.
 - d) There are no significant differences for intellectually motivating factors between ethnic groups.
2. Students will not report socially motivating factors for participating in informal sports.
 - a) There are no significant differences for socially motivating factors between genders.

- b) There are no significant differences for socially motivating factors between class standing groups.
 - c) There are no significant differences for socially motivating factors between places of residence groups.
 - d) There are no significant differences for socially motivating factors between ethnic groups.
3. Students will not report competence-mastery motivating factors for participating in informal sports.
- a) There are no significant differences for competence-mastery motivating factors between genders.
 - b) There are no significant differences for competence-mastery motivating factors between class standing groups.
 - c) There are no significant differences for competence-mastery motivating factors between places of residence groups.
 - d) There are no significant differences for competence-mastery motivating factors between ethnic groups.
4. Students will not report stimulus-avoidance motivating factors for participating in informal sports.
- a) There are no significant differences for stimulus-avoidance motivating factors between genders.
 - b) There are no significant differences for stimulus-avoidance motivating factors between class standing groups.

- c) There are no significant differences for stimulus-avoidance motivating factors between places of residence groups.
- d) There are no significant differences for stimulus-avoidance motivating factors between ethnic groups.

Definition of Terms

The following terms are defined to clarify their use in the study:

Collegiate. Designed for or characteristic of college students.

Competence-Mastery. The extent in which individuals engage in leisure activities in order to achieve, master, challenge, and compete (Beard & Ragheb, 1980).

Intellectual. The extent to which individuals are motivated to engage in leisure activities that may involve mental activities such as learning, discovering, exploring (Beard & Ragheb, 1980).

Leisure. Non-work activities in which the individual has a free choice whether to participate or not. The individual has no obligation as to what activity is chosen or to what extent the individual participates (Beard & Ragheb, 1980).

Leisure Satisfaction. A positive perception or feeling an individual attains as a result of engaging in leisure activities and choices. It is the degree to which an individual is presently content or pleased with his/her leisure experience (Beard & Ragheb, 1980).

Motivation. “An interaction of internal factors (unconscious and conscious psychological compulsions) and external factors (social and familial gratification and recognition), within which are combined a variety of drives (basic drives, self-image, experience) that can evolve and change over time” (Recours, Souville, Griffet, 2004, p. 2).

Motive. A possible combination of desires and needs that cause a person to act, or is the reason for a behavior.

Obesity. Obesity is a body mass index (BMI) of 30 or greater (Flegal, Carroll, Kit & Ogden, 2012).

Physiological. The extent to which an individual participates in a sport activity in order to stay healthy, control his/her weight, and promote physical and emotional well-being.

Psychological. The feeling of enjoyment, a sense of freedom, involvement, and intellectual challenge an individual experiences while participating in an activity.

Social. The component individuals engage in leisure activities due to the need for friendship and rewarding interpersonal relations with other people, as well as for the need for the esteem of others (Beard & Ragheb, 1980).

Stimulus-Avoidance. The drive to escape and get away from over-stimulating life situations. It is the need to avoid social contacts, to seek solitude and calm situations, as well as to seek rest and unwind (Beard & Ragheb, 1980).

Chapter 2

REVIEW OF THE RELATED LITERATURE

Much of the research in leisure motivation generalizes the social and perceived benefits that recreational sports programs and facilities offer. Only a small portion of the research focuses on specific areas within recreational sports and even less concentrates on specific areas within collegiate recreational sports. Despite these limitations, research has shown varying degrees of motivation for participation in campus recreational sports. The literature presented in this chapter reports students' motivational factors for their desire to participate in a recreational sports program. This review of the literature will be presented under the following topics: (a) campus recreation, (b) benefits of campus recreation, (c), health benefits, and (d) leisure and sport motivation.

Campus Recreation

Campus culture has dramatically changed over the decades. What was once thought of as the traditional 18-22 year old student of yesterday is much different from the traditional student of today. So who are the students of today? According to the National Association of Student Personnel Administrators (NASPA), the profile of American college students in 2008 had exhibited these characteristics:

- 28.28% transferred from another two-year college or four-year college or university
- 62.71% were female
- Of the total college population:
 - White/Caucasians made up 69.78%
 - Asian/Pacific Islanders made of 8.32%

- Black/African-Americans made up 4.62%
- Only 23.48% identified themselves ethnically first as American
- 18.84% spoke two languages
- 13.44% were born in a country other than the United States
- 38.11% lived on-campus
- 18.07% were the first in their family to go to college

While there are many other factors to consider in looking at today's student population, the fact is that campuses are communities becoming more and more diverse in a variety of ways (Dalgarn, 2001; Hodges 2000). Campus recreation facilities have a unique role as they offer programs and activities that aim at meeting the needs, interests, and expectations of an increasingly diverse population. With the continued change in the demographics of campus culture, recreation facilities on campus may play an even more significant role.

Campus recreational sport programs offer students an outlet for physical activity, fitness and health (Mull, Forrester, & Barnes, 2013). They are one of the few services on campus where the delivery of the activities is focused on enjoyment and fun (Mull, Bayless, & Jamieson, 2005; Mull, et al., 2013). It has been said that one of the main reasons for campus recreation programs is the positive impact that such programs, services and facilities have on the quality of life of its users (Lewis, Barcelona, & Jones, 2002). Variety in the programming of recreational sports is especially important as the diversity of the student population increases. Not all students prefer to participate in the same way or in the same type of activity and it is the responsibility of recreational sports practitioners to deliver programs and services that meet the needs of the students they serve. As such, most campuses offer a wide range of programs and activities,

which can be broken down into four main components: intramural sports, club sports, instructional sports, and informal sports.

Intramural sports have a long history dating all the way back to 1904 at Cornell University where they were first “born” (NIRSA, 2008). This program area is frequently thought of as the foundation of campus recreational sports as it was the first program area to be recognized by a named department on both the University of Michigan and Ohio State University campuses (NIRSA, 2008). Intramural sports are popular activities where competitive sporting events occur within the boundaries of the college through individual sports, dual sports, or team sports. The length of intramural sporting events is predetermined and can be in a tournament or league format. The variety of events offered through intramural sports allows individuals or teams to sign up for the competitions according to their skill level. Additionally, because intramural sports typically are scheduled for no longer than a few weeks for any specific league or tournament, students are able to participate in many different sport competitions throughout a school year (Mull, et al., 2013).

Club sports are another major program area within collegiate recreational sports consisting of special interest groups organized because of a common interest in a specific sporting activity (Mull et. al, 2013). Typically, self-administration and self-regulation are characteristics common to all club sports, which allows for student leadership positions within each club. Participants in club sports seek to develop skills in a specific sport; skills that informal or intramural sports may not be able to develop. The extent to which club sport teams compete is determined by each individual club. Some clubs are extremely competitive and travel to other schools to compete, while other clubs are formed more for social connections, instruction, or skill development than for competition.

Instructional programs within campus recreation can include lessons, clinics, workshops and instructor-led group activities (NIRSA, 2008). There are many different areas in which an instructional program can be focused, some of which include fitness and wellness, outdoor adventures, and aquatics. According to Mull et. al (2013) such programs generally fall under the category of an instructional sport. These activities are led by an instructor who teaches the participants specific skills, techniques, and strategies to help them improve. All of the program formats are continually evolving and changing in order to keep participants re-energized about the programs. Some programs have even been hybridized to incorporate multiple areas in one program. Examples of this type of programming might include paddleboard yoga, which includes elements from aquatics, fitness and outdoor adventures or a yoga hiking retreat, which incorporates fitness and outdoor adventures. Goals for instructional sport programs can be self-determined or can be determined with the aid of a specialist or instructor. Some program formats are included with a membership fee to an organization, while others require an additional fee.

Informal sports is perhaps the most basic of all recreational sports as it encompasses all self-directed sporting activities where participants determine their own level of involvement including the level of competitive and cooperative play as well as the length of time of the activity (Mull et. al, 2013). Due to the varying levels of activities that can be placed in this category, informal sports is the most widely used recreational sports activity. Because of its self-directed nature, informal sports is not typically recognized as a program area and sometimes not even as a sport at all. However, planning for informal sport actually requires just as much time and effort as structured sport programs. A quality informal sport program involves elements of policy development, facility supervision, participant feedback and proper maintenance (Mull et.

al, 2013). Positive participant experiences in informal sports can often be a motivator to participate in more structured levels of collegiate recreational sports like intramural or club sports.

Benefits to Participation in Recreational Sports

Choosing to attend a college or university can be a big decision for students with many factors to consider. A factor that may not initially be evident is how campus recreational sports programs and facilities, or lack thereof, can impact a student's college life. Lindsey and Sessoms (2006) found that 31% of students felt the availability of recreational sports was important or very important. Additionally, 37.3% of students reported that the availability of recreational sports was important or very important in deciding to continue at a particular college (Lindsey & Sessoms, 2006). The ability for campus recreational sports to impact recruitment and retention may be derived from the benefits that these programs and facilities offer. Research involved with the benefits associated through participation in extracurricular activities, which included recreational sports, has consistently been linked with greater satisfaction levels of college choice and overall college experience (Banta, Bradley, and Bryant, 1991; Haines, 2001; NIRSA, 2004). Students who use recreational sports facilities, programs and services, have been shown to have a higher retention rate than those who do not (Belch, Gebel & Mass, 2001).

Students and administrators alike recognize recreational sports are a factor in a student's overall college experience because of the benefits that they receive from participation. In a study on the impact of recreation centers on two campuses in New England, 77% of students reported their institution was a better place by having a recreational center on-campus (Mack, 2011). Furthermore, Mack's study found that upperclassmen and on-campus students agreed the recreation center improved the quality of their experience at the institution and on-campus

students revealed the campus recreation center contributed to their overall health and wellness. The variety of potential benefits through sport programs frequently occurring over a short period of time can also be a very prominent contributor to why recreational sports often produce high participation and satisfaction levels among participants (Kovak & Beck, 1997).

Barcelona and Ross (2002) studied participation patterns in campus recreational sports. Their study revealed women were more likely to participate in individual athletic pursuits than group or team sport activities. Younger students and those living on campus were more likely to be involved in recreational sports overall. Additionally, older students as well as off-campus residents favored participating in organized activities such as intramural and instructional sport programs. Perceived benefits to participation are important to consider when examining motivations as the two are often related. Kovak and Beck (1997) examined perceived benefits and rates of participation in recreational sports based on gender and found that women participated in recreational sports for a greater variety of reasons. Specifically, women perceived both individual and social benefits were obtained through participation, while men tended to participate only for individual benefits. Overall, Kovak and Beck reported participation in recreational activities produced the highest percentage of student-reported participation and satisfaction in all aspects of campus life. Another study by Cooper, Schuett, & Phillips (2012) which focused on intrinsic motivations for intramural sports found similar results where females had higher mean scores for social motivations.

Students can also gain very practical educational training through involvement in extracurricular activities such as recreational sports. Astin's (1984) theory of involvement stressed that the more students become involved in the college experience, the greater learning and personal development will occur. If Astin's theory of involvement is applied to the study

conducted by Artinger, Clapham, Hunt, Meigs, Milord, Sampson, and Forrester (2006), it could be interpreted that the more intramural sports a student participates in, the more the student could potentially benefit. However, the majority of participants in the study conducted by Artinger et al. specified that they only participated in one or two intramural sports. This difference in interpretation could point to the conclusion that students do not need to participate in a large number of recreational sport activities in order to gain a variety of developmental benefits and to establish feelings of satisfaction. Students could ultimately feel the same levels of satisfaction through one consistent recreational sport activity rather than through numerous activities.

Campus recreational sports facilities and involvement in recreational sport programs, such as intramural sports and club sports, often times promote the groundwork for social interaction among students who do not achieve this in other settings on their own (Artinger et al., 2006). Astin (1984) concurred by suggesting that social-emotional development should be enhanced through involvement in sporting activities. According to Bryant, Banta and Bradley (1995), “recreation may be the single common bond between students” (p. 158) during their first years of college outside of any structured orientation programs. Recreational sport programs create “opportunities for interaction, collaboration, and unification which are essential if campuses are to develop a sense of community” (Dalgarn, 2001, p. 66). A recreational facility with diverse sport programming opportunities designed to meet students’ needs can serve as an active and effective way of establishing a sense of belonging as well as efficient measures for social engagement (Belch et al., 2001). From their study conducted on retention rates of freshman and the use of campus recreational sport facilities, Belch et al. (2001) discussed how regular participation in recreational sport programs created favorable opportunities for freshman

to informally interact with other students. These informal interactions made through participation could lead to student's increased satisfaction with their college experience.

Many facilities allow for the opportunity to not only interact with other students, but also with other members of the campus and community such as faculty and staff; a factor research shows boosting both recruitment and retention (Dalgarn, 2001). Artinger et al. (2006) developed a study that attempted to design an effective way of measuring the social benefits students gained through intramural sports participation. They focused on areas such as university integration, reliable alliances, social group bonding, cultural awareness, and personal benefits. The results of this study indicated that students gained most in the areas of personal social benefits and social group bonding. This study also revealed that females reported significantly higher on issues such as commitment to their peers, willingness to learn about cultural differences, increasing community involvement, improving their ability to work within a team, improving their ability to socially interact, and increasing bonding with their teammates (Artinger et al., 2006).

Participation in recreational activities can provide an environment where students are able to explore their identity, develop autonomy, and find a sense of belonging (Collins et al., 2001). Findings in a study centered on leisure and identity formation found that young women's levels of participation in sports and physical activities were positively associated with psychological maturity and identity development (Shaw, Kleiber, & Caldwell, 1995). Recreational sport opportunities on college campuses have been identified by researchers as helping students "feel more at home on campus, facilitated the making of friends, and increased the quality of student life on campus" (Watson, Ayers, Zizzi & Naoi, 2006, p. 14). Ellis, Compton, Tyson, and Bohlig (2002) reported results from their study indicating that students participating in campus recreation programs frequently tended to report "more positive health

and quality of life” (p. 58). Lindsey and Sessoms (2006) found that a majority of students reported they benefitted from campus recreation through a feeling of physical well-being, sense of accomplishment, fitness, physical strength and stress reduction. In a study concerning the importance of university recreation conducted by Haines (2001), 75% of the students reported they gained similar benefits from their campus recreation programs. Recreational sports facilities help to contribute to the holistic development of students – spiritually, physically, socially and educationally (Kuh 1991). As a result of these past studies, competition, challenge, excitement, involvement, and other characteristics of recreational sports seem to play a role in motivating students to participate in campus recreational sports.

Health Benefits to Participation

Obesity is a major health crisis facing the United States today. The Center for Disease Control (2013) reported via the National Health and Nutrition Examination Survey (NHANES) that over 78 million adults and approximately 12.5 million children in the United States were obese in 2009-2010. The Center for Disease Control (2013) defined obesity as having a Body Mass Index (BMI) of 30 or higher. Obesity can contribute to a variety of chronic conditions including cardiovascular disease, diabetes, hypertension, high cholesterol, stroke, heart disease, certain cancers, arthritis and even mortality (Flegal et al., 2010). Obesity shortens the lifespan of the average person by 9 years and in adolescence creates the same risk as heavy smoking (Hyman, Mani & Jaffe, 2012).

Despite the research highlighting these alarming risks, the population of overweight and obese individuals has continued to rise. Sixty-five percent of American adults are currently overweight and the greatest increase is occurring in persons between 18-29 years of age (Boyle & LaRose, 2009). Of the 18.1 million students who worked toward an undergraduate degree at

an American college or university in 2009, almost one-third (31.9%) reported being either overweight or obese (Knapp, Kelly-Reid, & Ginder, 2011). With college presenting the opportunity to gain independence and establish healthy behaviors, why are so many students failing to do so?

While there are several contributing factors, obesity is a result of eating too much and not moving enough. Research indicates that a decline in physical activity occurs in early adulthood, between 18 and 24 years of age (Von Ah, Ebert, Ngamvitroj, Park, & Kang, 2004). Watson et al. (2006) acknowledged that “physical inactivity is a serious problem,” (p. 10) with less than half (48%) of all adults meeting the CDC’s 2008 Physical Activity Guidelines. Data from the Center for Disease Control (2013) showed that the prevalence of adults who reported no leisure-time physical activity was about 25%. Regular participation in physical activity has been shown to positively impact a number of health benefits, including a reduced risk of premature mortality, coronary heart disease, hypertension, colon cancer, Type 2 diabetes, osteoarthritis, and osteoporosis (Berenson, 2012; Dixon 2010; Flegal et al., 2010). Additionally, regular physical activity can help maintain healthy bones, muscles, and joints as well as foster moods and feelings of well-being.

Unhealthy eating habits are also a problem contributing to overweight and obesity in the general population and among college students. People living in the U. S. are now eating 31 % more calories than they were 40 years ago including 56% more fats and oils and 14% more sugars and sweeteners (Letsmove.gov, n.d.). A study by Racette (2005) found that more than half of students reported eating high-fat fried or fast foods at least three times per week. Only 28% of the current population, ages two and over, are meeting the daily recommendations for

fruit intake and even fewer (3%) are meeting the daily recommendations for vegetable intake (CDC, 2010).

While excess calories and poor nutrition combined with little to no physical activity have helped the U. S. population to reach epidemic proportions, colleges have partnered with government and community agencies to combat the obesity battle. Healthy Campus 2020 is an initiative which focuses on improving the health status of students, faculty and staff in higher education by fostering healthy environments and behaviors. Health, on a broad scale, can be referred to as a state of well-being which encompasses emotional, physical, social, and spiritual health (Caldwell & Smith, 1998). Besides the obvious physical benefits, involvement in campus recreational sports has been shown to improve emotional and social health by decreasing stress (Kanters, 2000; Ragheb & McKinney, 1993) and helping to develop a sense of community (Chen, 2002). Watson et al. (2006) found similar results in that campus recreational sports participants had higher psychosocial development in terms of believing that the student recreation center improved life on campus, helped them make new friends and feel more at home. It has also been shown that the participation in recreational sports as an extracurricular activity that can improve one's sense of well-being, self-confidence, and accomplishment (Bryant et. al, 1995; Ragheb & McKinney, 1993).

The increasing importance of health and activity in students' lives has helped to foster the increasing development of recreation centers on college campuses across the country (Van Sloten, Van Acker, & Gallo, 2001). In 2006 Lindsey and Sessoms reported that 83% of university students engaged in some form of recreation each week. Such a high participation rate may be even more important beyond the actual college years as research shows that establishing physically active lifestyles and developing favorable attitudes toward healthy lifestyles while in

college may affect lifelong health (Forrester, Arterberry, & Barcelona, 2006; Forrester, Ross, Hall, & Geary, 2007). Specifically, Forrester et al. (2006) found that physical health and well-being benefits and recreational sports involvement were significant predictors of sports and fitness activities after graduation. Furthermore, the physical activity levels of alumni were found to be positively influenced by past recreational sports participation (Forrester et al., 2007).

While college life brings many exciting opportunities for students, it can also bring stress and anxiety. Students are faced with increasingly difficult expectations and when unable to meet the demands placed on them, their emotional health and psychological well-being may deteriorate leading to feelings of frustration, being overwhelmed and low self-esteem (Astin, 1993). Although campus recreation programs have traditionally been viewed as simply outlets for physical activity, they may play an integral role in student development by minimizing stress-induced anxiety as well as reduce behaviors such as drug and alcohol abuse (Kanters, 2000). In support, Watson et al. (2006) found positive factors associated with users of recreational sports included participant motivations toward task-oriented goals and the negative factors associated with non-users such as smoking. Recreational sports can contribute to moderating stress directly through participation in physical activity and indirectly through the facilitation of social support (Kanters, 2000). This indirect aspect of social participation in recreational activities allows students relief or escape from the stresses of everyday life; the stimulus-avoidance component of leisure motivation as described by Beard and Ragheb (1983). Overall, recreation has been shown to play an important role in helping students find balance and improve the quality of their lives (Iso-Ahola, 1989).

Leisure and Sport Motivation

According to Leitner & Leitner (2012), leisure can be defined as “free or unobligated time that does not involve work or performing other life sustaining functions” (p.4). Motivation can be defined as an interaction of external and internal factors, both conscious and unconscious, within which are combined a variety of compelling drives evolving and changing over time (Recours, Souville, & Griffet, 2004). Leisure motivation, then, consists of both external and internal forces that nudge individuals to choose and participate in leisure experiences. Internal forces or intrinsic motivation in relation to sport participation, are generally participating in a sport for its own sake; for the pleasure and satisfaction derived simply from participating in it (Deci, 1975). If a person is intrinsically motivated to participate in a sport, he/she will participate voluntarily without the desire for external rewards (Deci & Ryan, 1985). The external forces or extrinsic motivation in relation to sport participation refers to the behaviors that are not engaged in for their own sake but for the desire of rewards or compensation (Deci, 1975).

Understanding why people choose to participate in sport activities during their leisure is critical for any practitioner involved in the delivery of sport programs. Beggs et al. (2004) believed that understanding the factors motivating participants in leisure activities could play a key role in better understanding participation patterns in campus recreational sports. Leisure motivation research had been explored as early as 1977 when college students’ responses were analyzed to determine the satisfying properties (motivations) of specific leisure activities (Tinsley, Barrett, & Kass 1977; Tinsley & Kass 1978, 1979). Through these studies, 45 human needs were identified to be satisfied through leisure activities. Through confirmatory factor analysis by Tinsley and Kass (1979), 10 factors emerged: self-actualization, companionship,

power, compensation, security, social service, intellectual aestheticism, exercise, self-esteem, and self-control. These studies were of major significance because they laid the framework for future leisure motivation research.

Iso-Ahola and Allen (1982) studied the leisure needs of college students who participated in intramural sports. They used a 40-item instrument to measure the participant leisure needs both before and after participation. The items were based off of several previous studies including the study by Tinsley et al. (1977). From the responses, they described seven factors: interpersonal diversion and control, personal competence, escape from daily routine, positive interpersonal involvement, diversionary relaxation, interpersonal competence, and a seventh factor dealing with meeting and participating with members of the opposite sex. This study was also significant because it was one of the first to look comprehensively at a specific program area within collegiate recreational sports.

These previous studies in combination with other social psychology research helped to encourage Beard and Ragheb (1983) to create what is now known as the Leisure Motivation Scale (LMS). The LMS used 48 items to determine specific motivations for engaging in leisure activities. For the purpose of their study, leisure activities were defined as non-work activities where the individual had the freedom to choose participation (Beard & Ragheb, 1983). A 5-point Likert scale was used to categorize and analyze responses. From the initial responses four subscales for motivation were determined: intellectual, stimulus avoidance, competence-mastery, and social.

The intellectual component of leisure motivation is the extent to which individuals are motivated based on aspects of mental stimulation. People who are intellectually motivated to participate enjoy learning, exploring, discovering, creating, and/or imagining. Just as it suggests,

the social component of leisure focuses on the social interactions gained from participation. The social component includes two basic needs: the need for friendship or interpersonal relationships, and the need for the esteem of others. The competence-mastery component assesses the level to which individuals participate in order to achieve, master, challenge, and compete. A participant who is motivated by competence-mastery is often competitive and is not satisfied unless they have something to show from their participation. The stimulus-avoidance component addresses the drive to escape life situations. For some this can include the avoidance of others or it may simply include finding a way to relax.

The LMS has been used in several studies in a variety of recreation and leisure settings (Lounsbury & Polik, 1992; Hsieh, 1998; Ryan & Glendon, 1998; Murray & Nakajima, 1999; Starzyk, Reddon, & Friel, 2000; Wickham, Hanson, Shechtman, & Ashton, 2000), including some in campus recreation (Iso-Ahola & Allen, 1982; Kanters & Forrester, 1997; Beggs, Stitt, & Elkins, 2004) as well as tourism. Ryan and Glendon (1998) used a shortened version of the LMS to look at motivations for vacationing. In 2008, Smith replicated the original LMS to examine the motivations of collegiate club sport participants. Because the LMS has been utilized and validated through a number of studies related to a variety of recreation settings, it was determined that LMS was the best scale to use for the current study.

Another important step in motivational research came in 1995 when Pelletier, Fortier, Vallerand, Tuson, Briere, and Blais attempted to create a Sport Motivation Scale. With this scale they argued that within intrinsic motivation, a person may participate in a sport activity for three main reasons. The first intrinsic motivator included participating in order to learn new knowledge or understand something new. Another intrinsic motivator was that of accomplishment, which involved participating in a sport for the satisfaction of reaching a

particular goal. The final intrinsic motivator was participation in order to experience stimulating sensations. This could include sensory pleasure, aesthetic enjoyment, as well as fun and excitement (Pelletier et al., 1995). While intrinsic motivation for sport participation is recognized as significant, Pelletier et al. also acknowledged three extrinsic motivational factors: identification, introjections, and external regulation. Identification occurs when a person participates due to the fact that he/she determines his/her behavior in the activity is important. Introjections occur when a person participates out of feelings of guilt or anxiety. When a person participates in an activity solely to seek material rewards or for the avoidance of negative outcomes, the person is extrinsically motivated through external regulation.

If students have a meaningful experience while participating in their sport activity, they may be more motivated to continue in the activity (Koivula, 1999). However, what is perceived as meaningful to one person may not be perceived as having the same meaning for another individual. Motivations in sport participation may also vary depending on gender or age (Koivula, 1999). Banta et al. (1991) recognized eight responses that students most frequently gave when evaluating their motivation for participation in recreational sports. These eight items included: (1) stress reduction, (2) feeling of physical well-being, (3) sense of accomplishment, (4) weight control, (5) sport skills, (6) physical strength, (7) fitness, and (8) friendship (Banta, et al., 1991).

Summary

The majority of literature reviewed does not focus specifically on informal sport participation in the collegiate recreation setting, but on the general motivational factors and the perceived social and health benefits of participating in recreational and leisure activities. The limited research available further identifies the implicit need for more research in specific areas

of collegiate recreational sports. This study will help to contribute the field of campus recreational sports and provide professionals with additional information about informal sports participants. By gaining a better understanding of why students are participating in informal sports, recreational sports professionals will be able to better meet the needs of such students and ultimately strengthen informal recreational sports programs.

Chapter 3

METHODOLOGY

The problem of the study was to determine if differences existed in motivational factors for students who participated in informal sports in a campus recreational sports setting. The methodology developed for this study was:

1. To identify the type of motivating factors (intellectual, social, competence-mastery, or stimulus-avoidance) experienced by the students at based on Beard and Ragheb's (1983) Leisure Motivation Scale, and;
2. To compare the motivating factors based on gender, class standing, place of residence, and ethnicity.

The methods used to conduct this study are discussed in the following sections: (a) sample selection; (b) instrumentation; (c) administration of the instrumentation; and (d) treatment of the data.

Sample Selection

Systematic sampling was used to collect the names of potential participants by selecting every 10th name from a spring 2009 Midwestern university enrolled students' public directory. Using this sampling method allowed equal opportunity for each student to be selected. Dillman (2007) noted that systematic sampling works well as long as there is no periodicity and continued by stating that alphabetized lists do not typically have this issue. The names of the selected individuals were converted to an email distribution list using the university's emailing system and Microsoft Exchange. The contact information generated was then used to send each participant an email containing a link to an electronic survey provided through SurveyMonkey.com.

Because a sufficient response rate was possible through a web-based survey and could be obtained in a shorter period of time (Young & Ross, 2003), a web-based survey was chosen for this study. Additionally, a web-based survey was advantageous due to its low cost, ability to reach a large number of the student population and accessibility. In a study conducted by Cobanoglu, Warde, and Moreo (2001) on response rates to surveys given by phone, fax, and email, email had the highest response rate at 44.21% compared to 26.17% for mail and 17% for fax. Electronic communication is commonplace and computers are highly accessible, especially on college campuses. As a result, using a web-based survey was deemed as the best method to gain access to the student population on the Midwestern university campus.

Determining the proper sample size is extremely important to the success, validity and potential repeatability of a study being conducted (Delice, 2002). Elkins (2004) stated that determining an adequate sample size is important in assuring that the statistical analyses will uphold theoretical frameworks. It seems logical to assume that as the population size increases, the sample size should increase, but at what rate? Krejcie & Morgan (1970) recommended 380 completed responses for a population of 40,000 and asserted that the sample size increases at a diminishing rate and remains constant at slightly more than 380 cases. This recommendation was similar to that of Israel (1992) who recommended 397 responses for a population of 50,000. The goal for this study was that 20 percent of students surveyed would participate. Based on the above stated response rate and the current population of the Midwestern university (40,354 in 2008-2009), a sample of 1,900 students, both undergraduate and graduate, was drawn from the enrolled student population.

Instrumentation

The Leisure Motivation Scale developed and tested by Beard and Ragheb (1983) was the instrumentation used for this study (see Appendix A). The Leisure Motivation Scale (LMS) was chosen due to its reliability and use in previous studies (Iso-Ahola & Allen, 1982; Lounsbury & Polik, 1992; Kanters & Forrester, 1997; Hsieh, 1998; Ryan & Glendon, 1998; Murray & Nakajima, 1999; Starzyk, Reddon, & Friel, 2000; Wickham, Hanson, Shechtman, & Ashton, 2000; Beggs, Stitt & Elkins, 2004; Smith, 2008), including some in campus recreation. Because of the previous reliability of this instrument, it was not altered for use with this study. Use of this instrument aligned with the original purpose of examining and identifying the motivational factors of participants and placing them into the four categories of motivational factors: stimulus-avoidance, competence-mastery, intellectual, and social (Beard & Ragheb, 1983).

The electronic questionnaire used in this study consisted of two sections (see Appendix B). The first section was a demographic section asking participants to indicate the following: (a) gender; (b) class standing; and (c) level of participation in informal sports. Based on whether respondents participated in informal sports and were students at the Midwestern university, not faculty, staff or public, they proceeded to the second section. If they had not participated in informal sports or were not a student, they were directed to end the survey and thanked for their time. If respondents had participated in informal sports, they were asked to specify (a) type of informal sports participation; (b) frequency of participation; (c) duration of participation session; (f) satisfaction level of participation; and (g) desired type of future participation. Once this section was completed, participants were directed to section two, which asked questions related to their motivations for participation in informal sports using the following five-point Likert scale:

1. Never true
2. Seldom true
3. Somewhat true
4. Often true
5. Always true

This questionnaire section was an exact replication of Beard and Ragheb's (1983) questionnaire for the Leisure Motivation Scale. Responses to each of these items helped to serve as a means for categorizing motivational factors analyses with gender and level of participation. Each sub-area was scored independently with the highest total score in a sub-area indicating a student's primary motivating factor for participating in informal sports during their leisure time.

Administration of the Instrument

Upon approval from the Committee for the Protection of Human Subjects, an electronic mail message was sent to the selected students from the Midwestern university population. The electronic message detailed the nature and importance of the study (see Appendix C) as well as the implications of the findings and a link to the web-based survey (see Appendix D). Four days after the initial contact, another electronic message was sent as a reminder to participants who had not yet completed the survey. Finally, a third electronic message was sent eight days after the original message as a final request to urge participation from those students who had not participated and to thank those who had already participated. The deadline for completion of the survey was four days after the final electronic message had been sent. In order to reduce redundancy, surveymonkey.com automatically deleted respondents from the distribution list once they had submitted their survey. This helped prevent students who had already completed the survey from receiving follow-up emails requesting their participation. The student's email

addresses were used for solely for tracking purposes and not for identification of individual subjects.

Treatment of Data

Following the deadline for completion of the electronic survey, frequencies, measures of central tendency, and measures of variability, was used to analyze the data within each sub-area and between each of the four sub-areas. Since the data was divided among four sub-areas, Analysis of Variance (ANOVA) was used to compare the means among various demographic items (e. g. gender, class standing, frequency of participation, etc.) and to determine any significant differences. The sub-area with higher mean scores indicated the primary motivational factor for participation, while the sub-area with the lowest mean scores indicated factors that did not motivate students to participate in informal sports. In addition to descriptive statistics, non-parametric statistics were used to analyze the data categorized by each sub-area.

Chapter 4

DATA ANALYSIS

The purpose of this study was to examine the motivational factors of student participants, both undergraduate and graduate, who participated in informal sports at a Midwestern university campus recreational sports facilities. Specifically, this study sought to:

1. Identify the type of motivational factors experienced by participants for the purposes of categorizing them as intellectual, social, competence-mastery, and stimulus-avoidance based on Beard and Ragheb's (1983) Lesiure Motivation Scale.
2. Compare the informal sports participation demographics (types of sport activities, frequency of participation, and duration of participation) based on gender, class standing, residence, and ethnicity.
3. Conduct analyses on motivation factors (intellectual, social, competence-mastery, and stimulus-avoidance) based upon the independent variables: gender, class standing, residence, and ethnicity.
4. Determine if respondents' mean scores for motivational factors for participation reliably determined a difference between gender, class standing, residence, and ethnicity.

Data were addressed in this chapter according to the following, a) response rate, b) demographics of respondents, c) motivations for student participation, d) hypothesis testing, and e) discussion.

Response Rate

A total of 541 students agreed to participate in the study by proceeding beyond the study information sheet to the actual survey. However, several of the students had not participated in informal sports at the campus recreational sports facilities, which disqualified them from participation. Of the initial 541 participants, 310 students stated that they had participated in

informal sports and continued on to complete the survey. Due to the fact that some of those who continued with the survey did not complete all of the questions, the response count varied. The response rate for each question never reached below a minimum of 257 students, so it can be generalized that 257 students completed every question of the survey. The survey was sent via electronic mail to a total of approximately 10 percent of the 38,599 enrolled students at the Midwestern institution by gathering every 10th name from the spring 2009 directory of enrolled students. This list of randomly selected names was converted to an email distribution list using Microsoft Exchange. The web survey data collection method used was a modification of Dillman (2000), in which three contacts were made with student email addresses entered in distribution lists. In order to keep anonymity of responses, each student received the email message three times regardless of whether the survey had been completed. A disclosure was included at the end of the email message indicating that removal from the distribution list simply had to be requested and as a result 24 students requested removal from the distribution list. Of the messages sent, several error messages (N = 38) were received from recipients' mailboxes because the email address corresponding with the name was no longer valid. A few error messages (N = 6) indicated that an inbox could not accept the message as it currently exceeded the allotted storage. Out of the 3,791 students who received the email message, 14.2% (N=541) agreed to complete the survey. Within that population, 8.2% (N=310) indicated that they had participated in informal sports at the Midwestern university campus recreational sports facilities and proceeded to complete the survey. The length of the survey may have been a factor for the 17% (N=53) that chose not complete the entirety of the survey. Any records that were partially completed were deleted and not factored into the results. While 10% (N=391) was the ideal target, only 6.8% (N=257) completed the entire survey.

Demographic Information

Demographic data collected consisted of questions pertaining to (a) gender, (b) class standing, (c) place of residence, and (d) ethnicity. These particular demographics were selected because previous studies relating to leisure motivation indicated they may contribute to such behavior, and the focus of this study was to determine how demographic variables affected motivations for participation in informal sports at campus recreation facilities. The demographic data was summarized in separate sections in order to better illustrate the profile of the respondents in this study.

Gender

This study utilized a simple random sample from a Midwestern university's spring 2009 student directory. Of the initial 310 students who indicated participation in informal sports, 306 students responded to the question of gender. Both genders were almost identically represented with males just slightly higher at 50.7% (N=155) and females at 49.3% (N=151). These gender demographics were similar to the fall 2007 statistics which showed that 51.2% of students were female and 48.8% of students were male at this particular Midwestern university campus.

Class Standing

For class standing, the largest group represented was graduate students at 33.3%. A possible reason for the high response rate from graduate students may be due to the fact that many graduate students conduct research studies of their own providing them with more knowledge of and appreciation for the importance of data collection. As a result they may have identified with the researcher's request to participate in the study. Undergraduate students were fairly evenly represented by class. Table 1 provides a breakdown of the respondents based on class standing including a summarized percentage.

Table 1

Class Standing of Informal Sports Student Participants

Class Standing	Percent	N
Freshman	17.7%	54
Sophomore	17.7%	54
Junior	15.0%	46
Senior	16.3%	50
Graduate	33.3%	102
Total	100.0%	306

Place of Residence

A student's motivation to participate in leisure activities may very well be influenced by their place of residence. In the collegiate setting, students' residential status is often classified as either on-campus: residence halls or Greek housing; or off-campus, apartments or other dwellings not located on campus property. Students who participated in this study had the option of selecting their place of residence as the residence halls, Greek housing, off-campus, or other. The majority of students indicated they lived off-campus. The second largest category was respondents residing in residence halls on campus, followed by a small percentage of students living in Greek housing. Additionally, 4.2% indicated "other" as their place of residence. While participants were able to select "other" as an option for place of residence, a limitation was that it remained undefined and participants were not asked to provide a further explanation. Table 2 summarizes the residency status of respondents.

Table 2

Place of Residence of Informal Sports Student Participants

Place of Residence	Percent	N
Residence Hall	28.1%	86
Greek housing	6.6%	20
Off-campus	61.1%	187
Other	4.2%	13
Total	100.0%	306

Ethnicity

Respondents were also asked to identify their ethnicity. This was an important factor to consider as students from differing ethnic backgrounds may be predisposed to particular motivations for participation based on cultural influences. Ethnic categories were established based upon U. S. Census data for respondents to check on the questionnaire. In the sample, the majority of respondents indicated Caucasian as their ethnic status which corresponded with the ethnic make-up of the university. Table 3 displays the results of ethnicity selection for informal sports student participants.

Table 3

Ethnicity of Informal Sports Student Participants

Ethnicity	Percent	N
African American	3.3%	10
Asian/Pacific Islander	11.8%	36
Caucasian	79.1%	242
Hispanic	2.9%	9
Other	2.9%	9
Total	100.0%	306

Informal Sports Participation

Participation in informal sports can include a wide range of recreational activities. In order to delve deeper into aspects of student participation, this study examined the type of informal sports activities that students participated in as well as the frequency and duration of such participation. Students were able to select as many sports as possible in order to accurately describe their participation during the past year and therefore percentages of specific sport participation were not calculated. The highest participation was found for use of free weights or weight equipment and use of the track (i.e., both indoor and outdoor running areas). Other

popular activities included use of cardio equipment, basketball and swimming. Table 4 summarizes the nature of respondent participation.

Table 4

Informal Sports Student Participation by Sport

Informal Sport	N
Use of free weights or weight equipment	183
Use of the track (SRSC, HPER, and/or Woodlawn)	183
Use of cardio equipment (elliptical, treadmill, etc.)	180
Basketball	104
Swimming	67
Tennis	36
Volleyball	31
Badminton	26
Indoor Soccer	26
Table Tennis	21
Racquetball	20
Squash	16
Frisbee	14
Informal Dance	12
Wallyball	3
Football	2
Wii	2
Diving	1
Fencing	1
Gymnastics	1
Martial Arts	1
Total	957

Study respondents were asked to estimate both the frequency with which they utilized recreational sports facilities on campus and the length of time they spent at the facility. The data showed over one-half of the sample (58.2%) participated regularly in informal sports meaning at least 1-2 times per week. Over one-half of respondents indicated that they usually participated between 30 and 60 minutes, making this the most frequently cited participation length. Table 5 summarizes responses to frequency of participation in informal sports while Table 6 summarizes the results for duration of participation in informal sports by student participants.

Table 5

Frequency of Participation in Informal Sports by Student Participants

Frequency of Participation	%	N
1-2 times per semester	17.4%	50
1-2 times per month	24.4%	70
1-2 times per week	32.1%	92
More than 2 times per week	26.1%	75
Other	0.0%	0
Total	100.0%	287

Table 6

Duration of Participation in Informal Sports by Student Participants

Duration of Participation	%	N
Less than 30 minutes	3.8%	11
Between 30 and 60 minutes	54.5%	159
Between 61 and 90 minutes	28.4%	83
Between 91 and 120 minutes	9.9%	29
More than 120 minutes	3.4%	10
Total	100.0%	292

Motivations for Student Participation in Informal Sports

The instrument used to examine motivational factors for participating in informal sports at the campus recreational sports facilities consisted of 48 statements each of which was tied to one of the four primary factors for leisure motivation identified by Beard and Ragheb (1983), namely, intellectual, social, competence-mastery, and stimulus-avoidance. The first set of 12 statements, designated as I-1 through I-12, was designed to determine intellectual motivations for participation. Intellectual motivations include factors for participation such as learning, exploring, discovering, and creating. The second set of 12 statements, designated as S-1 through S-12, was designed to indicate social motivations for participation. Social motivations include factors for participation such the desire for friendship and interpersonal relationships as well as the need for the esteem of others. The third set of 12 statements, designated as CM-1 through

CM-12, was designed to determine competence-mastery motivational factors. Competence-mastery motivations include factors for participation in order to achieve, master, challenge and compete. The final 12 statements, designated as SA-1 through SA-12, were designed to determine stimulus-avoidance motivations for participation. Stimulus-avoidance motives for participation focus on the drive to unwind and escape daily responsibilities, seek a calming environment and in some cases seek solitude. A detailed example of the Leisure Motivation Scale indicating the 48 statements categorized by motivational factor can be found in Appendix A. Each of the 48 statements were analyzed to determine if the independent variables including gender, class standing, place of residence and ethnicity were significant. Descriptive statistics were initially run with a comparison of mean scores for each outcome variable compared to each independent variable. An one-way Analysis of Variance was then run to determine significance levels. The results of the analyses are provided below.

Intellectual Motivation and Gender

After analyzing intellectual motives and gender by comparison of means, males and females had similar mean scores for most statements indicating there were not large differences for intellectual motivations between genders. The highest mean statement for both genders was found for statement I-2, to seek stimulation. Participating in order “to seek stimulation” includes motives that provide mental stimulation, which may be accomplished through means of sensory pleasure, aesthetic experiences or fun and excitement (Pelletier et al. (1995). Examples of this stimulation through informal sports participation might include playing a pick-up game of soccer at an outdoor field complex or running around a track that overlooks a sports venue. Males did have a higher mean score ($M = 3.66$, $SD = 1.137$) than females ($M = 3.20$, $SD = 1.164$) indicating that males may be slightly more likely to participate in informal sports in order to seek

stimulation than females. Table 7 displays the results for the comparison of means and gender for intellectual motivations.

Table 7

Comparison of Means for Gender and Intellectual Motivation

		Male	Female	Total
I-1 To expand my interests	Mean	2.50	2.53	2.51
	N	139	129	268
	Std. Dev	1.13	1.13	1.13
I-2 To seek stimulation	Mean	3.66	3.20	3.44
	N	140	128	268
	Std. Dev	1.13	1.16	1.13
I-3 To make my college experience more meaningful for me	Mean	2.91	2.62	2.77
	N	141	129	270
	Std. Dev	1.35	1.22	1.29
I-4 To learn about things around me	Mean	2.29	2.29	2.29
	N	140	129	269
	Std. Dev	1.20	1.13	1.16
I-5 To satisfy my curiosity	Mean	2.31	2.33	2.32
	N	140	128	268
	Std. Dev	1.17	1.12	1.14
I-6 To explore my knowledge	Mean	2.32	2.22	2.27
	N	139	127	266
	Std. Dev	1.22	1.06	1.15
I-7 To learn about myself	Mean	2.51	2.55	2.53
	N	139	129	268
	Std. Dev	1.30	1.16	1.23
I-8 To expand my knowledge	Mean	2.46	2.36	2.41
	N	138	129	267
	Std. Dev	1.22	1.18	1.16
I-9 To discover new things	Mean	2.60	2.67	2.63
	N	139	129	268
	Std. Dev	1.26	1.18	1.22
I-10 To be creative	Mean	2.43	2.40	2.41
	N	138	128	266
	Std. Dev	1.31	1.19	1.25
I-11 To be original	Mean	2.41	2.26	2.34
	N	138	129	267
	Std. Dev	1.28	1.17	1.23
I-12 To use my imagination	Mean	2.28	2.18	2.23
	N	138	128	266
	Std. Dev	1.27	1.07	1.18

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

To further determine whether gender was a factor for intellectual motivations, a one-way ANOVA was conducted to determine if gender was a significant factor based on the intellectual motivation statements of the instrument at the .05 alpha level. Of the 12 statements in this sub-area, only one was found to be significant based on gender. The ANOVA revealed an overall statistical difference for statement I-2. The difference between male and female motivations for informal sports was significant with males being more likely than females to participate for this reason. The ANOVA summary table for the significant intellectual motive findings is illustrated in Table 8.

Table 8

Analysis of Variance for Intellectual Motivation and Gender

		Sum of Squares	df	Mean Square	F	Sig.
I-2 To seek stimulation	Between Groups	14.262	1	14.262	10.788	.001**
	Within Groups	351.660	266	1.322		
	Total	365.922	267			

Note. **p < .01

Intellectual Motivation and Class Standing

In examining the mean scores for intellectual motives and class standing, statement I-2, to seek stimulation, had the highest mean score for the freshman class (M = 3.81, SD = .851). In comparison, the graduate students mean scores (M = 3.16, SD = 1.17) were noticeable lower. This might suggest that those students who are new to campus, such as freshmen, may be more likely to be excited about expanding their interests through participation in informal sports. It seems that graduate students, having already been through the college experience, did not participate in informal sports to seek stimulation. In looking at the total mean scores, the lowest overall total was found for statement I-12 (M = 2.23, SD = 1.18). It appeared that all classes

shared the fact they did not participate in order to use their imagination. The full comparison of means for gender and intellectual motivation can be found in Table 9.

Table 9

Comparison of Means and Class Standing for Intellectual Motivation

		Fresh.	Soph.	Juniors	Seniors	Grad.	Total
I-1 To expand my interests	Mean	2.49	2.81	2.54	2.63	2.32	2.51
	N	37	47	41	41	92	268
	Std. Dev	.390	1.24	1.02	1.02	1.12	1.13
I-2 To seek stimulation	Mean	3.81	3.64	3.27	3.56	3.16	3.44
	N	47	47	41	41	92	268
	Std. Dev	.851	1.07	.975	1.14	1.37	1.17
I-3 To make my college experience more meaningful for me	Mean	3.15	3.11	2.83	2.66	2.45	2.77
	N	47	47	41	41	94	270
	Std. Dev	1.16	1.07	1.16	1.31	1.32	1.29
I-4 To learn about things around me	Mean	2.40	2.38	2.39	2.27	2.16	2.29
	N	47	47	41	41	93	269
	Std. Dev	1.07	1.26	1.20	1.18	1.15	1.16
I-5 To satisfy my curiosity	Mean	2.47	2.51	2.46	2.22	2.13	2.32
	N	47	47	41	41	93	268
	Std. Dev	1.01	1.28	1.07	1.19	1.15	1.14
I-6 To explore my knowledge	Mean	2.53	2.26	2.35	2.37	2.61	2.51
	N	47	46	40	41	41	41
	Std. Dev	1.01	1.27	1.02	1.33	1.33	1.26
I-7 To learn about myself	Mean	2.65	2.70	2.49	2.61	2.37	2.53
	N	46	47	41	41	93	268
	Std. Dev	1.21	1.25	1.20	1.32	1.22	1.23
I-8 To expand my knowledge	Mean	2.57	2.43	2.37	2.51	2.29	2.41
	N	46	47	41	41	92	267
	Std. Dev	1.08	1.24	1.09	1.26	1.16	1.16
I-9 To discover new things	Mean	2.89	2.68	2.63	2.68	2.46	2.63
	N	46	47	41	41	93	268
	Std. Dev	1.14	1.27	1.17	1.31	1.22	1.22
I-10 To be creative	Mean	2.80	2.64	2.39	2.22	2.20	2.41
	N	46	47	41	40	92	266
	Std. Dev	1.32	1.35	1.04	1.31	1.17	1.25
I-11 To be original	Mean	2.74	2.53	2.39	2.20	2.08	2.34
	N	46	47	41	41	92	267
	Std. Dev	1.23	1.30	1.04	1.26	1.21	1.23
I-12 To use my imagination	Mean	2.52	2.35	2.29	2.21	2.04	2.23
	N	46	46	41	41	92	266
	Std. Dev	1.18	1.19	1.05	1.26	1.16	1.18

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

To delve further, the ANOVA was conducted to determine if class standing was a significant factor based on the intellectual motivation statements of the instrument at the .05 alpha level. Of the 12 items in this sub-area, four statements were found to be significant based on class standing. A statistical difference was found for statements I-2, I-3, I-10, and I-11. Statement I-3, to make my college experience more meaningful for me, had the highest statistical significance showing that participating in informal sports is an important part of the college experience. The ANOVA summary table for the significant intellectual motive findings is illustrated below in Table 10.

Table 10

Analysis of Variance for Intellectual Motivation and Class Standing

		Sum of Squares	df	Mean Square	F	Sig.
I-2 To seek stimulation	Between Groups	17.093	4	4.273	3.222	.013*
	Within Groups	348.828	263	1.326		
	Total	365.922	267			
I-3 To make my college experience more meaningful for me	Between Groups	22.535	4	4.273	3.466	.009**
	Within Groups	430.684	265	1.625		
	Total	453.219	269			
I-10 To be creative	Between Groups	15.212	4	3.803	2.473	.045*
	Within Groups	401.300	261	1.324		
	Total	416.511	265			
I-11 To be original	Between Groups	16.429	4	4.107	2.765	.028*
	Within Groups	389.234	262	1.486		
	Total	405.663	266			

Note. * $p < .05$ ** $p < .01$

Tukey's HSD revealed significant differences for statements I-2, I-3, and I-11. All significant statistical differences were found between underclassmen, freshmen and sophomores, and graduate students. Graduate students appeared to be less likely to participate in informal sports for intellectual motives. Freshmen, however, seem to be likely to be motivated by intellectual factors. Table 11 represents the further analysis and the significant findings based on

intellectual motivational statements found between the five class standing possibilities initially revealed by the ANOVA.

Table 11

Tukey's HSD among Class Standing Groups and Intellectual Motives

Intellectual Motive	Class Standing Group	Sig. between groups
I-2 To seek stimulation	Freshmen v. Graduate students	.017*
I-3 To make my college experience more meaningful for me	Freshmen v. Graduate students	.019*
	Sophomores v. Graduate students	.033*
I-11 To be original	Freshmen v. Graduate students	.024*

Note. * $p > .05$

Further review of statements I-3 and I-11 has similar findings to statement I-2 with regards to freshmen and graduate student differences. Statement I-3, to make my college experience more meaningful for me, and statement I-11, to be original, both indicated that underclassmen such as freshmen and sophomores participated in informal sports for intellectually motivating reasons. Graduate students did not appear to participate in order to enhance their overall college experience and/or define themselves. A reason for these differences might be due to the fact that graduate students enter school with a more focused attitude toward a particular professional field and as such have already defined themselves and their originality. Undergraduate students are still developing and molding their identity, especially during their freshmen and sophomore years. Based upon the results, it seems these motivations may be strong contributing factors towards their participation in informal sports.

Intellectual Motivation and Place of Residence

In a comparison of means for place of residence and intellectual motivation, statement I-2, to seek stimulation, again had the highest total mean score ($M=3.43$, $SD=1.17$) as well as the highest individual mean scores for each of the places of residence (residence halls, Greek housing, off-campus and other). The lowest overall mean score was found for statement I-12 ($M= 2.22$, $SD=1.17$), to use my imagination. This again indicated that using imagination was not a factor for participating in informal recreational sports. Residence hall students had the highest mean scores for all but one statement, statement I-3, to make my college experience more meaningful to me. As previously noted in the class standing section, underclassmen seemed more likely to be motivated by intellectual motivation and it therefore seems likely that Residence hall students, who are largely underclassmen, also had high intellectual motives. In looking closer at statement I-3, it appeared that students living in Greek housing had a higher motivation for participating in order to make their college experience more meaningful. Table 12 shows the full comparison of means for place of residence and intellectual motivation.

Table 12

Comparison of Means for Place of Residence and Intellectual Motivation

		Res. Halls	Greek	Off- campus	Other	Total
I-1 To expand my interests	Mean	2.57	2.47	2.46	3.11	2.51
	N	79	17	162	9	267
	Std. Dev	.996	1.12	1.20	1.05	1.13
I-2 To seek stimulation	Mean	3.71	3.41	3.30	3.40	3.43
	N	79	17	161	10	267
	Std. Dev	.963	1.00	1.26	1.26	1.17
I-3 To make my college experience more meaningful for me	Mean	3.01	3.29	2.56	3.30	2.77
	N	79	17	163	10	269
	Std. Dev	1.10	1.35	1.28	1.41	1.29
I-4 To learn about things around me	Mean	2.38	2.06	2.21	3.20	2.29
	N	79	17	162	10	268
	Std. Dev	1.03	1.10	1.17	1.13	1.16

I-5 To satisfy my curiosity	Mean	2.4	2.24	2.24	2.50	2.31
	N	79	17	161	10	267
	Std. Dev	1.03	1.25	1.19	.972	1.14
I-6 To explore my knowledge	Mean	2.37	2.24	2.19	2.78	2.27
	N	79	17	160	9	265
	Std. Dev	1.06	1.34	1.16	1.20	1.15
I-7 To learn about myself	Mean	2.51	2.53	2.49	3.20	2.52
	N	78	17	162	10	267
	Std. Dev	1.08	1.23	1.26	1.22	1.23
I-8 To expand my knowledge	Mean	2.46	2.35	2.33	3.22	2.40
	N	78	17	162	9	266
	Std. Dev	1.08	1.11	1.19	1.30	1.16
I-9 To discover new things	Mean	2.81	2.53	2.52	3.22	2.63
	N	78	17	163	9	267
	Std. Dev	1.17	1.17	1.23	1.39	1.22
I-10 To be creative	Mean	2.72	2.53	2.22	2.78	2.41
	N	78	17	161	9	265
	Std. Dev	1.29	1.17	1.19	1.48	1.25
I-11 To be original	Mean	2.55	2.41	2.19	2.89	2.33
	N	78	17	162	9	266
	Std. Dev	1.22	1.17	1.21	1.53	1.23
I-12 To use my imagination	Mean	2.43	2.18	2.09	3.00	2.22
	N	77	17	162	9	265
	Std. Dev	1.12	1.18	1.16	1.53	1.17

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

In order to determine if place of residence was a significant factor for intellectual motivation, an ANOVA was performed. Of those statements, four showed significance among the four residence possibilities, statements I-3, I-4, I-10 and I-12. Just as with class standing, statement I-3 had the highest overall significance further indicating that informal sports participation is important to students as part of their college experience. The statements indicating significance for the intellectual motives and place of residence are shown in Table 13.

Table 13

Analysis of Variance for Intellectual Motivation and Place of Residence

		Sum of Squares	df	Mean Square	F	Sig.
I-3 To make my college experience more meaningful for me	Between Groups	20.528	4	5.132	3.143	.010*
	Within Groups	432.690	265	1.633		
	Total	453.219	269			
I-4 To learn about things around me	Between Groups	13.786	4	3.447	2.585	.045*
	Within Groups	352.013	264	1.333		
	Total	365.799	268			
I-10 To be creative	Between Groups	16.975	4	4.244	2.772	.026*
	Within Groups	399.536	261	1.531		
	Total	416.511	265			
I-12 To use my imagination	Between Groups	14.893	4	3.723	2.744	.036*
	Within Groups	354.118	261	1.357		
	Total	369.011	265			

Note. * $p < .05$.

In order to further analyze the relationship between place of residence and intellectual motives for participation in informal sports, Tukey's HSD post hoc test was performed. The ANOVA had indicated significance for four statements; however Tukey's HSD only indicated significance for statement I-4, to learn about things around me, and statement I-10, to be creative. Although a statistical significance between residence hall students and off-campus students was found, the mean scores showed that it was "seldom true" that either group was motivated to participate in order to be creative. The results for this post hoc test are shown below in Table 14.

Table 14

Tukey's HSD among Place of Residence and Intellectual Motives

Intellectual Motive	Class Standing Group	Sig. between groups
I-4 To learn about things around me	Off-campus v. other	.044*
I-10 To be creative	Residence halls v. off-campus	.021*

Note. *p > .05

Intellectual Motivations and Ethnicity

After performing a comparison of means, a difference existed between the Asian/Pacific Islander group and both the African American and Caucasian groups for statement I-1, to expand my interests. The mean score for the Asian/Pacific Islander group (M=3.33, SD=.890) indicated they did participate in order to expand their interests whereas the mean scores for both the African American (M = 2.11, SD 1.05) and Caucasian (M = 2.42, SD = 1.12) groups indicated that it was unlikely they participated for that reason. The summary table for the comparison of means for all ethnic groups and intellectual motivation can be found in Table 15.

Table 15

Comparison of Means for Ethnic Groups and Intellectual Motivation

		Af. Amer.	Asian/ Pac. Is.	Cauc.	Hispanic	Other	Total
I-1 To expand my interests	Mean	2.11	3.33	2.42	2.33	2.25	2.51
	N	9	33	209	9	8	268
	Std. Dev	1.05	.890	1.12	1.32	.886	1.13
I-2 To seek stimulation	Mean	2.56	3.30	3.49	3.62	3.50	3.44
	N	9	33	210	8	8	268
	Std. Dev	1.33	1.10	1.15	1.06	1.60	1.17
I-3 To make my college experience more meaningful for me	Mean	2.60	2.91	2.81	2.33	1.87	2.77
	N	10	33	210	9	8	270
	Std. Dev	1.35	1.12	1.30	1.50	1.35	1.29
I-4 To learn about things around me	Mean	1.89	2.70	2.27	2.33	1.62	2.29
	N	9	33	210	9	8	269
	Std. Dev	.928	1.12	1.18	1.65	.518	1.16

I-5 To satisfy my curiosity	Mean	2.11	2.45	2.33	2.33	1.75	2.32
	N	9	33	209	9	8	268
	Std. Dev	1.36	1.12	1.12	1.80	.707	1.14
I-6 To explore my knowledge	Mean	2.11	2.32	2.28	2.22	2.12	2.27
	N	9	31	209	9	8	266
	Std. Dev	1.05	1.10	1.15	1.71	.835	1.15
I-7 To learn about myself	Mean	1.89	2.70	2.55	2.33	2.38	2.53
	N	9	33	209	9	8	268
	Std. Dev	1.05	1.28	1.22	1.65	1.06	1.23
I-8 To expand my knowledge	Mean	2.11	2.81	2.37	2.44	2.00	2.41
	N	9	32	209	9	8	267
	Std. Dev	.928	1.12	1.1	1.66	.756	1.16
I-9 To discover new things	Mean	2.30	3.06	2.60	2.44	2.38	2.63
	N	10	32	209	9	8	268
	Std. Dev	.949	1.19	1.22	1.59	1.06	1.22
I-10 To be creative	Mean	2.22	2.47	2.41	2.44	2.38	2.41
	N	9	32	208	9	8	266
	Std. Dev	1.20	1.13	1.27	1.59	1.06	1.25
I-11 To be original	Mean	2.11	2.31	2.37	2.33	1.88	2.34
	N	9	32	209	9	8	267
	Std. Dev	1.26	1.20	1.24	1.58	.641	1.23
I-12 To use my imagination	Mean	2.00	2.16	2.25	2.22	2.12	2.23
	N	9	32	208	9	8	266
	Std. Dev	1.22	1.13	1.18	1.64	.835	1.18

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

An ANOVA was conducted to determine if ethnicity was a significant factor in the intellectual motivations of informal sports participants. Based on the 12 statements related to intellectual motivations, the results revealed that statement I-1, to expand my interest, showed significance at the .05 alpha level. This result substantiated the differences between the ethnic groups as discussed previously. The results for the ANOVA are summarized in Table 16.

Table 16

Analysis of Variance for Intellectual Motivation and Ethnicity

		Sum of Squares	df	Mean Square	F	Sig.
S1 To expand my interests	Between Groups	26.271	4	6.568	5.420	.000***
	Within Groups	318.670	263	1.212		
	Total	344.940	267			

Note. *** $p < .001$

More critical analysis using Tukey's HSD, confirmed the significant difference between the three ethnic groups, African American, Asian/Pacific Islander and Caucasian. The difference between these ethnic groups may be due to the fact that many students included in the Asian/Pacific Islander group were international students looking to expand their interests beyond those they may have experienced in their home country. In comparison, many of the African American and Caucasian students were not international students, having already been exposed to the opportunities that informal sports, and specifically those offered by campus recreational sports at the Midwestern University, have to offer. Statement I-1, to expand my interests, showed significance between the African American and Asian/Pacific Islander groups as well as between the Asian/Pacific Islander and Caucasian groups. Table 17 gives a summarized version of these differences.

Table 17

Tukey's HSD among Ethnic Groups and Intellectual Motives

Intellectual Motive	Ethnic Group	Sig. between groups
S1 To expand my interests	African American v. Asian/Pacific Islander	.028*
	Asian/Pacific Islander v. Caucasian	.000***

Note. * $p > .05$. *** $p > .001$

Social Motivation and Gender

The comparison of means for gender and social motivation, shown below in Table 18, indicated males were more likely than females to participate for social reasons because males had higher mean scores for all 12 statements. The highest mean scores for both males and females were found for statements S-1, S-2 and S-3. Being with others, building friendships and interacting seemed to be the most important social aspects to both genders.

Table 18

Comparison of Means for Gender and Social Motivation

		Male	Female	Total
S-1 To be with others	Mean	3.30	3.04	3.17
	N	135	125	260
	Std. Dev	1.11	1.23	1.17
S-2 To build friendships with others	Mean	3.24	2.84	3.05
	N	137	125	262
	Std. Dev	1.14	1.24	1.20
S-3 To interact with others	Mean	3.43	2.99	3.22
	N	135	125	260
	Std. Dev	1.13	1.23	1.19
S-4 To develop close friendships	Mean	2.85	2.60	2.73
	N	135	124	259
	Std. Dev	1.23	1.18	1.21
S-5 To meet new and different people	Mean	2.88	2.44	2.67
	N	136	124	260
	Std. Dev	1.22	1.22	1.23
S-6 To help others	Mean	2.27	2.04	2.16
	N	135	125	260
	Std. Dev	1.08	.979	1.04
S-7 So others will think well of me for doing it	Mean	2.16	2.10	2.13
	N	136	125	261
	Std. Dev	1.11	1.04	1.07
S-8 To reveal my thoughts, feelings or physical skills to others	Mean	2.40	2.02	2.22
	N	136	125	261
	Std. Dev	1.25	.996	1.15
S-9 To influence others	Mean	2.06	1.98	2.02
	N	136	125	261
	Std. Dev	1.25	.992	1.09
S-10 To be socially competent and skillful	Mean	2.69	2.21	2.46
	N	137	124	261
	Std. Dev	1.31	1.08	1.23
S-11 To gain a feeling of belonging	Mean	2.49	2.24	2.37
	N	136	125	261
	Std. Dev	1.27	1.11	1.20
S-12 To gain other's respect	Mean	2.54	2.03	2.30
	N	136	125	261
	Std. Dev	1.26	1.03	1.18

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

An ANOVA was conducted to determine if gender was a significant factor based on the social motivation statements of the instrument at the .05 alpha level. Of the 12 statements in this

sub-area, six were found to be significant based on gender (S-2, S-3, S-5, S-8, S-10 and S-12). Only statements S-2 and S-3 were found to be “somewhat true” by respondents as motivations for participation based on the comparison of means; the other four statements being “seldom true”. This seems to indicate that although there was a statistical difference between genders for statements S-5, S-8, S-10 and S-12, once again, males seemed to be more motivated by these factors than females. The ANOVA summary table for the significant social motive findings is illustrated in Table 19.

Table 19

Analysis of Variance for Social Motivation and Gender

		Sum of Squares	df	Mean Square	F	Sig.
S-2 To build friendships with others	Between Groups	10.504	1	10.504	7.424	.007**
	Within Groups	367.851	260	1.415		
	Total	378.355	261			
S-3 To interact with others	Between Groups	12.430	1	12.430	8.907	.003**
	Within Groups	360.073	258	1.396		
	Total	372.504	259			
S-5 To meet new and different people	Between Groups	12.952	1	12.952	8.689	.003**
	Within Groups	384.602	258	1.491		
	Total	397.554	259			
S-8 To reveal my thoughts, feeling, or physical skills to others	Between Groups	9.426	1	9.426	7.272	.007**
	Within Groups	335.685	259	1.296		
	Total	345.111	260			
S-10 To be socially competent and skillful	Between Groups	15.232	1	15.232	10.291	.001**
	Within Groups	379.672	259	1.195		
	Total	394.904	260			
S12 To gain other's respect	Between Groups	17.082	1	17.082	12.728	.000***
	Within Groups	347.607	259	1.342		
	Total	364.960	260			

Note. **p < .01 ***p < .001

Social Motivation and Class Standing

The comparison of means shown in Table 20 generally indicated that underclassmen had higher motivations based on social factors than graduate students. Based on the mean scores for statement S-2, to build friendships with others, freshmen, sophomores and juniors appeared to be socially motivated to participate for this reason while graduate students did not ($M = 2.55$, $SD = 1.20$). The comparison of means shown in Table 23 supported the generalization that freshman have a higher motivation based on social factors than graduate students. The lack of social motivation from graduate students may stem from the fact that they are more focused on their studies, already have established groups of friends, or did not use their time spent on campus for social purposes. Freshmen had the highest mean scores for nearly all 12 statements in this category. However, for statement S-5, to meet new and different people, sophomores actually had a slightly higher mean score ($M = 3.15$, $SD = 1.32$). The reasoning for the higher score from sophomores on this statement may be due to the diversity aspect of meeting new and different people rather than just focusing on making friends. Sophomores may have had a higher interest in expanding their network of friends rather than just building it.

Table 20

Comparison of Means for Class Standing and Intellectual Motivation

		Fresh.	Soph.	Juniors	Seniors	Grad.	Total
S-1 To be with others	Mean	3.63	3.48	3.24	3.16	2.76	3.17
	N	46	448	38	38	90	260
	Std. Dev	.997	1.11	1.05	1.12	1.24	1.17
S-2 To build friendships with others	Mean	3.67	3.31	3.34	2.87	2.55	3.05
	N	46	48	38	38	92	262
	Std. Dev	.990	1.22	.966	1.14	1.20	1.20
S-3 To interact with others	Mean	3.74	3.50	3.45	3.16	2.73	3.22
	N	46	48	38	38	90	260
	Std. Dev	.905	1.16	1.00	1.24	1.24	1.19
S-4 To develop close friendships	Mean	3.02	3.00	3.13	2.58	2.33	2.73
	N	46	48	38	38	89	259
	Std. Dev	1.14	1.18	.991	1.24	1.23	1.21

S-5 To meet new and different people	Mean	3.13	3.15	2.81	2.32	2.27	2.67
	N	46	48	37	38	91	260
	Std. Dev	1.16	1.32	1.12	1.23	1.11	1.23
S-6 To help others	Mean	2.37	2.46	2.29	2.18	1.82	2.16
	N	46	48	38	38	90	260
	Std. Dev	.974	1.12	.984	1.22	.881	1.04
S-7 So others will think well of me for doing it	Mean	2.39	2.33	2.00	2.16	1.93	2.13
	N	46	48	38	38	91	261
	Std. Dev	1.00	1.12	.930	1.15	1.10	1.07
S-8 To reveal my thoughts, feelings or physical skills to others	Mean	2.67	2.37	2.29	2.16	1.91	2.22
	N	46	48	38	38	91	261
	Std. Dev	1.03	1.17	1.16	1.26	1.07	1.15
S-9 To influence others	Mean	2.35	2.42	1.97	2.08	1.65	2.02
	N	46	48	38	38	91	261
	Std. Dev	1.07	1.18	.944	1.30	.887	1.09
S-10 To be socially competent and skillful	Mean	2.91	2.71	2.45	2.38	2.15	2.46
	N	46	48	28	37	92	261
	Std. Dev	1.11	1.27	1.03	1.36	1.22	1.23
S-11 To gain a feeling of belonging	Mean	2.76	2.52	2.39	2.24	2.14	2.37
	N	46	48	38	38	91	261
	Std. Dev	1.11	1.18	1.02	1.26	1.27	1.20
S-12 To gain other's respect	Mean	2.76	2.54	2.34	2.16	1.98	2.30
	N	46	48	38	38	91	261
	Std. Dev	1.11	1.16	1.12	1.30	1.11	1.18

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

After an ANOVA was completed, 10 of the 12 statements (S-1, S-2, S-3, S-4, S-5, S-6, S-8, S-9, S-10 and S-11) were found to be significant based on class standing for social motivations. The high number of significant statements showed that social motives play a large factor in motivation for participation in informal sports. Six of the 10 statements were found to be significant as the .001 alpha level showing an even greater importance placed on social motivations. The ANOVA summary table for the significant social motive findings is illustrated in Table 21.

Table 21

Analysis of Variance for Social Motivation and Class Standing

		Sum of Squares	df	Mean Square	F	Sig.
S-1 To be with others	Between Groups	29.972	4	7.493	5.803	.000***
	Within Groups	329.240	255	1.291		
	Total	359.212	259			
S-2 To build friendships with others	Between Groups	48.311	4	12.078	9.405	.000***
	Within Groups	330.044	257	1.284		
	Total	378.355	261			
S-3 To interact with others	Between Groups	39.587	4	9.897	7.580	.000***
	Within Groups	332.917	255	1.306		
	Total	372.504	259			
S-4 To develop close relationships	Between Groups	28.947	4	7.237	5.220	.000***
	Within Groups	352.134	254	1.386		
	Total	381.081	258			
S-5 To meet new and different people	Between Groups	40.339	4	10.085	7.199	.000***
	Within Groups	357.215	255	1.401		
	Total	397.554	259			
S-6 To help others	Between Groups	17.219	4	4.305	4.169	.003**
	Within Groups	263.316	255	1.033		
	Total	280.535	259			
S-8 To reveal my thoughts, feelings, or physical skills to others	Between Groups	19.587	4	4.897	3.851	.005**
	Within Groups	325.524	256	1.272		
	Total	345.111	260			
S-9 To influence others	Between Groups	25.277	4	6.319	5.684	.000***
	Within Groups	284.586	256	1.427		
	Total	309.862	260			
S-10 To be socially competent and skillful	Between Groups	21.368	4	5.342	3.661	.006**
	Within Groups	373.536	256	1.459		
	Total	394.904	260			
S-12 To gain other's respect	Between Groups	22.842	4	5.711	4.276	.002**
	Within Groups	341.848	256	1.335		
	Total	364.690	260			

Note. **p < .01 ***p < .001

Further analysis among class standing and social motives with Tukey's HSD, shown in Table 22, illustrated the difference between the motivations of freshmen and graduate students. Four of the 12 statements indicated differences between freshmen and graduate students at the .001 alpha level. Significant differences were also found between sophomores and graduate students for six of the 12 statements. It was interesting to note that for statement S-5, to meet new and different people, a significant difference was found between both freshmen and seniors and sophomores and seniors. It appeared that seniors had similar motivations to graduate students and did not participate to meet new and different people.

Table 22

Tukey's HSD among Class Standing Groups and Social Motives

Social Motive	Class Standing Group	Sig. between groups
S-1 To be with others	Freshmen v. Graduate students	.000***
	Sophomores v. Graduate students	.004**
S-2 To build friendships with others	Freshmen v. Seniors	.012*
	Freshmen v. Graduate students	.000***
S-3 To interact with others	Freshmen v. Graduate students	.000***
	Sophomores v. Graduate students	.002**
	Juniors v. Graduate students	.012*
S-4 To develop close relationships	Freshmen v. Graduate students	.011*
	Sophomores v. Graduate students	.013*
	Juniors v. Graduate students	.004*
S-5 To meet new and different people	Freshmen v. Seniors	.016*
	Freshmen v. Graduate students	.001**

	Sophomores v. Seniors	.012*
	Sophomores v. Graduate students	.000***
S-6 To help others		
	Freshmen v. Graduate students	.027*
	Sophomores v. Graduate students	.005**
S-8 To reveal my thoughts, feelings, or physical skills to others		
	Freshmen v. Graduate students	.002**
S-9 To influence others		
	Freshmen v. Graduate students	.003**
	Sophomores v. Graduate students	.001**
S-10 To be socially competent and skillful		
	Freshmen v. Graduate students	.005**
S-11 To gain a feeling of belonging		
	Freshmen v. Graduate students	.037*
S-12 To gain other's respect		
	Freshmen v. Graduate students	.002**

Note. * $p < .05$ ** $p < .01$ *** $p < .001$

Social Motivation and Place of Residence

In the comparison of means for place of residence and social motivation, shown in Table 23, students living in the residence halls indicated that it was “seldom true” ($M = 2.54$, $SD = 1.11$) that they participated to reveal thoughts, feelings or physical skills to others. For the same statement, students living off-campus indicated that it was “never true” ($M = 1.88$, 1.04). Differences in mean responses between students living in residence halls and off-campus housing were also found in statements S-2 and S-5. Students living off-campus stated that it was “seldom true” ($M = 2.86$, $SD = 1.19$) that they participated in order to build friendships with others, whereas students living in the residence halls stated it was “sometimes true” ($M = 3.37$,

SD = 1.10) that they participated to build friendships. One reason for this occurrence may be due to the fact that residence hall students are more likely to be underclassmen who may be looking to form friendships with others. This thought can be supported through the mean differences for statement S-5 where residence hall students said it was “sometimes true” (M = 3.00, SD = 1.19) they participated in order to meet new and different people. Comparatively, students living off-campus indicated that was “seldom true” (M = 2.50, SD = 1.22).

Table 23

Comparison of Means for Place of Residence and Social Motivation

		Res. Halls	Greek	Off- campus	Other	Total
S-1 To be with others	Mean	3.38	3.50	3.02	3.44	3.17
	N	76	18	157	9	260
	Std. Dev	1.08	1.24	1.18	1.42	1.17
S-2 To build friendships with others	Mean	3.37	3.06	2.86	3.60	3.05
	N	76	18	158	10	262
	Std. Dev	1.10	1.34	1.19	1.26	1.20
S-3 To interact with others	Mean	3.50	3.22	3.06	3.67	3.22
	N	76	18	157	9	260
	Std. Dev	1.03	1.35	1.22	1.41	1.19
S-4 To develop close friendships	Mean	2.87	3.06	2.59	3.33	2.73
	N	76	18	156	9	259
	Std. Dev	1.12	1.34	1.22	1.22	1.21
S-5 To meet new and different people	Mean	3.00	2.61	2.50	2.90	2.67
	N	75	18	157	10	260
	Std. Dev	1.19	1.33	1.22	1.28	1.23
S-6 To help others	Mean	2.25	2.39	2.08	2.22	2.16
	N	76	18	157	9	260
	Std. Dev	.981	1.37	1.04	.667	1.04
S-7 So others will think well of me for doing it	Mean	2.34	2.11	2.02	2.33	2.13
	N	76	18	158	9	261
	Std. Dev	1.07	1.13	1.03	1.50	1.07
S-8 To reveal my thoughts, feelings or physical skills to others	Mean	2.54	2.22	2.04	2.78	2.22
	N	76	18	158	9	261
	Std. Dev	1.11	1.11	1.22	1.48	1.15
S-9 To influence others	Mean	2.24	2.11	1.88	2.56	2.02
	N	76	18	158	9	261
	Std. Dev	1.08	1.18	1.04	1.42	1.09
S-10 To be socially competent and skillful	Mean	2.72	2.28	2.31	3.30	2.46
	N	76	18	157	10	261

	Std. Dev	1.11	1.27	1.23	1.41	1.23
S-11 To gain a feeling of belonging	Mean	2.66	2.39	2.17	3.30	2.37
	N	76	18	157	10	261
	Std. Dev	1.09	1.33	1.18	1.49	1.20
S-12 To gain other's respect	Mean	2.58	2.22	2.15	2.67	2.30
	N	76	18	158	9	261
	Std. Dev	1.12	1.21	1.16	1.58	1.18

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

Based on the ANOVA, place of residence was factor in the social motivations of informal sport participants. Based on the 12 statements related to social motivations, the results revealed that seven statements showed significance at the .05 alpha level. Two statements were found to be significant at the .01 alpha level. Those statements were S-11, to gain a sense of belonging and S-8, to reveal my thoughts feelings or physical skills to others. The results for the ANOVA of social motives related to place of residence is summarized in Table 24.

Table 24

Analysis of Variance for Social Motivation and Place of Residence

		Sum of Squares	df	Mean Square	F	Sig.
S-2 To build friendships with others	Between Groups	16.390	9	5.463	3.894	.010*
	Within Groups	361.965	258	1.403		
	Total	378.355	261			
S-3 To interact with others	Between Groups	11.909	3	3.970	2.818	.040*
	Within Groups	360.595	256	1.409		
	Total	372.504	259			
S-5 To meet new and different people	Between Groups	13.128	3	4.376	2.914	.035*
	Within Groups	384.426	256	1.502		
	Total	397.554	259			
S-8 To reveal my thoughts, feelings, or physical skills to others	Between Groups	15.791	3	5.264	4.108	.007**
	Within Groups	329.320	257	1.281		
	Total	345.111	260			
S-9 To influence others	Between Groups	9.410	3	3.137	2.683	.047*
	Within Groups	300.452	257	1.281		
	Total	309.862	260			

S-10 To be socially competent and skillful	Between Groups	16.671	3	5.557	3.776	.011*
	Within Groups	378.233	257	1.472		
	Total	394.904	260			
S-11 To gain a feeling of belonging	Between Groups	21.110	3	7.037	5.054	.002**
	Within Groups	357.840	257	1.377		
	Total	364.690	260			

Note. *p < .05. **p < .01.

In further analyzing the relationship between places of residence and social motives for participation in informal sports, Tukey's HSD post hoc test was performed. Tukey's HSD indicated a significant difference between resident halls and off-campus housing. The results showed that residence hall students had higher social motives than off-campus students. Residence hall students were more likely to be motivated to participate in order to build friendships, meet new people and interact with others. Significance at the .01 alpha level was again found for statement S-8, to reveal things my thoughts, feeling or physical skills to others, which indicates it was also important for residence hall students to be able to express themselves through their leisure choices. The results for this post hoc test are shown below in Table 25.

Table 25

Tukey's HSD among Place of Residence Groups and Social Motives

Social Motive	Class Standing Group	Sig. between groups
S-2 To build friendships with others	Residence halls v. Off-campus	.013*
S-3 To interact with others	Residence halls v. Off-campus	.040*
S-5 To meet new and different people	Residence halls v. Off-campus	.022*
S-8 To reveal my thoughts, feelings, or physical skills to others	Residence halls v. Off-campus	.009**

S-11 To gain a feeling of belonging	Residence halls v. Off-campus	.018*
S-12 To gain other's respect	Residence halls v. Off-campus	.047*

Note. *p < .05 **p < .01

Social Motivation and Ethnicity

Table 26 reveals the comparison of means for ethnic groups and social motivation.

Overall, the mean scores for all groups were low revealing that ethnicity does not play a large role in social motivations. The highest total mean scores were found for statements S-1 (M = 3.17, SD = 1.17) to be with others, S-2 (M = 3.05, SD = 1.20) to build friendships with others and S-3 (M = 3.22, SD = 1.19) to interact with others. Within those three statements, African Americans and "others" were less likely to participate for those reasons.

Table 26

Comparison of Means for Ethnic Groups and Social Motivation

		Af. Amer.	Asian/ Pac. Is.	Cauc.	Hispani c	Other	Total
S-1 To be with others	Mean	2.88	3.20	3.80	3.22	2.75	3.17
	N	8	30	205	9	8	260
	Std. Dev	1.12	1.09	1.19	1.09	1.28	1.17
S-2 To build friendships with others	Mean	2.38	3.00	2.10	2.89	2.88	3.05
	N	8	32	205	9	8	262
	Std. Dev	1.30	1.07	1.22	1.05	1.24	1.20
S-3 To interact with others	Mean	2.87	3.13	3.24	3.22	3.25	3.22
	N	8	30	205	9	8	260
	Std. Dev	1.12	1.10	1.22	.972	1.38	1.19
S-4 To develop close friendships	Mean	2.43	2.67	2.78	2.44	2.38	2.73
	N	7	30	205	9	8	259
	Std. Dev	1.61	1.24	1.21	1.01	1.18	1.21
S-5 To meet new and different people	Mean	2.50	2.81	2.63	2.78	3.13	2.67
	N	8	31	204	9	8	260
	Std. Dev	1.41	1.10	1.25	1.20	1.35	1.23
S-6 To help others	Mean	2.00	2.20	2.19	1.89	1.75	2.16
	N	8	30	205	9	8	260
	Std. Dev	1.06	.961	1.06	.928	.707	1.04

S-7 So others will think well of me for doing it	Mean	1.88	2.29	2.14	2.11	1.50	2.13
	N	8	31	205	9	8	261
	Std. Dev	.991	1.09	1.09	1.16	.756	1.07
S-8 To reveal my thoughts, feelings or physical skills to others	Mean	2.38	2.42	2.20	2.00	2.00	2.22
	N	8	31	205	9	8	261
	Std. Dev	1.18	1.17	1.15	1.11	1.19	1.15
S-9 To influence others	Mean	2.00	1.87	2.07	1.78	1.63	2.02
	N	8	31	205	9	8	261
	Std. Dev	1.19	1.17	1.12	1.09	.744	1.09
S-10 To be socially competent and skillful	Mean	2.25	2.56	2.49	2.33	1.88	2.46
	N	8	32	204	9	8	261
	Std. Dev	1.28	1.19	1.24	1.14	.835	1.23
S-11 To gain a feeling of belonging	Mean	2.13	2.55	2.39	1.78	2.13	2.37
	N	8	31	205	9	8	261
	Std. Dev	1.24	1.26	1.19	1.30	1.12	1.20
S-12 To gain other's respect	Mean	2.00	2.35	2.31	2.22	2.13	2.30
	N	8	31	205	9	8	261
	Std. Dev	1.06	1.25	1.17	1.48	1.12	1.18

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

An ANOVA was conducted to determine if ethnicity was a significant factor based on the social motivation statements of the instrument at the .05 alpha level. However, none of the 12 statements in this sub-area indicated statistical significance based on ethnicity.

Competence-Mastery and Gender

The mean scores for competency-mastery indicated that both males and females were motivated by keeping in shape physically, being active, and developing physical fitness. These motivating factors focused upon being physically active demonstrated that college students understand the health benefits of maintaining an active lifestyle. It was no surprise to find males indicated they participated in order to compete against others ($M = 3.50$, $SD = 1.27$), while female participants were much less likely to participate for reasons of competition ($M = 2.38$, $SD = 1.24$). Additionally, it was notable to see factors relating to being physically active were the more important motivators for both males and females. The summary for comparison of means for gender and competence-mastery motivations can be found below in Table 27.

Table 27

Comparison of Means for Gender and Competence-Mastery Motivation

		Male	Female	Total
CM-1 To obtain a feeling of achievement	Mean	3.59	3.85	3.71
	N	134	125	258
	Std. Dev	1.21	1.00	.992
CM-2 To see what my abilities are	Mean	3.81	3.70	3.76
	N	133	125	258
	Std. Dev	1.03	.951	.992
CM-3 To challenge my abilities	Mean	4.03	3.86	3.95
	N	132	125	257
	Std. Dev	1.02	.936	.985
CM-4 Because I enjoy mastering things	Mean	3.84	3.43	3.64
	N	132	124	256
	Std. Dev	1.04	1.11	1.09
CM-5 To be good at the sport	Mean	3.93	3.29	3.62
	N	133	124	257
	Std. Dev	1.02	1.19	1.15
CM-6 To improve skill and ability in the sport	Mean	4.20	3.77	3.99
	N	133	125	258
	Std. Dev	.949	1.19	1.09
CM-7 To compete against others	Mean	3.50	2.38	2.96
	N	133	125	258
	Std. Dev	1.27	1.24	1.37
CM-8 To be active	Mean	4.66	4.58	4.62
	N	133	125	258
	Std. Dev	.614	.732	.673
CM-9 To develop physical skills and abilities	Mean	4.47	4.26	4.37
	N	133	125	258
	Std. Dev	.764	.815	.794
CM-10 To keep in shape physically	Mean	4.71	4.58	4.65
	N	133	125	258
	Std. Dev	.613	.720	.669
CM-11 To use my physical abilities	Mean	4.49	4.18	4.34
	N	133	125	258
	Std. Dev	.775	.925	.864
CM-12 To develop my physical fitness	Mean	4.61	4.54	4.58
	N	132	125	257
	Std. Dev	.695	.725	.709

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

The ANOVA, shown in Table 28, found six statements (CM-4, CM-5, CM-6, CM-7, CM-9 and CM-11) to be significant based on gender at the .05 alpha level. Four of the six

statements were found significant at the .01 alpha level. The ANOVA summary table for the significant competence-mastery motive findings is illustrated in Table 28.

Table 28

Analysis of Variance for Competence-Mastery Motivation and Gender

		Sum of Squares	df	Mean Square	F	Sig.
CM-4 Because I enjoy mastering things	Between Groups	10.932	1	10.932	9.380	.002**
	Within Groups	296.006	254	1.165		
	Total	306.938	255			
CM-5 To be good at the sport	Between Groups	26.450	1	26.450	21.484	.000***
	Within Groups	313.939	255	1.231		
	Total	340.389	256			
CM-6 To improve skill and ability in the sport	Between Groups	11.776	1	11.776	10.144	.002**
	Within Groups	297.189	256	1.161		
	Total	308.965	257			
CM-7 To compete against others	Between Groups	80.796	1	80.796	51.094	.000***
	Within Groups	404.816	256	1.581		
	Total	485.612	257			
CM-9 To develop physical skills and abilities	Between Groups	2.634	1	2.634	4.230	.041*
	Within Groups	159.386	256	.623		
	Total	162.019	257			
CM-11 To use my physical abilities	Between Groups	6.302	1	6.302	8.703	.003**
	Within Groups	185.361	256	.724		
	Total	191.663	257			

Note. *p < .05 **p < .01 ***p < .001

Competence-Mastery and Class Standing

Table 29 shows the comparison of means for class standing and competence-mastery motivations for participation. Freshmen had the highest mean scores for all but one competence-mastery statement, statement CM-7, which was to compete with others. For this statement, both freshmen and juniors indicated that it was only “sometimes true” (M = 3.49, SD = 1.34) (M =

3.0, SD = 1.31). Graduate students seemed to be less motivated by competence-mastery items. For statements CM-10 (to keep in shape physically) and CM-12 (to develop my physical fitness), graduate students' responses differed from juniors. Both statements related to physical fitness, which may show that graduate students were more motivated by the physical benefits to participation than juniors. Overall, the mean scores were higher for all class standings than any other motivating sub-area.

Table 29

Comparison of Means and Class Standing for Competence-Mastery Motivation

		Fresh.	Soph.	Juniors	Seniors	Grad.	Total
CM-1 To obtain a feeling of achievement	Mean	4.16	4.10	3.49	3.17	3.38	3.71
	N	45	48	37	38	91	259
	Std. Dev	.737	.973	1.23	1.16	1.18	1.12
CM-2 To see what my abilities are	Mean	4.16	4.13	3.41	3.68	3.54	3.76
	N	45	48	37	38	90	258
	Std. Dev	.796	.703	1.14	.989	1.04	.992
CM-3 To challenge my abilities	Mean	4.18	4.19	3.70	3.89	3.83	3.95
	N	45	47	37	38	90	257
	Std. Dev	.912	.770	1.15	1.00	1.00	.985
CM-4 Because I enjoy mastering things	Mean	4.07	3.83	3.43	3.53	3.46	3.64
	N	44	48	37	38	89	256
	Std. Dev	.818	.907	1.19	1.10	1.20	1.09
CM-5 To be good at the sport	Mean	3.91	3.81	3.43	3.42	3.54	3.62
	N	44	48	37	38	90	257
	Std. Dev	1.00	1.10	1.23	1.24	1.15	1.15
CM-6 To improve skill and ability in the sport	Mean	4.29	4.21	3.84	3.82	3.86	3.99
	N	45	48	37	38	90	258
	Std. Dev	.991	1.09	1.11	1.06	1.12	1.09
CM-7 To compete against others	Mean	3.49	3.13	3.00	2.87	2.63	2.96
	N	45	48	37	38	90	258
	Std. Dev	1.34	1.46	1.31	1.43	1.26	1.37
CM-8 To be active	Mean	4.78	4.67	4.32	4.55	4.68	4.62
	N	45	48	37	38	90	258
	Std. Dev	.560	.595	.944	.724	.577	.673
CM-9 To develop physical skills and abilities	Mean	4.42	4.50	4.05	4.37	4.40	4.37
	N	45	48	37	38	90	258
	Std. Dev	.839	.684	1.07	.786	.667	.794
CM-10 To keep in shape physically	Mean	4.69	4.60	4.35	4.61	4.79	4.65
	N	45	48	37	38	90	258
	Std. Dev	.596	.707	.889	.790	.462	.669

CM-11 To use my physical abilities	Mean	4.56	4.44	4.03	4.42	4.27	4.34
	N	45	48	37	38	90	258
	Std. Dev	.693	.796	1.01	.889	.872	.864
CM-12 To develop my physical fitness	Mean	4.64	4.54	4.30	4.50	4.71	4.58
	N	45	48	37	38	89	257
	Std. Dev	.976	.713	.909	.830	.527	.709

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

Table 30 illustrates the ANOVA summary table for the significant competence-mastery motivation statements revealing that seven of the 12 statements (CM-1, CM-2, CM-4, CM-7, CM-8, CM-10 and CM-12) were found to be significant at the .05 alpha level based on class standing. Fitness and physical activity were motivators based on the statistical significance of statements CM-8, CM-10 and CM-12.

Table 30

Analysis of Variance for Competence-Mastery Motivation and Class Standing

		Sum of Squares	df	Mean Square	F	Sig.
CM-1 To obtain a feeling of achievement	Between Groups	27.869	4	6.967	5.919	.000** *
	Within Groups	298.988	254	1.177		
	Total	326.857	258			
CM-2 To see what my abilities are	Between Groups	22.488	4	5.622	6.168	.000** *
	Within Groups	230.613	253	.912		
	Total	253.101	257			
CM-4 Because I enjoy mastering things	Between Groups	14.808	4	3.702	3.181	.014*
	Within Groups	292.129	251	1.164		
	Total	306.938	255			
CM-7 To compete against others	Between Groups	23.876	4	5.969	3.271	.012*
	Within Groups	461.737	253	1.825		
	Total	485.612	257			
CM-8 To be active	Between Groups	4.928	4	1.232	2.793	.027*
	Within Groups	111.603	253			
	Total	116.531	257			
CM-10 To keep in shape	Between Groups	5.279	4	1.320	3.046	.018*

physically	Within Groups	109.624	253	.433		
	Total	114.903	257			
CM-12 To develop my physical fitness	Between Groups	4.908	4	1.227	2.497	.043*
	Within Groups	123.862	252	.492		
	Total	128.770	256			

Note. * $p < .05$. *** $p < .001$.

Table 31 represents the further analyses and the significant findings based on competence-mastery motivational statements found between the five class standing possibilities initially shown in Table 30. After analysis from Tukey's HSD, a statistical significance was for several statements. Freshmen seemed to be especially motivated by achievement, challenges and mastery; statements CM-1, CM-2 and CM-4. Graduate students, however, were more likely to be motivated by fitness benefits shown in statements CM-10 and CM-12.

Table 31

Tukey's HSD among Class Standing Groups and Competence-Mastery Motives

Competence-Mastery Motive	Class Standing Group	Sig. between groups
CM-1 To obtain a feeling of achievement	Freshmen v. Juniors	.046*
	Freshman v. Graduate students	.001**
CM-2 To see what my abilities are	Freshmen v. Juniors	.004**
	Freshman v. Graduate students	.005**
CM-4 Because I enjoy mastering things	Freshmen v. Graduate students	.021*
CM-7 To compete against others	Freshmen v. Graduate students	.006**
CM-8 To be active		

	Freshmen v. Juniors	.020*
CM-10 To keep in shape physically		
	Graduate students v. Juniors	.007**
CM-11 To use my physical abilities		
	Freshmen v. Juniors	.045*
CM-12 To develop my physical fitness		
	Graduate students v. Juniors	.025*

Note. * $p < .05$. ** $p < .01$.

Competence-Mastery and Place of Residence

The comparison of means for place of residence and competence-mastery motivations for participation is shown in Table 32. Based on the comparison of means, Greek residents stated it was “often true” that they participated in order to obtain a feeling of achievement ($M = 4.12$, $SD = .928$) while the residence hall and off-campus residents felt it was only “sometimes true” that they participated for this reason ($M = 3.93$, $SD = .997$) ($M = 3.54$, $SD = 1.19$). The statements related to fitness, CM-8 through CM-12, had the highest mean scores for all places of residence. Overall, the comparison of mean scores was high, which may have reinforced that students were motivated to participate due to competence-mastery aspects regardless of their place of residence.

Table 32

Comparison of Means for Place of Residence and Competence-Mastery Motivation

		Res. Halls	Greek	Off- campus	Other	Total
CM-1 To obtain a feeling of achievement	Mean	3.93	4.12	3.54	4.22	3.71
	N	75	17	158	9	259
	Std. Dev	.997	.928	1.19	.833	1.12
CM-2 To see what my abilities are	Mean	3.88	3.76	3.68	4.22	3.95
	N	75	17	157	9	257
	Std. Dev	.915	1.20	1.00	.833	.985

CM-3 To challenge my abilities	Mean	3.97	4.06	3.91	4.22	3.95
	N	75	16	157	9	257
	Std. Dev	1.00	.854	1.00	.833	.985
CM-4 Because I enjoy mastering things	Mean	3.82	3.65	3.53	4.11	3.64
	N	74	17	156	9	256
	Std. Dev	.927	1.32	1.13	1.05	1.09
CM-5 To be good at the sport	Mean	3.70	3.53	3.57	4.11	3.62
	N	74	17	157	9	257
	Std. Dev	1.05	1.46	1.17	.928	1.15
CM-6 To improve skill and ability in the sport	Mean	4.07	4.18	3.90	4.56	3.99
	N	75	17	157	9	258
	Std. Dev	1.09	1.01	1.12	.527	1.09
CM-7 To compete against others	Mean	3.12	2.94	2.91	2.56	2.96
	N	75	17	157	9	258
	Std. Dev	1.35	1.47	1.36	1.59	1.37
CM-8 To be active	Mean	4.59	4.59	4.64	4.78	4.62
	N	75	17	157	9	258
	Std. Dev	.755	.618	.642	.667	.673
CM-9 To develop physical skills and abilities	Mean	4.31	4.41	4.38	4.56	4.37
	N	75	17	157	9	258
	Std. Dev	.915	.618	.756	.726	.794
CM-10 To keep in shape physically	Mean	4.51	4.71	4.69	4.89	4.65
	N	75	17	157	9	258
	Std. Dev	.812	.588	.606	.333	.669
CM-11 To use my physical abilities	Mean	4.31	4.41	4.32	4.67	4.34
	N	75	17	157	9	258
	Std. Dev	.900	.870	.856	.707	.864
CM-12 To develop my physical fitness	Mean	4.48	4.65	4.60	4.89	4.58
	N	75	17	156	9	257
	Std. Dev	.844	.606	.660	.333	.709

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

An ANOVA was conducted to determine if place of residence was a factor in the competence-mastery motivations of informal sports participants. The results revealed that only statement CM-1, to obtain a feeling of achievement, was significant at the .05 alpha level. Further analysis using Tukey's HSD showed that none of the statements were statistically significant. The result for the ANOVA of social motives related to place of residence is summarized in Table 33.

Table 33

Analysis of Variance for Competence-Mastery Motivation and Place of Residence

		Sum of Squares	df	Mean Square	F	Sig.
CM-1 To obtain a feeling of achievement	Between Groups	13.598	3	4.533	3.690	.013*
	Within Groups	313.259	255	1.228		
	Total	326.857	258			

Note. * $p < .05$.

Competence-Mastery and Ethnicity

In comparing the mean scores for ethnic groups and competence-mastery motivations for participation, all ethnic groups except Asian/Pacific Islander stated that it was “somewhat true” ($M = 2.97$, $SD = 1.11$) that they participated in order “to obtain a sense of achievement.” Overall, Caucasians had the highest mean score for this statement ($M = 3.86$, $SD = 1.02$). For CM-3, Caucasians stated that it was “often true” ($M = 4.01$, $SD = .944$) that they participated in order “to challenge my abilities” while Asian/Pacific Islanders answered that it was “sometimes true” ($M = 3.14$, $SD = 1.10$) that they participated for this reason. For CM-12, “to develop my physical fitness”, all ethnic groups except African Americans answered that it was “often true” that they participated for this reason. In comparison, African Americans revealed that this statement was only “sometimes true” ($M = 3.88$, $SD = 1.12$). Caucasians and “others” had the highest mean scores for CM-12 to develop my physical fitness ($M = 4.61$, $SD = .684$) ($M = 5.00$, $SD = .000$). The comparison of means for ethnic groups and competence-mastery motivations is summarized in Table 34.

Table 34

Comparison of Means for Ethnic Groups and Competence-Mastery Motivation

		Af. Amer.	Asian/ Pac. Is.	Cauc.	Hispani c	Other	Total
CM-1 To obtain a feeling of achievement	Mean	3.38	2.97	3.86	3.38	3.63	3.71
	N	8	31	204	8	8	259
	Std. Dev	1.06	1.11	1.02	1.76	1.76	1.12
CM-2 To see what my abilities are	Mean	3.87	3.47	3.78	3.88	4.13	3.76
	N	8	30	204	8	8	258
	Std. Dev	1.12	1.04	.975	1.12	.991	.992
CM-3 To challenge my abilities	Mean	3.87	3.43	4.01	4.13	4.25	3.95
	N	8	30	203	8	8	257
	Std. Dev	1.12	1.10	.944	1.12	.886	.985
CM-4 Because I enjoy mastering things	Mean	3.50	3.20	3.67	4.13	4.13	3.64
	N	8	30	202	8	8	256
	Std. Dev	1.60	1.03	1.06	1.35	1.12	1.09
CM-5 To be good at the sport	Mean	3.13	3.73	3.60	4.25	3.75	3.62
	N	8	30	203	8	8	257
	Std. Dev	1.64	.868	1.17	1.03	1.03	1.15
CM-6 To improve skill and ability in the sport	Mean	3.75	3.90	3.99	4.38	4.13	3.99
	N	8	30	204	8	8	258
	Std. Dev	1.58	.923	1.10	1.06	1.12	1.37
CM-7 To compete against others	Mean	3.25	2.80	2.96	3.00	3.38	2.96
	N	8	30	204	8	8	258
	Std. Dev	1.66	1.15	1.38	1.41	1.76	1.37
CM-8 To be active	Mean	4.13	4.40	4.65	4.88	5.00	4.62
	N	8	30	204	8	8	258
	Std. Dev	1.12	.814	.637	.354	.000	.673
CM-9 To develop physical skills and abilities	Mean	4.13	4.33	4.35	4.75	4.75	4.37
	N	8	30	204	8	8	258
	Std. Dev	1.12	.802	.796	.463	.463	.794
CM-10 To keep in shape physically	Mean	4.13	4.50	4.67	4.88	5.00	4.65
	N	8	30	204	8	8	258
	Std. Dev	1.12	.777	.641	.354	.000	.669
CM-11 To use my physical abilities	Mean	4.00	4.17	4.36	4.37	4.63	4.34
	N	8	30	204	8	8	258
	Std. Dev	1.30	.913	.834	1.06	.744	.864
CM-12 To develop my physical fitness	Mean	3.88	4.40	4.61	4.75	5.00	4.58
	N	8	30	203	8	8	257
	Std. Dev	1.12	.770	.684	.463	.000	.709

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

In order to determine if there was a significant difference for ethnicity and competence-mastery motivations at the .05 alpha level, an ANOVA was conducted. Of the 12 statements for

competence-mastery, five showed significance among the five ethnic groups: Caucasian, African American, Hispanic, Asian/Pacific Islander, and Other. The five statements indicating significance for the competence-mastery motives and ethnicity are shown below in Table 35. Two statements, CM-1, to obtain a feeling of achievement, and CM-12, to develop my physical fitness, were both found to be significant at the .001 alpha level.

Table 35

Analysis of Variance for Competence-Mastery and Ethnicity

		Sum of Squares	df	Mean Square	F	Sig.
CM-1 To obtain a feeling of achievement	Between Groups	23.387	4	5.847	4.894	.001**
	Within Groups	303.470	254	1.195		
	Total	326.857	258			
CM-3 To challenge my abilities	Between Groups	9.745	4	2.436	2.573	.038*
	Within Groups	238.597	252	.947		
	Total	248.342	256			
CM-8 To be active	Between Groups	5.292	4	1.323	3.009	.019*
	Within Groups	111.239	253	.440		
	Total	116.531	257			
CM-10 To keep in shape physically	Between Groups	4.320	4	1.080	2.471	.045*
	Within Groups	110.583	253	.437		
	Total	114.903	257			
CM-12 To develop my physical fitness	Between Groups	6.723	4	1.681	3.470	.009**
	Within Groups	122.048	252	.484		
	Total	128.770	256			

Note. *p < .05 **p < .001

In order to further analyze the relationship between ethnicity and competence-mastery motives for participation in informal sports, Tukey's HSD post hoc test was performed. The ANOVA had indicated significance for five statements, yet Tukey's HSD only indicated significance for statements CM-1, CM-3 and CM-12. Statement CM-1, to obtain a feeling of

achievement, was found to be significant at the .001 alpha level between the Caucasian and Asian/Pacific Islander groups. In looking back at the mean scores for the two groups, Caucasians appeared to be more likely than Asian/Pacific Islanders to participate in informal sports in order to gain a sense of achievement. The results for this post hoc test are shown below in Table 36.

Table 36

Tukey's HSD among Ethnic Groups and Competence-Mastery Motives

Competence-Mastery Motive	Ethnic Group	Sig. between groups
CM-1 To obtain a feeling of achievement	Caucasian v. Asian/Pacific Islander	.000***
CM-3 To challenge my abilities	Caucasian v. Asian/Pacific Islander	.023*
CM-12 To develop my physical fitness	Caucasian v. African American	.032*
	Other v. African American	.012*

Note. * $p > .05$ *** $p > .001$

Stimulus-Avoidance and Gender

The mean scores for stimulus-avoidance motivations revealed a difference between males and females on their top mean scores. Females indicated they were motivated to relax physically ($M = 3.04$; $SD = 1.35$) while males indicated they were motivated to escape and for a change of pace. Both genders seemed to agree that relaxing mentally and relieving stress and tension were motivating factors for participating in informal sports. The least motivating factors from this category for both males and females included, to be in a calm atmosphere (SA-1), to seek solitude (SA-4), and to unstructure my time (SA-11). Participating in order to unstructure time allows an individual to explore his/her freedom of choice at the moment of participation; there is

no regimented activity planned. This tactic for participation might employed by someone who has a particularly rigorous schedule. Table 37 shows the results for the comparison of means and gender for stimulus-avoidance motivations.

Table 37

Comparison of Means for Gender and Stimulus-Avoidance Motivation

		Male	Female	Total
SA-1 To be in a calm atmosphere	Mean	2.38	2.48	2.43
	N	132	125	257
	Std. Dev	1.12	1.09	1.10
SA-2 To get away from my regular routine	Mean	3.43	3.26	3.35
	N	132	125	257
	Std. Dev	1.19	1.16	1.18
SA-3 To escape and get a change of pace	Mean	3.47	3.36	3.42
	N	132	125	257
	Std. Dev	1.17	1.13	1.15
SA-4 To seek solitude	Mean	2.44	2.64	2.54
	N	132	125	257
	Std. Dev	1.19	1.08	1.14
SA-5 To relax physically	Mean	2.69	3.04	2.86
	N	132	124	256
	Std. Dev	1.35	1.22	1.30
SA-6 To relax mentally	Mean	3.45	3.67	3.56
	N	132	125	257
	Std. Dev	1.22	.990	1.12
SA-7 To avoid the hustle and bustle of daily activities	Mean	3.01	2.93	2.97
	N	132	125	257
	Std. Dev	1.19	1.17	1.18
SA-8 To refresh, re-create	Mean	3.25	3.32	3.28
	N	132	125	257
	Std. Dev	1.26	1.11	1.19
SA-9 To relieve stress and tension	Mean	3.94	4.02	3.98
	N	132	124	256
	Std. Dev	1.00	.846	.929
SA-10 To do something simple and easy	Mean	2.95	2.94	2.95
	N	132	125	257
	Std. Dev	1.22	1.21	1.21
SA-11 To unstructure my time	Mean	2.65	2.56	2.61
	N	132	124	256
	Std. Dev	1.24	1.21	1.22
SA-12 To get away from the responsibilities of my everyday life	Mean	3.15	3.31	3.14
	N	131	125	256
	Std. Dev	1.28	1.33	1.30

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

An ANOVA was conducted to determine if gender was a significant factor based on the stimulus-avoidance motivation statements, the results of which are shown in Table 38. Of the 12 statements in this sub-area, three were found to be significant based on gender at the .05 alpha level (SA-5, SA-6 and SA-8). Based on the mean scores and significance of statement SA-5, to relax physically, it appeared that females were more likely than males to participate for this reason. One statement, SA-6, was found to be statistically significant at the .01 alpha level, which showed that males and females both participated in informal sports in order to relax mentally.

Table 38

Analysis of Variance for Stimulus-Avoidance Motivation and Gender

		Sum of Squares	df	Mean Square	F	Sig.
SA-5 To relax physically	Between Groups	17.593	4	4.398	2.658	.033*
	Within Groups	415.344	251			
	Total	432.938	255			
SA-6 To relax mentally	Between Groups	17.951	4	4.488	3.727	.006**
	Within Groups	303.481	252	1.204		
	Total	321.432	256			
SA-8 To refresh, re-create	Between Groups	14.935	4	3.734	2.709	.031*
	Within Groups	347.330	252	1.378		
	Total	362.265	256			

Note. *p < .05. **p < .01.

Stimulus-Avoidance and Class Standing

The comparison of means for class standing and stimulus-avoidance motivations for participation are indicated below in Table 39. Mean scores for both statements SA-1 and SA-12 showed that freshmen were more likely to participate for stimulus-avoidance motivations than graduate students. Both freshmen and sophomores mean scores revealed that it was “seldom true” that they participated to be in a calm atmosphere for statement SA-1. For SA-12, sophomores stated it was “sometimes true” (M = 3.44, SD = 1.16) that they participated in order

to get away from the responsibilities of everyday life whereas graduate students stated it was “seldom true” ($M = 2.77$, $SD = 1.39$). The overall trend in lower class standing students to participate for stress relief in a calm environment may be due to the fact that they are more likely to become overwhelmed with college life than graduate students who generally have more experience with the pressures and stresses associated with college.

Table 39

Comparison of Means and Class Standing for Stimulus-Avoidance Motivation

		Fresh.	Soph.	Juniors	Seniors	Grad.	Total
SA-1 To be in a calm atmosphere	Mean	2.89	2.17	2.32	2.55	2.33	2.43
	N	45	48	37	38	89	257
	Std. Dev	1.07	.953	1.08	1.26	1.09	1.10
SA-2 To get away from my regular routine	Mean	3.67	3.35	3.32	3.03	3.34	3.35
	N	45	48	37	38	89	257
	Std. Dev	1.18	1.28	1.02	1.10	1.19	1.18
SA-3 To escape and get a change of pace	Mean	3.78	3.42	3.35	3.32	3.30	3.42
	N	45	48	37	38	89	257
	Std. Dev	1.02	1.16	1.03	1.11	1.25	1.15
SA-4 To seek solitude	Mean	2.73	2.69	2.27	2.61	2.44	2.54
	N	45	48	37	38	89	257
	Std. Dev	1.05	1.18	1.09	1.15	1.16	1.14
SA-5 To relax physically	Mean	2.96	2.67	2.58	2.82	3.04	2.86
	N	45	48	36	38	89	256
	Std. Dev	1.22	1.19	1.25	1.15	1.46	1.30
SA-6 To relax mentally	Mean	3.91	3.50	3.38	3.42	3.54	3.56
	N	45	48	37	38	89	257
	Std. Dev	.925	1.19	1.08	1.20	1.16	1.12
SA-7 To avoid the hustle and bustle of daily activities	Mean	3.31	3.02	2.78	2.92	2.87	2.97
	N	45	48	37	38	89	257
	Std. Dev	1.12	1.13	1.15	1.21	1.21	1.18
SA-8 To refresh, re-create	Mean	3.51	3.33	2.95	3.16	3.34	3.28
	N	45	48	37	38	89	257
	Std. Dev	1.05	1.01	1.22	1.22	1.29	1.19
SA-9 To relieve stress and tension	Mean	4.16	4.08	3.73	3.87	3.98	3.98
	N	45	48	37	38	88	256
	Std. Dev	.824	.767	1.12	1.01	.922	.929
SA-10 To do something simple and easy	Mean	3.16	3.06	2.81	2.87	2.87	2.95
	N	45	48	37	38	89	257
	Std. Dev	1.20	1.13	1.05	1.21	1.33	1.21

SA-11 To unstructured my time	Mean	2.91	2.79	2.62	2.71	2.31	2.61
	N	44	48	37	38	89	256
	Std. Dev	1.15	1.18	1.18	1.25	1.25	1.30
SA-12 To get away from the responsibilities of my everyday life	Mean	3.56	3.44	3.11	3.16	2.77	3.14
	N	45	48	37	38	88	256
	Std. Dev	1.17	1.16	1.30	1.22	1.39	1.30

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

An ANOVA was conducted to determine if class standing was a significant factor based on the stimulus-avoidance motivation statements of the instrument at the .05 alpha level. Of the 12 statements in this sub-area, two statements were found to be significant based on class standing (See Table 40). Based on the ANOVA, a statistical difference was found for statements SA-1 and SA-12. Statement SA-12 “to get away from the responsibilities of everyday life” was found to be significant at the .01 alpha level.

Table 40

Analysis of Variance for Stimulus-Avoidance Motivation and Class Standing

		Sum of Squares	df	Mean Square	F	Sig.
SA-1 To be in a calm atmosphere	Between Groups	14.754	4	3.688	3.097	.016*
	Within Groups	300.165	252	1.191		
	Total	314.918	256			
SA-12 To get away from the responsibilities of everyday life	Between Groups	23.939	4	5.985	3.655	.006**
	Within Groups	410.998	251			
	Total	434.937	255			

Note. * $p < .05$. ** $p < .01$.

After further analysis using Tukey’s HSD, both statements SA-1 and SA-12 had significance between class standing groups at the .05 and .001 alpha levels. Statement 1 showed differences between freshmen and sophomores as well as freshmen and graduate students.

Statement 12 illustrated differences between both freshmen and sophomores and graduate students. The significant findings from Tukey's HSD are shown in Table 41.

Table 41

Tukey's HSD among Class Standing Groups and Stimulus-Avoidance Motives

Stimulus-Avoidance Motive	Class Standing Group	Sig. between groups
SA-1 To be in a calm atmosphere	Freshmen v. Sophomores	.014*
	Freshmen v. Graduate students	.041**
SA-12 To get away from the responsibilities of my everyday life	Freshmen v. Graduate students	.009**
	Sophomores v. Graduate students	.033*

Note. * $p < .05$. ** $p < .01$.

Stimulus-Avoidance and Place of Residence

The comparison of means in Table 42 revealed that both residence hall and off-campus students felt it was "seldom true" that they participated in order to be in a calm atmosphere. The highest mean scores for all groups were found again for Statement 9, to relieve stress and tension. Residence hall and "other" students both stated that this statement was "often true" ($M = 4.04$, $SD = .913$) ($M = 4.56$, $SD = .527$).

Table 42

Comparison of Means for Place of Residence and Stimulus-Avoidance Motivation

		Res. Halls	Greek	Off- campus	Other	Total
SA-1 To be in a calm atmosphere	Mean	2.73	2.12	2.27	3.22	2.43
	N	75	17	156	9	257
	Std. Dev	1.13	.781	1.07	1.30	1.10
SA-2 To get away from my regular routine	Mean	3.55	3.12	3.25	3.89	3.35
	N	75	17	156	9	257
	Std. Dev	1.26	1.16	1.13	1.05	1.18
SA-3 To escape and get a change of pace	Mean	3.64	3.24	3.32	3.56	3.42
	N	75	17	156	9	257
	Std. Dev	1.13	1.14	1.15	1.13	1.15

SA-4 To seek solitude	Mean	2.69	2.59	2.44	2.89	2.54
	N	75	17	156	9	257
	Std. Dev	1.11	1.27	1.13	1.26	1.14
SA-5 To relax physically	Mean	2.97	2.69	2.77	3.78	2.86
	N	75	16	156	9	256
	Std. Dev	1.29	1.13	1.30	1.39	1.30
SA-6 To relax mentally	Mean	3.77	3.24	3.46	4.00	3.56
	N	75	17	156	9	257
	Std. Dev	1.02	1.34	1.13	.866	1.12
SA-7 To avoid the hustle and bustle of daily activities	Mean	3.16	2.76	2.86	3.67	2.97
	N	75	17	156	9	257
	Std. Dev	1.17	1.14	1.17	1.22	1.18
SA-8 To refresh, re-create	Mean	3.41	3.00	3.21	4.00	3.28
	N	75	17	156	9	257
	Std. Dev	1.11	1.11	1.22	1.00	1.19
SA-9 To relieve stress and tension	Mean	4.04	3.88	3.92	4.56	3.98
	N	74	17	156	9	256
	Std. Dev	.913	1.11	.927	.527	.929
SA-10 To do something simple and easy	Mean	3.11	2.65	2.86	3.67	2.95
	N	75	17	156	9	257
	Std. Dev	1.18	1.22	1.22	1.22	1.21
SA-11 To unstructured my time	Mean	2.82	2.71	2.49	2.78	2.61
	N	74	17	156	9	256
	Std. Dev	1.26	.985	1.22	1.39	1.22
SA-12 To get away from the responsibilities of my everyday life	Mean	3.45	3.24	2.97	3.25	3.14
	N	75	17	156	8	256
	Std. Dev	1.22	1.09	1.33	1.48	1.30

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

An ANOVA was performed in order to determine the relationship between stimulus-avoidance motivations for participation and place of residence. The ANOVA revealed that only one statement, SA-1, was significant at the .01 alpha level. See Table 43. After further examination using Tukey's HSD, a significant difference was found for Statement 1 between residence hall students and off-campus groups. These results are summarized in Table 44.

Table 43

Analysis of Variance for Stimulus-Avoidance Motivation and Place of Residence

		Sum of Squares	df	Mean Square	F	Sig.
S1 To be in a calm atmosphere	Between Groups	18.239	3	6.080	5.185	.002**
	Within Groups	296.679	253	1.173		
	Total	314.918	256			

Note. **p < .01.

Table 44

Tukey's HSD among Place of Residence Groups and Stimulus-Avoidance Motives

Stimulus-Avoidance Motive	Class Standing Group	Sig. between groups
S1 To be in a calm atmosphere	Residence halls v. Off-campus	.013*

Note. *p < .05.

Stimulus-Avoidance and Ethnicity

In comparing the means of ethnic groups for stimulus-avoidance motivations, Asian/Pacific Islanders were more likely to participate in order to relax physically than Caucasians. Asian Pacific Islanders stated it was “sometimes true” (M = 3.44, SD = 1.16) that they participated for this reason whereas Caucasians stated it was “seldom true” (M = 2.74, SD = 1.26). African Americans stated it was “seldom true” that they participated in order to relax mentally, statement SA-6 (M = 2.75, SD = 1.28). Asian/Pacific Islanders had the highest mean scores for statement SA-6 (M = 4.07, SD = .907) and statement SA-9 (M = 4.07, SD = .842) stating it was “often true” that they participated to relax mentally and relieve stress and tension. The results for the comparison of means are shown in Table 45.

Table 45

Comparison of Means for Ethnic Groups and Stimulus-Avoidance Motivation

		Af. Amer.	Asian/ Pac. Is.	Cauc.	Hispani c	Other	Total
SA-1 To be in a calm atmosphere	Mean	2.38	2.70	2.39	2.63	2.13	2.43
	N	8	30	203	8	8	257
	Std. Dev	1.18	1.05	1.13	.916	.835	1.10
SA-2 To get away from my regular routine	Mean	2.75	3.33	3.35	3.88	3.38	3.35
	N	8	30	203	8	8	257
	Std. Dev	1.28	1.12	1.17	1.24	1.30	1.18
SA-3 To escape and get a change of pace	Mean	2.63	3.27	3.44	4.00	3.63	3.42
	N	8	30	203	8	8	257
	Std. Dev	1.30	1.04	1.15	1.06	1.30	1.15
SA-4 To seek solitude	Mean	2.25	2.77	2.53	2.00	2.75	2.54
	N	8	30	203	8	8	257
	Std. Dev	1.28	1.27	1.12	.926	1.03	1.14
SA-5 To relax physically	Mean	2.88	3.50	2.74	3.38	3.00	2.86
	N	8	30	202	8	8	256
	Std. Dev	1.12	1.33	1.26	1.59	1.51	1.30
SA-6 To relax mentally	Mean	2.75	4.07	3.49	4.25	3.38	3.56
	N	8	30	203	8	8	257
	Std. Dev	1.28	.907	1.12	.463	1.18	1.12
SA-7 To avoid the hustle and bustle of daily activities	Mean	2.50	3.23	3.22	3.75	3.50	3.28
	N	8	30	203	8	8	257
	Std. Dev	1.19	.971	1.19	1.48	1.06	1.19
SA-8 To refresh, re-create	Mean	2.50	3.77	3.22	3.75	3.50	3.28
	N	8	30	203	8	8	257
	Std. Dev	1.06	.971	1.19	1.48	1.06	1.19
SA-9 To relieve stress and tension	Mean	3.38	4.07	3.96	4.50	4.13	3.98
	N	8	29	203	8	8	256
	Std. Dev	1.30	.842	.933	.535	.835	.929
SA-10 To do something simple and easy	Mean	2.63	3.13	2.93	3.38	2.63	2.95
	N	8	30	203	8	8	257
	Std. Dev	1.18	1.13	1.20	1.59	1.59	1.21
SA-11 To unstructured my time	Mean	2.13	2.60	2.61	2.88	2.61	2.38
	N	8	30	202	8	256	8
	Std. Dev	1.12	1.16	1.19	1.80	1.22	1.18
SA-12 To get away from the responsibilities of my everyday life	Mean	2.38	3.07	3.18	3.13	3.25	3.14
	N	8	30	202	8	8	256
	Std. Dev	1.18	1.25	1.28	1.72	1.66	1.30

Mean scores are based on responses to a 5 point Likert scale (1 = never true, 5 = always true)

The ANOVA for stimulus-avoidance motivations and ethnicity is indicated below in Table 46 with three statements (SA-5, SA-6 and SA-8) found to be significant at the .05 alpha level. Statement SA-6, to relax mentally, was found to be significant at the .01 alpha level.

Table 46

Analysis of Variance for Stimulus-Avoidance Motivation and Ethnicity

		Sum of Squares	df	Mean Square	F	Sig.
SA-5 To relax physically	Between Groups	17.593	4	4.398	2.658	.033*
	Within Groups	415.344	251	1.655		
	Total	432.938	255			
SA-6 To relax mentally	Between Groups	17.951	4	4.488	3.727	.006**
	Within Groups	303.481	252	1.204		
	Total	321.432	256			
SA-8 To refresh, re-create	Between Groups	14.935	4	3.734	2.709	.031*
	Within Groups	347.330	252	1.378		
	Total	362.265	256			

Note. *p < .05 **p < .01

To further investigate the connection between stimulus-avoidance motivations and ethnicity, Tukey's HSD post hoc test was performed, the results of which are summarized in Table 47. Statements SA-5 and SA-6 were found to be significant illustrating differences between Asian/Pacific Islanders and Caucasians as well as Asian/Pacific Islanders and African Americans. It again appeared that Asian/Pacific Islanders were more likely to participate due to stimulus-avoidance motivations than Caucasians or African Americans.

Table 47

Tukey's HSD among Ethnic Groups and Stimulus-Avoidance Motives

Stimulus-Avoidance Motive	Ethnic Group	Sig. between groups
SA-5 To relax physically	Asian/Pacific Islander v. Caucasian	.023*
SA-06 To relax mentally	Asian/Pacific Islander v. African American	.023*

Note. *p > .05

Hypothesis Testing

The study sought to examine and identify the motivational factors of participants based on Beard and Ragheb's (1983) four categories of motivational factors (i.e., stimulus-avoidance, competence-mastery, intellectual, and social) and to determine if differences existed based on the independent variables of gender, class standing, place of residence and ethnicity. The data was examined by comparing means as well as performing an Analysis of Variance (ANOVA) and Tukey's HSD Post Hoc Test to determine significant differences. Table 48 illustrates below the null hypotheses that were tested and the decision to accept or reject each hypothesis based on results from the ANOVA testing.

Table 48

Summary of the Results for ANOVA Tests of the Null Hypotheses

	<i>Hypothesis</i>	<i>Decision</i>
<i>H₁:</i>	Respondents will not report intellectually motivating factors for participating in informal sports.	Reject
	a) There are no significant differences for intellectually motivating factors between genders.	Reject
	b) There are no significant differences for intellectually motivating factors between class standing groups.	Reject
	c) There are no significant differences for intellectually motivating factors between places of residence groups.	Reject

	d) There are no significant differences for intellectually motivating factors between ethnic groups.	Reject
<i>H₂:</i>	Students will not report socially motivating factors for participating in informal sports.	
	a) There are no significant differences for socially motivating factors between genders.	Reject
	b) There are no significant differences for socially motivating factors between class standing groups.	Reject
	c) There are no significant differences for socially motivating factors between places of residence groups.	Reject
	d) There are no significant differences for socially motivating factors between ethnic groups.	Accept
<i>H₃:</i>	Students will not report competence-mastery motivating factors for participating in informal sports.	Reject
	a) There are no significant differences for competence-mastery motivating factors between genders.	Reject
	b) There are no significant differences for competence-mastery motivating factors between class standing groups.	Reject
	c) There are no significant differences for competence-mastery motivating factors between places of residence groups.	Reject
	d) There are no significant differences for competence-mastery motivating factors between ethnic groups.	Reject
<i>H₄:</i>	Students will not report stimulus-avoidance motivating factors for participating in informal sports.	Reject
	a) There are no significant differences for stimulus-avoidance motivating factors between genders.	Reject
	b) There are no significant differences for stimulus-avoidance motivating factors between class standing groups.	Reject
	c) There are no significant differences for stimulus-avoidance motivating factors between places of residence groups.	Reject
	d) There are no significant differences for stimulus-avoidance motivating factors between ethnic groups.	Reject

Based on the data presented, ten statements were found to have significance for intellectual motivation. Because intellectually motivating factors were reported, H₁ was rejected. At least one significant difference was found for all independent variables causing the rejection of H₁ sub-hypotheses a, b, c and d. The independent variables with the highest significance for intellectual motivation were class standing and place of residence with four significant statements. Only one significant statement was found for both gender and ethnicity as it related to the intellectual motivation sub-area.

The social motivation sub-area had the highest number of significant statements for all independent variables with 23. H₂ was rejected due to the fact that social motivations were indicated as a factor for participation. Gender, class standing and place of residence were found to have significance for social motivation and therefore H₂ sub-hypotheses a, b and c must be rejected. The highest number of significant statements for social motivations was found for class standing. H₂ d was accepted as there were no significant differences found between ethnic groups for social motivations.

H₃ must be rejected as respondents indicated competence-mastery motivations. Significant differences were found for all independent variables, which means that H₃ sub-hypotheses a, b, c and d must be all rejected. Seven significant statements were found for competence-mastery motivation and class standing making it the highest. Only one statement was found to be significant amongst the place of residence groups.

For the stimulus-avoidance sub-area, H₄ must be rejected because stimulus-avoidance motives were described by participants in informal sports. All of the independent variables had significant differences. This means that all four H₄ sub-hypotheses must also be rejected. Although all hypotheses and sub-hypotheses were rejected, the stimulus-avoidance sub area had

the lower number of significant statements as compared to the other three sub-areas. The highest number of significant differences, three, was reported for gender and ethnicity.

Discussion

Motivations for participation were the main focus of this study, and specifically, motivations for participation in informal sports were examined. Informal sports are those in which the participant determines the recreational sports activity and all aspects of his/her participation in the chosen activity. Understanding the motivations for informal sports can be especially important for campus recreational sports practitioners due to the self-directed nature of the activities. The instrument used in this study was Beard and Ragheb's (1983) Leisure Motivation Scale which focused upon four categories of motivations: intellectual social, competence-mastery, and stimulus-avoidance. In the discussion that follows each motivation category will be presented in terms of how the independent variables (i.e., gender, class standing, place of residence, and ethnicity) impacted it. Finally, implications for each of the salient findings of the study will be discussed.

Intellectual Motivations

While it appears that all four independent variables, gender, class standing, place of residence and ethnicity, had an influence at varying levels, the biggest impacts were seen for class standing and place of residence. Class standing and place of residence produced similar results as freshmen and sophomores accounted for large portions of the residence hall population. The data suggested both freshmen and sophomores were motivated to participate in order to seek stimulation, make their college experience more meaningful and to be original. Freshmen appeared to be more apt to participate in activities that incorporated a learning environment, allowed for expression of their newly acquired independence and had the ability to

exhibit their creativity. These motivations for participation appeared to support Astin's (1984) theory of involvement, where involvement in the college experience is tied to learning and personal development. Pragmatically, recreational sports practitioners should make sure that their informal sports programming is diverse enough to offer learning opportunities, but also flexible to allow students to place their own spin on traditional sports.

While creativity and originality were factors for participation of underclassmen, the evidence suggested that graduate students did not participate for the same reasons. Taking advantage of the array of experiences that college has to offer seemed more intuitively likely of underclassmen, freshmen or sophomores, as graduate students were often more focused on their studies and may have already had the opportunities to participate in a variety of college experiences. The only intellectual motivator that appeared to register with graduate students was participating to seek stimulation, which was the highest intellectual motivator for all class standings. While their study looked at students' age rather than their class standings, differences in participation for older students, who are often graduate students, were noted by Barcelona and Ross (2002). Participating in order to seek stimulation might be best expressed as the encouragement, restoration or inspiration received from endorphins through physical activity. From a practical standpoint, recreational sports practitioners should examine the environment in their campus facilities and confirm that it is promoting one of motivation and renewal.

Ethnicity did not play a large role in the intellectual motivations of students. However, the results revealed that Asian/Pacific Islander students were more motivated by intellectual motives than all other ethnic groups. Specifically, they were most motivated in order to expand their interests within informal sports. It appeared that this population may have been less familiar with the traditional sport offerings than African American or Caucasian students.

Diversity in informal sports programming opportunities may be an effective way of engaging Asian/Pacific Islander students.

Social Motivations

Social motivations were the most noted motivations from study respondents. The high prevalence of social motivations supported the research by Artinger et al. (2006) and Bryant et al. (1995) who both found that recreation can be a common ground helping to facilitate social interactions-- interactions which might not happen otherwise. While the data revealed high social motives overall, this was the only sub-area for which a null hypothesis was accepted. Based on the data, ethnicity did not seem to play a factor in social motivations. Gender, class standing and place of residence, however, showed many significant results for discussion. The findings of this study revealed that males were more likely to participate for social reasons such as meeting new people and forming friendships. This contradicted the findings of Kovac and Beck (1997), who examined recreational sports, and Cooper et. al (2012), who looked at intramural sports specifically. Both found that males were more likely to participate for individual reasons such as achievement and personal fitness rather than social aspects. Male participation for social motives might be illustrated by a group of male participants being more apt to start a game of pick-up basketball or gather a group to work out together in the weight room. For practitioners, this reinforces the need to program informal sports in order to facilitate social interactions. However, for some participants simply providing the space may not be enough. There may be a need to provide guidelines for informal activities to assist participants in meeting their needs; the results of which may be increased participation overall.

Social motives were highly influenced by class standing. Freshman, sophomores, and juniors were highly motivated by social interactions with others, building friendships, meeting

new and different people and developing close relationships. In contrast, seniors and graduate students seemed less motivated by such factors. These results are logical as underclassmen often spend a great deal of their time in college meeting people and trying to develop meaningful relationships (Sanders & Burton, 1996). A reason for these differences might be due to the fact that graduate students enter school with a more focused attitude toward a particular professional field and as such have already defined themselves and their originality. Undergraduate students are still developing and molding their identity, especially during their freshmen and sophomore years. The findings may indicate that informal sports can contribute to students, in particular underclassmen in establishing a sense of belonging as Belch et al. (2001) indicated. Such an influence could also ultimately contribute to a student's decision to continue attending a particular institution. Campus recreation professionals need to take a hands-on approach and be strategic in their programming in order to best meet the socializing needs of students. This might include better advertising of informal sports opportunities including times and dates as well as emphasizing the socializing aspect of participating.

Where students lived had the biggest impact based on social motivation. Specifically, there was a divide in motivational factors between students who lived in the residence halls and students who lived off-campus. Those who lived in the residence halls were more likely, overall, to participate for social reasons. This can also be tied back to the fact that most students who live in the residence halls are underclassmen, freshmen and sophomores. Recreational sports have been linked to helping students feel at home, making friends, and increasing the quality of the student life (Watson et. al, 2006). The results seemed to indicate that participation in informal sports supported Watson's et al. finding. Off-campus students can often be some of the hardest to draw participation from and program for due to the growing number of opportunities

available through off-campus housing complexes. This study revealed that off-campus students were socially motivated to participate in order to be with others. While opportunities for recreation exist elsewhere, campus recreational sports facilities may represent the best outlet to bring students together from both on- and off-campus. Campus recreation professionals should not underestimate the impact that social motives have on student participation.

Competence-Mastery Motivations

From physical fitness to competition, competence-mastery motivations focus more on individual motivations for participation. Overall, motives for competence-mastery were high; just behind social motives. However, unlike social motives, all of the independent variables (i.e., gender, class standing, place of residence and ethnicity) impacted motivations. Although males appeared to be more likely to participate due to competence-mastery motivations, based upon the literature (Deaner, Geary, Puts, Ham, Kruger, Fles, Winegard & Grandis, 2012), females also indicated the importance of competence-mastery motivations. These results were similar to those found by Kovac & Beck (1997) where both males and females were motivated by individual benefits such as competition. Female participants had higher mean scores for motivations to participate in order to gain a sense of achievement. Barcelona and Ross (2002) found that women appeared to favor individual athletic pursuits. Factoring motivations for achievement and individual athletic pursuits into participation might suggest that individual sports such as jogging, swimming and lifting weights might be the focus for female participants. In order to increase female participation, practitioners may want to look at incorporating achievement levels for informal sports participation. Simply providing name recognition for meeting a specific goal might be enough incentive for increased participation and the costs associated with managing such programs are relatively low.

Competence-mastery motivations were effected by class standing. High mean scores were found for freshmen indicating that they had higher motivations than upperclassmen and graduate students for factors like achievement, challenges and competition. This showed that freshmen are intrinsically motivated for accomplishment, which is different than intrinsic motivations for knowledge as identified by Pelletier et al. (1995). Graduate students appeared to be the most influenced by health related factors such as keeping in shape physically which supported the notion that more years of formal education has been shown to be positively associated with health (Ross & Wu, 1996). Achievement programs for informal sports may also be a way to engage younger students in participation as well as females. In thinking about graduate student participation, practitioners may want to heighten marketing strategies that stress the health benefits of participation. Graduate students will be drawn to recreational sports based on hard statistics that show their participation is having an impact on their health.

Physical fitness motives fell under competence-mastery on the Leisure Motivation Scale. With the growing rate of obesity in college students across the United States (Boyle & LaRose, 2009), it was important to determine whether physical activity is still a motivating factor for students. Upon examination, it was encouraging to find that for all mean scores within competence-mastery, the mean scores for statements related to physical fitness were the highest for all variables: gender, place of residence, class standing and ethnicity. This seemed to illustrate that the importance of physical activity and fitness is foremost in many students' thinking and reasons for participating. Obesity statistics and educational initiatives like Healthy Campus 2020 may be having an impact. The high mean scores for physical fitness are also consistent with the studies by both Haines (2001) and Lindsey and Sessoms (2006), where a majority of students reported they benefitted from campus recreational sports through a feeling

of physical well-being, fitness, and physical strength. Because physical fitness and health are high motivators for participants, it may be important for practitioners to make sure that their programs and facilities are meeting the fitness needs of student participants. Actions may include incorporating fitness trends, reallocating and redesigning current fitness spaces. In addition, more and more campus administrators are calling for the creation of wellness programs and initiatives. With campus recreational sports being high contributors to the health and wellness of students and the campus as a whole, it may be even more critical for practitioners to champion such programs.

Stimulus-Avoidance Motivations

Stimulus-avoidance motivations involve escape and in some cases avoidance of responsibilities and even social situations. While these motivations were not regarded as highly as social and competence-mastery motivations, respondents did acknowledge that relaxation and stress relief were the important motivators. Female students especially seemed more likely than males to participate for these reasons. These findings supported research that indicated recreational sports has health-related benefits besides the obvious physical ones (Kanters, 2000; Ragheb and McKinney, 1993). Students' emotional health and psychological well-being may deteriorate during their collegiate experience and lead to feelings of anxiety and depression. Campus recreational sports may be an outlet for students to combat these feelings and raise self-esteem. Forming a working relationship with the counseling services on campus may be important in assisting students who suffer from mental illnesses or symptoms of low self-esteem.

Students living in residence halls appeared to be motivated by stimulus-avoidance motives. They use their informal sports participation as a way to find a release and a calming environment. Because of the close proximity to others and lack of privacy that comes with

living in most campus housing, students who live in the residence halls may look for nearby places of solace including campus recreation facilities. A way in which campus recreation professionals can maximize on catering to this student population is by including lounge and gaming areas where students can relax find a feeling of comfort.

Ethnicity did not appear to have a large part in the stimulus-avoidance motivations of participants. As with intellectual motivations, Asian/Pacific Islander students seemed to have very different motivations for participation than African American students and Caucasian students. Asian/Pacific Islander students participated in order to expanding their interests, relax both mentally and physically and refresh themselves. Overall, it is important for practitioners to recognize the differing motivations of various ethnic groups. In programming for the Asian/Pacific Islander population specifically, campus recreation professionals should offer a wide range of informal sports options. Additionally, it may also be important to develop and change program offerings in order to continue to meet the needs and expand the interests of this population.

Summary

While statistical differences were found for all areas of motivation, social and competence-mastery motivations were especially noteworthy. Overall, students appear to be highly motivated by physical fitness aspects as well as opportunities for social interaction. While the results do emphasize these aspects of motivation for informal sports, there was a range in motivations for gender, class standing, place of residence and ethnicity. It is important not to generalize the results too much as each person's experience and motivations are different.

Chapter 5

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The focus of this chapter is to summarize the study conducted, discuss the implications resulting from findings and provide recommendations for future related research. The information will be presented in the following sections: summary, findings, conclusions, implications, and recommendations.

Summary

The problem of this study was to determine if differences existed in motivational factors for students who participated in informal sports within campus recreational sports at a Midwestern university during the 2008-2009 school year. Motivational factors were examined and categorized based on Beard and Ragheb's (1983) Leisure Motivation Scale. The perceived motivations were then analyzed to determine relationships with the independent variables of gender, place of residence, class standing and ethnicity. A web-based survey was developed and sent to approximately 10 percent of the 38,599 enrolled students at the Midwestern University included in the spring 2009 student directory. While a total of 541 students agreed to participate in the study, some of the students had not participated in informal sports at the campus recreational sports facilities, leaving 310 students who stated they had participated in informal sports and continued on to complete the rest of the survey. Due to the fact that some of those who continued with the survey did not complete all of the questions, the final response count was 257 students who completed every question.

The instrument used to collect the data was an exact replication of Beard and Ragheb's (1983) questionnaire for the Leisure Motivation Scale, which consisted of four sub-areas for

motivation: intellectual, social, stimulus-avoidance and competence-mastery. Each of the four sub-areas included 12 statements related to participation in informal sports making a total of 48 statements. Responses to the survey were based on a five-point Likert scale with mean scores of 1.0 – 1.9 being classified as “never true”, 2.0 – 2.9 as “seldom true”, 3.0-3.9 as “somewhat true”, 4.0 – 4.9 as “often true and 5.0 as “always true”. Overall mean scores were compared for each sub-area and an Analysis of Variance (ANOVA) as well as Tukey’s HSD Test were performed in order to determine the statistical significance.

Findings

The results of this study indicated that students have a variety of motivations for their participation in informal sports from all four of the sub-areas: intellectual, social, competence-mastery and stimulus-avoidance. Based on the four sub-areas that were used for the analysis, social motivations had the highest mean scores for student participation with competency-mastery motives a close second. Social motives were found to be significant based on gender, class standing and place of residence, yet, social motives were not influenced by ethnicity. Males had higher mean scores than females for all 12 statements related to social motives indicating that the social aspects of participation appealed to them. Underclassmen, especially freshmen, were highly motivated by social factors and mean scores of at least 3.0 were found for factors such as being with and interacting with others, meeting new and different people and building and developing close friendships. Graduate students were less motivated by the same factors and social motives in general. Place of residence showed similar findings to those of class standing for social motives. Students living in residence halls, who are most often freshmen and sophomores, had higher social motivations than students living off-campus.

Competence-mastery motives were found to be significant for gender, class standing, place of residence and ethnicity. Both males and females were very motivated by physical fitness motives including being active, developing physical fitness, and keeping in shape physically. It was no surprise to find that males were more motivated by competing against others, but females had a higher motivation for participating in order to obtain a feeling of achievement. Students of all class standings were motivated by physical fitness motives. Freshmen were highly motivated by competence-mastery motives with 11 of 12 statements having a mean score of 4.0 or higher. Differences were found between freshmen and graduate students with graduate students being less motivated by achievement, challenges and competition. Place of residence had the least influence on competence-mastery motives. Students of all places of residence had high mean scores, at least 4.0 or higher, for physical fitness motivators. Greek students seemed more likely than all other resident groups to participate in order to obtain a feeling of achievement. In looking more closely at ethnicity, Asian/Pacific Islander students revealed that they were not motivated by achievement or competition. Both Caucasian and African American students had higher motivations seeing what their abilities were, challenging their abilities and because they enjoyed mastering things.

Intellectual motivations were less common. All four independent variables had an influence on these motivations. The most significant intellectual motivators were participating in order to seek stimulation, to make college a meaningful experience, to learn about things around me and to be original. Asian/Pacific Islander students enjoyed expanding their interests through participation while both Caucasian and African American students were not motivated by the same factor. Both freshmen and sophomores indicated that they participated in order to make their college experience more meaningful.

Stimulus-avoidance motivations appeared to be the lowest motivators of the four sub-areas. The more significant stimulus-avoidance motivations were found for class standing, place of residence and ethnicity. Graduate students had a higher motivation to participate in order to be in a calm atmosphere and get away from the responsibilities of everyday life. Off-campus students also participated to be in a calm atmosphere. Asian/Pacific Islander students again differed from both Caucasian and African American students in the fact that their participation appeared to be driven by relaxation both mentally and physically.

Conclusions

Based on the findings of this study, the following conclusions can be made:

1. Males were more highly motivated by social factors than females.
2. Freshmen are looking to informal sports participation as a social outlet.
3. Physical fitness is a motivating factor for both males and females.
4. Ethnicity did play as much of a role in motivation as other independent variables.
5. Physical fitness is a motivating factor for graduate students.
6. Social interaction is an important component to participation for males.
7. Males are more highly motivated by competition than females.
8. Females are more highly motivated by achievement than males.
9. Freshmen and students living in the residence halls are highly motivated to participate for social reasons.
10. Freshmen and sophomores find informal sports participation as a meaningful part of their college experience.
11. Achievement is motivating factor for freshmen.

Implications

Gaining an understanding of the reasons why students participate in informal sports can be very useful in planning new or updating current program offerings. Because the results indicated that the highest motivator was the social sub-area, it would be prudent for recreational sports administrators to consider how they may be able to facilitate social interactions through informal sport participation. The results of the study show that many significant factors were found for both class standing and gender. Underclassmen, especially freshmen living in the residence halls, as well as males were drawn to programs that allowed them the ability to socialize.

College is a learning environment and based on the data campus recreational sports should be no exception to creating this environment for its participants. In programming for undergraduate students, it may be important to consider offering a wide range of sport activities. Students appear to enjoy programs that allow them exploration in participation offerings and autonomy in their decisions. This may help to foster originality, aid in identity formation, and make their collegiate experience more meaningful overall. The opportunity for exploration may also be an important programming technique in attracting Asian/Pacific Islander students to informal sports. This may include providing facility space or equipment and allowing different groups to determine its use on their own. Traditional sports may appeal to certain ethnic groups, but other groups may have different ideas of sport that practitioners need to accommodate. Additional studies may be needed to determine how much of this population of students' participation is influenced by an international background.

Although the physical fitness benefits of recreational sports participation have been known and publicized by many campus recreational sports departments, the impact that physical

fitness incentives can have on the level of student participation should not be underestimated. All students involved in this study indicated they were highly motivated by the physical development and health implications that their participation helps to foster. With the majority of college students failing to meet the national recommendations for physical activity (Watson et al., 2006) and increased concerns with obesity among this age group, additional efforts to tie informal sports participation to health benefits may help yield increased student participation.

With competence-mastery motivations having high motivations from most students, they should also be factored in when determining programming for informal sports. Competition appears that it will continue to be influential on male participation. Providing the opportunity for students to facilitate their own competitions may be important in continued male participation. To increase female participation, incorporating levels of achievement may be key. Strategies in providing informal achievement have been seen through racquet sports ladders, but recreational sports programmers may need to explore other avenues for providing activities with similar incentives. Using achievement programming based on time spent swimming, jogging or other sport participation may be a way to increase participation.

Recommendations

While the limitations of this study prevent the generalization of the findings to other settings, the findings from this study can help to lay a foundation for further research on the motivations of informal sports participants in campus recreational sports. Research is much needed in the area of informal sports specifically as few studies have focused on self-directed recreational activities. Although this study focused solely on students, similar studies could be conducted for faculty, staff and community members to determine if they have unique motivations for participation and to help recreational sports administrators create programming

that will meet the needs of each population commonly found on campus. Additionally, this study should be replicated at other higher education institutions in order to determine if similar motivations exist.

As the collegiate student population continues to change with the Millennial generation now (Greenberg & Weber, 2008; Lancaster & Stillman, 2010), and soon to be followed by Generation 2020 (Meister & Willyerd, (2010), replications of this study will be needed to examine the motivations of student participants. Future studies may want to explore the “other” category, which was undefined for ethnicity and place of residence. Having this category undefined, was a limitation of this study and further investigation may provide insight for additional research in these areas. Using different independent variables may also be an important feature of future research. Such studies might examine the effects that marital status, age, major and international student status have on motivations for participation in informal sports.

While this study utilized Beard & Ragheb’s (1983) Leisure Motivation Scale, other instruments such as the Leisure Satisfaction Scale (Beard & Ragheb, 1980), Sport Motivation Scale (Pelletier et.al, 1995), and Recreation Experience Preference Scale (Driver, 1977, 1983) should be used to further examine the motivations of participants. Using these instruments to conduct additional research may find contradicting information to that which was found using the LMS. Other forms of research such as qualitative studies might also produce a deeper perspective of motivations information. Focus groups would allow the researcher to interact with participants and perhaps fill in any gaps that are typical of quantitative survey research. Finally, direct communication afforded in a focus group might help boost the lower response rates that this study received.

The changing demographics of today's college student demand new and innovative ways to motivate students to lead an active, health lifestyle. While this study increased the knowledge of motivations for informal sports participation, further research is needed to validate the findings of this study by replicating it on other campuses. Understanding the motivations of informal sports participants may help recreational sports administrators to increase participation, find opportunities for improvement and develop participant-based programming. Individuals are driven to engage in leisure activities for a variety of reasons and the study and further analysis of these reasons is essential in continuing to delivering quality programs and services.

REFERENCES

- American College Health Association. (2012). *National college health assessment II: Reference group executive summary fall 2012*. Hanover, MD: American College Health Association.
- Arterberry, C. M. (2004). An epidemic hits campus: The challenge of obesity of future students and campus recreation. *Recreational Sports Journal, 28*(2), 19-30.
- Artinger, L., Clapham, L., Hunt, C., Meigs, M., Milord, N., Sampson, B., & Forrester, S. (2006). The social benefits of intramural sport. *NASPA Journal, 43*(1), 69-86.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*(4), 297-308.
- Astin, A. W. (1993). What matters in college? *Liberal Education, 79*(4), 4-12.
- Banta, T. W., Bradley, J., & Bryant J. (1991). *Quality and importance of recreational services: Technical manual and survey*. Corvallis, OR: NIRSA.
- Barcelona, R. J., & Ross, C. M. (2002). Participation patterns in campus recreational sports: An examination of quality of student effort from 1983 to 1998. *Recreational Sports Journal, 26*(1), 41-53.
- Beard, J. G., & Ragheb, M. G. (1980). The leisure satisfaction measure. *Journal of Leisure Research, 12* (1), 20-33.
- Beard, J. G., & Ragheb, M. G. (1983). The leisure motivation scale. *Journal of Leisure Research, 15*(3), 219-228.
- Beggs, B. A., Stitt, J. E., & Elkins, D. J. (2004). Leisure motivation of participants and nonparticipants in campus recreational sports programs. *Recreational Sports Journal, 28*(1), 65-77.

- Belch, H. A., Gebel, M., & Mass, G. M. (2001). Relationship between student recreation complex use, academic performance, and persistence of first-time freshmen. *NASPA Journal*, 38 (2), 254–268.
- Berenson, G. S. (2012). Health consequences of obesity. *Pediatric blood & cancer*, 58(1), 117-121.
- Bocarro, J., Kanters, M. A., Casper, J. & Forrester, S. (2008). School physical education, extracurricular sports, and lifelong active living. *Journal of Teaching in Physical Education*, 27 (3), 155-166.
- Boyle, J.R., & LaRose, N.R. (2008). Personal beliefs, the environment and college students' exercise and eating behaviors. *American Journal of Health Studies*, 23(4), 195-200.
- Broughton, J. C., & Griffin, D. (1994). College intramurals: Where do they go from here? *NIRSA Journal*, 18(2), 10-13.
- Bryant, J. A., Banta, T. W., & Bradley, J. L. (1995). Assessment provides insight into the impact and effectiveness of campus recreation programs. *NASPA Journal*, 32 (2) 153-160.
- Center for Disease Control. (2013). National health and nutrition examination survey: Plan and operations, 1999-2010. Retrieved from <http://www.cdc.gov/nchs/nhanes.htm>
- Center for Disease Control. (2011). About BMI for adults. Retrieved from: http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html#Definition
- Center for Disease Control. (2013). No leisure-time physical activity trend chart, 1988-2008. Retrieved from http://www.cdc.gov/nccdphp/dnpa/physical/stats/leisure_time.htm
- Center for Disease Control. (2010). State-specific trends in fruit and vegetable consumption among adults – United States, 2000-2009. *Morbidity and Mortality Weekly Report*. 59(35), 1125-1162.

- Cobanoglu, C., Warde, B., & Moreo, P. J. (2001). A comparison of mail, fax, and web-based survey methods. *International Journal of Market Research*, 43(4), 443-448.
- Coghill, N., & Cooper, A. R. (2009). Motivators and de-motivators for adherence to a program of sustained walking. *Preventive medicine*, 49(1), 24-27.
- Collins, J. R., Valerius, L., King, T. C., & Graham, A. (2001). The relationship between college students' self-esteem and the frequency and importance of their participation in recreational activities. *NIRSA Journal*, 25(2), 38-47.
- Cooper, N., Schuett, P.A., & Phillips, H. M. (2012). Examining intrinsic motivations in campus intramural sports. *Recreational Sports Journal*, 36(1), 25-36.
- Dalgarn, M. (2001). The role of the campus recreation center in creating a community. *NIRSA Journal*, 25(1), 66-72.
- Deaner, R. O., Geary, D. C., Puts, D. A., Ham, S. A., Kruger, J., Fles, E., Winegard, B., & Grandis, T. (2012). A sex difference in the predisposition for physical competition: Males play sports much more than females even in the contemporary US. *PloS one*, 7(11), e49168.
- Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum Press.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.
- Delice, A. (2010). The sampling issues in quantitative research. *Educational Sciences: Theory and Practice*, 10(4), 2001-2018.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: Wiley.

- Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method – 2007 update with new internet, visual and mixed-mode guide* (2nd ed.). Hoboken, NJ: Wiley.
- Dixon, J. B. (2010). *The effect of obesity on health outcomes*. *Molecular and Cellular Endocrinology*, 316(2), 104-108.
- Driver, B., Tinsley, E., & Manfredi, M. (1991). The paragraphs about leisure and recreation experience preference scales: Two inventories designed to assess the breadth of perceived psychological benefits of leisure. *Benefits of Leisure*, edited by B. Driver, P. Brown, and G. Peterson (Venture, State College, PA), 263-286.
- Elkins, D. J. (2004). *Level of perceived constraint: A comparative analysis of negotiation strategies in campus recreational sports* (Doctoral dissertation). Indiana University, Bloomington.
- Elkins, D. J., Forrester, S. A., & Noël-Elkins, A. V. (2011). The contribution of campus recreational sports participation to perceived sense of campus community. *Recreational Sports Journal*, 35(1), 24-34.
- Ellis, G. D., Compton, D. M., Tyson, B., & Bohlig, M. (2002). Campus recreation participation, health, and quality of life. *Recreational Sports Journal*, 26(2), 51-60.
- Ewert, A. W. (1994). Playing the Edge Motivation and Risk Taking in a High-Altitude Wilderness Like Environment. *Environment and Behavior*, 26(1), 3-24.
- Farrell, A., & Thompson, S. (1999). The intramural program: A comprehensive analysis. *NIRSA Journal*, 23(2), 32-38.
- Flegal, K. M., Carroll, M.D., Kit, B. K., & Ogden, C. L. (2012). Prevalence of obesity and trends in the distribution of body mass index among US adults, 1999-2010. *Journal of the American Medical Association*, 307(5), 491-497.

- Flegal, K. M., Carroll, M. D., Ogden, C. L. & Johnson, C. L. (2002). Prevalence and trends in obesity among US adults, 1999-2000. *Journal of the American Medical Association*, 288, 1723-1727.
- Forrester, S., Arterberry, C., & Barcelona, B. (2006). Student attitudes toward sports and fitness activities after graduation. *Recreational Sports Journal*, 30(2), 87-99.
- Greenberg, E. H., & Weber, K. (2008). *Generation We: How Millennial youth are taking over America and changing our world forever*. Emeryville, CA: Pachatusan.
- Gordon, W. R., & Caltabiano, M. L. (1996). Youth leisure experiences in rural and urban North Queensland. *Australian Leisure*, 7(2), 37-41.
- Guo, S. S., Roche, A. F., Chumlea, W. C., Gardner, J. C., & Siervogel, R. M. (1994). The predictive value of childhood body mass index values for overweight at age 35. *American Journal of Clinical Nutrition*, 59, 810-819.
- Hackett, M. W. (2007). Exploring the relationship between recreational sports employment and academic success. *Recreational Sports Journal*, 31(1), 69-74
- Haines, D. J. (2001). Undergraduate student benefits from university recreation. *NIRSA Journal*, 25 (1), 25-33.
- Haines, D. J., & Fortman, T. (2008). The college recreational sports learning environment. *Recreational Sports Journal*, 32(1), 52-61.
- Hodges, J. S. (2000). Addressing the recreational sports needs of students with physical disabilities. *NIRSA Journal*, 24(1), 67-76.
- Hsieh, C. M. (1998). *Leisure attitudes, motivation, participation and satisfaction: Test of a model of leisure behavior*. (Doctoral dissertation). Indiana University, Bloomington.

- Hultsman, W. Z. (1993). The influence of others as a barrier to recreation participation among early adolescents. *Journal of Leisure Research*, 25(2), 150-164.
- Hyman, M., Mani, J., & Jaffe, R. (2012). Diabetes and Insulin Resistance. *Advancing Medicine with Food and Nutrients*, 373.
- Indiana University Campus Recreational Sports. (2006). *IU recreational sports fast facts*.
Bloomington, IN: Indiana University.
- Israel, G. D. (1992). *Determining sample size*. University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS.
- Iso-Ahola, S. E. (1989). Motivation for leisure. In E. L. Jackson and T. L. Burton (Eds.), *Understanding leisure and recreation: Mapping the past, charting the future* (p. 247-279). State College, PA: Venture.
- Iso-Ahola, S. E., & Allen, J. R. (1982). The dynamics of leisure motivation: The effects of outcomes on leisure needs. *Research Quarterly for Exercise and Sport*, 53(2), 141-149.
- Kanters, M. A. (2000). Recreational sport participation as a moderator of college stress. *NIRSA Journal*, 24(2), 10-23.
- Kanters, M. A., & Forrester, S. (1997). The motivations and self-esteem of intramural sports participants. *NIRSA Journal*, 21, 3-7.
- Knapp, L.G., Kelly-Reid, J. E., & Ginder, S. A. (2011). Enrollment in Postsecondary Institutions, Fall 2009; Graduation Rates, 2003 & 2006 Cohorts; and Financial Statistics, Fiscal Year 2009: First Look. Washington, DC: National Center for Education Statistics.
- Koivula, N. (1999). Sport participation: Differences in motivation and actual participation due to gender typing. *Journal of Sport Behavior*, 22, 360-380.

- Kovac, D. C., & Beck, J. E. (1997). A comparison of student perceptions, satisfaction, and patterns of participation in recreational sports. *NIRSA Journal*, 22(1), 10-12.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Kuh, G. (1991). *Involving Colleges: Successful Approaches to Fostering Student Learning and Development outside the Classroom*. San Francisco: Jossey-Bass Publishers.
- Lancaster, L. C., & Stillman, D. (2010). *The M factor: How the Millennial generation is rocking the workplace*. New York, NY: Harper Business.
- Leitner, M. J., & Leitner, S. F. (2012). *Leisure enhancement* (4th ed.). Urbana, IL: Sagamore Publishing.
- Lewis, J. B., Barcelona, R., Jones, T. (2002). Leisure satisfaction and quality of life: Issues for the justification of campus recreation. *NIRSA Journal*, 25(2), 57-63.
- Lindsey, R., & Sessoms, E. (2006). Assessment of a campus recreation program of student recruitment, retention, and frequency of participation across certain demographic variables. *Recreational Sports Journal*, 30(1), 30-39.
- London, M., Crandall, R., & Fitzgibbons, D. (1977). The psychological structure of leisure: Activities, needs, people. *Journal of Leisure Research*. 9(4), 252-263.
- Lounsbury, J. W., & Polik, J. R. (1992). Leisure needs and vacation satisfaction. *Leisure Sciences*, 14(2), 105-119.
- Mack, C. E. (2011). *Impact of recreation centers on two New England campuses*. (Doctoral dissertation). Retrieved from <http://libezproxy.tamu.edu:2048/login?url=http://search.proquest.com/docview/913081208?accountid=7082>. (913081208).

- Manfredo, M. J., Driver, B. L., & Tarrant, M. A. (1996). Measuring leisure motivation: A meta-analysis of the recreation experience preference scales. *Journal of Leisure Research*, 28(3), 188-213.
- Meister, J. C., & Willyerd, K. (2010). *The 2020 workplace: How innovative companies attract, develop, and keep tomorrow's employees today*. New York, NY: Harper Business.
- Mitchell, Jr., R. G. (1982). The benefits of leisure stress. *Journal of Physical Education, Recreation, and Dance*, 53(7), 50-51.
- Mull, R. F., Bayless, K. G., & Jamieson, L. M. (2005). *Recreational sport management*. Champaign, IL: Human Kinetics.
- Mull, R. F., Forrester, S. A., & Barnes, M. L. (2013). *Recreational sport programming*. Urbana, IL: Sagamore Publishing.
- Murray, C., & Nakajima, I. (1999). The leisure motivation of Japanese managers: A research note on scale development. *Leisure studies*, 18(1), 57-65.
- Must, A., Spandano, J., Coakley, E. H., Field, A. E., Colditz, G., & Dietz, W. H. (1999). The disease burden associated with overweight and obesity. *Journal of the American Medical Association*, 282, 1523-1529.
- National Academy of Sciences. (1969). *A program for outdoor recreation research*. Washington, D.C.: National Academy of Sciences.
- National Association of Student Personnel Administrators. (2008). Profile of the American college student. Retrieved from <http://www.naspa.org/2008%20demographics.pdf>.
- National Intramural-Recreational Sports Association (2004). *The value of recreational sports in higher education*. Champaign, IL: Human Kinetics.

- National Intramural-Recreational Sports Association. (2008). *Campus recreation: Essentials for the professional*. Champaign, IL: Human Kinetics.
- Pelletier, L. G., Fortier, M. S., Vallerand, R. J. Tuson, K. M. Briere, N. M., & Blais, M. R. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and motivation in sports: The sport motivation scale (SMS). *Journal of Sport and Exercise Psychology, 17*, 35-53.
- Ragheb, M. G., & McKinney, J. (1993). Campus recreation and perceived academic stress. *Journal of College Student Development, 34*(1), 5-10.
- Recours, R. A., Souvillle, M., & Griffet, J. (2004). Expressed motives for informal and club/association-based sports participation. *Journal of Leisure Research, 36* (1), 1-22.
- Ross, C. E., & Wu, C. L. (1996). Education, age, and the cumulative advantage in health. *Journal of Health and Social Behavior, 37*, 104-120.
- Ryan, C., & Glendon, I. (1998). Application of leisure motivation scale to tourism. *Annals of Tourism Research, 25*(1), 169-184.
- Sanders, L., & Burton, J. D. (1996). From retention to satisfaction: New outcomes for assessing the freshman experience. *Research in Higher Education, 37*(5), 555-567.
- Shaw, S. M., Kleiber, D. A., & Caldwell, L. L. (1995). Leisure and identity formation in male and female adolescents: A preliminary examination. *Journal of Leisure Research, 27*(3), 245-263.
- Smith, B. D. (2008). Motivational factors for participation in collegiate club sports at Indiana University. (Unpublished master's project). Indiana University, Bloomington, IN.

- Starzyk, K. B., Reddon, J. R., & Friel, J. P. (2000). Need structure, leisure motivation, and psychosocial adjustment among young offenders and high school students. *Journal of Offender Rehabilitation, 31*(2), 163-174.
- Tinsley, H., & Kass, R. (1978). Leisure activities and need satisfaction: A replication and extension. *Journal of Leisure Research, 10*(3), 191-202.
- Tinsley, H., & Barrett, T., & Kass, R. (1977). Leisure activities and need satisfaction. *Journal of Leisure Research, 9*(4), 110-120.
- Von Ah, D., Ebert, S., Ngamvitroj, A., Park, N., & Kang, D.-H. (2004). Predictors of health behaviors in college students. *Journal of Advanced Nursing, 48*(5), 463-474.
- Watson, II, J. C., Ayers, S. F., Zizzi, S., & Naoi, A. (2006). Student recreation centers: A comparison of user and non-users on psychosocial variables. *Recreational Sports Journal, 30*(1), 9-19.
- Weiss, M.R., & Ferrer-Caja, E. (2002). Motivational orientations and sport behavior. In T. Horn (Ed.), *Advances in sport psychology* (pp. 101–183). Champaign, IL: Human Kinetics.
- Wickham, S. E., Hanson, C. S., Shechtman, O., & Ashton, C. (2000). A pilot study: attitudes toward leisure and leisure motivation in adults with spinal cord injury. *Occupational Therapy in Health Care, 12*(4), 33-50.
- Wingspread Group on Higher Education. (1993). *An American imperative: Higher expectations for higher education*. Racine, Wisconsin: The Johnson Foundation.
- Young, S. J., & Ross, C. M. (2003). Mail versus web questionnaires in municipal recreation settings: A comparative study of survey methodology. *Leisure/Loisir, 27* (1-2), 115-135.

Young, S. J., Ross, C. M., & Barcelona, R. J. (2003). Perceived constraints by college students to participation in campus recreational sports programs. *Recreational Sports Journal*, 27(2), 47-62.

APPENDICES

APPENDIX A

Leisure Motivation Scale

DIRECTIONS: Listed below are 48 statements. Each one begins with the phrase: “One of my reasons for participating in informal sports is...” To the left of each statement is a line to indicate how true that statement is based on your experiences. A “1” means that the statement is never true, “2” means that it is seldom true, “3” means that it is sometimes true, “4” means that it is often true, and “5” means that it is always true. Please write down the number that best fits your situation.

DEFINITION: “Informal sports” refer to any self-directed, drop-in activity within Recreational Sports. Informal sports require no registration or extra fees. A few examples include: basketball, volleyball, swimming, racquetball, badminton, and using any fitness equipment including cardio and weight machines.

1	2	3	4	5
NEVER TRUE	SELDOM TRUE	SOMEWHAT TRUE	OFTEN TRUE	ALWAYS TRUE

One of my reasons for participating in informal sports is...

Intellectual Motives

- I-1. to expand my interests
- I-2. to seek stimulation
- I-3. to make my college experience more meaningful for me
- I-4. to learn about things around me
- I-5. to satisfy my curiosity
- I-6. to explore my knowledge
- I-7. to learn about myself
- I-8. to expand my knowledge
- I-9. to discover new things
- I-10. to be creative
- I-11. to be original
- I-12. to use my imagination

Social Motives

- S-1. to be with others
- S-2. to build friendships with others
- S-3. to interact with others
- S-4. to develop close friendships
- S-5. to meet new and different people
- S-6. to help others
- S-7. so others will think well of me for doing it
- S-8. to reveal my thoughts, feelings, or physical skills to others
- S-9. to influence others
- S-10. to be socially competent and skillful
- S-11. to gain a feeling of belonging
- S-12. to gain other’s respect

Competence-Mastery Motives

- CM-1. to obtain feeling of achievement
- CM-2. to see what my abilities are
- CM-3. to challenge my abilities
- CM-4. because I enjoy mastering things
- CM-5. to be good at the sport
- CM-6. to improve skill and ability in the sport
- CM-7. to compete against others
- CM-8. to be active
- CM-9. to develop physical skills and abilities
- CM-10. to keep in shape physically
- CM-11. to use my physical abilities
- CM-12. to develop my physical fitness

Stimulus-Avoidance Motives

- SA-1. to be in a calm atmosphere
- SA-2. to get away from my regular routine
- SA-3. to escape and get a change of pace
- SA-4. to seek solitude
- SA-5. to relax physically
- SA-6. to relax mentally
- SA-7. to avoid the hustle and bustle of daily activities
- SA-8. to refresh, re-create
- SA-9. to relieve stress and tension
- SA-10. to do something simple and easy
- SA-11. to unstructure my time
- SA-12. to get away from the responsibilities of my everyday life

APPENDIX B

Study Instrument

Informal Sports Motivation - Ashley Donaldson

1. Do you wish to participate in this study?

- Yes
 No

Informal Sports Participation Status

2. Informal sports can be defined as any DROP-IN activity where the participant determines the activity and how long the activity will take place. This can include, but is not limited to, badminton, basketball, frisbee, informal dance, indoor soccer, outdoor soccer, racquetball, squash, swimming, table tennis, volleyball, use of cardio equipment, use of weights or weight equipment, and use of the track.

Informal sports DOES NOT include intramural sports, club sports, group exercise sessions, personal training sessions, or any other type of instructor-led or structured activities.

Based on these guidelines, do you feel you have participated in informal sports at the Campus Recreational Sports facilities at Indiana University within the 2008-2009 academic year?

- Yes
 No

Demographics

Please tell a little about yourself.

3. What is your gender?

- Male
 Female

Informal Sports Motivation - Ashley Donaldson

4. What is your educational status at IU?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate

5. What is your place of residence?

- Residence hall
- Greek housing
- Off-campus
- Other

6. What is your ethnicity?

- African American
- Asian/Pacific Islander
- Caucasian
- Hispanic
- Other

Informal Sports Participation Demographics

7. On average, how often do you participate in drop-in activities?

Note: Intramural sports, club sports, group exercise sessions, personal training sessions, and any other type of instructor led or structured activities are not considered drop-in activities.

- 1-2 times per semester
- 1-2 times per month
- 1-2 times per week
- more than 2 times per week

Other (please specify)

Informal Sports Motivation - Ashley Donaldson

8. On average, how much time do you spend per drop-in participation?

Note: Intramural sports, club sports, group exercise sessions, personal training sessions, and any other type of instructor led or structured activities are not considered drop-in activities.

- less than 30 minutes
- between 30 minutes and 60 minutes
- between 61 minutes and 90 minutes
- between 91 minutes and 120 minutes
- more than 120 minutes

9. Please indicate the activities which you have participated in on a DROP-IN basis at the Campus Recreational Sports facilities. (PLEASE CHECK ALL THAT APPLY)

- Badminton
- Basketball
- Frisbee
- Indoor soccer
- Informal dance
- Outdoor Soccer
- Squash
- Swimming
- Table tennis
- Tennis
- Use of cardio equipment (elliptical, treadmill, etc.)
- Use of free weights or weight equipment
- Use of the track (SRSC, HPER, and/or Woodlawn)
- Volleyball

Other (please specify)

Informal Sports Motivational Factors (1of 4)

Please select the answer that best fits your motivational factors for participating in drop-in activities at the Campus Recreational Sports facilities.

Informal Sports Motivation - Ashley Donaldson

10. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. to expand my interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to seek stimulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to make my college experience more meaningful for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. to learn about things around me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to satisfy my curiosity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to explore my knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. to learn about myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to expand my knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to discover new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. to be creative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to be original	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to use my imagination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Informal Sports Motivational Factors (2 of 4)

Please select the answer that best fits your motivational factors for participating in drop-in activities at the Campus Recreational Sports facilities.

12. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. to be with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to build friendships with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to interact with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. to develop close relationships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to meet new and different people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to help others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Informal Sports Motivation - Ashley Donaldson

13. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. so others will think well of me for doing it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to reveal my thoughts, feelings, or physical skills to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to influence others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. to be socially competent and skillful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to gain a feeling of belonging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to gain other's respect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Informal Sports Motivational Factors (3 of 4)

Please select the answer that best fits your motivational factors for participating in drop-in activities at the Campus Recreational Sports facilities.

14. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. to obtain a feeling of achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to see what my abilities are	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to challenge my abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. because I enjoy mastering things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to be good at the sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to improve skill and ability in the sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. to compete against others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to be active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to develop physical skills and abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. to keep in shape physically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to use my physical abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to develop my physical fitness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Informal Sports Motivation - Ashley Donaldson

Informal Sports Motivational Factors (4 of 4)

Please select the answer that best fits your motivational factors for participating in drop-in activities at the Campus Recreational Sports facilities.

16. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. to be in a calm atmosphere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to get away from my regular routine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to escape and get a change of pace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. to seek solitude	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to relax physically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to relax mentally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. One of my reasons for participating in drop-in activities is...

	Never True	Seldom True	Somewhat True	Often True	Always True
1. to avoid the hustle and bustle of daily activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. to refresh, re-create	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. to relieve stress and tension	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. to do something simple and easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. to unstructure my time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. to get away from the responsibilities of my everyday life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Please comment on or indicate any other reasons you choose to participate in drop-in activities.

Satisfaction and Future Participation

19. Please complete the following: "If I could change one thing about participating in drop-in activities with Campus Recreational Sports it would be . . ."

Informal Sports Motivation - Ashley Donaldson

20. Please list a drop-in activity that you would like to participate in that is not currently offered by Campus Recreational Sports at Indiana University.

Conclusion

THANK YOU for participating in this study! Your answers will be kept confidential and will not be linked to your identity.

Study Consideration

Thank you for your consideration. If you should decide to participate in this study, please feel free to go back and complete this survey. Your participation is completely voluntary and poses no risk on your part.

Submit

If finished with this survey, please click on "Done" to submit your answers, or if you wish to go back to any survey question, click on "Prev."

APPENDIX C

Study Information Sheet

Informal Sports Motivation - Ashley Donaldson

Study Information Sheet (Study #: 0902000060)

Dear Indiana University student,

You are invited to participate in a research study that examines your involvement in Campus Recreational Sports at Indiana University. Specifically, this study will focus on looking at your motivation for participation in informal sports. Informal sports are defined as any drop-in activity where the activity itself and the length of participation are determined by the participant.

As a student at Indiana University, you have been randomly selected to participate in this study. The data collected will be used to complete a Master's Thesis, where the goal is to gain insight into the motivations of informal sport participants.

INFORMATION

The questions in this survey have been designed to examine your individual motives for participating in informal sports within Campus Recreational Sports at Indiana University. Being a graduate student myself, I realize you have many demands on your time. However, it should take no more than 10 minutes to complete this survey. If you do choose to complete the questionnaire, please remember to click on the submit button to finish the survey process.

BENEFITS

Your participation will help identify individual motivational factors for participation in informal sports at Indiana University. This information will add to the research knowledge base for informal sports specifically and more broadly the campus recreational sports field. The information gathered from this study will help campus recreational sport professionals understand the driving factors to participation and hopefully deliver the best informal sports programs possible.

CONFIDENTIALITY

The data collected during the study will be kept confidential. Although results of this study may be shared with campus recreational sport administrators, no reference will be made in any oral or written reports which could link any individual to the study. Once you have completed the questionnaire, your email address will be removed from the distribution list.

CONTACT

If you have any questions about the study please feel free to contact Ashley Donaldson, Graduate Student, Indiana University, School of HPER, Department of Recreation, Park, and Tourism Studies at (818)889-2780 or via email at donaldsa@indiana.edu.

If you feel you have not been treated according to the description in this form, or your rights as a participant in research have not been honored during the course of this project you may contact the Office for the Human Subjects Committee, Indiana University, Carmichael Center L03, 530 E. Kirkwood Ave., Bloomington, IN 47408, 812-855-3067, iub_hsc@indiana.edu.

PARTICIPATION

Your participation in this study is voluntary and you will not incur any penalties for choosing not to participate or for withdrawing from the study at anytime.

IRB Approved
Approval date: 3/2/09
Expires: 5/1/09

APPENDIX D

Email Correspondence

Initial Email Correspondence

Bcc: email addresses of subjects randomly selected from public student directory

Subject: Online Survey – Informal Sports Motivations

Study # 0902000060

Dear Indiana University student,

I am a graduate student within the School of HPER at Indiana University pursuing a degree in Recreational Sports Administration. As a student at Indiana University, you have been randomly selected to participate in a web-based research study involving the motivational factors for informal sports. Informal sports include any drop-in activities you might participate in at the Campus Recreational Sports facilities. Should you choose to participate in this study, your responses will help expand the knowledge base of the recreational sports field and as well as provide recreational sports administrators with information to impact the way in which programs are delivered.

There are no foreseeable risks associated with your participation and all data collected will be kept confidential. All email address will be deleted prior to data analysis, so there will be no link to any individual responses. I estimate that the survey should take approximately 10 minutes to complete. There is no penalty for choosing not to participate or withdrawing from the study at any time.

To proceed to the survey, please click on the following link:

http://www.surveymonkey.com/s.aspx?sm=9GPF42pQJeB0RCE6jt67Tw_3d_3d

If at any time you feel that you have not been treated according to the descriptions above or your rights as a participant in a research study have not been honored, please contact the Indiana University Human Subject Committee, Carmichael Center L03, 530 Kirkwood Avenue, Bloomington, Indiana, 47405, (812) 855-3067 or by email at iub_hsc@indiana.edu.

Should you have any questions about this study, please feel free to contact me at (618) 889-2760 or donaldsa@indiana.edu.

Sincerely,

Ashley Donaldson
Graduate Student
Indiana University

If you would like to be removed from this electronic distribution list, please email me at donaldsa@indiana.edu to receive no further messages.

Second Email Correspondence

Bcc: email addresses of subjects randomly selected from public student directory

Subject: Online Survey – Informal Sports Motivations

Study # 0902000060

Dear Indiana University student,

You were recently sent an invitation to participate in an online survey studying the motivational factors for participation in informal sports. Informal sports include any drop-in activities you might participate in at the Campus Recreational Sports facilities. If you have already submitted this questionnaire online, I would like to thank you for your participation and contribution to this study. If you have not and would still like to participate in this study, please click on the following link to complete the online survey.

http://www.surveymonkey.com/s.aspx?sm=9GPF42pQJeB0RCE6jt67Tw_3d_3d

The survey results will help expand the knowledge base of the recreational sports field and as well as provide recreational sports administrators with information to impact the way in which programs are delivered.

As a reminder, there are no foreseeable risks associated with your participation, and all data collected will be kept confidential. All email address will be deleted prior to data analysis, so there will be no link to any individual responses. I estimate that the survey should take approximately 10 minutes to complete. There is no penalty for choosing not to participate or withdrawing from the study at any time.

If at any time you feel that you have not been treated according to the descriptions above or your rights as a participant in a research study have not been honored, please contact the Indiana University Human Subject Committee, Carmichael Center L03, 530 Kirkwood Avenue, Bloomington, Indiana, 47405, (812) 855-3067 or by email at iub_hsc@indiana.edu.

Should you have any questions about this study, please feel free to contact me at (618) 889-2760 or donaldsa@indiana.edu.

Sincerely,

Ashley Donaldson
Graduate Student
Indiana University

If you would like to be removed from this electronic distribution list, please email me at donaldsa@indiana.edu to receive no further messages.

Third Email Correspondence

Bcc: email addresses of subjects randomly selected from public student directory

Subject: Online Survey – Informal Sports Motivations

Study # 0902000060

Dear Indiana University student,

Several days ago, you were sent an invitation to participate in an online survey studying the motivational factors for participation in informal sports. Informal sports include any drop-in activities you might participate in at the Campus Recreational Sports facilities. If you have already submitted this questionnaire online, I would like to thank you for your participation and contribution to this study. If you have not yet participated consider taking the short survey available through the following link.

http://www.surveymonkey.com/s.aspx?sm=9GPF42pQJeB0RCE6jt67Tw_3d_3d

The survey results will help expand the knowledge base of the recreational sports field and as well as provide recreational sports administrators with information to impact the way in which programs are delivered.

As a reminder, there are no foreseeable risks associated with your participation and all data collected will be kept confidential. All email address will be deleted prior to data analysis, so there will be no link to any individual responses. I estimate that the survey should take approximately 10 minutes to complete. There is no penalty for choosing not to participate or withdrawing from the study at any time.

If at any time you feel that you have not been treated according to the descriptions above or your rights as a participant in a research study have not been honored, please contact the Indiana University Human Subject Committee, Carmichael Center L03, 530 Kirkwood Avenue, Bloomington, Indiana, 47405, (812) 855-3067 or by email at iub_hsc@indiana.edu.

Should you have any questions about this study or the procedures, please feel free to contact me at (618) 889-2760 or donaldsa@indiana.edu. This will be the final message that you will receive pertaining to this study.

Sincerely,

Ashley Donaldson
Graduate Student
Indiana University

Ashley N. Donaldson

Office: 208 Student Recreation Center, College Station, TX 77843

Home: 3313A Forestwood Drive, Bryan, TX 77801

(979) 862-4302 (W) / (618) 889-2760 (H)

adonaldson@rec.tamu.edu

EDUCATION

Master of Science in Recreation 8/2013
 Indiana University
 Bloomington, IN
Major: Recreational Sports Administration

Bachelor of Science in Recreation 8/2007
 Southern Illinois University
 Carbondale, IL
Specialization: Leisure Service Management

PROFESSIONAL EXPERIENCE

Facilities Coordinator, 7/2009-present
 Department of Recreational Sports
 Texas A&M University, College Station, TX
Responsibilities: Hire, train, supervise, evaluate and coordinate the scheduling facility receptionist/attendants and cashiers. Supervise the daily operations of the Student Recreation Center and evening activities at the Physical Education Activity Program facilities. Coordinate special events.

Graduate Assistant, Informal Sports and Equipment Operations 7/2007-5/2009
 Campus Recreational Sports
 Indiana University, Bloomington, IN
Responsibilities: Assisted with the hiring, training, supervising, evaluating and scheduling of 85+ informal sports student employees including planning and facilitating monthly staff meetings and leading student development sessions. Served as an event counselor. Supervised equipment inventory and ordering.

PRESENTATIONS

Wong, M., & Donaldson, A. (2011). *Facebook: The Elephant in the Office*. Social media presentation presented at the Big 12 and Friends/Region IV Conference, College Station, Texas.

Donaldson, A., & Stachewicz, C. (2011). *From Salad Forks to Moving Vans*. Student development presentation presented at the National Intramural Recreational Sports Association Annual Conference, New Orleans, Louisiana

- Farmer, B., & Donaldson, A. (2011). *Spice Up Your Student Staff*. Student development presentation presented at the Region IV Student Lead On, San Marcos, Texas.
- Donaldson, A., & Farmer, B. (2010). *Shake Up Your Student Staff Hiring*. Student development presentation presented at the Big 12 and Friends/Region IV Conference, Lubbock, Texas.
- Nash, J., McMillen, D., Duitsman, K., & Donaldson, A. (2010). *Facilipedia: Findings and Discussions of Facility Management*. Facility management presentation presented at the National Intramural-Recreational Sports Association Annual Conference, Anaheim, California.
- Donaldson, A., Stachewicz, C., Hanson, S., DeLima, F., Shore, S., & Bettman, D. (2010). *Transformers: From GA to Professional*. Professional development session presented at the Region III Student Lead On, Detroit, Michigan.
- Donaldson, A. (2009). *Keepin' It On Campus: Careers in Campus Recreation*. Career informational session presented at the Allen Symposium, Carbondale, Illinois.
- Finley, R., Donaldson, A., Darilek, L., Bentley-Smith, R., Roskowsinski, A., Gormley, C., & Van Vliet, B. (2009). *Discover Your NIRSA Student Membership*. Interactive student membership informational session presented at the National Intramural-Recreational Sports Association Annual Conference, Charlotte, North Carolina.
- Donaldson, A., James, C., & Finley, S. (2009). *So You Wanna Get Involved?* Student involvement session presented at the Region III Student Lead On, Urbana, Illinois.
- Donaldson, A. (2009). *Online Social Networks – Can They Work For You?* Social networking informational session presented at the Michigan Intramural Recreational Sports Association (MIRSA) Conference, Detroit, Michigan.
- Bentley-Smith, R., & Donaldson, A. (2009). *The Double Edged Sword of Social Networks*. Social networking informational session presented at the Big 12 and Friends Conference, Norman, Oklahoma.
- Donaldson, A., & Garrone, C. (2008). *Preparing for Your GA Search*. Graduate assistant search process informational session presented at the Region III Student Lead On, Youngstown, Ohio.
- Stettler, L., Bennett, T., & Donaldson, A. (2007). *The Wheels On the Bus Go Round and Round*. Interactive leadership presentation presented at the NIRSA Region III Student Lead On, Bloomington, Indiana.

PROFESSIONAL AFFILIATIONS

National Recreation and Park Association	2012-present
National Intramural-Recreational Sports Association (NIRSA)	2007-present