Determining the demand for recreational sport at a university

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ABSTRACT

This mini-dissertation deals with the market demand for campus recreation at the North-West University's (NWU) Potchefstroom Campus. The market demand refers to the proposed needs for recreation activities on-campus among fulltime undergraduate students studying at the Potchefstroom Campus. For the purpose of the study, undergraduate students (n = 327) were requested to complete a questionnaire containing questions related to reasons for recreational sport participation and constraints hindering participation, as identified by literature. The study was undertaken by using historic, fulltime first- to third-year students studying at the Potchefstroom Campus of the NWU. Participants consisted of a diverse group residing both on-campus and off-campus and also from different faculties, with the exclusion of the Faculties of Law and Theology.

Data collected by means of questionnaires was organised and analysed by the Statistical Consultation Services of the NWU (Potchefstroom Campus). Descriptive statistics were used to determine frequencies. It was found that the majority of students participate in the seven major sport codes of the university, and in particular hockey and soccer, followed by tennis and athletics. Even though participation figures for rugby are lower than those for the other seven major sport codes, the participation frequencies by the students are the highest of the major sport codes. The highest additional sport codes that students participated in are cycling, squash, golf, swimming and table tennis. The additional sport codes are predominantly participated in either through hostel teams or with private clubs.

It was found that there are five main reasons why students participate in recreational sport, namely for the purpose of challenge and enjoyment, for recognition and achievement, to socialise, for health and physical wellness and to relieve stress. From the mean scores, it appears that the students' primary reasons for participating in recreational sports are recognition and achievement and to a lesser degree for health and wellness. The study found participation constraints, namely lack of knowledge, lack of interest, individual psychological aspects and accessibility or financial constraints. The constraint experienced most by the students, according to the mean scores, is lack of knowledge about recreational sport. Regarding the students'

recreational sport needs, hockey was mentioned the most, followed by netball, cycling, swimming, tennis and squash. Students prefer to participate in the above mentioned recreational sport activities with hostel teams, whereas very few students prefer to participate on their own.

The first recommendation would be to include student development, health and wellness as key components in the current vision of NWU sport. It is also recommended that the NWU revise the information obtained from the Marketing Department regarding the recruitment of future students. Valuable knowledge could be obtained regarding which sports the students were exposed to during their school years and to adjust the additional sport codes accordingly. The third recommendation is the introduction of leisure education during the orientation programme for first-year students. Leisure education will provide the students with the skills to prepare for future events peculiar to campus life. Fourthly it is recommended that, due to the increase in demand for multi-gender sport, the university shall focus on marketing and public awareness of sports such as women's cricket and rugby for women. The last recommendation refers to the need for more information regarding the management of facilities and grounds. The implementation of a web-based system could increase productivity and may decrease the pressure placed on the utilisation of facilities and grounds.

Key terms: Recreational sport, leisure constraints, leisure benefits, campus recreation.

OPSOMMING

Hierdie mini-verhandeling handel oor die vraag na rekreasiesport by die Noordwes Universiteit (NWU) se Potchefstroom-kampus. Die vraag verwys na die voorgestelde behoeftes vir rekreasie-sportaktiwiteite op die kampus onder voorgraadse studente wat voltyds studeer aan die Potchefstroom-kampus. Vir die doel van die studie, is voorgraadse studente (n = 327) gevra om 'n vraelys te voltooi wat verband hou met redes vir deelname aan rekreasiesport en die redes wat deelname verhoed. Die studie maak gebruik van historiese eerste- tot derdejaar studente. Die studente was van verskillende rasse wat op-kampus en weg van die kampus woon. Die studente was van ses verskillende fakulteite, uitgesluit die Fakulteite van Regte en van Teologie.

Ingesamelde data vanaf die vraelys is georganiseer en ontleed deur die Statistiese Konsultasiediens van die NWU (Potchefstroom-kampus). Beskrywende statistiek is gebruik om frekwensie te bepaal. Daar is gevind dat die meerderheid van die studente deelneem aan die sewe groot sportkodes van die universiteit, veral hokkie en sokker, gevolg deur tennis en atletiek. Alhoewel deelname aan rugby die laagste is van die sewe groot sportkodes, is die frekwensies van deelname aan rugby die hoogste van die alle sportkodes. Die hoogste bykomende sportkodes waaraan deelgeneem word is fietsry, muurbal, gholf, swem en tafeltennis. Deelname aan die bykomende sportkodes vind oorheersend in koshuisverband of in private klubs plaas.

Daar is bevind dat daar vyf vernaamste redes is waarom studente deelneem aan rekreasie-sport, naamlik vir uitdaging en genot, vir erkenning en prestasie, sosiale redes, vir gesondheid en fisiese welstand en die verligting van stres. Deur te verwys na die gemiddelde tellings, is die studente se vernaamste redes vir deelname aan rekreasie-sport die van erkenning en prestasie en die minste vir gesondheid en welstand. Die studie bevind die hindernisse, naamlik 'n gebrek aan kennis, gebrek aan belangstelling, individuele sielkundige aspekte en toeganklikheid of finansiële beperkinge. Die hindernis wat die studente die hoogste ervaar, volgens die gemiddelde tellings, is 'n gebrek aan kennis. Ten opsigte van die studente se behoeftes aan rekreasiesport, is hokkie die meeste genoem, gevolg deur netbal, fietsry, swem, tennis en muurbal. Studente wil graag deelneem aan die bogenoemde

rekreasiesportaktiwiteite in koshuisverband, terwyl baie min studente op hul eie sou wou deelneem.

Die eerste aanbeveling sou wees dat studenteontwikkeling, gesondheid en welstand ingesluit word as komponente binne die huidige visie van NWU sport. Dit word ook aanbeveel dat die NWU die inligting wat verkry is deur middel van die Bemakingsdepartement sal hersien, ten opsigte van die skole wat geteiken is tydens die werwing vir toekomstige studente. Waardevolle kennis kan verkry word oor aan watter sport die studente blootgestel word tydens hul skooljare en om die bykomende sportkodes dan daarvolgens aan te pas. Die derde aanbeveling is die bekendstelling van vryetydsopvoeding tydens die oriënteringsprogram vir die eerstejaarstudente. Vryetydsopvoeding sal die studente met die nodige vaardighede bekwaam om voor te berei vir die toekoms soortgelyk aan die lewe op kampus. In die vierde plek word aanbeveel dat, as gevolg van die toename in die vraag na beide-geslagte sport, die universiteit meer fokus sal plaas op die bemarking en openbare bewustheid van sportsoorte soos vroue-krieket en -rugby. Die laaste aanbeveling is die behoefte aan meer inligting oor die bestuur van die sportfasiliteite en terreine. Die implementering van 'n web-gebaseerde stelsel kan produktiwiteit verhoog en die druk wat geplaas word op die fasiliteite en terreine verminder.

Sleutelterme: Rekreasiesport, ontspanningsbeperkings, ontspanningsvoordele, kampusrekreasie

TABLE OF CONTENTS

CHAPTER 2: A LITERATURE REVIEW: ANALYSIS OF CAMPUS RECREATIONAL SPORT

CHAPTER 3: EMPIRICAL RESEARCH

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

REFERENCES

LIST OF FIGURES & TABLES

CHAPTER 2:

CHAPTER 3:

DEFINITION OF TERMS

The following terms used in the study can be explained as follows:

Recreation: Recreation, as defined by Rossman and Schlatter (2008:10) is leisure that is engaged in by a person for the realisation of personal and social benefits. According to Edginton *et al.* (2004:11), the link of recreation to specific activities, such as arts, hobbies etc., represents the benefit of a person recreating him or herself through participation in the specific activity.

Leisure: According to Edginton *et al.* (2004:8) four criteria must be present to experience leisure. These four criteria are perceived freedom, intrinsic motivation, perceived competence and positive effect (Edginton *et al.,* 2004:9). Thus, in order to experience leisure, a person should be self motivated and feel that he or she has the necessary skill to participate in an activity of his/her choice.

Recreational sport: The term *recreational sport* can refer to a variety of informal recreational sport codes, ranging from modest to vigorous exercise levels and can be participated in on either a regular or an irregular basis (Maron, *et al*., 2004:2808). No regular training is required and there is no pressure to excel against others as with competitive sports (Maron, *et al*., 2004:2808).

LIST OF ABBREVIATIONS

The following abbreviations used in the study are:

NWU:	North-West University
NIRSA:	National Intramural Recreational Sport Association
UKZN:	University of KwaZulu-Natal
UWC:	University of the Western Cape
UCT:	University of Cape Town
SUSPI:	Stellenbosch University Sport Performance Institute
SUN:	Stellenbosch University
UFS:	University of the Free State
RU:	Rhodes University
UFH:	University of Fort Hare
UP:	University of Pretoria
WITS:	University of the Witwatersrand
UL:	University of Limpopo
HPI:	High Performance Institute
MMA:	Mixed Martial Arts

CHAPTER 1

PROBLEM STATEMENT AND PURPOSE OF THIS STUDY

1.1 INTRODUCTION

"Research demonstrates that campus recreation programming such as intramural sports, informal recreation, special events, and sport clubs play a vital role in student satisfaction, social integration, and academic persistence." (Trimble, 2010:1).

This mini-dissertation deals with the market demand for campus recreation at the North-West University's (NWU) Potchefstroom Campus. The market demand refers to the proposed needs for campus recreation activities on-campus among fulltime undergraduate students studying at the Potchefstroom Campus. It also focuses on the benefits of student participation in recreational sport and how participation in such extracurricular activities can prevent student drop-outs due to stress and burnout. In this chapter, the problem statement will be discussed as the motivation for this research study. Subsequently the primary and secondary research objectives of the study are presented (the scope of this study), followed by the research methodology and the mini-dissertation layout. Finally a chapter summary is provided.

1.2 PROBLEM STATEMENT

It is stated that the habits of students today will influence the norms, beliefs and cultures of communities in the future (Leslie *et al.,* 2001:117). The habits students engage in during their time at higher education institutions will predict their habits during their life span (Leslie *et al*., 2001:117). As a result of the increasing pressure students are experiencing at universities, unhealthy lifestyles, stress and burnout are causes for concern to university administrators (Gauché, 2006:5). Universities make use of campus-based programmes such as campus recreational sports, to encourage students to become more active and invest in a healthy lifestyle for the rest of their lives (Leslie *et al*., 2001:119).

Although it would appear that the number of students entering higher education is increasing, the different tertiary institutions in South Africa, including the NWU,

reported a 45% dropout rate among students (Bunting & Cloete, 2004:5). Stress and burnout are reported as being the major factors contributing to students dropping out of higher education institutions in South Africa (Bunting & Cloete, 2004:6). Research indicates that extracurricular activities, such as campus recreational sports, can reduce student stress and burnout (Gauché, 2006:8; Henchy, 2011:147; Tsigilis *et al.*, 2009:65). Participation in campus recreational sports increases the students' overall life-satisfaction and could also increase student retention and academic achievement (Ellis *et al.*, 2002:56; Henchy, 2011:147).

In line with such research, the NWU highlights the goal of not only nurturing the academic performance of the students, but also their development and holistic growth as young adults (NWU profile, 2012/2013). The NWU presents a wide range of extracurricular activities across the three campuses, such as sport (NWU profile, 2012/2013). The NWU focuses on seven major sport codes (athletics, cricket, hockey, netball, rugby, soccer and tennis) and furthermore provides thirty additional sport and recreational activities that include: karate, cycling, rock-climbing, table tennis, softball, squash and competitive chess (NWU profile, 2012/2013). All of the above activities form part of the broad term known as *campus recreation,* which includes terms such as recreational sport, intramural sport and recreational programmes (Franklin & Hardin, 2008:4).

Research pertaining to campus recreational sport in South Africa seems to be deficient. The same cannot be said for research done in North America, as indicated by the historian Wilson (2008:21), who found that in the early days of campus sport, all sport codes were informal and were intended to take place in students' leisure-time. Wilson stated that, due to the increase in student demands for informal games, universities started to approve organised campus teams (Stein, 1985:42; Stewart, 1992:12; Wilson, 2008:21). Today these are known as varsity teams or prestige sport teams. A huge number of students, who decided not to play for the university's formal teams, chose to participate in informal sport. This was subsequently referred to as intramural sport or recreational sport (Stein, 1985:42; Stewart, 1992:12; Wilson, 2008:22). Participating informally and not for the competition, sparked the interest of

university administrators, who recognised the value of students participating in recreational sport (Stein, 1985:43; Stewart, 1992:12; Wilson, 2008:25). University administrators hoped that recreational sport participation would generate student interest in physical activities, or alternatively, motivate students to develop themselves in order to become more eligible for elite sport teams (Stein, 1985:42; Stewart, 1992:12; Wilson, 2008:25). A hundred years later, the National Intramural Recreational Sport Association in North America indicated that, as from 2006 to 2011, 220 universities and colleges across North America spent over $3.17 billion on campus recreation facilities and grounds (Wilson, 2008:27). According to Milton (2008:202) the growth in the demand for campus recreational sport places pressure on the universities to establish effective planning and management of recreational sport programmes on campus (Lewis *et al.*, 1998:76; Schaack, 2008:184).

When comparing campus recreational sport at North American universities to the activities provided by South African universities and more specifically the NWU, the types of activities or programmes are similar. The difference lies in the entities responsible for the delivery of the campus recreational sport programmes. The North American universities depend on campus recreation departments with a formal delivery structure and management, whereas the NWU's activities are independent of clubs, subdivisions and units spread out across the campus. According to the strategic sport plan for the Potchefstroom Campus (Strydom, 2010), recreational sport forms an important part of the sport programmes offered at the Potchefstroom Campus. It was pointed out by the Vice-Rector of the Potchefstroom Campus that the need exists for research to investigate whether there is a demand for campus recreational sport amongst students. Therefore, the question arises whether a needs-assessment of undergraduate students at the Potchefstroom Campus can provide the necessary evidence in order for the NWU to consider the students' demand for specific recreational sport in the strategic planning of sport on-campus.

The significance of this study on the field of recreation and the NWU is firstly to promote a healthy lifestyle among students by reducing stress and burnout, thus decreasing student dropout on campus. Secondly, to highlight student

recreational sports needs and preferences with the intention that the NWU can incorporate this information in future strategic plans for recreational sport on campus.

1.3 OBJECTIVES OF THIS STUDY

The objectives of this study will be divided into primary and secondary objectives.

1.3.1 Primary objective

To determine the demand for recreational sport participation in undergraduate students at the NWU Potchefstroom Campus.

1.3.2 Secondary objectives:

- To determine the current recreational sport participation patterns of the first, second and third year students at the Potchefstroom Campus of the NWU.
- To determine the reasons behind recreational sport participation in first, second and third year students at the Potchefstroom Campus of the NWU.
- To determine the constraints that prevent participation in recreational sport of first, second and third year students at the Potchefstroom Campus of the NWU.
- To determine the need for recreational sport in first, second and third year students at the Potchefstroom Campus of the NWU.

1.4 SCOPE OF THE STUDY

The Institutional Office of the NWU indicates that during 2013, a total of **61,914** students were registered at the three campuses, namely Potchefstroom, Mafikeng and Vaal. For the purpose of the initial assignment, only the contact students at the Potchefstroom Campus will be used as the population group of the study. The Potchefstroom Campus reported **45,374** registered students (not-finalised) of whom **19,386** study fulltime on-campus.

Due to the study being exploratory research and the measuring instruments having been composed for this purpose, it was the intention that a sub-sample of students be selected in order to test the questionnaire and research procedure. The sub-sample of students was made up of only historic first, second and third

years students (undergraduate). The average age of the students ranged from 18 to 30 years. Due to the difficulty in determining the age parameters for this study, the historic year that the student is registered in at the NWU will be representative of the students' age requirements. Some students only start with their studies in their late twenties. Other students may perhaps be completing a second degree at the NWU. Both male and female students from different race groups were included in the study. Students from on-campus hostels, off-campus hostels and students who are not associated with a hostel were incorporated in the study.

1.5 RESEARCH METHODOLOGY

1.5.1 Literature review

In order to obtain fundamental knowledge regarding the problem area (Blankenship, 2010:17), the following key areas were reviewed: South African universities, student dropouts, higher education problems, recreational sport, campus recreation, intramural sport, and student wellness. The available literature was retrieved from published articles and presentations, academic books, and internet searches.

1.5.2 Research design

For the purpose of this study, a descriptive quantitative research design was used. A descriptive design is used to state the distribution of sample or population across a wide range of variables by the use of a questionnaire (De Vos *et al.*, 2011:251). Descriptive research typically refers to the characteristics of a population, such as the students at the Potchefstroom Campus.

1.5.3 Measuring instruments

For the purpose of the research procedures, a self-administered questionnaire, developed from literature, was completed by the undergraduate students. The questionnaire served as a means to determine the current demand for recreational sport at the Potchefstroom Campus, by looking at the students' current participation patterns and future needs. The questionnaire contained both open-ended and close-ended questions. Demographic information, such as age, sex and race was attained by close-ended or forced-choice questions in the

questionnaire. The second section provided an opportunity for the students to indicate the recreational sport they are currently participating in, from a list compiled from the seven major sport codes and a few of the additional sports codes provided by the NWU. The following two sections included the reasons for participation and the constraints students perceive for non-participation as determined by literature. The last section included a space for students to indicate their preferred recreational sport activities as well as the frequency and format of participation. The validity of the modified questionnaire was confirmed by the Statistical Consultation Services of the North-West University (Potchefstroom Campus).

1.5.4 Procedures

By means of available sampling, the lecturers presenting selected modules were contacted by the researcher via e-mail messages. The lecturer and the researcher selected a contact session where the questionnaires were handed out in class. At each session the permission forms were handed out and the purpose of the study was explained to the subjects. The subjects were given the option of participating in the research or not, by completing the permission form. The subjects signed the permission forms and the forms were handed in individually to ensure anonymity. Thereafter, the questionnaires were handed out by the researcher and completed by the subjects in a well-lit and ventilated room. No talking was permitted during completion of the questionnaires and the researcher was present to provide assistance if necessary or to answer questions. After completion, the subjects placed the completed questionnaires in a box when leaving the room in order to ensure anonymity. Completed questionnaires were sorted and organised for the analysis.

1.5.5 Data analysis

Statistical analysis was done by the Statistical Consultation Services of the NWU (Potchefstroom Campus) by using the SPSS program. Descriptive statistics were used to determine frequencies. Descriptive statistics were used and provided the researcher with deeper meaning and descriptions of specific situations (De Vos *et al*., 2011:76). For the purpose of internal consistency, the Cronbach alpha coefficients were determined for the different sections of the questionnaire.

Pearson correlation coefficients were also used to indicate whether a relationship exists between the variables with a cut-off point of 0,30 (medium effect), to indicate practical significance.

1.5.6 Ethical considerations

Permission was obtained from the Ethics Committee of the North-West University before initiating the research study (NWU-00068-13-A1). The individual lecturers of the selected modules were also requested to consent to the use of their modules' students to participate in the study. The undergraduate students were requested to participate in the research and were given a free choice as to whether or not they wished to participate. After having obtained the permission of all the stakeholders via emails, the researcher continued with the research procedure. The data and information gained from the research was dealt with anonymously and confidentially. Data originally collected from the research was not altered.

1.6 MINI-DISSERTATION LAYOUT

The mini-dissertation is submitted in the traditional format as stipulated by the North-West University's academic rules and consists of four chapters. Chapter 1 comprises of the problem statement, the purpose and scope of the study, the research methodology and mini-dissertation layout. This will be followed by a review of the literature applicable to this study, namely: *A literature review: analysis of campus recreational sport* (Chapter 2). The review of this literature was used in combination with the problem statement and research methods, so as to provide empirical evidence and results indicated in Chapter 3. The results and conclusions resulting from this study are summarised in Chapter 4. Chapter 4 also includes the conclusion, recommendations, limitations and further studies on the topic relating to the study. The list of references is presented at the end of Chapter 4.

1.7 LIMITATIONS OF THE STUDY

The limitations of the study are that only undergraduate students studying fulltime at the Potchefstroom Campus of the NWU were approached. Therefore the results cannot necessarily be generalised to apply to all students or South African

universities. The study also excludes academic first years, thus students who changed their majors and are no longer historic first years were not included in the study. A constraint for the study may be the terminology, due to the fact that most South Africans are not conversant with the meaning of the word *recreation* and will not know what is meant by *campus recreation or recreational sport*. By conceptualising the study as the beginning of a broad area of campus recreation at higher education institutions, the author suggests that further research be done concerning the problems raised in this study.

1.8 SUMMARY

This chapter briefly explains what the study focuses on, namely the market analysis or need or proposed need for campus recreation among undergraduate students at the NWU's Potchefstroom Campus. The chapter also discusses the study's problem statement, primary and secondary objectives, research method, dissertation layout and limitations. The literature review will be discussed in the subsequent chapter.

CHAPTER 2
A LITERATURE REVIEW: ANALYSIS OF CAMPUS RECREATIONAL SPORT

2.1 INTRODUCTION

In order to ensure continuity, it is important to start this chapter with a review of the available literature regarding campus recreational sport and the definition thereof. This is followed by a short discussion on the origin and history of campus recreational sport at universities in North America, campus recreational sport at South African Universities, the NWU Potchefstroom Campus' existing recreational sport provision and the function of strategic planning regarding campus sport. This chapter also reviews the literature regarding the perceived benefits of recreational sport for universities in both countries that do in fact provide the services and students participating in recreational sport activities as part of benefit-based management. It is also important that this chapter assesses the various reasons for the non-participation of students in recreational sport offered on campuses. The last section of this chapter entails detailed national and international studies of related research on recreational sport participation patterns and trends.

2.2 HISTORY OF CAMPUS RECREATIONAL SPORT

2.2.1. Introduction to Recreational Sport

According to Osman *et al.,* (2006:21), campus recreational sport programmes have formed an essential part of universities' student services for many decades. The term *recreational sport* is synonymous with various other terms used throughout literature such as intramural sport and campus recreation (Franklin & Hardin, 2008:4). Historically, students participated in informal sport between classes and during breaks. The term *intramural* was used to refer to the different physical activities and sports within the universities' parameters (Byl, 2002:5). Similarly, the term *campus recreation* is also used by universities as a collective term, instead of intramurals, where the term includes recreational activities other than sporting activities, offered to students and staff on-campus. The term *recreational sport* can refer to a variety of informal recreational sport codes, ranging from modest to vigorous exercise levels and can be participated in on either a regular or an irregular basis (Maron *et al.*, 2004:2808). No regular training is required and there is no pressure to excel against others as with competitive sports (Maron *et al*., 2004:2808).

According to Byl (2002:5), the definition of *intramura*l or *recreational sport* includes the components of *play* and *game,* clearly separating recreational sport from competitive sport. Providing a better understanding of this distinction, figure 2.1 illustrates how the level of competition can determine whether the sport activities form part of recreational sport or competitive sport.

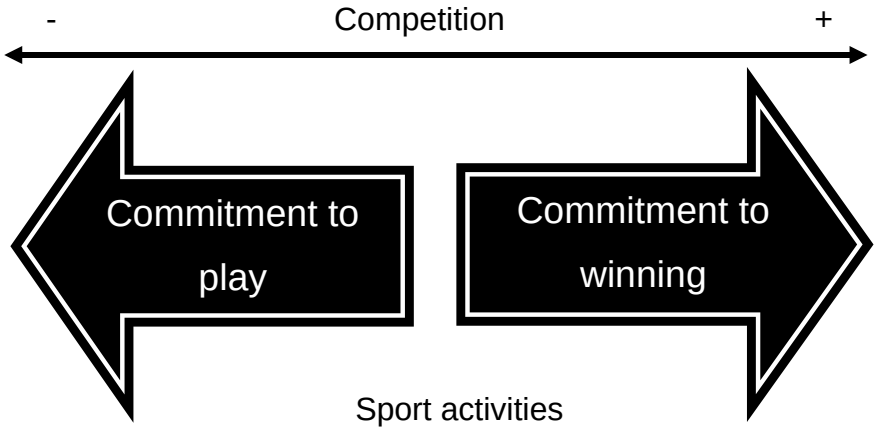

Figure 2.1: Levels of game competition (Byl, 2002:6)

As shown in figure 2.1, the competition level is predicted by the students' commitment towards either playing or winning. As such, sporting activities participated in with the main goal of winning, would fall under competitive sport, which requires formal training and coaching. On the other hand, students participating for the fun of the game, with the mutual understanding between players that winning is optional, can then be described as recreational in nature (Byl, 2002:6). It is therefore in the understanding of the definition of *recreational sport* that it will be possible to distinguish between competitive and recreational sport by means of the commitment demonstrated by the participant. Better understanding of the commitment of the participant was a key research area of John Dewey, an educational philosopher, who stated that "it is the business of the school to set up an environment in which play and work shall be conducted with reference to facilitating desirable mental and moral growth" (as quoted by Byl, 2002:6).

2.2.2. History of campus recreational sport in North America

Wilson (2008:22) found that in the early days of campus sport, all sport was informal and meant for students' leisure-time. With the increase in student demand for informal games, the universities approved organised campus teams (Stein, 1985:42; Stewart, 1992:12; Wilson, 2008:22), better known today as varsity teams. A huge number of students who decided not to play for the university's formal teams,

preferred to participate in informal sport which later was called intramurals or was paired with intramural sport, activities or athletics (Wilson, 2008:22). The term *Intramural* derives its meaning from the two Latin words "*intra*" and "*muralis*" meaning "within" and "wall", which indicates that specific sports, athletics or activities were practised "within the walls" of the campus (Wilson, 2008:22). Literature indicates that, over the years, informal sport came to be overshadowed by more prominent or competitive sports and programmes on campus (Stein, 1985:42; Stewart, 1992:12; Wilson, 2008:22).

An important part of the history of campus recreation took place from 1900 to 1913, where researchers and historians indicated a change in philosophy of students' motivation for participating in informal games (Stein, 1985:42; Stewart, 1992:12; Wilson, 2008:23). Participating informally and not for the competition sparked a new philosophy, where university administrators realised the growing trend and started to manage some elements of the facilities, game rules, equipment and logistics (Stein, 1985:43; Stewart, 1992:13; Wilson, 2008:24). A number of the sport coaches and physical education teachers recognised the value that students would gain from participating in such informal games and hoped that it would generate student interest in physical activities or motivate them to develop themselves towards more elite sport teams (Stewart, 1992:13; Wilson, 2008:25). By the 1950s, intramural sport that focused on the competitive element, started to fade and gave way to non-competitive activities in the form of other recreational areas such as social activities and creativity (Stewart, 1992:13; Wilson, 2008:25). It was also at this time that the need for more organised information and rules regarding intramural or recreational sport were demanded. This led to the development of the National Intramural Association, or now known as NIRSA (Stewart, 1992:13; Wilson, 2008:25).

A significant increase in programmes as part of campus recreation started during the 1980s and 1990s, when the universities recognised the contribution that such programmes could provide in higher education (Stewart, 1992:13; Wilson, 2008:25). From then on, campus recreational programmes where constantly adapted and improved to conform with students' trends and the diversity of every new generation of student that came to the campus (Stewart, 1992:13; Wilson, 2008:27). Looking back from the first traditional intramural programme, the North American universities have developed different campus recreation programmes, each unique to the campus-specific needs of students. These campus recreational programmes include different sport clubs, aquatics, instructional programmes, wellbeing, outdoor

recreation, informal recreation, youth programmes and special events (Stein, 1985:43; Stewart, 1992:13; Wilson, 2008:27).

The historian Wilson (2008:27) concludes: *"The role of campus recreation in the recruitment and retention of students is becoming well documented, as is the value students place on their participation in these programs in correlation to their overall college satisfaction and success. Campus recreation programs, and the professionals who administer them, are truly a cornerstone to students' overall collegiate education and experience."* From this quote it can be justified why North American universities such as the University of Illinois spent more than seventy-three million American dollars (± R584 million) on the upgrading of campus recreational facilities (Deterding, 2012). In the Collegiate Recreational Sports Facilities Construction Report, 2006-2011, NIRSA indicates that in the five years during the formulation of the report, a total of 220 universities and colleges across North America spent over $3.17 billion on campus recreational facilities and grounds (Wilson, 2008:27). From this report it is evident that the universities in North America, such as the University of Illinois, Northern Iowa and Barry University, may serve as examples to South African universities of what a model for campus recreation should look like. Seven hundred universities that are members of NIRSA present campus recreation at their campuses for students and staff (NIRSA, 2013). These universities seem to have endless possibilities for student projects, student and community involvement and inter-disciplinary research facilitated by the campus recreational facilities and programmes.

In the 21st century, the role and function of campus recreational sport has not changed from the previous century (Franklin & Hardin, 2008:3). Universities still focus on the development of students; however, NIRSA argues that campus recreational activities have a need to adapt, naming it the evolution in campus recreational sport (Franklin & Hardin, 2008:5). Associations advocating campus recreational sport, such as NIRSA, indicate their commitment to ensuring healthy students and communities (NIRSA, 2013). The role NIRSA plays in supporting their cause is evident in their mission to advocate the advancement of recreation, sport and wellness activities on campuses across North America by providing educational and developmental opportunities for universities to learn and share knowledge while promoting healthy living on campus (NIRSA, 2013). NIRSA has positioned itself strategically as the supporting body for collegiate recreation and for providing strategies for universities throughout the changing student population (NIRSA, 2013).

Throughout the historic development of campus recreational sport in North America, it is evident that change in tertiary education is constant and the success of the modern campus recreational sport programme will lie in the ability of the institution's strategic planning. South Africa does not have a professional body such as NIRSA to help guide the campus administrators in the strategic planning of campus recreational sport programmes. Therefore it is the sole responsibility of the South African universities to understand, plan and provide campus recreational sport programmes at campuses across the county.

2.2.3. Campus recreational sport in South Africa

South Africa has twenty three public higher education institutions. These can be further divided into traditional and comprehensive universities as well as universities of technology (NWU Profile 2012/2013). The NWU is classified as a traditional university because of the traditional theoretically- orientated university degrees the NWU offers (NWU Profile 2012/2013). Strategically, the NWU's major competitors, in terms of clients, are the other ten traditional universities in South Africa. It is therefore necessary to provide the background of the services rendered at the other ten traditional universities in South Africa, in order to present a platform for comparison.

The University of KwaZulu-Natal (UKZN) describes sport on campus as "an important part of University life and the University caters for everyone – from the recreational thought to highly competitive persons" (UKZN, 2013). UKZN provides a number of indoor and outdoor sporting facilities on all four its campuses for recreational purposes, which include swimming pools, gymnasiums, jogging areas, tennis and squash courts (UKZN, 2013). All other facilities, such as the sport clubs with their services, coaching and equipment, are to cater for the more competitive student (UKZN, 2013). UKZN does not only host a number of formal sport codes. Other sport codes, such as ballroom dancing, canoeing, mountaineering, surfing, volleyball, underwater sport and yachting, are also offered at the Pietermaritzburg campus and at Howard College (UKZN, 2013).

The sporting facilities at the University of the Western Cape (UWC) are portrayed as "modern facilities to accommodate most sporting and recreational ambitions" (UWC, 2013). UWC offers more than twenty-three sport types to choose from, both at recreational and competitive levels (UWC, 2013). A unique service provided by UWC is the health and on-campus fitness club, with a variety of equipment (UWC, 2013).

One of the larger traditional universities in South Africa is the University of Cape Town (UCT), with more than forty sports clubs used by nine thousand students on-campus (UCT, 2013). Campus sport at UCT is described as “unique opportunities for you [the student] to participate in sport or physical recreation of your choice” (UCT, 2013). UCT offers more non-traditional sports, such as archery, hiking, mountaineering, paragliding, skydiving and water-skiing, for the non-traditional and students with diverse backgrounds (UCT, 2013). UCT provides equal opportunities for all students to participate in the large variety of sports, from the novice to the more experienced student (UCT, 2013). Close to the UCT is the Stellenbosch University Sport Performance Institute (SUSPI), which supports the University of Stellenbosch (“Maties”) campus sport (SUN, 2013). The recreational sport opportunities at “Maties” can be expressed as “a contribution to the overall development of the students and personnel of the University as well as the local, national and international community” (SUN, 2013). Some of the services offered to the students at the Coetzenburg, Lentelus and Welgevallen facilities include the main sport codes such as hockey, tennis, cricket, netball, soccer and rugby (SUN, 2013).

At the University of the Free State (“Kovsies”) campus, sport is described as “a very important role in the process of shaping and developing the student on campus” (UFS, 2013). “KovsieSport”, by which sport at the University of the Free State is known, also includes recreational sport opportunities for students in the form of fitness and wellness (UFS, 2013). The University of the Free State also provides a number of competitive sports, with the facilities and coaches supporting student performance in accordance with international standards, such as cross-country tracks, soccer pitches, rugby fields, tennis and squash facilities, hockey fields with artificial surfaces and basketball courts (UFS, 2013).

In a diverse approach, another traditional university, Rhodes University (Rhodes), markets campus sport as “Involvement in sport at Rhodes holds the promise of opportunity, achievement, enjoyment, the establishment of lifelong friendships and, above all, a well-rounded university experience” (RU, 2013). Rhodes established a number of diverse sport opportunities (31 sport codes) for students, including basketball, rowing, mountain climbing, underwater diving, sailing, canoeing and the traditional sport codes such as cricket (RU, 2013). All levels of sport participation are catered for at Rhodes, supporting students in both competitive and recreational programmes (RU, 2013). Some unique facilities offered by Rhodes include a dojo, a rifle- and an archery range (RU, 2013).

The University of Fort Hare provides campus sport in the form of a three tier sport participation model (UFH, 2013). The reasons for the three tiers of sport participation model can be explained as follows: “Sport and recreation participation through University of Fort Hare sport programs are organized on three tiers, so as to promote healthy lifestyle choices in an environment that values, embraces and enriches individual differences, in which customer satisfaction is the priority” (UFH, 2013). The first of the three tiers is recreational; the second is faculty leagues and thirdly priority sports (UFH, 2013). As part of these three tiers, the University of Fort Hare provides twelve sport codes on campus which include, golf, surfing, body boarding, tennis, volleyball, rowing, squash, soccer, table tennis, netball, chess and hockey (UFH, 2013).

The largest traditional university, the University of Pretoria (“Tuks”), provides a large number of recreational and competitive sport facilities and programmes (UP, 2013). Expressing campus sport as “A vital part of the University of Pretoria experience” on the interactive website of “TuksSport”, indicates the high priority “Tuks” places on campus sports (UP, 2013). The director of “TuksSport”, Kobus van der Walt, spoke about the role of “Tuks” and campus sport as “At “TuksSport” we aim to create a culture within which all participants will learn and develop on an equitable basis the core values of sport such as team spirit, camaraderie, solidarity and mutual respect” (UP, 2013). “TuksSport” provides the students with 35 different sport codes, including the traditional hockey, netball, soccer and rugby (UP, 2013). Some of the unique sport codes offered at “TuksSport” are wrestling, underwater hockey, lifesaving, dancing, bodybuilding and aikido (UP, 2013). “TuksExploration” is an adventure club catering to the students who prefer adventure sports such as climbing and hiking rather than the traditional sports codes (UP, 2013).

At the University of the Witwatersrand (“Wits”) a policy is provided for campus sport which supports the notion: “recognizes the value of the development of physical skills and the fostering of recreational needs of students and staff in promoting good health, well-being and good fellowship” (WITS, 2013). As in the case of the above mentioned universities, “Wits” also provides a number of traditional sport codes, with the exception of fencing, tang soo do, taekwondo, yuishinkai, kobujutsu, tai chi, synchronised swimming, diving, canoeing and water polo (WITS, 2013). The last of the traditional universities is the University of Limpopo, were campus sport is described in their vision as “to serve, develop, promote and enhance Sport and Recreation activities and creating a healthy sporting and recreation environment for students and staff in tune with academic excellence” (UL, 2013). The University of

Limpopo provides the opportunity for its students to participate in twenty sport codes, some of which at prestige level and others at institutional level for recreational purposes (UL, 2013). Some of the sport codes available and still in the process of development at the University of Limpopo are aerobics, bodybuilding, badminton, basketball, chess, cricket, dancing, soccer, hockey, karate, netball, pool, rugby, softball, squash, table tennis, tennis, volleyball and athletics (UL, 2013). Several sports unique to the University of Limpopo are wheelchair basketball and wheelchair tennis offered for disabled students (UL, 2013).

2.2.4. Recreational sport at the NWU's Potchefstroom Campus

The NWU's annual profile document highlights the university's goal in not only the nurturing of the academic performance of its students but also their development and holistic growth as young adults (NWU profile, 2012/2013). Currently the NWU provides numerous activities, ranging from cultural, sport, counselling and well-being activities, which are aimed at improving the student's mental and physical health (NWU profile, 2012/2013). In line with such research, the NWU presents a wide range of extracurricular activities across the campuses, such as arts and culture, sport and other extramural activities (NWU profile, 2012/2013). Sport being one of the core-strengths, the NWU focuses on seven major sport codes and provides an additional thirty other sports and recreational activities, which include: karate, cycling, rock-climbing, table tennis, softball, squash and competitive chess (NWU profile, 2012/2013). All the above named activities form part of the broad term known as campus recreation, which includes terms such as recreational sport, intramural sport and recreational programmes (Franklin & Hardin, 2008:3).

The NWU adheres to the National Sport and Recreation Plan of South Africa by establishing the vision and mission of campus sport in compliance with the standards set out in the national plan. In the NWU's sport vision, the NWU indicates the ideal strategic position of becoming "the most pre-eminent, excellent and innovative tertiary institution in the world of sport. To be a key role-player in sport commercialisation, by promoting and improving commercial events for all sport by ensuring the optimum utilisation of our resources." (NWU, 2013). As observed at the universities mentioned earlier, the NWU's sport vision does not focus on student development or health, but rather on prestige sport and sport commercialisation. This aspect is referred to in the NWU's mission statement only, which specifies that in order to achieve the vision, student sport should be developed as an important part of a student's life on campus, by using student sport as marketing material or for recruiting students (NWU, 2013). The mission also states that sport participation

by students can provide a positive input to students' health and wellbeing, contributing to the vision of becoming the number one university in the sport context (NWU, 2013).

These resources include the NWU Potchefstroom Campus' sports facility known as the Fanie du Toit Sport Grounds, which consists of forty-six outdoor sporting facilities, including eight rugby fields, sixteen tennis courts, four hockey fields, nine all-weather netball courts, three soccer fields, five cricket fields, a softball field, a swimming pool and an athletics track (NWU, 2013). The Fanie du Toit Sport Grounds also includes two indoor gymnasiums (NWU, 2013). Other sporting facilities at the Fanie du Toit Sport Grounds are the NWU's FNB High Performance Institute (HPI), which forms part of the School of Biokinetics, the Department of Recreation and Sport Science, the Institute for Sports Science and Development and the North-West Sports Academy, the offices of NWU-Puksport and also the NWU-Puk Rugby Institute. The HPI is also equipped with a gymnasium, which accommodates prestige sport athletes with a rehabilitation swimming pool and an ice bath (NWU, 2013). The Potchefstroom Campus also hosts two astro turf water-based surface hockey fields (NWU, 2013). The Hennie Bingle Student Centre is located at the main campus and offers a number of indoor sports. The centre has five squash courts, a gymnasium and saunas, one large multi-purpose hall and one smaller multi-purpose hall (NWU, 2013).

2.3 PRECIEVED BENEFITS OF RECREATIONAL SPORT

It has been a longstanding myth that tertiary institutions in South Africa believe that students who performed favourably in the matriculation examination will also be successful in their studies at university level (Fraser & Killen, 2003:254). The looming concern with regards to high university drop-out rates seems to contradict this myth and has researchers looking at other reasons as to why students seem to fail at university level, even if they do in fact possess the intellectual ability to succeed (Essendrup, 2008:44; Fraser & Killen, 2003:261; Gauché, 2006:42; Letseka & Maile, 2008:6). Research done to determine the reasons for students dropping out of university, explores the process of adapting to campus life and the changes students will face that could contribute to students dropping out of university (Essendrup, 2008:44; Gauché, 2006:42; Letseka & Maile, 2008:6).

Tinto's model of student integration (1987) has guided many researchers to investigate whether there are constraints in the integration process of students into the academic and social system of the universities (as quoted in Fisher, 2007:126).

Tinto's model of student integration (1987) explains the integration as a process acquired from the formal and informal interaction that students experience in a social and academic manner (Fisher, 2007:126). From Tinto's model of student integration (1987) (Figure 2.2), it is during the institutional experience stage that the student should have the opportunity to interact in both the academic and social spheres at universities (Fisher, 2007:126). It is the opinion of researchers such as Fisher (2007:126), Jensen (2011:2), Mc Cubbin (2003:2) and Karp, Hughes and O'Gara (2008:4) that it is of great importance that the interaction between the student and the two different areas (academic and social) shall be a positive experience, which leads the student to reaffirm his or her initial goals or commitment to the university. Negative experiences could lead to students not reaffirming their initial goals or commitment and to rather opt to drop out of university (Fisher, 2007:126). For the purpose of this study, the students' interaction with the social system in Tinto's model is the focus. The social system has two forms, the formal form which includes extracurricular activities, also known as recreational activities and the informal form, which includes the interaction between students. As part of Tinto's model of student integration (1987), research has indicated that recreational sport participation can be linked to students' faster adaption to life at university (Astin, 1993:2) and creating new friendships with fellow students (Henchy, 2011:176).

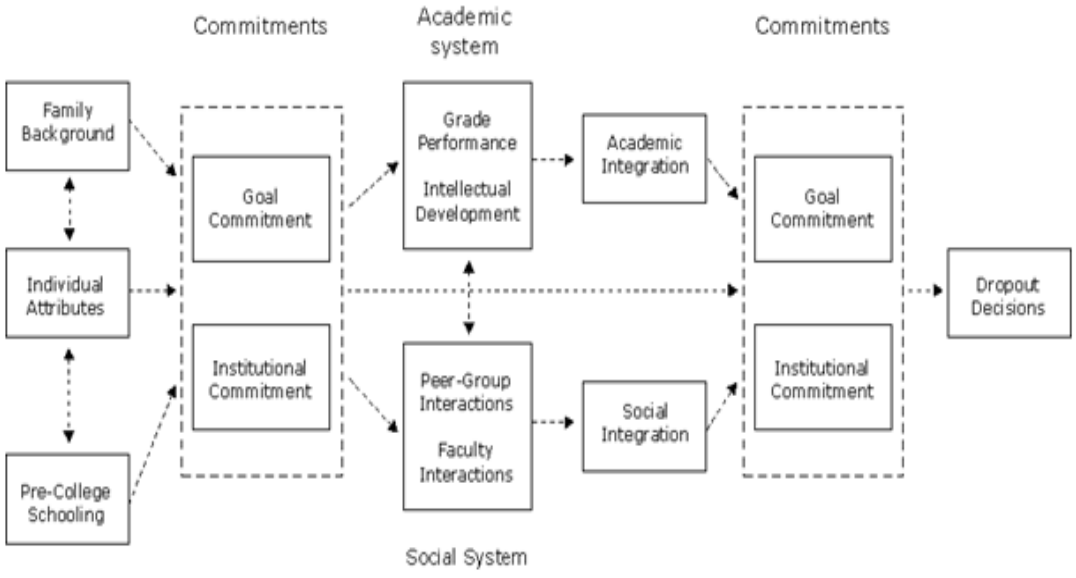

Figure 2.2: Tinto's model of student integration

Astin (1993:2) supports Tinto's work by explaining that the most important contact that students need is with other students on campus. Social contact that takes place by participating in recreational sport on campus benefits students by providing them with the opportunity to meet new friends, to socialise and to experience a

sense of belonging (Byl, 2002:8). According to the findings of Artinger (as cited by Henchy 2011:175), the social benefits of participating in recreational sports on campus may be observed in five areas. The first area is the personal social benefit which refers to the improvement of the student's self-confidence, whereas the second area is the cultural social benefit, where the student's tolerance of other students' cultures and ethnicity is increased. The third area refers to social group bonding, where forms of hostility between student groups decrease. In line with Tinto's model, the fourth area is university integration, where students feel at home during their time at university. The last area refers to reliable alliance benefits, in other words, students experience a sense of alliance with their fellow students. Even with five areas of social benefits, Artinger (as cited by Henchy 2011:175), research has indicated that personal and social group bonding are the two main areas students have benefited most from.

However, the component of physical activity in recreational sport provides the student with benefits acquired from being physically active (Byl, 2002:8). Research in the field of leisure has acknowledged the health, physiological and physical benefits for students participating in extracurricular activities, such as recreational sports (Antón *et al.*, 2011:1999; Fields & Young, 2010:78). The participation cannot only be beneficial to the students' physical well-being (Antón *et al.,* 2011:1999; Fields & Young, 2010:78). Other benefits such as stress relief, physical fitness and general wellbeing, as well as increasing one's self-image, can also be gained (Byl, 2002:8). Researchers refer to physical fitness as a "physiological state of well-being that allows one to meet the demands of daily living or that provides the basis for sport performance, or both." (Warburton *et al.*, 2006:804). Whereas physical activity is referred to by Allender *et al.* (2006:826) as "any bodily movement produced by skeletal muscles that results in energy expenditure". Being physically active has been proven by research (Allender *et al.,* 2006:826; Bocarro & Kanters, 2010:71; Robertson *et al.*, 2013:311) to decrease the risk of coronary heart disease, obesity, hypertension, diabetes and back pain. Students' inactive lifestyle, as part of the global epidemic, is seen as a major problem by health professionals across the globe (Allender *et al.,* 2006:826). Some research done on why teenagers and young women want to be physically active, has indicated that they wish to manage their weight and have concerns about the shape of their bodies (Allender *et al.,* 2006:830). Other research reports that the pressure women feel to "be beautiful" or to "be skinny" are some of the major factors why women are physically active (Allender *et al.,* 2006:830).

Being physically active directly contributes to a person's quality of life and it is suggested that if a person feels weak, his or her quality of life decreases, causing them to feel unsatisfied (Rodriguez & Gamble, 2010:50). According to Rodriguez and Gamble (2010:50) feeling unhealthy will hamper a person's willingness to take part in activities or to socialise, thus depriving them of the basic need of physical contact with others. Robertson *et al.* (2013:310) connect health, wellness and quality of life and explain that one cannot exist without the other. Participation in recreational sport can also play a vital role in students' overall development, physical and mental growth and total well-being while on campus (Boland, 1987:291). Unfortunately research has indicated that people lack health literacy, which refers to their ability to obtain, process and ultimately understand information regarding health and services offered (Robertson *et al.,* 2013:310). According to Robertson *et al.* (2013:310), when working with activities aimed at increasing a person's wellness or health, the degree of health literacy should be considered beforehand. Although students may lack health literacy, those who do participate in recreational sport activities achieve greater grade mark averages and spend more time studying (Belch *et al.*, 2001:261; Videon, 2002:415). Todd *et al.* (2009:48) reached the same results and concluded that the utilisation of recreational sport facilities has a positive association with students' academic success. Students who participate in recreational sports frequently achieve better academic success than their peers who do not participate (Katz & Seifried, 2012:48). Even though the popular saying: "Healthy bodies house healthy minds" has now been confirmed through research, the question still arises why students opt to be physically inactive.

2.4 REASONS FOR PARTICIPATING IN RECREATIONAL SPORT

The literature provides little explanation as to why students choose particular recreational activities, such as recreational sport. However, there are several theories regarding leisure motivation, which may be relevant to participation in recreational sport. Leisure refers to any activity a person participates in during his or her leisure time, which is outcome-based and self-motivated (Edginton *et al.,* 2004:11). Thus, recreational sport is one of the categories of activities which people participate in during their leisure time.

Theories regarding leisure motivation include Bandura's self-efficacy theory (Bandura & Locke, 2003:92) and the social motivation theory (Hills *et al.*, 2000:768). Bandura's self-efficacy theory (Bandura & Locke, 2003:92) suggests that personal beliefs about one's competence influences recreational behaviour. Thus, the theory explains that if a person does not believe that he or she has the ability to reach the

desired outcome, that person will not be motivated to act (Bandura & Locke, 2003:93). According to the social motivation theory; the desire for social contact can be the main motivator for participation in activities such as recreational sport (Hills *et al*., 2000:769). The social motivation theory is proven by the research of Edginton *et al*. (2004:253), who explains that socialisation can be a primary reason for participation in recreational activities, or even a subjective reason if the activity was meant for an alternative outcome. For example, participating in recreational sport for health reasons but participating with other people at the same time, means there will be social contact.

However, because individual characteristics such as motives, norms, lifestyles, personality and the social component influence recreational behaviour, it is difficult to study an individual's recreational behaviour, such as recreational sport participation (Edginton *et al.,* 2004:96; Iso-Ahola, 1980:186). In an attempt to explain how different levels of personality may influence a student's participation patterns, Iso-Ahola (1980:228) illustrates recreational behaviour by using a pyramid that consists of four levels, as indicated in figure 2.3. Biological disposition and early social experience is the basis of the pyramid (personality - and socialisation level) and which has a formative effect on an individual's character. The next level is the need for optimal arousal and incongruity (intrinsic motivational level). The third level is perceived freedom and competence. Leisure needs are placed at the top of the pyramid. Although leisure needs are the most basic reasons for participation in recreational sport activities, the underlying levels of the pyramid must be taken into consideration, because they cannot be separated due to their influence on a person's recreational needs.

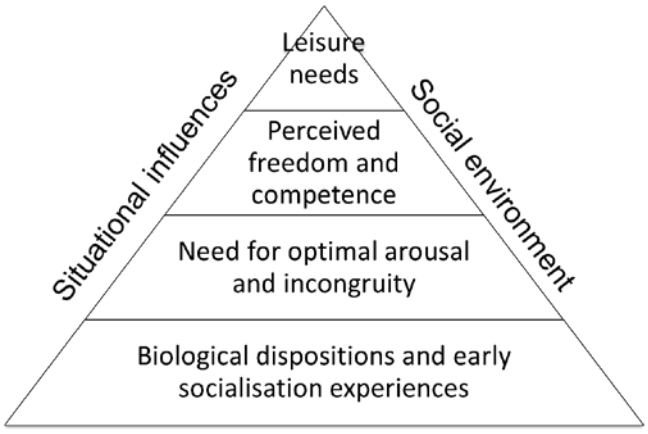

Figure 2.3: Social Psychological Determinants of Leisure Behaviour

An important aspect of recreational behaviour relates to the fact that participation in recreational activities is voluntarily and because of intrinsic motivation (Edginton *et al*., 2004:11). Personality may influence intrinsic motivation (Iwasaki & Mannel, 1999:288) for participating in the recreational activities. Weissinger and Bandalos (1995:383) furthermore explain that personal interests, skills, needs and preferences that determine a person's recreational behaviour accompany intrinsic motivation. Perceived needs lead to motivation of certain behaviours to satisfy these individual needs (Weissinger & Bandalos, 1995:383).

2.5 REASONS FOR NOT PARTICIPATING IN RECREATIONAL SPORT

Many students find it difficult to participate in recreational sport due to a number of constraints (Crawford *et al.,* 1991:309). One of the earliest interests shown by researchers in the leisure field was the development of theories regarding leisure constraints (Jackson, 2005:5; Kg, 2005:81). These constraints provide valuable insight into why students would choose to not participate in leisure activities such as recreational sport (Hashim, 2012:197; Keshkar *et al.*, 2012:561; Kg, 2005:12; Masmanidis & Kosta, 2009:148; Park, 2004:14; Shifman et al., 2011:2). As indicated in figure 2.4, research has resulted in the simple model where a person's preference to participate in a leisure activity is interrupted by the presence of specific constraints (Jackson, 2005:3). The more sophisticated model, also shown in figure 2.4, proves that encountering constraints will lead to non-participation (Jackson, 2005:3). From these two models, constraints are only assumed to be an obstacle preventing participation and not constraining the individual (Jackson, 2005:3).

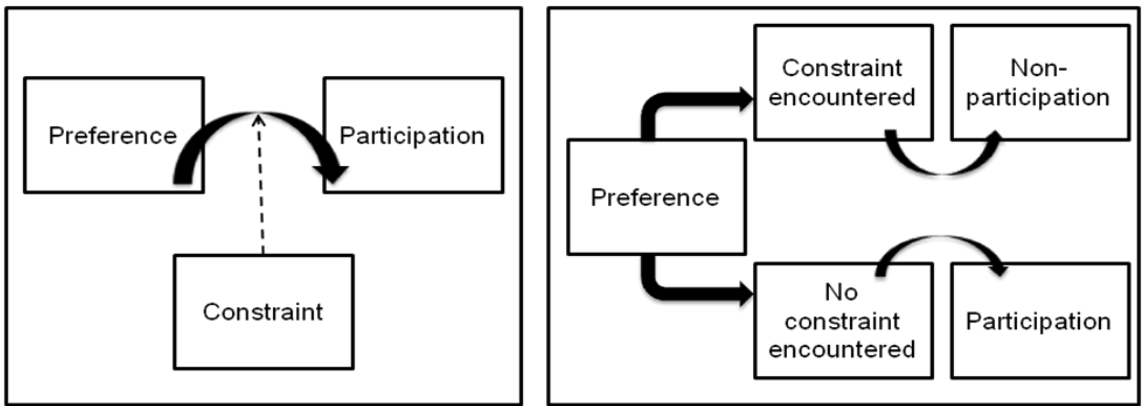

Figure 2.4: Simple model for preference versus the more sophisticated model of preference (Jackson, 2005:4).

After the late 1980s, the development of the theories and models for leisure constraints seem to have been expanded by the inclusion of the factor of constraint

negotiation (Jackson, 2005:5). The research of Crawford and Godbey establishes the notion of people negotiating through specifically placed constraints as seen in figure 2.5 (Jackson, 2005:5). The Crawford and Godbey (1987:125) research includes the identification of three major categories of constraints, namely: intrapersonal, interpersonal and structural constraints.

According to Masmanidis *et al.* (2009:160), intrapersonal constraints can be described as the psychological state and attitude of a person. Intrapersonal constraints are characteristically a person's lack of interest in a specific recreational sport, whereas interpersonal constraints relate to a person's interaction with others or lack thereof, such as having no one to play with (Crawford *et al.*, 1991:309; Masmanidis *et al.*, 2009:160). Research has indicated that the third constraint, structural constraint, is the most prominent assumed constraint, where limitations such as lack of facilities or equipment and lack of accessibility are among the most mentioned reasons for non-participation (Masmanidis *et al.*, 2009:160). Other reasons mentioned as part of structural constraints include economic factors such as lack of money or information difficulties related to ineffective marketing (Kouthouris *et al.*, 2006:52; Masmanidis *et al.*, 2009:160).

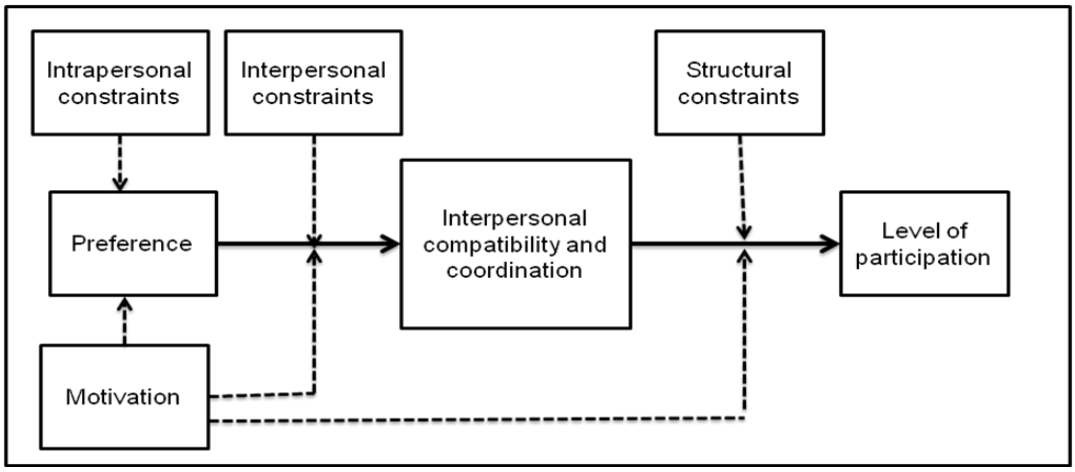

Figure 2.5: The negotiation model (Jackson, 2005:6)

According to Jackson (2005:6), the negotiation model has six propositions, amongst others that a student could negotiate through constraints with variation of success (Figure 2.5). Other propositions include that when a student is faced with impossible interpersonal or structural constraints, his or her desire to participate in a specific activity will decrease (Jackson, 2005:6). Empirical evidence supports the proposition that the association between participation and constraints is mediated by negotiation (Hubbard & Mannell, 2001:160).

2.6 RELATED RESEARCH ON RECREATIONAL SPORT PARTICIPATION PATTERNS

Research indicates that the investigation into university students' health, wellness and lifestyle needs to become a priority, since their lifestyle and other behaviour may have an impact on their future health and quality of life (Ford *et al.,* 2008:194; Johnson, 2005:130; Schmidt, 2012:10; Stock *et al.*, 2001:145; von Bothmer & Fridlund, 2005:107). South African studies indicate a huge problem experienced by a number of higher education institutions with student drop-outs (Bunting & Cloete, 2004:5). Student drop-outs investigated by South African researchers points out a common problem source, namely stress and burnout (Balogun *et al.*, 1996:21; Bojuwoye, 2002:288; Gauché, 2006:8). Stress experienced by students is explained by some researchers as a "lack of information" (Bojuwoye, 2002:288; Gauché, 2006:8). Research also indicates that universities or institutions for higher education must take it upon themselves to provide students with the necessary information by means of programmes in order to teach students improved personal habits, how to cope with academic stress, knowledge about university-life, healthy lifestyle skills, and how to use the institutional support services (Bojuwoye, 2002:289).

It is stated in literature that the habits of students today will influence the norms, beliefs and cultures of communities in the future (Leslie *et al.*, 2001:117; Schmidt, 2012:1). Students' habits engaged in during the ages of 18 to 22 years and the time they spend at higher education institutions, will predict their habits during the rest of their lives (Leslie *et al*., 2001:117; Schmidt, 2012:1). Thus research has shown that universities must make use of campus-based programmes to accommodate the students' development. It is by observing the above mentioned research findings that the concept of campus recreation is adopted by institutions for higher education and as such to encourage students to become more active and to invest in a healthy lifestyle. (Leslie *et al*., 2001:119).

Some of the research done on students' recreational sport participation indicates that, in China, students prefer basketball, badminton and table tennis (Shao-Tung Cheng *et al.*, s.a.:61). In other countries like Iran, students participate in more water-related sports such as aqua sport, volleyball and basketball. In Japan, students participate in jogging, bowling and billiards, whereas Korean students prefer basketball, billiards and badminton, as in the case of China. In the North American countries and Canada, students prefer to participate in basketball, weight training and volleyball (Shao-Tung Cheng *et al.*,s.a.:60). It is evident from the above

mentioned research that most students do not only prefer the traditional sport codes of their countries and that a sport such as basketball is played all over the world. Lesser sport codes such as table tennis and volleyball are also popular among students from different cultures.

2.6 SUMMARY

It is of great importance that a comprehensive literature study be conducted to help present background information regarding the origin and history of campus recreational sport in North America and in South Africa as well as the difficulties experienced in this field today.

In this chapter the history of campus recreational sport in North America was explained, including the recreational sport programmes presented at the eleven different traditional universities in South-Africa, including the North-West University. This helped to serve as background knowledge on the development of campus recreational sport. The concepts regarding recreational sport were discussed, with the focus on the difference between recreational and competitive sport.

One of the most important aspects discussed in the chapter are the benefits of participating in recreational sport on campus. Therefore the chapter also provided information on the constraints hindering students from participating in recreational sport and exploring the different kinds of constraints. Lastly, related research on campus recreation was discussed, explaining how the research could benefit the academic institutions in their service provision.

CHAPTER 3
EMPIRICAL RESEARCH

3.1 INTRODUCTION

The following chapter discusses the research methodology and findings of the study. Relevant national and international literature was used for the literature review as portrayed in chapter 2. The empirical research was done by means of a quantitative research design consisting of a self-administered questionnaire. Each section of the questionnaire will be discussed by using various forms of statistical analysis.

3.2 LITERATURE REVIEW

In order to obtain fundamental knowledge regarding the problem area (Blankenship, 2010:17), the following databases were used to retrieve literature for the purpose of compiling the literature review: EBSCO Host, Google Scholar and Emerald. The computer searches were performed by using the following keywords: South African universities, student drop-outs, higher education problems, recreational sport, campus recreation, intramural sport and student wellness.

3.3 EMPIRICAL RESEARCH

The questionnaires were administrated to 326 historic first-, second- and third-year students studying fulltime at the Potchefstroom Campus of the NWU. The questionnaire was compiled from literature by Coetzee (2003), Alexandris and Carrol (1997). The aim of the data collection was to obtain a minimum of 100 respondents from each historic year, to ensure validity and reliability. By means of an available sample of NWU undergraduate modules, the lecturers were contacted in order to make an appointment to establish a time during their contact sessions with the students to administer the questionnaires. The researcher explained the study to the subjects before handing out the questionnaires. The subjects were given a free choice on whether to participate in the research or not by completing the permission form that was handed out by the researcher.

3.4 MEASURING INSTRUMENT

For the purpose of the research procedures, a self-administered questionnaire, compiled from the literature, was completed by the undergraduate students. The questionnaire served as a means to determine the current demand for recreational sport at the Potchefstroom Campus by looking at the students' current

participation patterns and future needs. The questionnaire contained both open-ended and close-ended questions. Demographic information, such as age, sex and race were attained by close-ended or forced-choice questions in the questionnaire. The second section provided an opportunity for the students to indicate the recreational sport they are currently participating in, from a list compiled from the seven major sport codes and a few of the additional sport codes provided by the NWU. The next two sections included the reasons for participation and the constraints, where students had to indicate on a 4-point Likert scale, 1 being "strongly agree" and 4 being "strongly disagree". The last section had an opening for students to indicate their preferred recreational sport activities as well as the frequency and format they would participate in.

3.5 DATA ANALYSIS

Data collected by means of the questionnaires was organised and analysed by the Statistical Consultation Services of the NWU (Potchefstroom Campus). Descriptive statistics were used to determine frequencies. For the purpose of internal consistency the Cronbach alpha coefficients were determined for the different sections of the questionnaire. Pearson correlation coefficients were also used to indicate whether a relationship exists between the variables.

3.6 DATA RESULTS

This section will include the results of the questionnaire, presented by means of descriptive statistics, frequencies, correlations and factor analysis.

Section A: Demographical information

The following sections discuss the demographical information of the 326 students who participated in the study.

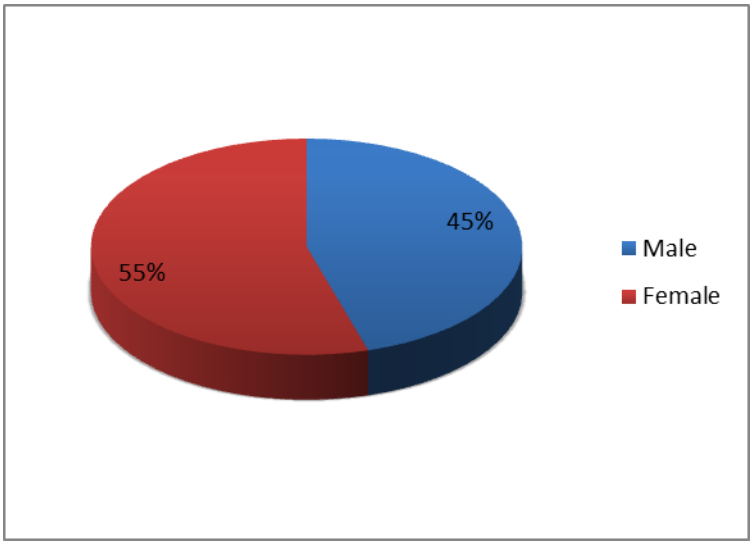

Figure 3.1: Gender of the students (Question 2 of the questionnaire)

Figure 3.1 shows that the number of male students (45%) used in the sample is comparatively equal to the number of female students (55%).

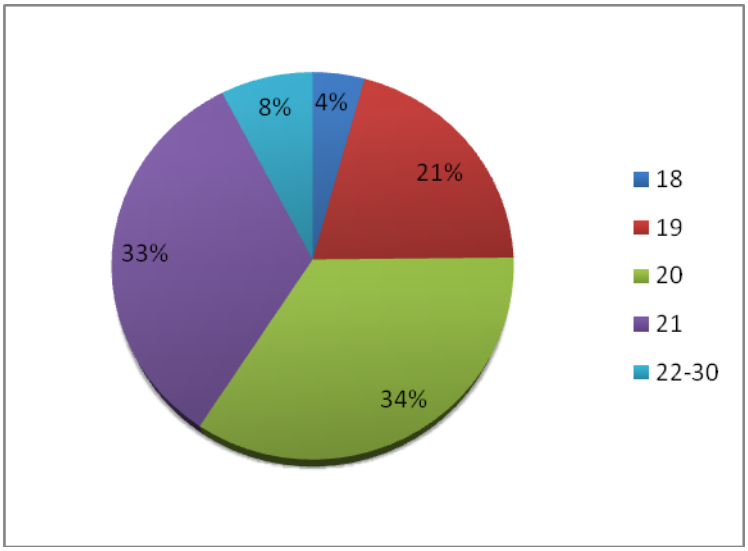

Figure 3.2: Age of the students (Question 3 of the questionnaire)

The results in figure 3.2 indicate that most of the students in the sample are between 19 and 21 years of age, which is the expected average age of students at universities in South Africa. The 4% of the 18 year old students accounts for some of the first-year students who will still turn 19 after the data was collected. The results also indicate that only a few of the students in the sample are older than 22 years (8%).

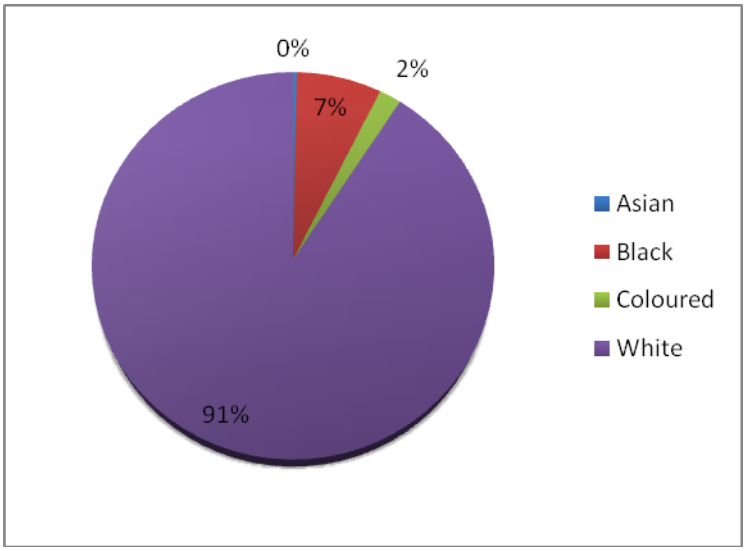

Figure 3.3: Different races of the students (Question 4 of the questionnaire)

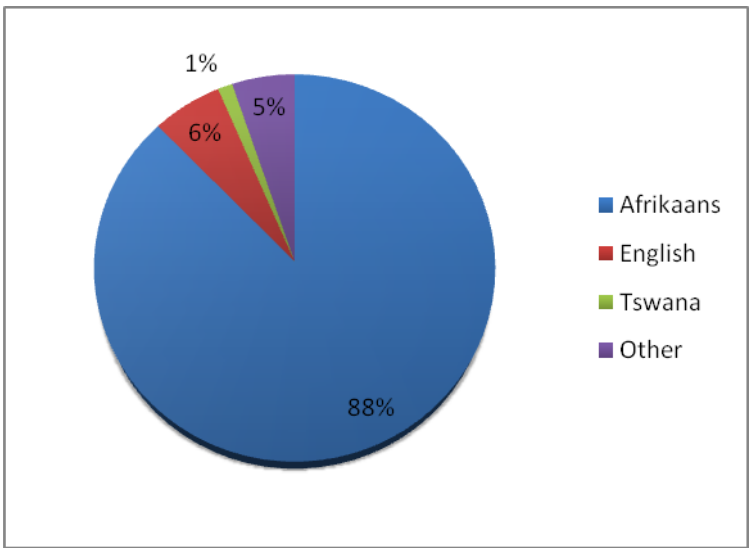

Figure 3.4: Home language of the students (Question 5 of the questionnaire)

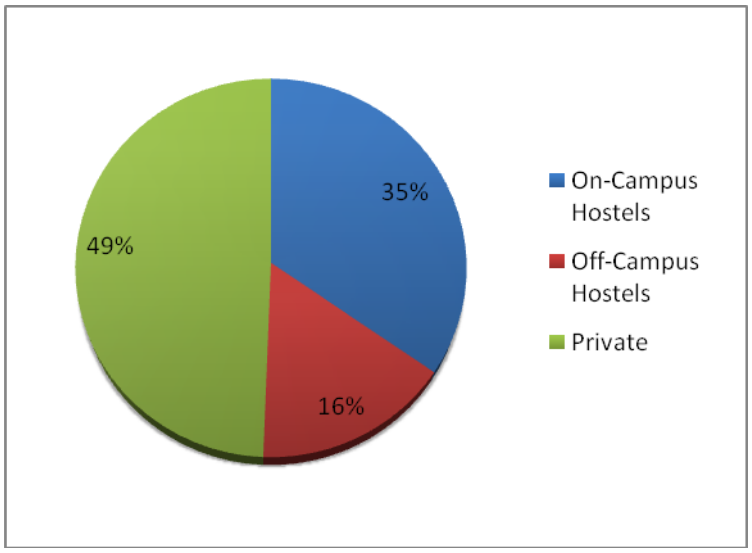

Figure 3.5: Residence of the students (Question 6 of the questionnaire)

Figures 3.3 and 3.4 indicate that most of the students in the sample are white (91%) and Afrikaans-speaking (88%). The above results are contradictory to the official statistics of the Potchefstroom Campus, which indicate that 37% of the students enrolled are white and 56% are black.

The results obtained in figure 3.5 show that most of the students are residing in private accommodation (49%), whereas 35% reside in on-campus hostels such as Veritas or Wanda. A total of 16% are members of off-campus hostels, and as such still live privately across Potchefstroom but compete in student activities as part of hostels such as Bellatrix or Villagers.

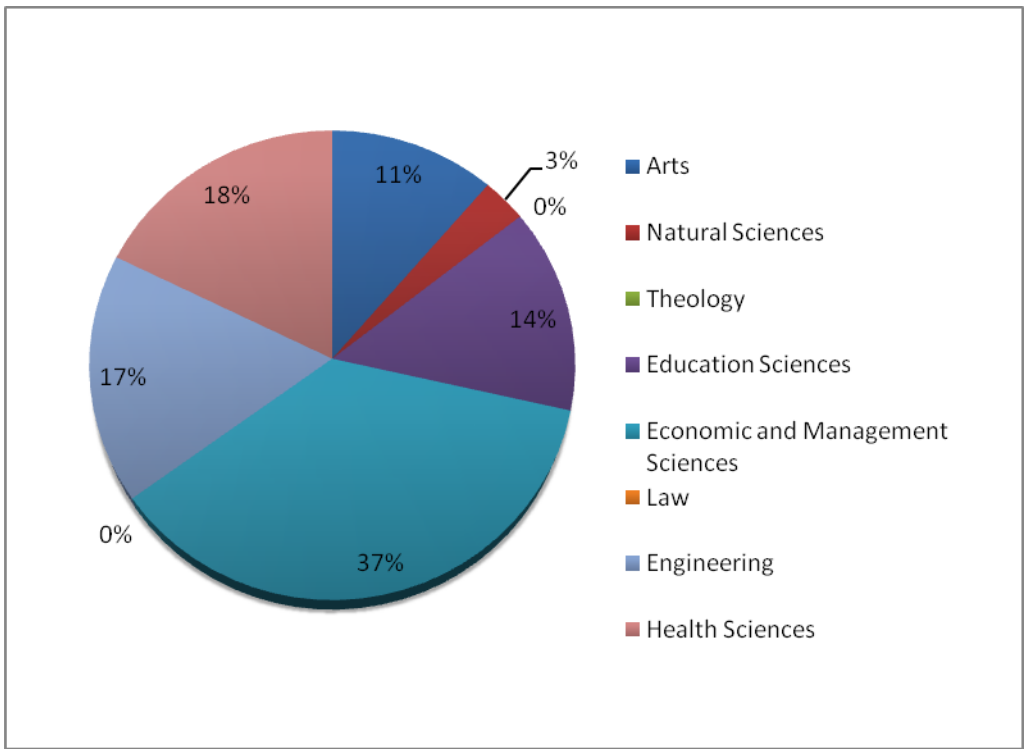

Figure 3.6: Faculties (Question 8 of the questionnaire)

In figure 3.6 students studying at the Faculty of Economic and Management Sciences make up most of the sample (37%). The Faculties of Arts, Engineering, Health and Education Sciences are to a certain degree equally represented in the sample. No students from the Faculties of Theology or Law are represented in the sample. This could be ascribed to the fact that the Faculties of Theology and Law present exclusive degrees, where students do not have many modules in other faculties other than their own.

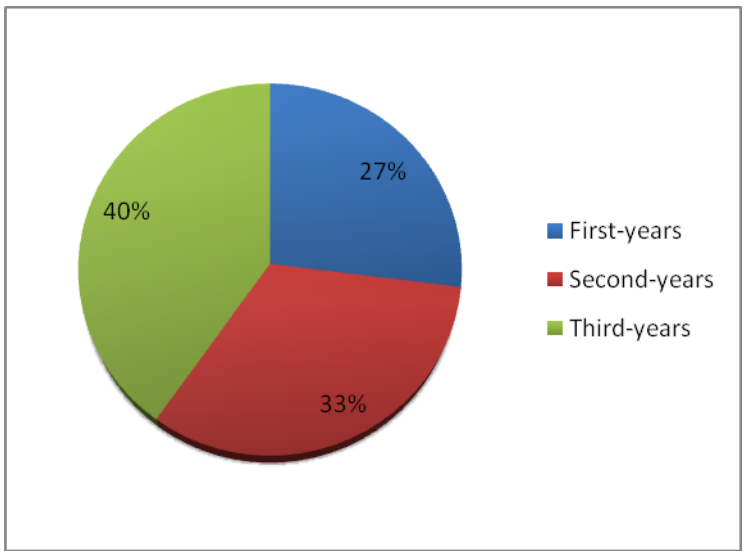

Figure 3.7: Historic years (Question 10 of the questionnaire)

Figure 3.7 shows that the sample consisted of 27% first-year students, 33% second-year students and 40% third-year students at the Potchefstroom Campus.

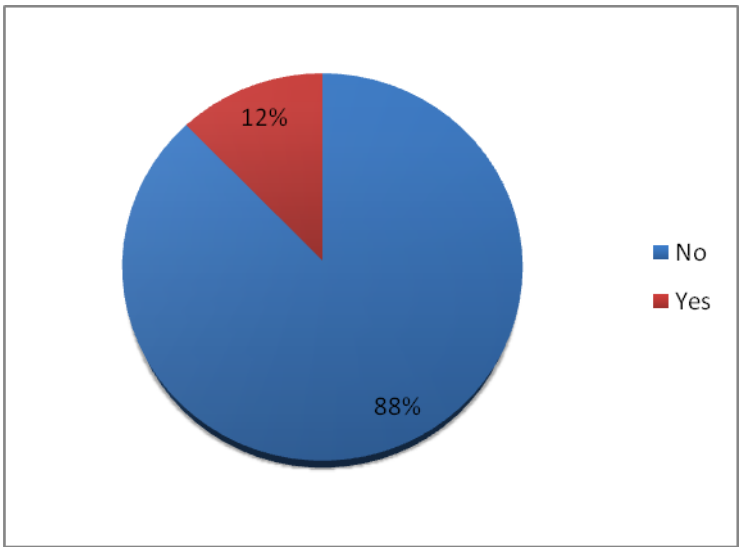

Figure 3.8: Official teams (Question 11 of the questionnaire)

The results obtained from figure 3.8, show that most of the students in the sample do not participate in official sport teams at the Potchefstroom Campus (88%). The remaining 12% of the students play contract sport for the NWU in the form of rugby, netball and athletics.

Section B: Current Recreational Sport Participation Patterns

The following sections discuss the current recreational sport participation patterns of the 326 students used in the study.

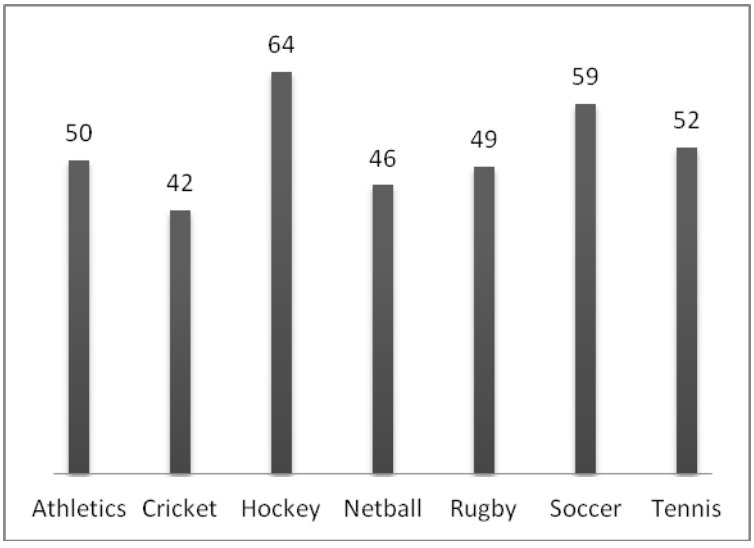

Figure 3.9: Major sport codes participation

As regards participation in the major sport codes, as indicated in figure 3.9, the majority of the students in the sample participate in hockey, soccer and tennis. Participation in cricket, netball and rugby is the lowest of the seven sport codes. The reason for the large number of participants in sport codes such as hockey and soccer could be that these are unisex sport types, whereas rugby and netball are gender specific.

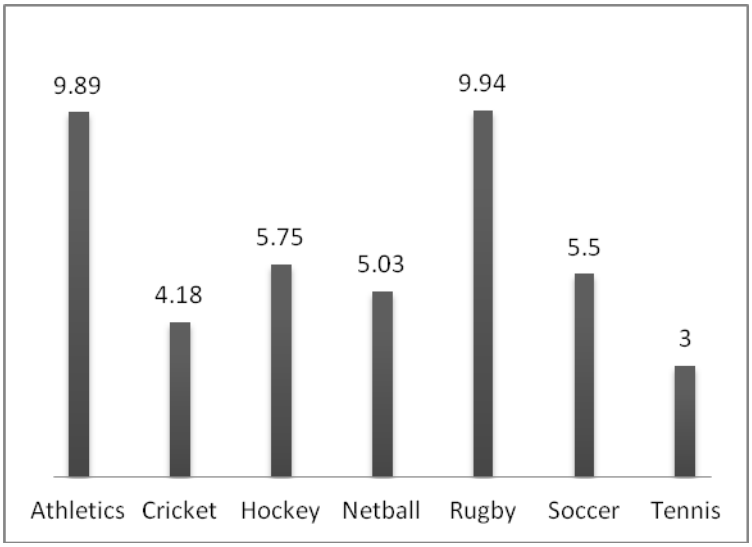

Figure 3.10: Major sport codes average participation frequency per month

As seen in figure 3.10, the frequency of students participating in rugby and athletics is the highest, with an average of 9.94 and 9.89 times during a month, respectively. The NWU is well known for its rugby and athletics, which could explain the high participation frequency in these two sports. Likewise, many athletes and rugby players practice twice a day as part of their contract agreement with the university or bursary requirements.

The second highest participation frequency is for hockey (5.75 times a month), soccer (5.5 times a month) and netball (5.03 times a month). Lower participation rates in these three sport types could be ascribed to the seasonal nature of the sport type or the fact that most of these sports are participated in, in the form of hostel leagues.

The lowest participation frequency is for tennis, with an average of three times per month. A possible reason for the low participation frequency could be that tennis cannot be played without equipment and facilities, neither without a partner. Thus, not having a tennis racket, tennis court or partner could hinder students to participate in tennis.

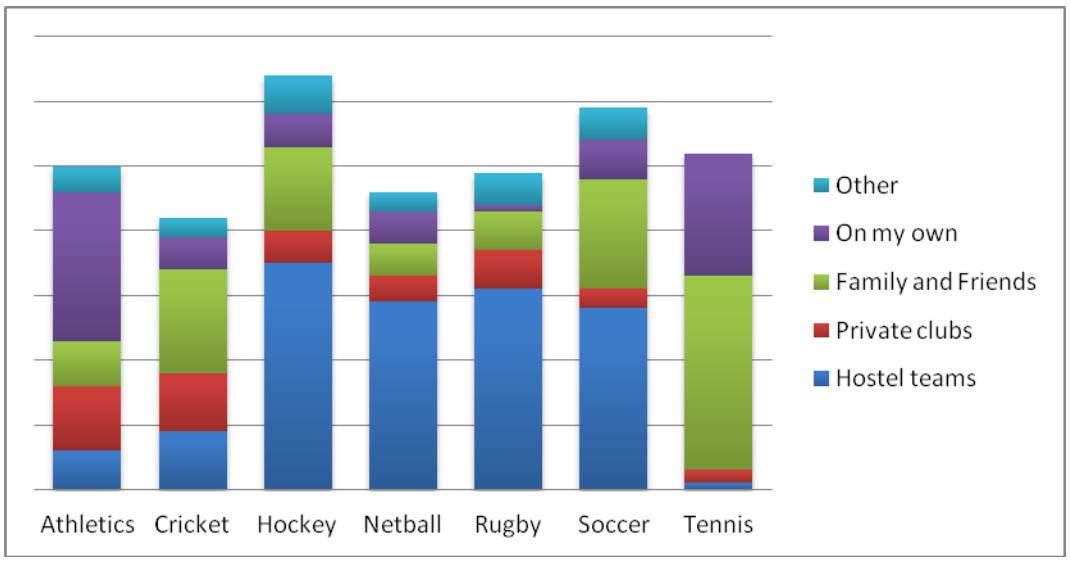

Figure 3.11: Major sport codes participation formats

As regards the results in figure 3.11, the majority of students who participate in the seven major sport codes at the NWU, indicated that they participate in athletics as individuals, which corresponds with the fact that athletics is mainly an individual sport. As for the other four major sports, namely hockey, netball, rugby and soccer, it is evident that the students participated mostly in hostel teams. The results concur with the high number of hostel leagues for these four sports.

However, the students indicated that they prefer to participate in cricket with friends and family, rather than in a hostel league. The same format was indicated with regard to tennis. These results seem contradicting, due to the fact that tennis cannot be played by one participant or on one's own.

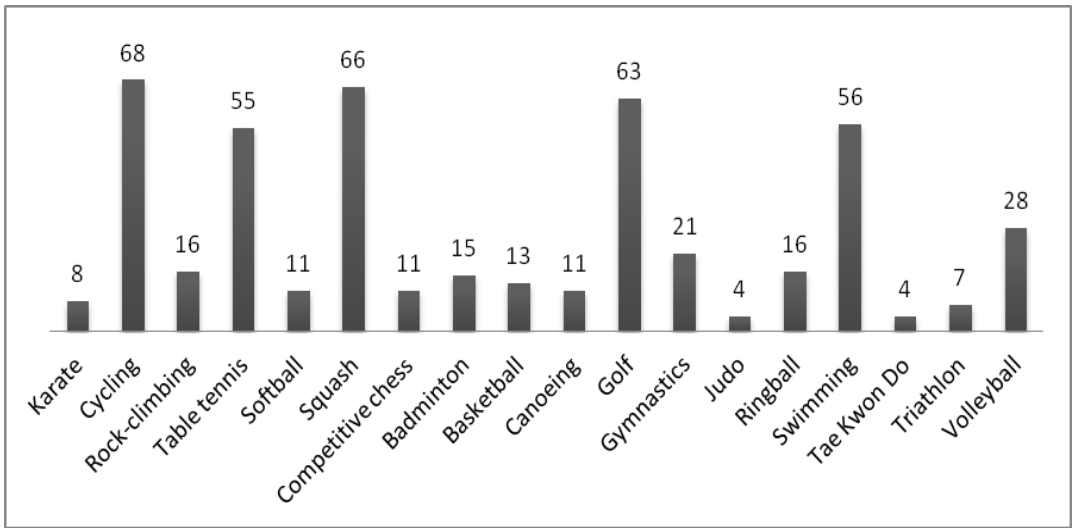

Figure 3.12: Additional sport code participation

Figure 3.12 shows that the highest indicated additional sport codes that students participate in are cycling, squash, golf, swimming and table tennis. Volleyball was also highly mentioned by the students, which could be ascribed to the many volleyball courts available across the campus, even at the Engineering Faculty, for students to participate in between classes. Other lesser mentioned recreational sports include gymnastics, rock-climbing, badminton, ringball, basketball, softball, competitive chess and canoeing. Rock-climbing, canoeing and gymnastics have private clubs on campus. Sport codes such as badminton, basketball and softball are however still somewhat unknown on campus. Karate, judo and tae kwon do were some of the sport codes least mentioned by the students. This could be due to the fact that these types of sports are very physical and participated in, in the form of exclusive clubs.

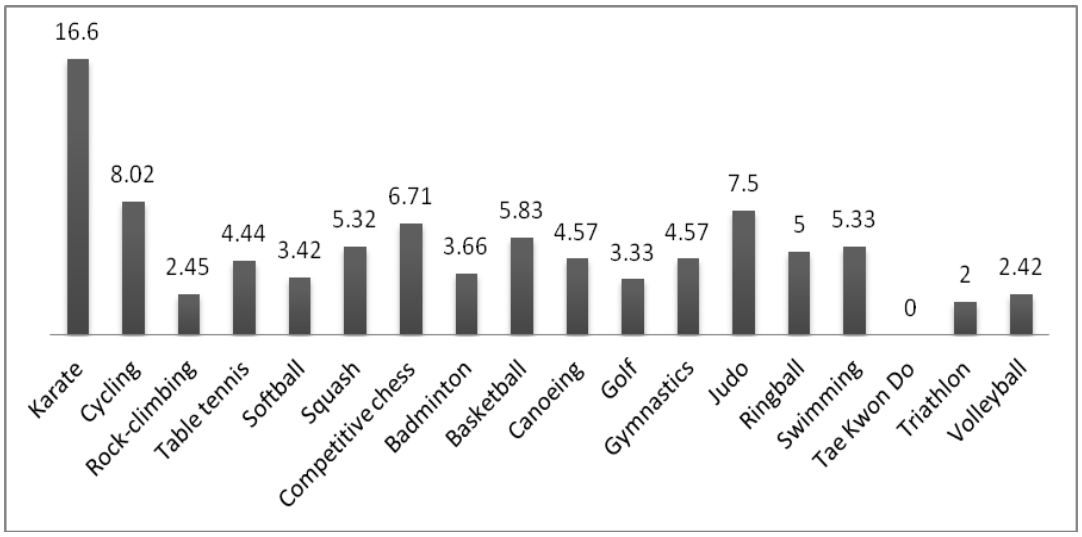

Figure 3.13: Additional sport codes average participation frequency per month

In the results as shown in figure 3.12, the sports of karate and judo are mentioned least, but then again in figure 3.13 these two sports show the highest participation frequency, namely 16.6 and 7.5 times per month, individually. Cycling is also one of the activities which students indicate that they participate in more frequently at 8.02 times a month. The Potchefstroom Campus provides numerous opportunities for cycling, with a mountain bike course at the sport fields and the entire campus, including the gates and walkways, having been customised for cycles. Subsequently, squash (5.25), competitive chess (6.71), basketball (5.83), ringball (5) and swimming (5.33) are also participated in quite frequently at the Potchefstroom Campus. The other more adventurous recreational sports such as rock-climbing and canoeing are participated in between 2.45 and 4.57 times per month, respectively. Oddly, the students participate in canoeing more frequently

than in rock-climbing, even though there is a climbing wall on campus and the nearest water sites are off-campus at the Potchefstroom Dam or the Vaal River.

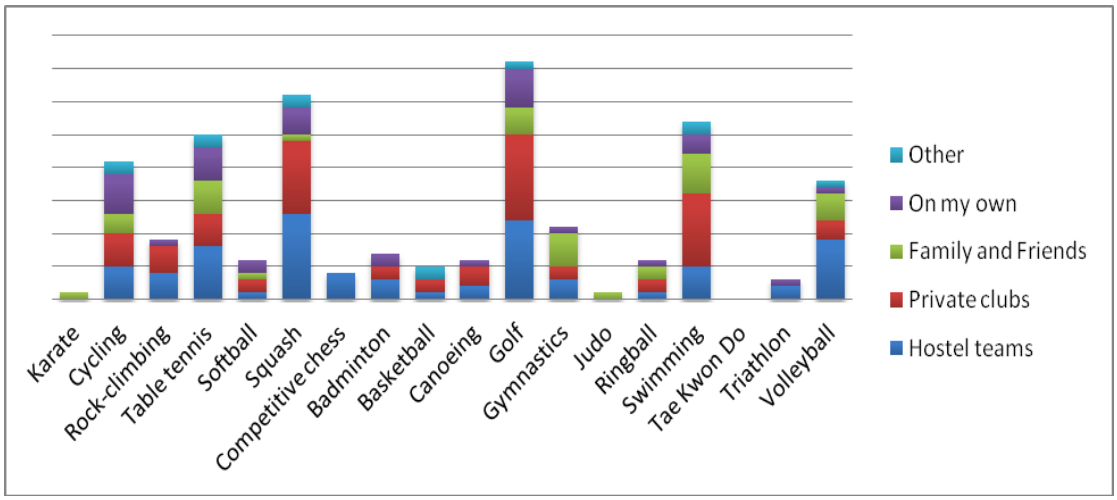

Figure 3.14: Additional sport codes formats

Figure 3.14 indicates the preferred formats students in the sample participate in as regards additional sport codes at the NWU. From the graph, it is evident that the two dominant formats are hostel teams and private clubs.

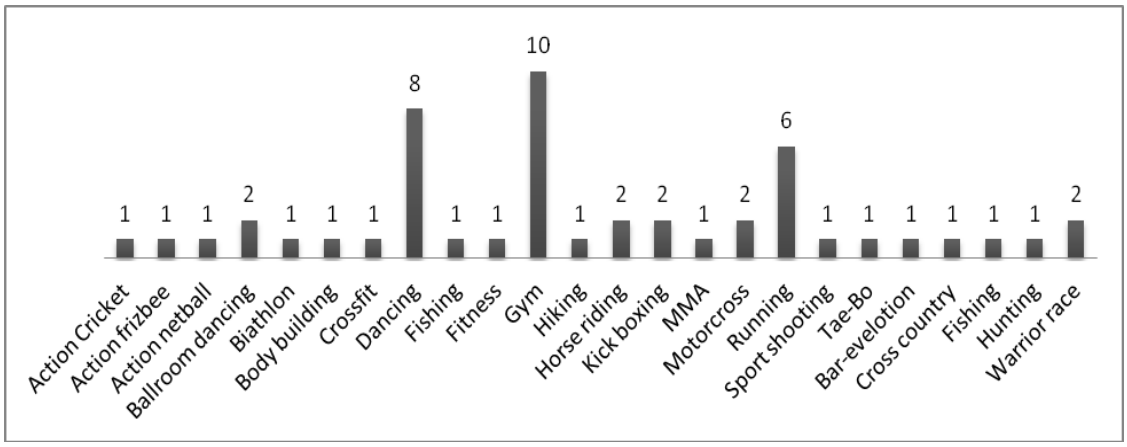

Figure 3.15: Other recreational sport mentioned

As shown in figure 3.15, some of the other recreational sport codes prominently mentioned by the students, but which are not offered by the university, include dancing, gymnasium work and running. Unfortunately, due to the format of the question, the students could not explain the type of dancing they referred to and as such all types of dancing could be classified under “dancing”.

Figure 3.16 illustrates that the other recreational sport students participate in is mostly practised individually. The other two formats equally mentioned are private clubs and with family and friends, which is self-explanatory, taking into consideration the activities not offered by the university.

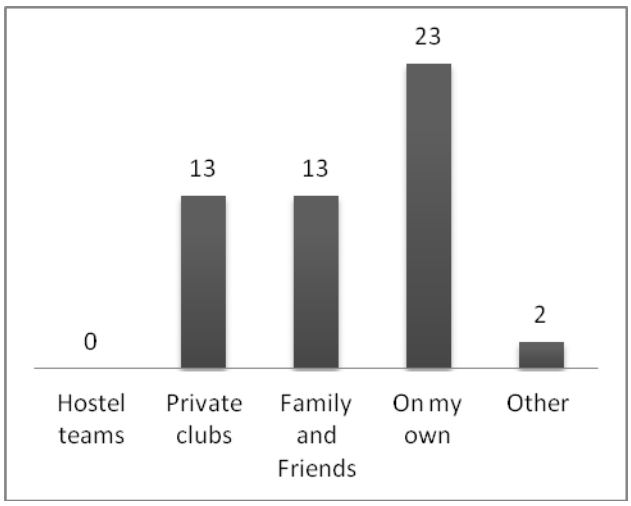

Figure 3.16: Other recreational sport formats mentioned

Section C: Reasons for Recreational Sport Participation

For the purpose of this section, the reasons for participation in the recreational sport questionnaire compiled by Coetzee (2003), were altered for the purpose of collecting information from the students at the Potchefstroom Campus. From the factor analysis, five meaningful factors were retrieved. The five factors accounted for 51.57% of the variances, as indicated in table 3.1. Factor 1 relates to the Challenge and Enjoyment (Alpha = .80). Factor 2 refers to Recognition and Achievement (Alpha = .71). Factor 3 relates to the Social reasons (Alpha = .72). Factor 4 are the Health and Physical Wellness reasons (Alpha = .87). Factor 5 refers to Energy and Stress Relief (Alpha = .66). The scale's overall reliability (alpha-value) was satisfactory at 0.75.

From the mean scores in table 3.1, the factors ranked in the following order: recognition and achievement (*M* = 2.52), energy and stress relieve (*M* = 2.23), social (*M* = 2.2), challenge and enjoyment (*M* = 2.07) and health and physical wellness (*M* = 1.84). Table 3.2 shows the results of the Pearson correlation coefficients in determining the relation between the different reasons for participating in recreational sport activities. According to table 3.2, all correlation coefficients were positive and range from 0.169 (between health and physical wellness and social) to 0.610 (between health and physical wellness and challenge and enjoyment). Thus, there was a practical significance (r = 0.610) as well as a statistical significance (p = 0.000001) positive association between health and physical wellness and social interaction. Consequently, the students who indicated that they participate in recreational sport activities to be healthy also take part because they wish to have social interaction.

Table 3.1: Factor analysis of the items of the reasons for participation

Items	Factor 1: Challenge and Enjoyment	Factor 2: Recognition and Achievement	Factor 3: Social	Factor 4: Health and Physical Wellness	Factor 5: Energy and Stress Relieve
To have fun	.645				
Because I enjoy the challenges it poses	.714				
To learn new things	.484				
To meet new people	.355				
To have excitement	.581				
To compete for the fun of it	.551				
To do something that I am good in		.441			
To feel important		.578			
To be popular		.670			
To win		.536			
To be part of a team or club		.397			
To be with my friends			-.530		
To be with my family			-.922		
To be with my Hostel-members			-.312		
To become physically fit				.906	
To exercise				.911	
To improve my sporting abilities				.349	
To be healthy				.776	
To release some tension or stress				.341	
As part of a healthy lifestyle				.753	
To keep myself busy					-.534
To get rid of energy					-.448
To get out of my room/house					-.677
Eigenvalue	7.4	2.8	1.7	1.5	1.2
Cumulative %	28.78	38.68	44.10	48.47	**51.57**
Mean	2.0712	2.5212	2.1980	1.8444	2.2268
Standard Deviation	.57426	.62159	.64709	.57687	.71419
Alpha	**.80**	**.71**	**.72**	**.87**	**.66**

Table 3.2: Correlations among the reasons for participation

Factor		Challenge and Enjoyment	Recognition and Achievement	Social	Health and Physical Wellness	Energy and Stress Relief
Challenge and Enjoyment	Pearson Correlation	-				
	Sig. (2-tailed)	-				
Recognition and Achievement	Pearson Correlation	.410**	-			
	Sig. (2-tailed)	.000	-			
Social	Pearson Correlation	.289**	.327**	-		
	Sig. (2-tailed)	.007	.002	-		
Health and Physical Wellness	Pearson Correlation	**.610****	.364**	.169	-	
	Sig. (2-tailed)	.000	.001	.121		
Energy and Stress Relief	Pearson Correlation	.477**	.345**	.433**	.375**	-
	Sig. (2-tailed)	.000	.001	.000	.000	
** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed)						

Section D: Recreational Sport Constraints

For the purpose of this section, the leisure constraints questionnaire of Alexandris and Carrol (1997) was altered to collect information regarding constraints on recreational sport participation among the Potchefstroom Campus students. Factor analysis was conducted, resulting in four meaningful factors. As indicated in table 3.3, the four factors accounted for 53% of the variance. The factors were defined as follows: Factor 1 was related to individual psychological constraints (Alpha = .92). Factor 2 referred to lack of knowledge (Alpha = .88). Factor 3 was related to accessibility or financial problems (Alpha = .72). Factor 4 was the lack of interest of a partner (Alpha = .76). One item did not relate strongly to any of the four factors and was deleted. The scale's overall alpha was satisfactory at 0.82.

Table 3.3: Factor analysis for the constraints of participation

Items	Factor 1: Individual Psychological	Factor 2: Lack of knowledge	Factor 3: Accessibility / Financial	Factor 4: Lack of interest
I have no one to participate with	.402			
I feel uncomfortable	.488			
I don't have the skills	.537			
I feel self-conscious about my body.	.593			
It's too competitive.	.545			
It's dominated by specific gender.	.464			
It's dominated by specific hostels.	.489			
I feel too shy.	.807			
I am scared that I will fail	.772			
I don't enjoy participating		-.359		
Social/cultural norms prevent me from participating.		-.631		
The recreational sport activities available are inappropriate for my gender.		-.818		
I am scared to participate because it's violent.		-.710		
I am afraid I am going to injure myself.		-.717		
I don't have transportation.		-.347		
I am physically unable to participate.		-.634		
I don't have the time			.591	
I don't know what recreational sport activities are available.			.361	
I already spend too much time on other recreational activities			.405	
I don't have money.			.592	
The recreational sport facilities are too crowded.			.569	
It's an inappropriate social event.				-.768
My friends don't like it.				-.768
Eigenvalue	10	1.8	1.6	1.3
Cumulative %	39.85	45.6	50.04	53.64
Mean	3.0086	3.2688	2.8003	3.1755
Standard Deviation	.69836	.60796	.66693	.68164
Alpha	.92	.88	.72	.76

According to the research of Crawford and Godbey (1987), the four factors can be categorised into three broad themes of constraints namely: intrapersonal,

interpersonal and structural. Factor 1 (Individual psychological) and Factor 4 (Lack of interest), were conceptualised as intrapersonal constraints. Factor 2 (Lack of knowledge) was conceptualised as an interpersonal constraint. Factor 3 (Accessibility or Financial) are external factors and were conceptualised as structural constraints.

From the mean scores in table 3.3, the factors ranked in the following order: lack of knowledge (*M* = 3.27), lack of interest (*M* = 3.18), individual psychological (*M* = 3.01) and accessibility or financial (*M* = 2.8).

Table 3.4: Correlation among the constraints for participation

Factor		Individual Psychological	Lack of knowledge	Accessibility / Financial	Lack of interest
Individual Psychological	Pearson Correlation	-			
	Sig. (2-tailed)	-			
Lack of knowledge	Pearson Correlation	**.706****	-		
	Sig. (2-tailed)	.000	-		
Accessibility / Financial	Pearson Correlation	**.717****	**.625****	-	
	Sig. (2-tailed)	.000	.000	-	
Lack of interest	Pearson Correlation	**.519****	.448**	.407**	-
	Sig. (2-tailed)	.000	.000	.000	-
** Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed)					

Table 3.4 shows the results of the Pearson correlation coefficients in determining the relation between the different constraints. According to table 3.4, all of the correlation coefficients were positive and significant at the $p < 0.01$ level. There was a practical significant ($r = 0.706$) as well as a statistical significant ($p = 0.000001$) positive association between individual psychological- and lack of knowledge constraints. Thus, the students who specified that they perceive individual psychological constraints also feel that a lack of knowledge hinders them from participation.

As shown in table 3.4, there is also a practical significant ($r = 0.717$) as well as a statistical significant ($p = 0.000001$) positive association between accessibility or financial- and individual psychological constraints. Hence, students who indicated that they experience accessibility or financial constraints also experience individual

psychological constraints. There was also a practical significant (r = 0.625) as well as a statistical significant (p = 0.000001) positive association between accessibility or financial constraints and constraints due to lack of knowledge. The last correlation for table 3.4 indicates that there is a practical significant (r = 0.519) and a statistical significant (p = 0.000001) positive association between constraints referring to the students' lack of interest and individual physiological ability.

Section E: Recreational Sport Needs

The following section represents the recreational sport activities the students would like to participate in, including the format of participation. By using descriptive statistics, figure 3.17 indicates the recreational sport mentioned by most students. Hockey was mentioned the most (41 times) of all the recreational sports, followed by netball (31), cycling (24), swimming (24), tennis (22) and squash (21). Action cricket, athletics, golf, rock climbing, rugby and soccer are mentioned the same number of times by the students in the study, followed by cricket and table tennis.

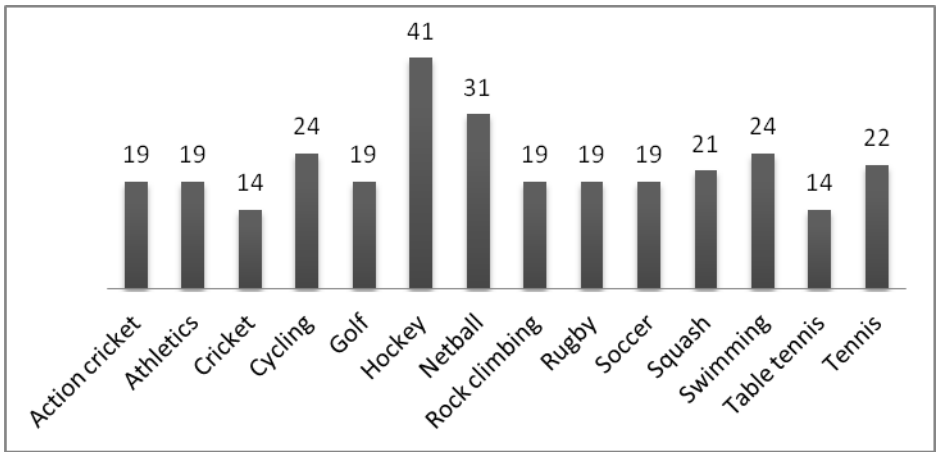

Figure 3.17: Highest recreational sport needs

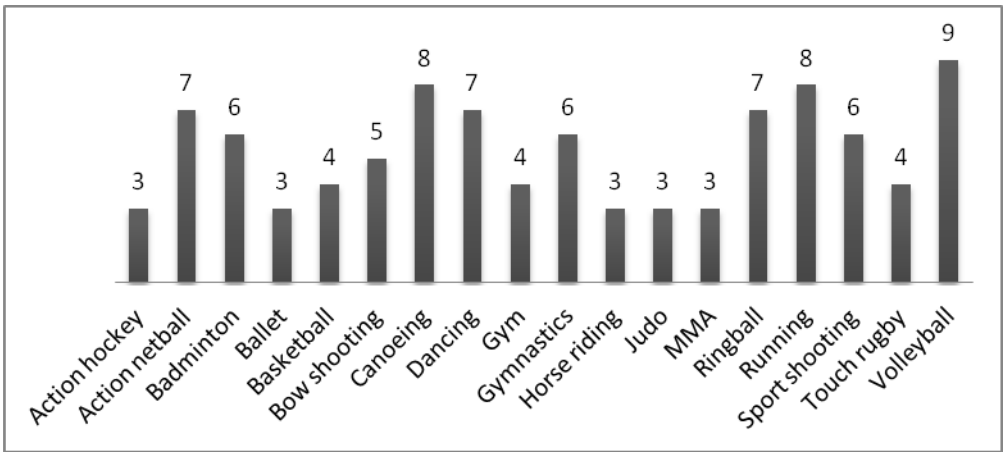

Figure 3.18: Lower recreational sport needs

Figure 3.18 shows a few other recreational sports also mentioned by the students. Some of these activities such as MMA (mixed martial arts) are not so well known on campus, whereas the other activities are commonly known activities.

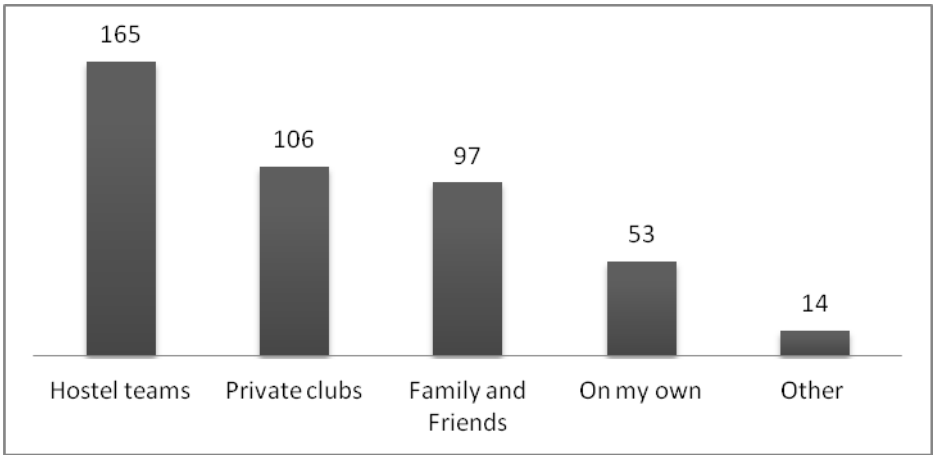

Figure 3.19: Preferred formats for recreational sport needs

The students' response to the format that they would like to participate in recreational sport activities are indicated in figure 3.19. The majority of students indicated that they would like to participate in the above mentioned recreational sport activities with hostel teams. Private clubs and interaction with friends and family are also preferred, whereas very few students prefer to participate on their own.

3.7 DISCUSSION

For the purpose of the study, 327 undergraduate students were requested to complete a questionnaire containing questions related to the reasons for recreational sport participation and constraints hindering participation, as identified by literature. The study was undertaken by using historic first- to second year fulltime students studying at the Potchefstroom Campus of the NWU. The students were from different race groups, living on-campus and off-campus. The students were from different faculties except from the Faculties of Law and Theology.

It was found that the majority of students participate in the seven major sport codes of the university, especially hockey and soccer, followed by tennis and athletics. Even though participation in rugby is less than in the other seven major sport codes, the participation frequencies by the students are the highest of the major sport codes. Athletics is also participated in frequently, but this could be because of the strict exercise routines of athletes - some exercise twice per day.

According to the results, most of the participation in the seven major sport codes takes place in the format of hostel teams, except for athletics, which students participate in as individuals. Cricket and tennis are participated in with friends or family rather than hostel teams.

The highest indicated additional sport codes in which students participate are cycling, squash, golf, swimming and table tennis. Karate, judo and tae kwon do were some of the sports least mentioned by the students but were the sports most frequently participated in during a month. The additional sport codes are predominantly participated in either with hostel teams or with private clubs. Some of the other recreational sport codes highly mentioned by the students and not offered by the university include dancing, gymnasium work and running. These other activities mentioned by the students are participated in on their own, through private clubs and with family and friends, which is self-explanatory, taking into consideration the activities not offered by the university.

There were five main reasons for students participating in recreational sport, namely for challenge and enjoyment, for recognition and achievement, to socialise, for health and physical wellness and to relieve energy and stress. Subsequently, the students who indicated that they participate in recreational sport activities to be healthy also take part because they wish to enjoy social interaction. From the mean scores, the students' main reasons for participating in recreational sports are recognition and achievement. Health and wellness are of less importance.

In agreement with literature, the study found participation constraints within the three categories mentioned by Crawford and Godbey (1987), namely lack of knowledge, lack of interest, individual psychological and accessibility or financial constraints. Positive correlations were found between individual psychological constraints and lack of knowledge; individual psychological constraints and accessibility or financial problems; accessibility or financial problems and lack of knowledge; lack of interest and individual physiological ability. The constraint experienced most by the students, according to the mean scores, is lack of knowledge.

Regarding the students' recreational sport needs, hockey was mentioned the most, followed by netball, cycling, swimming, tennis and squash. A few other recreational sports were also mentioned by the students, such as MMA (mixed

martial arts) which is not so well known on campus. Students prefer to participate in the above mentioned recreational sport activities with hostel teams, whereas very few students prefer to participate on their own.

Firstly, it is clear from the results that there is a need to look at the priorities of sport and sport facilities at the NWU Potchefstroom Campus. Sports such as hockey and soccer have fewer playing facilities, but are participated in more than sports such as rugby or cricket. Secondly, it is problematic that students' main reason for participating in recreational sport activites are for recognition and achievement and less for reasons of health and wellness.

CHAPTER 4
CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

The purpose of this study is to determine whether there is a demand by students for recreational sport at the NWU's Potchefstroom Campus. By establishing a profile of the students' current participation patterns, reasons for participation, constraints experienced and future needs, a better prediction can be made regarding the demand for recreational sport on campus.

In this chapter, conclusions are made from the analysis of the results described in chapter 3. Recommendations to the university administrators will be made following the conclusions drawn from the literature and empirical study. Limitations found in the study will provide information for new areas of research within the field of recreational sport in South Africa.

4.2 CONCLUSION

By drawing the findings of the empirical study together into one profile of the students at the Potchefstroom Campus, the demand for recreational sport can be better understood.

4.2.1 Conclusion with regards to current recreational sport participation

From the results in the second section of the questionnaire (current participation patterns), it is clear that the majority of students participate in the seven major sport codes of the university. Even though equal numbers of female and male students were included in the sample, interestingly, hockey and soccer were listed as the recreational sport activities most participated in. A possible reason for the higher participation figures in soccer and hockey could be because these sports can be participated in by both genders. Both male and female students participate in hostel leagues during the academic year, which provides more opportunity for participation than a gender specific activity. Although Strydom (2010:4) indicated in the strategic plan for sport at the Potchefstroom Campus that there are forty-four soccer teams with only three playing fields and thirty hockey teams who have to share two synthetic fields (Astro Turf water-based surface) and four grass fields, it is questionable whether the small number of fields available for soccer and hockey meets the huge demand for these two sport codes.

Tennis and athletics were closely mentioned after soccer and hockey, which could also be as a result of both genders being able to participate. The availability of facilities for both tennis and athletics is also alarming according to Strydom (2010:4), who describes that for the 120 students playing tennis on the university team, only twelve tennis courts are available. This figure does not include students who play tennis as a recreational sport. The Potchefstroom Campus is well known for athletics and is seen as the number one destination in South-Africa for professional athletes (NWU, 2013), as well as recreational participators, as confirmed in the results. From the participation frequency it was clear that the athletes participate quite often, some indicated twice daily. However, the Potchefstroom Campus has no synthetic track like the other top sport universities in South Africa. It was suggested by Strydom (2010:5) that the NWU should look into the purchase of the McArthur Athletics Stadium in Potchefstroom and to upgrade the facility for both university and public use.

Of the seven major sport codes, the sports participated in the least were rugby, netball and cricket. Once again, this may be due to the gender specific nature of these sport codes. The shortage of sport facilities, as indicated by Strydom (2010:5), may be the cause of the low participation patterns in rugby, cricket and netball. Strydom (2010:5) indicated that the current use of sport facilities is as follows: seven fields used by four rugby teams, 44 cricket teams using five fields and 64 netball teams using nine courts (Strydom, 2010:6). The main format these three sports are participated in is within a hostel context. It could be debatable whether students who are members of a hostel have more opportunity to participate in rugby, netball and cricket than the students not affiliated with hostels.

As regards the additional sport codes at the university, students mostly participate in cycling, squash, golf, swimming and table tennis. Interestingly, the main formats these sports are participated in are with private clubs and not as part of hostel teams. Cycling is participated in more frequently than the other four sports. This may be a result of the adequate cycle paths on campus as well as the mountain bike trail at the Fanie du Toit sport grounds. Students also prefer to cycle in groups on the Eleazer road near the Military Base in Potchefstroom. Cycling's popularity could also be related to the fact that no facility is required in order for students to participate. Karate, judo and tae kwon do were some of the sports least mentioned by the students but were the sports most frequently participated in during one month. Due to the fact that sports such as karate, judo and tae kwon do are

disciplines, it is normal to expect a high rate of participation, as proven by the findings.

4.2.2 Conclusion with regards to the reasons students participate in recreational sports

Students at the Potchefstroom Campus participate in recreational sport activities for five reasons, namely challenge and enjoyment, recognition and achievement, social interaction, health and physical wellness and to relieve energy and stress. Of these five reasons, the main reason for participating is recognition and achievement and the least important reason being for health and physical wellness, which is unfortunate. Two conclusions can be made. The students are either uninformed about the health benefits of recreational sport participation as explained by Robertson *et al.* (2013:310), or the need for recognition and achievement is higher than the need to be healthy. Maslow's needs theory (1943) illustrates the need for self-actualisation and esteem at the top of the pyramid, explaining that all other needs such as physiological needs, safety and the sense of belonging should be satisfied first.

Unfortunately this may not be the case, as South African researchers have indicated a health crisis among students in South Africa. A high number of undergraduate students suffer from depression (Pillay *et al.*, 2002:726) and stress (Bojuwoye, 2002:288). Male students are more prone to smoking tobacco, drinking alcohol and using drugs. In addition, research found a positive correlation between risky and violent behaviour, smoking tobacco, unhealthy eating habits and sexual behaviour among female students (Essendrup, 2008:63). According to developmental psychology (Papalia, & Feldman, 2012:68) the stage of life which students find themselves in, being healthy does not take the number one priority, thinking they will focus on health at a later stage. According to the findings of this study, those students who choose to participate in recreational sport activities for challenge or enjoyment purposes also participate to increase their wellness and to become healthy. The flow theory explains that a person will only reach an optimal experience when his or her skill and the challenge of the activity are matched (Rabinowitz & James, 2010:33). This may explain the trend that students prefer to participate in recreational sports for the challenge and for health reasons. Rabinowitz and James (2010:33) state that, for flow to take place, the student would have to feel intrinsically rewarded and have a sense of personal control. According to Hood and Carruthers (2010:314), it is only when students feel optimally challenged and engaged that they will stay committed to the activity. In combination

with the flow theory, to keep students participating in recreational sports could lie in the level of challenge according to their skills.

4.2.3 Conclusion with regards to the recreational sport constraints that students experience

The main reason why students do not participate in recreational sport is because of a lack of knowledge. Students are uninformed about recreational sports, thinking that some activities are inappropriate for certain genders or cultures and are afraid of getting injured while participating or regarding the activities as violent. However, individual characteristics such as motives or personality could influence recreational behaviour (Edginton *et al.,* 2004:96; Iso-Ahola, 1980:186). According to the MARS model (Motivation, Ability, Role perception and Situational factors), if the students' values, personality or perceptions do not fit the recreational sport activity, the motivation to participate will decrease (McShane & Von Glinow, 2010:35).

The perception students have about recreational sport plays an important role in whether the constraint can be negotiated with them in order to eventually participate. It is difficult to understand the students' perception without a qualitative research input. The stereotyping of sports such as rugby and cricket could also indicate that students perceive lack of knowledge as a constraint. Rugby and cricket are participated in by female students, although on a small scale and are still seen as predominantly male sport codes. The same could be said for a sport like netball, which is also predominantly a female sport. Thus, students who indicated that they feel some sports are inappropriate for certain genders, could be due to stereotyping.

The least constraint students experience is accessibility or financial constraints. Thus, if students do not feel that accessibility or financial constraints prevent them from participating in recreational sports, the availability of the facilities cannot be the problem. Consequently, these findings contradict the university spending money on additional facilities and further investigation needs to be done to confirm whether the students meant accessibility to the facility or availability of the facility.

4.2.4 Conclusion with regards to the recreational sport needs of students

The recreational sports requested most by the students included the seven major sports codes, with hockey and netball being the highest priority. The high need for hockey could be because both male and female students can participate. Unfortunately, the facilities available for hockey and netball are limited. Cricket was mentioned the least of the seven. It is unfortunate that the demand for previously

gender-specific sports is decreasing, especially in the major sport codes of the university. A possible reason for this may be the reason why students participate, namely for achievement and recognition, meaning that most students do not want to play for a second or third team and would rather participate in other sports where they could play for the first team.

Cycling and swimming were mentioned more than some of the major sport codes. Unfortunately, it is difficult to ascertain whether the students referred to swimming as a sport or as social swimming with friends. In the past, swimming clubs were popular at the Potchefstroom Campus; members included both students and people from the community. The Potchefstroom Campus has two Olympic size swimming pools which could accommodate a swimming club. The need for cycling would fit the Potchefstroom Campus' plans for an indoor cycling racing track (Velodrome) in Potchefstroom. Unfortunately, it is still unclear whether the Velodrome will be available for recreational use by students or for elite cyclists only. , The majority of students indicated that they would prefer to participate in recreational sports in hostel teams, including the major sport codes and other sports mentioned by the students. Thus, from a recreational perspective, this confirms the social motivation for participation. From a management perspective it shows that all students, on and off campus, would prefer to participate with hostel members and that they do not find money a constraint to not participate.

4.3 RECOMMENDATIONS

The following should be considered by the administrators at the Potchefstroom Campus:

Recommendation 1:

The first recommendation would be regarding the NWU's sport vision and mission. The current vision of becoming "The most pre-eminent, excellent and innovative tertiary institution in the world of sport; To be a key role-player in sport commercialisation by promoting and improving commercial events for all sport by ensuring the optimum utilisation of our resources." does not include campus recreational sport, and focuses only on prestige sport. As seen from the overview provided in chapter 2, the sport visions of the majority of the other ten traditional universities in South Africa include student development, health and wellness as key components in their vision. As for the sport mission stated by the other ten traditional universities in South Africa, campus recreational sport is indicated as the driver to attain student development, health and wellness. Incorporating campus

recreational sport on-campus provides benefits not only for the students but for the university as well. Benefits derived from participation, including stress and burnout reduction and academic persistence, could reduce untimely student drop-out, improving the university's retention rate. Having healthy and happy students on campus in turn helps to decrease the university's financial burden of forfeiting subsidies as students drop-out annually due to health and academic reasons. Adopting the Hurd *et al.* (2008:32) philosophy on management, namely benefit-based management, the NWU could focus the planning of campus recreational sport on benefits gained from the number of programmes offered on campus.

Currently the NWU's Potchefstroom Campus has no formal department responsible for campus recreational sport. Hostel sports are the responsibility of each individual hostels' house committee member with the portfolio of "sport" and the student council's member with the portfolio "sport and recreation". The two portfolios are coordinated with the hostel leagues during the course of the year, with the assistance of the sport facility and grounds managers. Due to the decentralised approach to informal sports, it would seem that campus recreational sport falls between the cracks and this explains its absence in the vision statement regarding sport at the NWU. It is proposed that, until campus recreational sport is organised by a central department and pending the development of a management model uniquely tailored for the Potchefstroom Campus, campus recreational sports be incorporated in the current sport vision. Incorporating recreational sport may then be interpreted as top management supporting every student's sport participation and not only prestige players.

When rewriting the sport vision into a shorter, more flexible statement, the NWU can still focus on prestige sport, but include additional and recreational sport. Considering the findings that students participate in sport for achievement and recognition, students could be motivated by the acknowledgment of recreational sport in the vision. Participation in recreational sport may not be sustainable among the students due to drivers such as acknowledgement or recognition being external motivators. To create sustainable participation in recreational sports, students should feel inherently motivated to participate and not to rely on external motivation. According to Edginton *et al.* (2005:214) as regards research on motivation, students seek experiences and not the activity itself. Thus, Clark and Anderson (2011:48) helped to shape students' experience through the use of leisure education. Experience was provided in the form of a structured class, with a variety of different activities which students could choose from according to their skills level and needs.

Recommendation 2:

In an article by Clark and Anderson (2011:48), leisure education was emphasised as a method to teach students leisure skills during a credit bearing module at university. The module, amongst others, included the following categories, namely dancing, fitness, hobbies, outdoors and sport. All the activities were aimed at assisting students in meeting new people, to build leisure into their lifestyles and to learn how to be active in a busy life as a student. Clark and Anderson's (2011:49) results showed that the successful implementation of such a module could benefit the students in not only their time at university but also in fostering a lifelong healthy and active lifestyle. It may not be feasible to incorporate a leisure education module due to the extensiveness of curriculums and programmes. However, according to Weilbach (2013), introducing the first-year students to leisure education during the orientation programme could be an opportunity. The first-year orientation programme at the beginning of each academic year could be the ideal time to introduce first-year students to leisure education before embarking on their studies. The introduction to specific recreational activities on campus, such as campus recreational sport, could promote interest in the student early on. During the orientation programme, the specific stakeholders specialising in leisure education could perhaps be considered to provide such a programme.

The Potchefstroom Campus has a proven record of student enrichment and of providing students with the skills to become good employees (NWU, 2013). Many students who were part of hostel committees or student councils, reflect this experience in the work situation. However, not all students will have the opportunity to serve on such councils or committees. Thus, the leisure skills programme will provide students with the skills to prepare for future events similar to campus life (Clark & Anderson, 2011:49). Becoming healthy and skilful are only some of the benefits of a leisure skills programme. Students also indicated that they feel that, should they no longer participate in the leisure skill classes, their academic performance would decrease (Clark & Anderson, 2011:49). Academic enrichment could ultimately help with student retention and reduce student dropout.

Recommendation 3:

The findings are in line with literature, which explains that most students will participate in the sports they participated in during their high school careers (Shao-Tung Cheng *et al*., s.a.:8). According to Bocarro and Kanters (2010:76), students are not likely to participate in recreational activities they did not participate in at a young age. Thus, a decrease in participation in sports codes that are less well-

known by students and difficulty in motivating students to participate in these sports, are causes of ill-fitting sport choices. Therefore, it is recommended that the NWU revise the information obtained from the schools visited by the Department of Marketing and Communication of the Potchefstroom Campus for the purpose of recruiting students. Valuable knowledge could be obtained regarding which sports the students were exposed to during their school years. In addition to the information already included in the Marketing Department's database, additional information could be added to determine trends and participation patterns of school sports. Schools from different areas in South Africa are visited by the Department of Marketing and Communication on a yearly basis, thus information obtained could provide a multi-provincial view of different school sport participation needs. This will ensure that the sport needs of students from different provinces are attended to.

With the additional information, the additional sport codes of the NWU could be re-evaluated every four years, considering the new generation first-year students' school sport experience. Keeping the NWU's additional sport codes up to date with trends will be an easy task, compared to changing one of the seven major sport codes. It is evident from the research that some of the additional sport codes mentioned may have come to the end of their life cycle. Subsequently revitalisation is required. Revitalising some of the sports such as cricket or netball, could be as easy as differentiation or repositioning. Cricket and netball are mainly seen as gender-specific sports and repositioning these sports as multi-gender or mixed-gender activities could create new interest. The new initiative of Varsity Cup Netball could be one way in which the universities in South Africa attempt to revitalise netball on campus.

Recommendation 4:

Participation in and the demand for gender-specific sports are decreasing. This has long been a debate between specific genders and the appropriate sport. Many countries focus on using sport for promoting gender equality and unfortunately some sport codes are still seen as gender-specific. Subsequently, participation in some gender-specific sports at the Potchefstroom Campus such as cricket and rugby, is decreasing. Whereas soccer, which was always stereotyped as a predominantly male sport, is one of the sport codes participated in most at the Potchefstroom Campus. Internationally, the priority to increase female participation in specific sports is seeing positive results (UN, 2010:2). The NWU prides itself in offering services to the diverse student population and this should not be different for sport activities. It is recommended that the university place a priority on sport education

for both genders. Marketing sports such as women's rugby or cricket among the students could decrease the constraint that students feel, namely that it is inappropriate for their gender and as such, to increase their participation. The popularity of sporting events such as the Rugby Varsity Cup and the newly implemented Netball Varsity Cup plays an important role in the students' perception of recreational sports. Unfortunately, both sports market a gender-specific personality and no provision has been made for mixed-gender teams.

In accordance with the main reason indicated by students as to why they participate in recreational sports (for achievement and recognition), Smidt (2013) indicated that a decrease in participation in sports such as rugby may be due to students no longer experiencing achievement by playing for rugby's third team, and would get more recognition by playing in hockey's first teams. This is seen in the high quantity of soccer, hockey, swimming and cycling participation, all sports where both genders feel comfortable to participate. Careful consideration should be given to the formats chosen for campus sport, in both major and additional sport codes.

Recommendation 5:

High priority is placed on providing more sport facilities at the Potchefstroom Campus. Unfortunately, the results of the study did not find any indication that the students felt that the availability of facilities is problematic. With the decline in the demand for certain major sport codes and the lack of evidence of facility problems, it is unclear whether the students make use of facilities on campus or in town. When students were asked about the format they would like to participate in, the majority of students indicated hostels; consequently the current facilities at the Potchefstroom Campus would be under more pressure should the opportunity be provided for more hostel teams to participate in student leagues.

It is the opinion of Strydom (2010:7) that the Potchefstroom Campus may not have enough facilities to accommodate prestige, hostel and recreational sport on campus. Fortunately for campus recreational sport needs, as indicated in the study, activities such as table tennis and cycling do not require extensive facilities and small changes can be made to accommodate the students' needs in a short time. With regards to the larger facilities, as in the case of larger fields, it is recommended that the university investigate the specific sport facilities that could be developed for multiple sport usage such as hockey and soccer. Fields that could be used for multiple sport activities could best fit the limited space the Potchefstroom Campus is dealing with. It is also suggested that more information be obtained regarding the

current scheduling system of the sport facilities and grounds, in order to indicate whether an improved scheduling system may reduce the pressure of conflicting practise times and sporting events. Web-based systems could make the organising and scheduling of facilities and grounds easier and also increase effective management practices. A web-based system could allow the Potchefstroom Campus to link the facility and grounds schedule on the official website of the university, providing students with the opportunity to book their own practise times or notice open time slots. Effective use of facilities and grounds could be managed centrally and statistical data could be retrieved when needed.

4.4 LIMITATIONS AND FUTURE RESEARCH

The following limitations were found during the study:

- When gaining access to the students, the researcher had to use a contact session in order for the students to complete the questionnaire. With limited contact sessions, it was difficult for some lecturers to agree to the researcher taking up the limited time they have with their students.
- Many students do not participate in any sports and therefore a large number of students in the sample were excluded from the study.
- Information such as whether students prefer to participate for fun or for competition could have been included in the questionnaire, as well as exactly where students are currently participating in the specific sports.
- The concept “recreation” is somewhat unknown and some students found the questionnaire about recreational sports to be synonymous with prestige sports.
- Recreational sport activities mentioned, such as “dancing”, were not specified by students, thus the form of dancing cannot be determined.

The following recommendations for future research are suggested:

- To better understand the demand for campus recreational sports, a larger sample size should be used for the Potchefstroom Campus.
- Determine the perceptions students have regarding campus recreational sports.
- Determine the other recreational activities students participate in, apart from recreational sports.
- Duplicating the study at the Vaal and Mafikeng Campuses could indicate the difference in student demand at different campuses.

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