

Participation in campus recreation sport, satisfaction with life and leisure boredom of undergraduate students

N Labuschagne



orcid.org/0000-0001-9685-960X

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Supervisor: Dr CM Schreck

Co-Supervisor: Dr JT Weilbach

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Student number: 24326720

DECLARATION

Student contribution to articles

I, **Nadine Labuschagne**, student number **24326720**, declare that this dissertation is my own work and I contributed adequately towards findings published in the articles stated below. As per the regulations of the North-West University's article format, I am permitted to include the two articles as part of my dissertation. The dissertation therefor serves as fulfilment of the requirements for the degree Magister of Health Science in Recreation Sciences at the Potchefstroom Campus of the North-West University.

Signature of student:	_____	Date:	30 March 2021
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Signature of Supervisor:	_____	Date:	30 March 2021
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Signature of Co-supervisor:	_____	Date:	30 March 2021
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Agreement of co-authors

The co-authors of the two articles which form part of this dissertation, Dr C Schreck (supervisor) and Dr J Theron Weilbach (co-supervisor), hereby give permission to the candidate, Ms. Nadine Labuschagne to include the two articles as part of a master's dissertation. The contribution (advisory and supportive) of these two co-authors was kept within reasonable limits, thereby enabling the candidate to submit this dissertation for examination purposes. The dissertation, therefor, serves as partial fulfilment of the requirements for the degree Magister of Health Science in Recreation Sciences at the Potchefstroom Campus of the North-West University.

Signature of Supervisor: _____ Date: 30 March 2021 _____

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SUMMARY

¹Students experience leisure boredom due to certain constraints. This may lead to some of them dropping out of university before completing their degree. The numbers clearly indicate that resources and campus recreational sport (CRS) programmes are not being used optimally. If students are prevented from participating in activities or their social needs are not met, feelings of unhappiness and low self-confidence arise. This results in leisure boredom and dissatisfaction with life. Leisure boredom can be reduced by increased participation in CRS. The various benefits of participation in CRS – for example increased physical and social health, reduced stress levels, increased academic performance, new leisure skills – lead to feelings of wellbeing and less leisure boredom. The purpose of this study was to determine the participation patterns in CRS and correlations between frequency of participation in CRS, leisure boredom, and satisfaction with life of undergraduate students of the North-West University (NWU). This research formed part of a more extensive study, *Recreational sport participation and its associated benefits among students at the Potchefstroom Campus of the North-West University*. A once-off cross-sectional design with a quantitative approach was used. Male (48%) and female (52%) full-time registered undergraduate students (n=581) from the NWU, Potchefstroom Campus, completed the online survey on SurveyMonkey®. After giving informed consent, access to the research questionnaire was granted. The questionnaire contained both open- and close-ended questions. The questions related to demographic information, frequency of participation, format of participation, satisfaction with life and leisure boredom. Activities identified in the survey were grouped into six different sport codes (main, additional, group, outdoor, dance, and exercise). The self-determination theory continuum was used to understand and analyse frequency of participation in CRS. Statistical analysis comprised of mean scores, standard deviations and frequencies. The Spearman correlation coefficient was used to determine the relationships between different variables. Results showed both genders are active in participating in similar CRS activities, such as general exercise, road running, jogging, and field hockey. Students participate more with their friends, although general exercise, road running, and jogging are primarily participated in independently. No statistically significant differences were found between gender, race and accommodation types and their satisfaction with life. However, medium to large practical significant differences were found between other/coloured ($d=0.9$) and coloured/white ($d=0.7$) and other students and African students ($d=0.6$). Results regarding leisure boredom showed no

¹ See Appendix B for language editor's detail.

statistically significant differences for race groups ($p=0.000$). Statistically significant differences ($p=0.017$) for leisure boredom in the total sample regarding all three accommodation types were found. Furthermore, a statistically significant small negative relationship was found between satisfaction with life and leisure boredom ($r=-.170$, $p=0.000$) with positive significance with the total frequency of participation. Therefore, as satisfaction with life increases, their leisure boredom will decrease due to more frequent participation in CRS. It is recommended that CRS programmes are presented in such a way that it caters for students' needs in terms of activities and the format they want to participate in. This should lead to a decrease in the number of students dropping out of university.

Keywords: Campus recreational sport, leisure boredom, participation, satisfaction with life, undergraduate students.

OPSOMMING

Studente ervaar vryetydsverveeldheid weens sekere beperkings. Dit kan daartoe lei dat sommiges hul universiteitstudie staak voor die verwerwing van hul grade. Uit die getalle wat staak, is dit duidelik dat hulpbronne en die rekreasiesportprogramme op die kampus nie optimaal benut word nie. As studente verhoed word om aan aktiwiteite deel te neem, of as daar nie aan hul sosiale behoeftes voldoen word nie, lei dit tot ongelukkigheid en gebrekkige selfvertroue. Dit lei weer tot vryetydsverveeldheid en ontevredenheid met die lewe. Vryetydsverveeldheid kan verminder word deur deelname aan kampus rekreasiesport. Die talle voordele van deelname aan kampus rekreasiesportprogramme – byvoorbeeld verbeterde fisieke en sosiale gesondheid, verlaagde stresvlakke, beter akademiese prestasie, nuwe vryetydsvaardighede – dra by tot gevoelens van welbehag en minder vryetydsverveeldheid. Die doel van hierdie studie was om die patrone van deelname aan kampus rekreasiesportprogramme en korrelasies te bepaal tussen gereeldheid van deelname aan die programme, vryetydsverveeldheid en tevredenheid met die lewe by voorgraadse studente aan die Noordwes-Universiteit (NWU). Hierdie navorsing was deel van 'n meer uitgebreide studie oor deelname aan kampus rekreasiesport en die gepaardgaande voordele daarvan by studente aan die Potchefstroom kampus van die NWU. 'n Eenmalige deursnee-ontwerp met 'n kwantitatiewe benadering is gebruik. Manlike (48%) en vroulike (52%) voltyds geregistreerde voorgraadse studente (n=581) van die NWU se Potchefstroom-kampus het die aanlyn opname op SurveyMonkey® voltooi. Nadat ingeligte toestemming gegee is, is toegang tot die navorsingsvraelys toegelaat. Die vraelys het oop en keusevrae bevat. Die vrae het betrekking gehad op demografiese inligting, frekwensie van deelname, formaat van deelname, tevredenheid met die lewe en vryetydsverveeldheid. Aktiwiteite wat in die opname geïdentifiseer is, is in ses verskillende sportkodes (hoof-, addisionele, groep-, buitelug, dans en oefening) gegroepeer. Die selfbeskikkingsteorie-kontinuum is gebruik om die frekwensie van deelname aan kampus rekreasiesportprogramme te begryp en analiseer. Statistiese analise het gemiddelde tellings, standaardafwykings en frekwensie ingesluit. Die Spearman-korrelasiekoëffisiënt is gebruik om die verhouding tussen verskillende veranderlikes te bepaal. Resultate het getoon dat albei geslagte aktief deelneem aan soortgelyke kampus rekreasiesportprogramme, soos algemene oefening, padwedlope, draf en veldhokkie. Studente neem meer dikwels deel saam met hulle vriende, alhoewel hulle hoofsaaklik alleen draf en individueel deelneem aan algemene oefening en padwedlope. Geen statistiese beduidende verskil is gevind tussen geslagte, rasse en die soort akkommodasie waarin hulle tuisgaan en hul tevredenheid met die lewe nie. Medium tot groot

prakties beduidende verskille is gevind tussen ander/gekleurde ($d=0.9$) en gekleurde/wit ($d=0.7$) studente teenoor ander studente en swart studente ($d=0.6$). Resultate oor vryetydsverveeldheid het geen statisties beduidende verskille getoon vir rasse-groepe nie ($p=0.000$). Statisties beduidende verskille ($p=0.017$) in vryetydsverveeldheid in die totale steekproef is met betrekking tot al drie akkommodasietipes gevind. Verder is 'n statisties beduidende klein negatiewe verhouding gevind tussen tevredenheid met die lewe en vryetydsverveeldheid ($r=-.170$, $p=0.000$) en 'n positiewe beduidendheid met die totale frekwensie van deelname. Dus, as tevredenheid met die lewe toeneem, sal vryetydsverveeldheid afneem danksy meer gereelde deelname aan kampus rekreasiesportprogramme. Daar word aanbeveel dat kampus rekreasiesportprogramme op so 'n wyse aangebied word dat dit aan studente se behoeftes voldoen betreffende aktiwiteite en die formaat daarvan. Dit behoort te sorg dat minder studente hul universiteitstudie staak.

Sleutelwoorde: Deelname, kampus rekreasiesport, tevredenheid met die lewe, voorgraadse studente, vryetydsverveeldheid.

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LIST OF ABBREVIATIONS

The following table lists the abbreviations and acronyms used throughout the dissertation. The definition and page on which they are first used are also given.

Abbreviations/ acronym	Meaning	Page
BMI	Body Mass Index	20
CRS	Campus Recreation Sport	iv
LEBYA	Leisure Experience Battery for Young Adults	48
NWU	North-West University	iv
SA	South Africa/South African	1
SDT	Self-Determination Theory	23
UFS	University of the Free State	26
USA	United States of America	1
TUT	Tshwane University of Technology	26

CHAPTER 1

Introduction

1.1 PREAMBLE

²This study forms part of a larger study (2017) namely, *Recreational sport participation and its associated benefits among students at the Potchefstroom Campus of the North-West University*. In this chapter, the importance of campus recreation sport participation is highlighted, motivating why universities must adapt the activities on campus according to the students' needs to prevent leisure boredom and increasing satisfaction with life. Clear research objectives are given, derived from the problem statement. Finally, the structure of the dissertation is outlined.

1.2 PROBLEM STATEMENT

Many South African (SA) universities, as other universities worldwide, have experienced a wave of student dropouts in the last two decades and this is being displayed as an international phenomenon (Cabrera *et al.*, 2006:172; Kara, 2019:132; Styger *et al.*, 2015:3). These university dropout numbers are a serious concern and crisis for policymakers due to resources being wasted, accumulation of human capital lowering and growth in distribution inequalities (Ghignoni, 2016:127). Braxton *et al.* (2000:569) and Adamopoulou and Tanzi (2017:46) stated that more than one quarter (28.5%) of students in Ohio, in the United States of America (USA) leave university at the end of their first year after entering a four-year degree programme. Cabrera *et al.* (2006:172) also found that 48,6% of European university students, aged between 18 and 24 deserted their studies spontaneously. Similarly, Murray (2014:1) found a 25% drop out rate with first-year SA university students. According to Letseka and Maile (cited by Murray, 2014:1), SA universities' over-all graduation percentage (15%) is one of the lowest when compared to other universities worldwide. Adamopoulou and Tanzi (2017:37) stated that these academic dropouts are a result of students experiencing the impact of constraints on their lives.

Possible causes and factors for these spontaneous dropouts are financial statuses, level of motivation, living conditions, social needs/skills, and negative experiences during recreation activities and leisure/social gatherings (Murray, 2014:1). These above-mentioned factors are a

result of various constraints that prevent or inhibit students from taking part, or from enjoying the leisure experience on campus (Alexandris & Stodolska, 2004:200; Murray, 2014:1; Styger *et al.*, 2015:1). When students are prevented from taking part in activities or when their social needs are not met, a feeling of unhappiness and low self-confidence may arise. These feelings may lead to dissatisfaction with life, leisure boredom, and an increased chance of students dropping out of university (Malinauskas *et al.*, 2014:286; Swanepoel *et al.*, 2015:17). According to Demetriou and Schmitz-Sciborski (2011:312), a solution to students dropping out of university might be to increase student involvement and participation in Campus Recreation Sport (CRS). Swanepoel *et al.* (2015:15) further stated that university students would experience various leisure behaviour developments, namely (i) the improvement of social skills, (ii) physical skills, and (iii) knowledge through their involvement in CRS activities. Thus, providing a predictor for university students' satisfaction with life (Malinauskas *et al.*, 2014:286).

Before a clear predictor for university students' satisfaction with life can be made, a clear outline of recreation sport must be made. Recreation sport forms part of the Leisure Sports Management Model that consists of professional sport, athletic sport, educational sport, and then recreational sport (Ross, 2006:273). The active involvement of participants during leisure time forms the basis of recreational sport (Ross, 2006:273). One area of recreational sport is CRS, which is defined by Maron *et al.* (2004:2808) as an informal sport sited on campus, consisting of a variety of sport where students are not required to have any regular training or skill-level during participation. Participants gain a range of benefits through recreational sport participation like health, physical, economic, and environmental benefits (Forrester, 2015:3; Ross, 2006:279). Chiu and Kayat (2010:35) also reported many advantages, including health, social and psychological benefits as a result of recreation participation. A study by Lindsey (2012:14) on the benefits and satisfaction of participating in CRS provided a list of benefits students gained from recreational sport participation, like stress reduction, weight control, sports skill development, friendship, and fitness (Lindsey, 2012:14). A study conducted on university students in Malaysia showed that the students had a rising interest and a possible need for leisure activities (Chiu & Kayat, 2010:33). Thus, the importance of leisure activity participation of students was recognised by Chiu and Kayat (2010:33) that in turn will help them shy away from leisure boredom.

Leisure boredom is a growing concern in the everyday lives of young adults around the world, including SA (Wegner *et al.*, 2006:250). According to Wang (2014:10), leisure boredom is described as the negative state of mind of a person that influences his or her perception of an experience. Leisure boredom can be experienced as a meaningless and pointless way of

participating in leisure activities (Wang, 2014:2310) and can limit a person's abilities to control their leisure experiences. According to Mercer-Lynn, Bar, and Eastwood (cited by Spaeth *et al.*, 2015:1380), a mismatch between young adults' needs and actual leisure experiences and a lack of personal skills to participate in satisfying activities might lead to leisure boredom. Hickerson and Beggs (2007:1036) noted that many undergraduate students displayed positive leisure behaviour. However, some exhibit harmful behaviour or deviance in their leisure activities like addiction to the internet, alcohol, and other factors (Hickerson & Beggs, 2007:1036, Wang, 2014:2310). These harmful behaviours (e.g. internet addiction, drug, and alcohol misuse) of students are caused by a lack of leisure skills and the presence of leisure boredom (Wang, 2014:2310).

According to Iso-Ahola, Jackson and Dunn (1994:227), a study conducted in Korea showed that perceived constraints of individuals would lead to a reduction in their participation patterns during hobbies and creative leisure activities that in turn led to an increase in leisure boredom. A study in Southern Taiwan stated that leisure boredom does not only have an impact on individuals' health problems, but it also negatively influences their quality of life (Wang, 2014:2311). Wang (2014:2311) also stated that a build-up of various constraints would lead to leisure boredom. Studies conducted on leisure boredom in SA focused mostly on school learners. A study conducted among high school learners in Cape Town, SA, showed that leisure boredom was relatively higher among female, black and coloured individuals (Wegner *et al.*, 2006:259). Wegner *et al.* (2006:252) also found that girls are more likely to experience leisure boredom, especially when they turn 13 years of age, owing to pressure from their parents to focus more on essential activities such as chores. According to Mercer-Lynn, Bar, and Eastwood (cited by Spaeth *et al.*, 2015:1380), leisure boredom is more likely to arise when surrounded by inadequate leisure experiences and learning environments that are not on standard. Wegner *et al.* (2006:251) also found that a lack of leisure resources restricted high school learners in SA from experiencing healthy leisure activities, leading to youth sitting around during their free time, experiencing leisure boredom. Weybright, Caldwell, Ram, Smith and Wegner (2015:312) stated that the misuse of substances among SA youths was the result of leisure boredom. Limited research is available with a specific focus on SA undergraduate students' experience with CRS and their leisure boredom. However, a negative relationship was found by Spruyt, Vandenbossche, Keppens, Siongers and Van Droogenbroeck (2018:231) between adolescents' satisfaction with life and the leisure boredom they experienced, indicating the more adolescents experience leisure boredom, the less they will experience satisfaction with their lives.

According to Kanter (cited by Ellis *et al.*, 2002:54), CRS participation was perceived to enhance and contribute to students' quality and satisfaction with life while providing them with a sense of belonging. Student experiences is a source of positive emotions and identity, well-being, self-esteem, and pleasant mood states (Ellis *et al.*, 2002:54; Spruyt *et al.*, 2018:231; Swanepoel *et al.*, 2015:18; Wang, 2014:2311). On the other hand, Guo and Ross (2014:56) reported that intramural and recreational sports on campus enhanced students' self-confidence, tolerance for other cultures, confidence in others, and a sense of belonging. Arslan and Akkas (2013:870) explained that satisfaction with life consisted out of various components like the satisfaction/happiness with family, friends, work, academia, and health. Being ultimately happy and satisfied with these components will lead to overall satisfaction with one's life. Satisfaction with the components mentioned above will lead to an increase in satisfaction with life (Arslan & Akkas, 2013:871).

Even though recreational sports programmes and facilities at universities are increasing in popularity, the amount of student participation in CRS activities has stayed constant throughout the years (Barcelona & Ross, 2002:52). Beggs *et al.* (2014:164) on the other hand stated that students are participating more in recreation sport activities due to it offering various benefits and the activities caters for what type of activities the students are interested in. These various benefits are the core motivators for students to participate more in CRS. Barcelona and Ross (2002:47) also stated that male students were more involved in CRS activities than female students. Female students will instead have an interest in individual athletic sports rather than group/team activities due to a lack of willpower and their time limits (Nxumalo & Beetge, 2017:170). Individual outdoor sport and activities such as jogging, and walking might suit female students better than group/team activities like soccer (Barcelona & Ross, 2002:48). Barcelona and Ross (2002:48) showed that younger students tend to be more involved and interested in CRS activities than older students. The same results were found for students living on campus. Nxumalo and Beetge (2017:168) stated a few reasons for participation in campus sports amongst the students of the University of Zululand, was to stay fit and to fight their boredom. For CRS to have a continued impact on the students' participation and satisfaction with life, future research in this specific field should grow and continue (Barcelona & Ross, 2002:52).

The purpose of this study was to determine the participation patterns in campus recreation sport, and to what degree students experience satisfaction with life and leisure boredom. Correlations between participation in CRS, satisfaction with life, and leisure boredom of undergraduate students of North-West University were also determined. This led to the following two research questions to be answered by this study. Firstly, what are the participation patterns in CRS of undergraduate

students of the North-West University (NWU), and to what degree do they experience satisfaction with life and leisure boredom? Secondly, what are the correlations between frequency of participation in CRS, leisure boredom, and satisfaction with life experienced by undergraduate students of the NWU's Potchefstroom campus?

Universities as well as students will benefit in various manners from this study, such as being able to plan recreation programmes more effectively, and to increase student participation. An increase in participation will ultimately lead to students experiencing more satisfaction with life and less leisure boredom. Lastly, the university will benefit from decreasing the amount of harmful behaviour among students that will lead to an increase in the number of students who will graduate in their four-year degree course without dropping out of university (Weilbach, 2013:4).

1.3 OBJECTIVES

The objectives of this study were:

1. to describe the patterns of participation in CRS, satisfaction with life, and leisure boredom, of undergraduate students of the NWU's Potchefstroom Campus.
2. to determine the correlation between frequency of participation in CRS, leisure boredom, and satisfaction with life of undergraduate students of the NWU's Potchefstroom Campus.

1.4 HYPOTHESES

This study was based on the following hypothesis:

1. Objective 1 will not have a hypothesis.
2. There will be a statistically significant correlation between frequency of participation in CRS, leisure boredom, and satisfaction with life experienced by undergraduate students of the NWU's Potchefstroom campus, specifically:
 - There will be a statistically significant positive correlation between frequency of participation in CRS and satisfaction with life.
 - There will be a statistically significant negative correlation between frequency of participation in CRS and leisure boredom.

- There will be a statistically significant negative correlation between satisfaction with life, and leisure boredom.

1.5 STRUCTURE OF DISSERTATION

This dissertation is structured according to the ‘article format’ of the NWU. The article format differs from the traditional format in that Chapters 3 and 4 are written for specific peer-reviewed academic journals. Therefore, each of the chapters can stand independently whilst some overlapping occurs. The articles incorporate the method and results of the study; therefore, no separate method or results chapters are included. However, despite two standalone articles, the final chapter provides an integrated conclusion and recommendations, based on all the chapters of the dissertation. Both articles are written according to the specifications of the *South African Journal for Research in Sport, Physical Education and Recreation*. The formatting and reference list of the articles are under the requirements of the scientific journal, and the “Information to authors” journal requirements are bound as annexure A.

Chapter 1: **Introduction:** *Problem statement, objectives, hypotheses, and structure of the dissertation.* This chapter introduces the study with an overview of current research, shortcomings in the research field, research problems, and the research question. The references included in the chapter are according to the NWU 2020 guidelines for quoting sources (Third edition).

Chapter 2: **Literature review:** *Campus recreation sport, leisure boredom, and satisfaction with life: a literature review.* This chapter is an overview of relevant literature and research. The references included in the chapter are according to the NWU 2020 guidelines for quoting sources (Third edition).

Chapter 3: **Article 1:** *Patterns of participation in campus recreation sport, satisfaction with life, and leisure boredom* (research objective 1). This article will be submitted for publication in the *South African Journal for Research in Sport, Physical Education and Recreation* and is formatted and sourced accordingly. Exceptions were made for the prescribed margins and line-spacing, to adhere to the NWU guidelines to maintain uniformity of the dissertation.

Chapter 4: **Article 2:** *Correlations between frequency of participation in campus recreation sport, leisure boredom, and satisfaction with life of undergraduate students of the North West University* (research objective 2). This article will be submitted for publication in *South African Journal for Research in Sport, Physical Education and Recreation* and is formatted and sourced accordingly.

Exceptions were made for the prescribed margins and line-spacing, to adhere to the NWU guidelines to maintain uniformity of the dissertation.

Chapter 5: **Conclusion:** *Summary, conclusion, recommendations, and limitations.* This chapter summarises the entire study and draws conclusions based on the research objectives. Limitations and recommendations for future studies are also discussed. The references included in the chapter are according to the NWU 2020 guidelines for quoting sources (Third edition).

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CHAPTER 2

A literature review: Campus recreation sport, leisure boredom, and satisfaction with life

2.1 INTRODUCTION

³This chapter reviews the existing literature on Campus Recreation Sport (CRS), satisfaction with life, and leisure boredom in the university setting. The influence of CRS on satisfaction with life and leisure boredom, including the central elements contributing to this study, namely the benefits of campus recreation sport participation, motivation for participation in campus recreation sport, participation patterns, and leisure constraints will also be reviewed.

To comprehend CRS, the concepts of leisure, recreation, and recreation sport will first be discussed in depth. Thereafter, CRS will be discussed in detail, so that its importance is highlighted. Motivation for participation and patterns of participation in CRS will then be discussed. Knowledge of the patterns of participation will give a better understanding of how and why students participate or not in CRS. Thereafter, attention will be given to leisure boredom and the influence of leisure constraints on CRS. This will help to better understand what keeps students from participating, and how CRS can help by reducing their leisure boredom and getting them to be more active. Lastly, satisfaction with life will be discussed, focusing on the effect that leisure has on a student's life satisfaction.

2.2 LEISURE, RECREATION, AND RECREATION SPORT

To fully grasp the concept of CRS, leisure, recreation, and recreation sport first need to be examined.

2.2.1 Leisure

Leisure is seen as an umbrella concept including sport, play, tourism, games, recreation, and events, all of which are particular forms of leisure (Rossman & Schlatter, 2019:17). Each concept

³ See Appendix B for language editor's detail.

refers to a different type of leisure experience; however, the boundaries overlap, which indicates the connection between the concepts (Rossman & Schlatter, 2019:6). Leisure, also referred to as free time, can be viewed from diverse perspectives (Davidovitch & Soen, 2016:493), which emphasises the different aspects of leisure. Leisure is thus a unique concept.

Godbey (2008:3) stated that leisure consists of four basic contexts: time, activities, state of existence, and state of mind. In contrast, Edginton *et al.* (2004:6) and Murphy (1974:6) identified six primary orientations that define leisure. There is a clear overlap between the views of Godbey (2008:3), Murphy (1974:6), and Edginton *et al.* (2004:6). Edginton *et al.* (2004:6) and Murphy (1974:6) identified the six primary orientations of leisure as follows:

- *Free time* – Existence, subsistence, and discretionary time are the different categories of time (Edginton *et al.*, 2004:6; Murphy, 1974:6). Leisure is seen as discretionary time or free time. According to Edginton *et al.* (2004:6), people can choose what they want to do in their free time, free from obligations. Godbey (2008:4) added that leisure in terms of time refers to humans having the freedom to do what they want, or, in other words, the time remaining after work and necessities have been attended to.
- *Activity* – This refers to activities that people take part in during their free time, such as reading or running. Godbey (2008:4) states that an individual will take part in an activity to relax, learn new skills, spend time with family or friends, or be social. Some people take part in activities just for the fun and enjoyment of it, while having some element of self-determination and direction during an activity (Edginton *et al.*, 2004:6; Murphy, 1974:6).
- *State of mind* – It refers to the psychological mindset of a person. It can also be the attitude or style of behaviour of a person in an activity. Characteristics include feeling freedom of choice and intrinsic motivation (Edginton *et al.*, 2004:6; Murphy, 1974:6).
- *Symbol of social class* – This demonstrates a person's ability to take part in leisure activities that are not classified as labour (Edginton *et al.*, 2004:6).
- *Anti-utilitarian* – Leisure cannot be compared to work, as it is an end in itself (self-expression and fulfilling satisfaction) (Edginton *et al.*, 2004:6).
- *Holistic* – Every action or activity has the potential to be leisure. Leisure also plays an important role in helping an individual achieve self-actualisation (Edginton *et al.*, 2004:6; Murphy, 1974:6). For a leisure activity to be holistic, the opportunity to learn new skills, knowledge, and attitudes must be available to the participant (Godbey, 2008:4).

More recently, Davidovitch and Soen (2016:493) divided leisure into two dimensions, namely the objective dimension and the subjective dimension. The objective dimension describes leisure as measurable in terms of time, duration of the activity, and the cost of the activity (Davidovitch & Soen, 2016:493). Thus, focusing on the characteristics of time refers to the time a person has left after they have finished their daily tasks and existential needs. These tasks are chores, work, eating, and sleeping, to name a few (Goodin *et al.*, 2005:63). The subjective dimension identifies leisure as one's narrative, state of mind, activity unrelated to work, such as attending concerts, fishing, reading a book, or cooking (known as passive or active leisure), and one's values, norms of actions, and attitudes (Davidovitch & Soen, 2016:493; Guryan *et al.*, 2008:26).

Passive leisure refers to an activity such as reading a book or watching television, which does not expend an individual's mental and physical energy/effort. Active leisure, by contrast, is when an individual expends mental and physical energy/effort during their participation in activities such as playing sports, going to the gym, or playing chess (Davidovitch & Soen, 2016:497). Figure 2.1 demonstrates the link between various components of leisure as posited by the prominent researchers Davidovitch and Soen (2016:493), Edginton *et al.* (2004:6), and Godbey (2008:3).

LEISURE		
EDGINTON ET AL. (2004)	GODBEY (2008)	DAVIDOVITCH & SOEN (2016)
Free time	Time	Leisure as measurable in terms of time: Objective dimension
Activity	Activities	Duration of activity: Objective dimension Cost of activity: Objective dimension
State of mind	State of mind State of existence	Personal narrative and state of mind: Subjective dimension
Symbol of social class Leisure as action		Values and norms of actions and attitudes: Subjective dimension
Antiutilitarian Holistic		Activity unrelated to work: Subjective dimension

Figure 2.1: Link between various components of leisure (author's own work)

By entering a leisure state of mind, a person will not be motivated by external/materialistic rewards. Motivation will only rely on internal rewards, such as pleasure and self-gratification, as explained through the concept of “flow” (Davidovitch & Soen, 2016:495). “Flow” describes the state of correspondence between the skill level of the participant and the challenge/difficulty of an activity. The goal is for the participant not to feel discomfort or anxiety while participating. When the participant lacks the skill that is needed for an activity, they will feel discomfort, and when the participant’s skill level is superior to or greater than the activity, they will experience boredom. It is only when the participant’s skill level is equal to the challenge of the activity that they will experience optimal “flow” (Davidovitch & Soen, 2016:496). Pinquart and Silbereisen (2010:148) explained that “flow” is a state in which an individual becomes mentally immersed in a leisure activity. It also means that an individual taking part in leisure activities should have a feeling of energised focus, be fully involved in the activity, and understand the process of the activity. When an individual experiences “flow”, they will experience the purest source of enjoyment (Kleiber *et al.*, 2011).

Despite the differences in the perspectives of Davidovitch and Soen (2016:493), Edginton *et al.* (2004:6), and Godbey (2008:3), there is a clear similarity in their views, and a general definition of leisure can be distilled. As Edginton *et al.* (2004)’s definition contains all the components of the other definitions, and more, for this study leisure will be viewed according to Edginton *et al.* (2004:6) six primary orientations. Therefore, leisure is conceptualised as free time, as an activity, as a state of mind, as a symbol of social class, as a concept of anti-utilitarianism, and as having the potential to be holistic (Edginton *et al.*, 2004:6).

2.2.2 Recreation

As mentioned above, leisure is viewed as activities (e.g. recreational activities) that individuals take part in, in their free time, without any obligation to do so, either alone or in a social setting (Barnett, 2013:151). Rossman and Schlatter (2019:12) define recreation as purposeful and moral activities that individuals take part in to attain and achieve personal and social benefits. Recreation is also seen as a process that restores or refreshes an individual, in other words as renewing an individual for work (Edginton *et al.*, 2004:9). According to Jensen (cited by Rossman & Schlatter, 2019:12), for an activity to be categorised as recreation, it must bring a level of satisfaction to the participant. Edginton *et al.* (2004:31) posited that recreation must have some form of redeeming qualities to it, and that the activity must be voluntary and satisfying, so that the participant

experiences restoration, refreshment, and balance between their work and their free time. Therefore, recreation helps individuals to have a positive leisure experience (Edginton *et al.*, 2004:11).

There are various ways to categorise recreation activities, known as recreation programme areas (Russell & Jamieson, 2008:46). Programme areas are used to cluster different activities together to make programming easier (Russell & Jamieson, 2008:46). According to Russell and Jamieson (2008:47), recreation programmes can be categorised into the following programme areas: recreation sport (e.g. athletics), aquatics (e.g. rowing), adventure (e.g. a ropes course), dance (e.g. ballroom dancing), drama (e.g. puppetry), fine arts (e.g. photography), crafts (e.g. needlecraft), music (e.g. instrumental music), hobbies (e.g. gardening), outdoors (e.g. camping), intellectual (e.g. debating), travel (e.g. tours), social recreation (e.g. picnics), and volunteering services (e.g. coaching).

Furthermore, recreation programmes can be categorised into different programme structures, namely programme formats. The programme format is responsible for keeping an activity organised and in line with the programme outcome (Russell & Jamieson, 2008:57). The programme formats identified by Russell and Jamieson (2008:57) are competitions (e.g. tournaments, leagues), open facilities (e.g. open bowling lanes, open tennis courts), special events (e.g. fairs, exhibits), special interest groups (e.g. a biking club, a cooking club), and instructional (e.g. a cooking class, a drama class). For this study, the focus will be on the recreation sport programme areas within all the different programme formats.

2.2.3 Recreation sport

Sport is a form of recreation that includes physical activity with a competitive and physical aspect, and that consists of equipment, facilities, and rules set out for that particular sport (Rossman & Schlatter, 2019:13; Woods, 2011:7). Recreation sport is one of the largest recreation programme areas (Russell & Jamieson, 2008:51). According to Weinberg and Gould (cited by Swanepoel *et al.*, 2015:14), participants take part in sport and physical activities for the fun of it, to socialise, for the competition, or to improve their physical fitness.

Sport is defined by three important concepts: physical exertion, rules, and competition of physical skills (Rossman & Schlatter, 2019:14). Physical exertion requires that the participants be physically active during the activity, such as playing hockey or rugby. Activities such as playing

cards and board games do not qualify as sport, due to the participants not being physically active during these activities (Rossman & Schlatter, 2019:14). Henderson (2010:9), in contrast, stated that these activities do qualify as sports, due to the competitive nature they hold. However, for this study, they will not be included. The second concept is rules. Rules are there to regulate the activity and to define the purpose of the sporting event. The rules of a sporting event become the basis of that activity, attracting the attention of the fans and sports media (Rossman & Schlatter, 2019:14). Lastly, every sport has competition of physical skills that require the participants, or the athletes, to showcase their physical skills, and that is specific to their sport, such as endurance for marathon running, flexibility for gymnastics, and strength for rugby. Other sports, such as hockey and netball, require athletes to have a bigger physical skill set, which they must use in various combinations to find success in the activity (Rossman & Schlatter, 2019:14).

The leisure sport management model developed by Mull *et al.* (2005:9) illustrates the different levels of sport as a hierarchy (see Figure 2.2). The hierarchy extends from educational sport to professional sport.

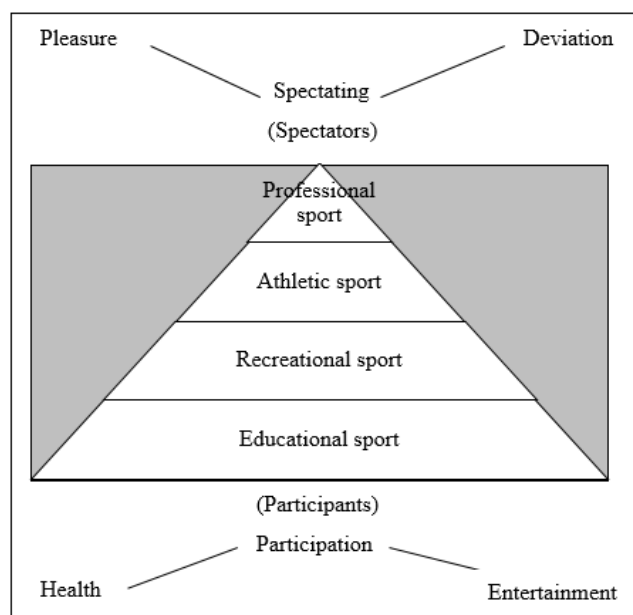


Figure 2.2: The leisure sport management model (adapted from Mull *et al.*, 2005:9)

At the apex is professional sport. It is the highest level of sport, where the best athletes are brought together to participate in a sport, such as representing South Africa in the national rugby team. Below professional sport is athletic sport. Athletic sport is considered the most well-known form of sport (Mull *et al.*, 2005:9). Some competition and community are evident, and examples of this level of sport are attending tournaments and competitions, such as Varsity Rugby (a top-level rugby competition between the different universities in SA). Below athletic sport is recreational

sport. Recreational sport is not as conscientiously attended and participated in as the other types of sport; however, it has grown greatly, due to individuals being interested in participating in it (Mull *et al.*, 2005:9). Volunteer systems and individuals that participate with enthusiasm are examples of recreational sport (Mull *et al.*, 2005:9). Finally, at the bottom of the pyramid is educational sport. Educational sport has been part of the education system for years, and it usually takes place outside the classroom; it is found from pre-school level to university level (Mull *et al.*, 2005:10).

Mull *et al.* (2005:9) stated that at the apex of the model (professional sport) there are fewer participants and several spectators. In contrast, at the bottom of the model (educational sport), there are more participants and fewer spectators. The participants, at the bottom of the model (direct participation), get involved in these different types of sports for fitness and the fun of it. By contrast, the spectators, at the top of the model (indirect participation), get involved for the enjoyment and diversion of the activity (Mull *et al.*, 2005:9).

Recreational sport, as indicated in the Leisure Sport Management Model, is a combination of five areas, namely instructional sport, informal sport, intramural sport, extramural sport, and club sport (Human Kinetics, 2006:274). These five areas of recreational sport are described in Table 2.1. Recreational sport is prominent on university campuses, where they offer students the opportunity to improve their academic knowledge and overall skill through the various instructional programmes, sporting events, and physical activities on-campus (Swanepoel *et al.*, 2015:15). When students recreationally participate in sporting events and activities, it is referred to as recreational sport activities. When these recreational sport activities take place at a university, it is known as campus recreation sport (Kocak, 2017:493).

Table 2.1: Programme areas of recreational sport (Human Kinetics, 2006:274)

Programme area	Description
Instructional sport	• Teaches the participant skills, rules, and strategies in a non-credit or academic environment. • It is competition-based sport. • Teaches the participant to involve skills and fitness in their everyday lives. • Examples are swimming and gymnastics.
Informal sport	• The emphasis is on self-directed participation. • Focuses on fun and fitness. • This area is the least structured. • Examples are lunchtime runs, lifting weights in the gymnasium, and yoga.
Intramural sport	• Structured sport between teams and individuals in a specific setting. • Associated with universities. • Holds a variety of rule modifications to fit participants' needs. • Examples are individual sport (golf), dual sport (tennis), team sport (soccer), event sport (swimming), and special events (Varsity Cup).
Extramural sport	• These kinds of sport provide participants with an opportunity to compete against other participants from other organisations. • Sports programmes where teams participate against one another through an invitation to represent their home institution. • An example is university athletics.
Club sport	• Organised events by participants with a common interest in a sport. • It provides a variety of interactions among individuals, and it entails many social aspects. • Operates with less administrative resources than the other areas. • An example is the Potchefstroom Rugby Club.

2.3 CAMPUS RECREATION SPORT

Campus Recreation Sport (CRS) is defined as recreational sport that takes place on a university campus, and it consists of various physical activities, such as club sport, intramural sport, informal

sport, and fitness sport, which students freely choose to take part in, either directly, as participants, or indirectly, as spectators (Lindsey, 2012:14). CRS activities can be indoors or outdoors, and participants do not need any specific training or skills to participate. It is the participant's choice which activity they wish to take part in and with whom (Maron *et al.*, 2004:2808).

2.3.1 The benefits of campus recreation sport participation

Active participation in physical activities increases the overall health (physical and psychological) of students and increases their retention and satisfaction with their university experience (Bocarro & Kanters, 2010:71). Kim *et al.* (2016:165), as well as Wu *et al.* (2010:680), identified multidimensional benefits that CRS offers students, such as intellectual benefits, social benefits, and health benefits. Intellectual benefits include better academic performance, overall task and time management, and an improvement in communication skills. Social benefits, by contrast, emphasise participants' social integration and their sense of community and belonging. Lastly, there are health benefits, such as improvement of personal fitness and mental health (Kim *et al.*, 2016:165). Forrester (2015:2) stated the following benefits of CRS to a student's life: physiological benefits, better academic performance, feeling good, overall development, university satisfaction, social benefits, and being able to handle stress with greater ease. Driver and Bruns (1999:350) identified three main categories of benefits for recreation participation, which includes CRS participation, namely improving conditions, maintenance of a desired condition, and the realisation of a satisfying recreation experience.

2.3.1.1 Improving conditions

Body weight and obesity have been found to be an epidemic that has a strong impact on human health and the healthcare systems of the society (Drøyvold *et al.*, 2004:410), especially for university students (Goon *et al.*, 2014:101). Students (N=557) at a university in the United States of America (USA) were included in a Body Mass Index (BMI) study (Brunt *et al.*, 2008:631). It was found that 27% of the students were overweight, and 8% of them were obese. Racette *et al.* (2005:249) found that 70% of 764 students at another USA university gained weight during their first and second years at university. A study conducted in SA shows that 10% of the 509 first-year students at one particular university were overweight, and 0.8% of the same group of students were obese (Cilliers *et al.*, 2006:239). A study by Plotnikoff *et al.* (2015:1) shows that students in several countries (the USA, Australia, and the United Kingdom) will experience unhealthy weight gain

when they do not participate in any form of physical activity on-campus. Plotnikoff *et al.* (2015:2) also stated that unhealthy eating and lack of physical activity will lead to these students being overweight and obese. Students can experience weight loss and a reduction in BMI when they regularly take part in physical activity, in this case CRS (Plotnikoff *et al.*, 2015:7). Drøyvold *et al.* (2004:415) stated that individuals that are more physically active will experience less weight gain than sedentary individuals. Furthermore, Drøyvold *et al.* (2004:415) added that an individual should reach a certain training intensity during an activity to see an optimal change in their BMI. Individuals that are already more physically active will see a faster change in weight reduction than sedentary individuals (Drøyvold *et al.*, 2004:415).

Various studies have shown that when individuals are not physically active in any way, there will be increased risk of them developing non-communicable diseases such as depression, cardiovascular problems, anxiety, obesity, diabetes, high blood pressure, and even some cancers (Carter *et al.*, 2019:1; Elsborg *et al.*, 2019:2; Müller-Riemenschneider *et al.*, 2020:2; Thomsen *et al.*, 2018:125). When individuals do participate in physical activities and are exposed to CRS, there will be a reduction in the chances of them developing non-communicable diseases (Müller-Riemenschneider *et al.*, 2020:2). Participation in CRS can have a positive cardio-metabolic outcome (Müller-Riemenschneider *et al.*, 2020:14) and can result in an improvement in BMI, mood, self-esteem, and attention levels (Thomsen *et al.*, 2018:126). It has been proven that participation in CRS has a positive effect on an individual's physiological health measures (Elsborg *et al.*, 2019:4).

Furthermore, CRS leads to a reduction in students' stress levels (Bocarro & Kanters, 2010:71; Kanters, 2000:20). The more they participate in physical activity such as CRS, the less they will experience unnecessary exam-related anxiety, stress, or unnecessary weight gain (Bocarro & Kanters, 2010:71; Kanters, 2000:20). Driver and Bruns (1999:350) explained that when an individual, in this case a university student, is not functioning to their fullest or in a unhealthy manner, the benefit will be that when they improve their current physical condition, their current state will change to a more desirable state, thus the student's health will improve through their participation in CRS. Forrester (2015:11) posited that CRS activities and programmes help USA students in terms of providing an opportunity to meet new people, relieving stress, having fun, and improving their health by weight loss and control. Recreational sport needs to be used as an instrument to reintroduce sport and physical activity to university students in a fun manner (Bocarro & Kanters, 2010:82). Students will become more physically active and healthier when

the university provides them with the opportunity to participate in CRS (Bocarro & Kanter, 2010:81).

2.3.1.2 Maintenance of a desired condition

Students do not necessarily need to make a change in their physical condition, but they must maintain their current condition, so that it does not become problematic (Driver & Bruns, 1999:350). CRS in this instance will act as a coping mechanism against any negative factors (constraints) that influence their choice of participation (Caldwell, 2005:15; Jackson, 2005:3). Breaks that students take in between their academic responsibilities to relax can increase their resilience to stressful aspects, and can benefit their health overall (Astin, 1975:523). When students feel more relaxed and comfortable in a situation, they will find it easier to participate in an activity, which, in turn, will motivate them to maintain their current physical condition (Caldwell, 2005:17). Various examples of this specific benefit have been cited by different researchers. Kanter (2000:16), Langford *et al.* (1997:97), Rodriguez and Gamble (2010:60), and Villatte *et al.* (2017:127) state that social support reduces stress, increases personal competence, provides a sense of stability, recognises self-worth, and decreases depression. According to Salami (2010:251) and Caldwell (2005:17), increased self-efficacy and self-determination improves a student's academic performance and helps them feel more in control of their overall behaviour.

2.3.1.3 Realisation of a satisfying recreation experience

This benefit emphasises the intrinsic value one will derive from a recreational activity. Students will have different experiences during a recreational sport activity, which will lead to different benefits that they derive (Driver & Bruns, 1999:350). Students that experience more satisfaction during a recreation activity are less likely to search for an alternative activity (Lyu, 2017:1529). Floyd and Stodolska (2014:10) as well as Woods (2011:30) posited that students that take part in recreational sport activities will experience an increase in self-worth. A feeling of self-worth and general quality of life will manifest through participation in meaningful leisure activities when a feeling of enjoyment and satisfaction are present (Driver & Bruns, 1999:350; Spruyt *et al.*, 2018:226).

2.3.2 Motivation for participation in campus recreation sport

“Motivation, which concerns energy, direction, and persistence, is the intervening factor that moves participants in the direction of leisure activities” (Kleiber *et al.*, 2011:156). Treasure and Roberts (2001:171) asserted that hidden forces that influence an individual’s behaviour are the basis of motivation. Students are motivated by a variety of reasons to take part in CRS. These reasons include the desire to win a competition, peer pressure, feelings of guilt, a desire to improve one’s health, or for the enjoyment of it, to name a few (Kleiber *et al.*, 2011:156). Fluster *et al.* (cited by Pietersen *et al.*, 2018:124) maintained that other motivations also exist, namely students can be motivated by the possibility of stimulating their competitive needs, coping with stress, developing different skills, such as leadership and communication, and, lastly, broadening their imagination and escaping from reality.

According to Kleiber *et al.* (2011:157), two types of motivation steer students in the direction of leisure activities, namely *intrinsic motivation*, and *extrinsic motivation*. Intrinsic motivation is experienced when the activity is rewarding in and of itself, such as taking part in an activity for the pure enjoyment of it. By contrast, extrinsic motivation is when an activity rewards a participant through external reasons, such as winning money or receiving a reward, or it can be experienced as an ulterior motive (Kleiber *et al.*, 2011:157). Cooper *et al.* (2012:27) asserted that Self-Determination Theory (SDT) suggests that a participant is more motivated to take part in a leisure activity when their psychological needs for *autonomy*, *competence*, and *relatedness* are met. Ryan and Deci’s (2000b:68) SDT explains motivation in three categories, namely *intrinsic motivation*, *extrinsic motivation*, and *amotivation*. Figure 2.3 illustrates the continuum of SDT.

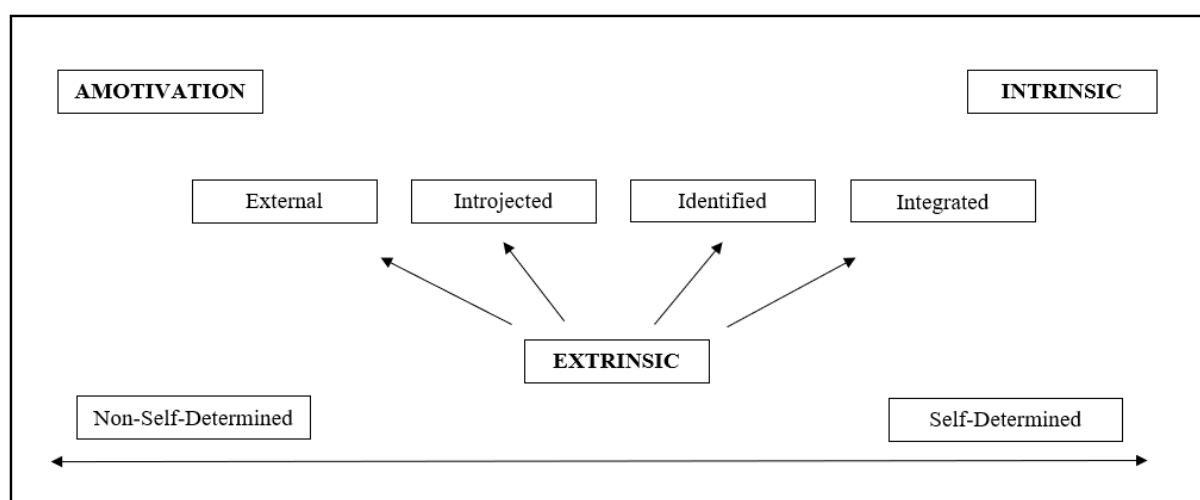


Figure 2.3: The continuum of self-determination theory (author’s own work)

Intrinsic motivation is experienced when the activity is rewarding in and of itself, for example when a student takes part in an activity but does not compete or is not motivated to take part in bigger tournaments. The individual only takes part for the pure enjoyment of the activity or to improve their skills and knowledge. No one else can influence the individual to participate; it is self-motivation alone that influences them. Ryan and Deci (2000b:70) posited that intrinsic motivation is vital for the personal growth of students. An environment adapted to increase the feeling of autonomy will enhance intrinsic motivation (Deci & Ryan, 1985:130). Students in a safe and caring environment will be more intrinsically motivated, which emphasises the need for *relatedness* (Ryan & Deci, 2000b:71). Deadlines, peer pressure, and tangible rewards, by contrast, will weaken intrinsic motivation (Burgess, 2016:54). CRS organisers must be aware of the different factors of intrinsic motivation, namely autonomy, relatedness, and competence. Firstly, a programme must be presented in such a way that participants have a degree of control (autonomy) in terms of how, when, and to what extent they want to participate, secondly attention must be paid how to create a sense of togetherness (relatedness), and, lastly, the activities must be presented in such a way that they cater for the skill level (competence) of everyone (Deci & Ryan, 1985:130).

Extrinsic motivation is in direct contrast to intrinsic motivation (Ryan & Deci, 2000a:55) and is divided into four sub-groups, namely external motivation, introjected motivation, identified motivation, and integrated motivation. External motivation is when an individual performs a task for the purpose of gaining an external reward or avoiding punishment (for example students taking part in CRS to gain points for their hostel). Introjected motivation is a source of self-imposed motivation (for example students taking part in CRS to avoid feelings of guilt if they do not participate). Identified motivation is when an activity is performed because of the personal goals that were set (for example weight loss, skills development, etc.). Lastly, integrated motivation is taking part in an activity to define oneself (for example a student taking part in an intramural activity for pure enjoyment, but they will still want to compete in a tournament or win a championship). Lastly, amotivation is when an individual has no intention to take part in an activity; it is the opposite of motivation (Cooper *et al.*, 2012:27). Amotivation is caused by a lack of personal connection, or even low internalisation (Ryan & Deci, 2000a:61). When an individual feel that they are not competent to perform an activity (Ryan & Deci, 2000a:59), or does not believe in an activity, this may bring a feeling of amotivation to the individual (Ryan, 1995:421). Such individuals will find it difficult to understand or control their behaviour (Legault *et al.*, 2006:568).

Together with SDT, especially the focus on intrinsic motivation and the three factors that contribute to it, the Volunteering Functions Model further contributes to our understanding of what motivates students. Snyder and Omoto (2008:7) proposed the Volunteering Functions Model, which consists of six different motivators for students to take part in any form of physical activity on-campus, namely understanding, values, career, social motivators, protection, and enhancement. For a student to fully participate in an activity, they must first be sure to *understand* all the aspects of it. They must be motivated by the possibility of learning new things (skills), exploring their strengths, and gaining experience. Students may find a desire to contribute to an activity and to be helpful during it. This is known as the *values* motivator. When a student finds an activity that is beneficial for their future, they will be more driven to take part in it. Activities that will have an impact on their future *career* will motivate them more. A *social* motivator is when students will participate more if their friends also participate, through a shared interest. Protection and enhancement are the two remaining motivators, and they are less mentioned in the context of participation of students in activities on-campus (Snyder & Omoto, 2008:7). Some students have the desire to feel safe in their environment and to work through troubles, stress, and guilt. This is known as the *protection* motivator. Lastly, students tend to participate in campus activities to prevent the feeling of boredom and to stay out of trouble. They want to enhance their self-esteem and experience personal growth. *Enhancement* is the main motivator in this instance (Snyder & Omoto, 2008:7). The motivators identified in this model can be used to understand the reasons why university students participate in CRS.

Consequently, understanding the reasons for participation in CRS may help determine students' leisure behaviour and the type of motivation needed for them to participate. When a programme facilitator understands the different factors influencing a student's decision to participate, the better a programme can be developed according to the student's motivational needs, which may increase the number of students participating in CRS, along with the satisfaction they gain through participation.

2.3.3 Participation patterns in campus recreation sport

Participation patterns refer to the differences, for instance between genders, races, and nationalities, concerning participation in CRS. University students are different from their high school peers, in that they have the freedom to choose which activities they want to take part in and how frequently (Ma *et al.*, 2012:108).

Nxumalo and Beetge (2017:164) reported that in general, male students from the University of KwaZulu-Natal, a South African (SA) university, prefer to take part in riskier, sportier, and strength-based recreation activities, such as rock climbing, rugby, soccer, and CrossFit. By contrast, female students from the same SA university prefer to take part in aerobic activities, such as jogging, cycling, and squash. The female students are more concerned about their appearance and physical condition during and after an activity, while the male students are focused on the competition and mastery that an activity holds (Chu *et al.*, 2019:63). Research on female students from another SA university shows that they tend to be less active in CRS activities, because they do not have the time to participate, as participating in CRS interferes with their academic work and they struggle to adapt to the university's learning standards (Nxumalo & Beetge, 2017:170). Chu *et al.* (2019:58) found that both male and female students from different universities in the USA participate in CRS, but that the activities differ. Differences between genders are evident between the SA universities and the USA universities. Female students from both SA and USA universities prefer aerobic activities, to maintain their physical fitness, while male students are more focused on competing against each other and improving new skills (Chu *et al.*, 2019:63). One similarity was that both female and male students are more likely to take part in group and team-based activities (Chu *et al.*, 2019:58).

In terms of different races' participation in CRS, there is a significant difference between white and black students at various universities. Nxumalo and Beetge (2017:165) found that black students tend to be more active in CRS participation at the University of the Free State (UFS), while white students are more active at Tshwane University of Technology (TUT). According to Nxumalo and Beetge (2017:165), the reason for this is the difference in living conditions and infrastructures of the universities. It is difficult to make a proper comparison between the different races due to the limited literature. More research needs to be done in terms of the different races and their participation patterns and activity needs in CRS at the different universities. Upon better understanding of the participation patterns of different race groups, there should be no discrimination (knowingly or unknowingly) against any race group, guaranteeing a more inclusive chance of accessing CRS students are interested.

2.4 LEISURE BOREDOM

Leisure boredom refers to an individual's perception that their needs are not being optimally satisfied by the available leisure experiences (Barnett, 2011:386). According to Iso-Ahola and

Weissinger (cited by Barnett, 2011:386), an individual experiencing leisure boredom believes that the available leisure experiences are not exciting, energising, and/or involving. When leisure boredom is experienced, an individual can experience a feeling of being under stimulated and under-aroused, and they can have a lack of momentum to take part in leisure activities (Zhou, 2012:35). It is important to know that different students will experience the same leisure activity differently, and their level of boredom will also differ (Zhou, 2012:35).

Research supports the assertion of Zhou (2012:35) that there are differences in leisure boredom between male and female students. Korkutata (2018:154) found that men are more likely to experience leisure boredom during an activity than women. Kara (2019:136) confirmed this finding when she asserted that male students have a higher boredom perception than female students. By contrast, Hickerson and Beggs (2007:1040) found that female students experience more leisure boredom than male students. They reported that male students are more likely to become highly involved in their leisure activities, and that they are very active during these activities. Female students were found to be more involved in passive leisure activities, and most of them were not interested in active leisure activities, due to them not having the skills to participate in them (Hickerson & Beggs, 2007:1040). Barnett (2011:394) refutes the idea of gender differences in her study on playfulness. Barnett (2011:394) states that students, male or female, that are more playful in their leisure time are less prone to experience leisure boredom. These students can entertain themselves regardless of the environment or the activity type.

Unfortunately, not all students have the capability to be playful during an activity, or even to take part in CRS, due to various constraints that prevent them. The constraints of participants are overlooked due to researchers' focus on the positive issues related to leisure, such as the benefits of CRS (Cho & Price, 2016:25). There is a clear relationship between leisure boredom and leisure constraints. Oh *et al.* (2001:32) stated that leisure boredom will be influenced by leisure constraints through cognitive, affective, and psychological elements. In other words, when an individual experiences leisure constraints that prevent them from participating in CRS, they will experience leisure boredom.

When students experience leisure boredom, they will most likely also experience the consequences of it. Students abusing alcohol when they are bored is an important issue (Weybright *et al.*, 2015:312). When they do so, long-term secondary issues will take place, such as risky sexual behaviours and academic challenges. Spaeth *et al.* (2015:1380) posited that students that tend to be bored will experience dissatisfaction in their student life, will have more stress, will be more annoyed by everything around them, and will most likely feel entrapped by their environment,

resulting in them dropping out of university (Weybright *et al.*, 2015:312). These issues can be resolved when fewer constraints keep students from participating in CRS.

2.4.1 Leisure constraints

Constraints can limit the involvement and development of participants in experiencing leisure or taking part in leisure activities (Wood & Danylchuk, 2015:159). Crawford *et al.* (1991:310) formulated a hierarchical model of leisure constraints, identifying different factors of leisure constraints (see Figure 2.4).

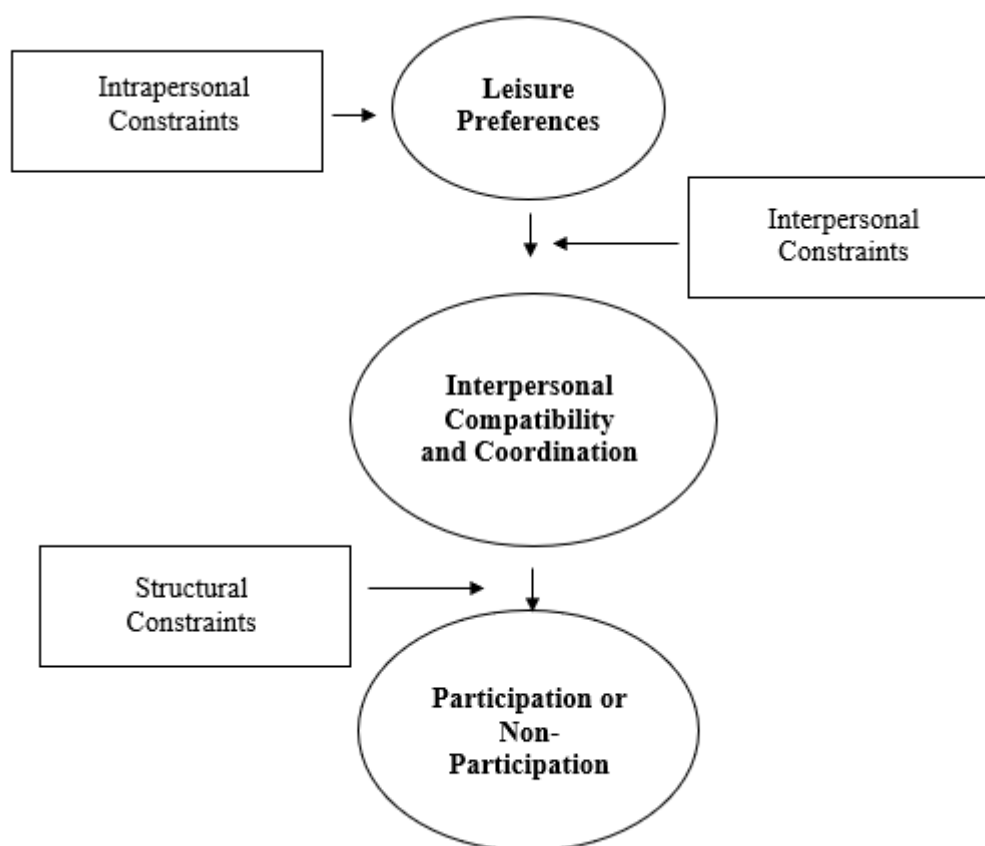


Figure 2.4: A hierarchical model of leisure constraints (adapted from Crawford *et al.*, 1991)

Intrapersonal constraints, or psychological barriers, such as stress, depression, anxiety, and morality, are the most powerful factors that can keep a student from participating in CRS (Crawford *et al.*, 1991:310). Jackson (2005:24) stated that female students are more likely to experience this type of constraint. Female students will not walk alone at night on campus to participate in a recreational sport activity, because of their fear of violence. Many female students will experience intrapersonal constraints due to them not feeling good about their appearance (Shaw, 1999:207; Shaw & Henderson, 2005:26). In terms of race, black students sometimes feel

that they do not have the necessary skills to take part in an activity, which will keep them from taking part (Weilbach, 2013:135).

Interpersonal constraints, by contrast, focus more on the connection and interaction an individual has with another person, such as family commitments or pressure from fellow students, that prevents the individual from taking part in CRS. According to Jackson (1993:9), students will rather participate in an activity when their friends are also participating. Another example of interpersonal constraints, especially for female students, is the difficulty of finding an activity partner (Halforty & Radder, 2015:109).

Lastly, structural constraints, such as lack of finances or transportation, or changes in the seasons, are the external conditions that keep students from participating in CRS, especially students living off-campus (Crawford *et al.*, 1991). South African students especially struggle with timekeeping and scheduling, which can be a major constraint (Halforty & Radder, 2015:109).

The hierarchical model of leisure constraints allows researchers to identify the various barriers students face, and to address them, so that changes can be made in their lifestyle that will counteract the barriers and make it possible for them to participate in different CRS activities (Cho & Price, 2016). When these barriers are not monitored and students participate less in CRS activities, they will become uninterested in campus life. They will thus experience leisure boredom, which leads to signs of low satisfaction with life.

2.5 SATISFACTION WITH LIFE

According to Wang (2014:11), the Greek philosopher Aristotle connected the term “satisfaction with life” to the concept of happiness, where a person is happy and satisfied with the current state of their life. Satisfaction with life derives from different aspects of life, such as health factors, emotional factors, physical factors, psychological factors, and social interactions, to name a few (Wang, 2014:11). Agyar (2014:2) explained that these factors can be categorised into three levels, namely individual-based factors (e.g. personality traits), cognitive factors (e.g. self-esteem), and social-environmental factors. Even after analysing these factors though, it is still difficult to determine an individual’s satisfaction with life (Agyar, 2014:2).

The literature indicates different results in terms of how demographic factors, such as gender, habits, behaviour, age, and the BMI of students will influence their satisfaction with life. In terms of age, younger students will have more satisfaction than older students (Zhang *et al.*, 2014:18).

Pedišić and colleagues (2015:13) found a higher satisfaction rate among younger female students. Vaez *et al.* (2006:170) and Zhang *et al.* (2014:18) reported that when they investigated the different genders, they found that female students tended to have a higher realisation of satisfaction with life than male students. Another study posited that male students experience a lower realisation of satisfaction than female students (Fugl-Meyer *et al.*, 2002:241). Referring to the benefits gained through participation, it is prominent that social benefits will mediate the relationship between physical activity and the realisation of satisfaction (Pedišić *et al.*, 2015:15). When Pedišić and colleagues (2015:13) viewed students' BMI, they found that male students had a lower BMI, which made them have a higher realisation of satisfaction with life than female students.

Focusing on the habits, behaviour, and well-being of students, those that smoked were found to have a lower satisfaction with life, and students that consumed alcohol had a higher satisfaction with life, especially female students (Grant *et al.*, 2009:261; Murphy *et al.*, 2005:186; Vaez *et al.*, 2006:170). A study conducted by Hawker (2012:328) shows that when students participate in physical activities on-campus, such as CRS, they will experience higher levels of satisfaction with life. Hawkins and colleagues (cited by Surujlal *et al.*, 2013:1049) asserted that students that participate in sport on-campus are more likely to have a higher satisfaction with life. Chick *et al.* (2015:234) found a positive correlation between leisure participation and leisure satisfaction. Satisfaction with life is an important indicator of a person's well-being (Swanepoel *et al.*, 2015:17). Diener *et al.* (1985:71) posited that satisfaction with life is a cognitive-judgemental process and an internal reaction of a person. Someone can only be satisfied with their life if the actions and affairs they take part in compare with the standard they have individually set for themselves (Diener *et al.*, 1985:71). This is especially relevant for individuals from different ethnic and cultural backgrounds, who have different values and perceptions of what a good life is (Agyar, 2014:2).

Surujlal *et al.* (2013:1053) found a significant negative relationship between perceived stress and satisfaction with life, stating that the higher a student's stress levels are, the lower their satisfaction with life will be. When students learn to cope with their stressful situations on campus, they will experience more satisfaction with life, due to their perceived stress levels being lower (Surujlal *et al.*, 2013:1055). When students are disturbed in their daily routine or are excluded from participation in sport on-campus, there is a possibility that they will experience low satisfaction levels with life (Surujlal *et al.*, 2013:1049). Anshel and Si (cited by Surujlal *et al.*, 2013:1050) asserted that students tend to have higher stress levels than other individuals, and that when they

are put out of their routine, their stress levels will rise, which will lead to undesirable behaviours and poor satisfaction with life.

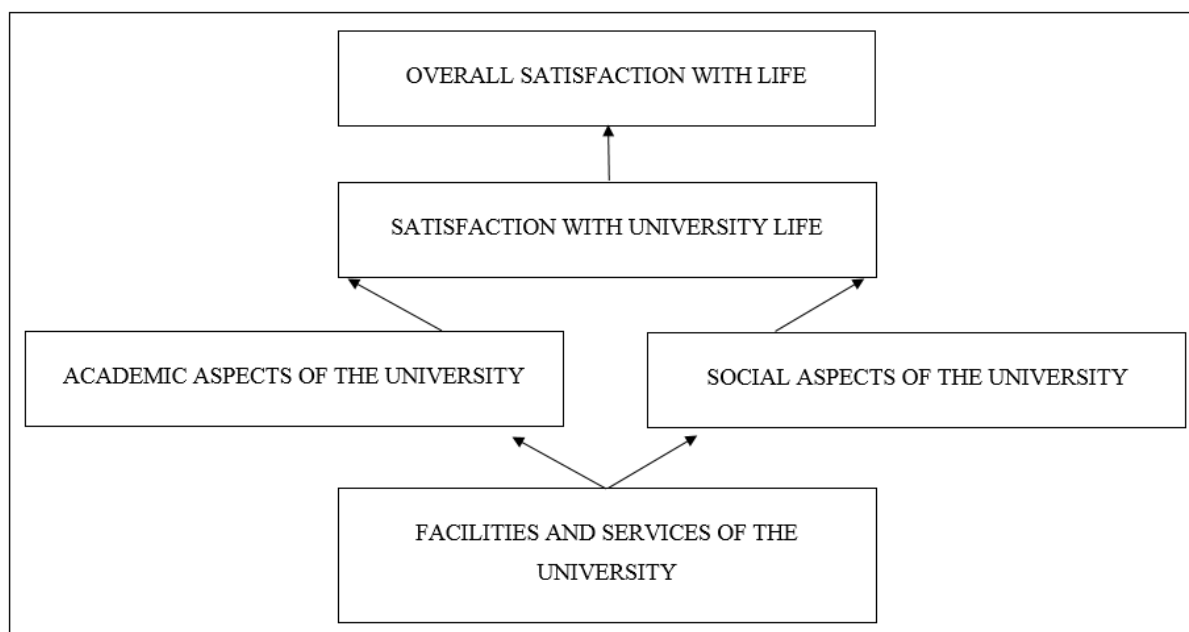


Figure 2.5: A conceptual model of the domains of overall satisfaction with life (author's own work)

A conceptual model of the domains of overall satisfaction with life (see Figure 2.5) can help to better understand students' overall satisfaction with life. Overall satisfaction with life is placed at the highest level of the hierarchy (as seen in Figure 2.5), which represents a conceptual model of the domains of overall satisfaction with life. Each domain can influence another domain. For example, to achieve satisfaction with university life, students must first achieve satisfaction with the academic aspects of the university.

The conceptual model (see Figure 2.5) is derived and adapted from Sirgy *et al.* (2007:345) model of quality of college life to determine the influence the different domains have on each other, such as facilities and services, and academic aspects and social aspects of the university. When the academic aspects (e.g., the faculty, the workload, the academic diversity, and the classroom environment) and the social aspects (e.g., the programmes, services, clubs, sports, and recreational activities) of the university increase for students, it will automatically influence their satisfaction with university life. CRS falls under the *social aspects of the university*. When the domain of satisfaction with university life increases, overall satisfaction with life will also increase (when the lower domains increase, the domains above them will also increase) (Sirgy *et al.*, 2007:345).

Below the domains of academic and social aspects of the university is the lowest domain, namely facilities (e.g., bookstores and recreation facilities) and services (e.g., library, protection services, healthcare services, and transportation) of the university. This domain has a direct influence on the academic and social aspects of the university, and it has an indirect influence on satisfaction with university life, through the academic and social aspects of the university (Sirgy *et al.*, 2007:345).

An individual's participation in a leisure activity can be used as a measurement to determine the effect of leisure on life satisfaction (Agyar, 2014:2). When an individual participates in a leisure activity, a feeling of positive perception is derived, and it is seen as leisure satisfaction. A predictor of life satisfaction is an individual's satisfaction with leisure (Chick *et al.*, 2015:234). Different domains, such as the family, the community, university life, and social and emotional factors, to name a few, play an important role in a student's satisfaction with life (Sirgy *et al.*, 2007:346). For this study, the emphasis will be on the domain of university life. Arslan and Akkas (2014:872) stated that when a student's satisfaction with life is high, the university will appear to be more attractive. When a student experiences life satisfaction due to university activities, they will tend to make and keep university connections and motivate others to pursue a degree at that particular university where they had positive leisure experiences that included CRS (Arslan & Akkas, 2014:872).

In conclusion, it can be seen that overall satisfaction with life is determined by satisfaction with university life. Satisfaction with university life is determined by the academic and social aspects of the university, which, in turn, are determined by satisfaction with the university's facilities and services.

2.6 CONCLUSION

To understand the influence of CRS on university students, it was important to undertake a complete literature review. In this chapter different concepts regarding recreational sport were reviewed and discussed. With CRS as the focus, an in-depth exploration was conducted of how participation in CRS activities affects and influences students that experience leisure boredom.

After reviewing the literature, it can be seen that various characteristics of leisure contribute to CRS. Students and the university will benefit from students actively participating in CRS. The literature also shows that motivation plays an important role in participation, and that there are constraints that have an impact on students' leisure behaviour. The literature review emphasises

the areas that universities can enhance through their programme development on campus, with the focus on satisfying the needs of the students, increasing their satisfaction with life, and decreasing the constraints they experience.

Although there are references to South African sources in this chapter, there is still very little and limited research available concerning CRS in SA. Further local research will help South African universities to devise programmes specifically for the needs of their students, which will lead to students being more active in their participation, which will, in turn, decrease leisure boredom and increase satisfaction with life among students.

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CHAPTER 3

Article 1: Patterns of participation in campus recreation sport, satisfaction with life, and leisure boredom

Nadine Labuschagne (a)*, Dr Cornelia Schreck (b) and Dr Theron Weilbach (c)

(a) Physical Activity, Sport and Recreation, North-West University, South Africa; Potchefstroom Campus, Private Bag X6001, Potchefstroom, 2520; nlnadine106@gmail.com, ORCID: <https://orcid.org/0000-0001-9685-960X>

(b) Physical Activity, Sport and Recreation, North-West University, South Africa; ORCID: <https://orcid.org/0000-0002-7805-0855>

(c) Physical Activity, Sport and Recreation, North-West University, South Africa; ORCID: <http://orcid.org/0000-0002-8683-1678>

** Corresponding author*

This article will be submitted for publication in the *South African Journal for Research in Sport, Physical Education and Recreation*. The article included is presented in accordance with the specific guidelines for the journal (see Appendix A). Exceptions were made for the prescribed margins, line-spacing and font to adhere to the North-West University guidelines to maintain uniformity of the dissertation. Tables and figures will also be included with the text to facilitate easier reading and comprehension.

PATTERNS OF PARTICIPATION IN CAMPUS RECREATION SPORT, SATISFACTION WITH LIFE, AND LEISURE BOREDOM

⁴Undergraduate students will experience leisure boredom when they are not exposed to campus recreation sport (CRS). The purpose of this study was to determine the participation patterns in CRS of undergraduate students of the North-West University (NWU) and to what degree they experience satisfaction with life and leisure boredom. A once-off cross-sectional design with a quantitative approach was used. The sample used in this study was that of 581 students (281 male and 300 female) who completed an online survey, which indicated an overall response rate of 4%. Questions related to demographic information, frequency of participation, the format of participation, satisfaction with life, and leisure boredom were included. The statistical analysis comprised mean scores, standard deviations, and frequencies. There were statistically significant differences between the gender groups' frequencies of taking part in netball ($p=0.010$) and social dancing ($p=0.044$). There were statistically significant differences between all racial groups' satisfaction with life ($p=0.024$) and leisure boredom ($p=0.000$). Medium to large practical significant differences was found between other/coloured ($d=0.9$), and coloured/white ($d=0.7$) and other students and African students ($d=0.6$). Statistically significant differences ($p=0.017$) for leisure boredom in the total sample regarding all three different accommodation types were found. Most students prefer to participate on their own or with their friends sharing the same interests, but not all on-campus activities cater to individual participation. This could be that students are more likely to choose activities that provide social opportunities with the social factor as the second-highest-rated motivational factor for CRS participation. Only registered undergraduate students from the NWU, Potchefstroom Campus, could participate in the survey, thus limiting the researcher with comparisons and resources from other universities.

Keywords: Campus recreation sport, leisure boredom, participation, satisfaction with life, undergraduate students.

INTRODUCTION

Undergraduate students will experience leisure boredom when they are not exposed to Campus Recreation Sport (CRS), which in turn can lead to them feeling unhappy, developing low self-confidence, abusing substances, and in the end drop out of university (Malinauskas *et al.*, 2014; Swanepoel *et al.*, 2015). Braxton *et al.* (2000) stated that more than one quarter (28.5%) of students in South Africa (SA) dropout university at the end of their first year after entering a four-year degree programme. According to Demetriou and Schmitz-Sciborski (2011), a solution to students dropping out of university might increase student involvement and participation in campus recreation. Various research has shown that campus activities, such as CRS, will have a positive impact on the health-, mental- and social factors of students who regularly participate in these activities (Kanters, 2000; Dalgarn, 2001; Haines, 2001; Edginton *et al.*, 2004; Artinger *et al.*, 2006).

Universities offer undergraduate students numerous opportunities to participate in CRS activities such as special events, sporting events, and outdoor trips (Flood & Parker, 2014). It is up to the students if they want to participate or not. The more they participate, the better their overall health and satisfaction with life will become (Forrester, 2015). However, numerous South African students lack the proper motivation to participate in recreational activities in and around campus due to them not fully understanding the benefits that these activities hold and being unfamiliar with the university environment (Dhurup, 2012). Satisfaction with life derives from different aspects (Wang, 2014), and it is a critical indicator of a person's well-being (Swanepoel *et al.*, 2015). Studies done by Hawker (2012) and Agyar (2013) showed that when students participate in leisure activities such as CRS, a feeling of positive perception is obtained, and higher levels of satisfaction with life can be expected, thus emphasising that satisfaction with life can be influenced by an individual's frequency of participation in CRS.

A study conducted by Janse van Rensburg (2018) at the North West University, Potchefstroom Campus outlined that undergraduate students will participate in CRS sport to enjoy it, enhance their health, have a sense of escape, recognition, and be social. The health factor was the most important motive for their CRS participation (Janse van Rensburg, 2018). Students also experienced different constraints keeping them from participation, known as intrapersonal, structural, activity perception, stereotyping, and interpersonal constraints. Students tend to experience more structural constraints than other constraints (Janse van Rensburg, 2018). Janse van Rensburg (2018) furthermore compared the reasons for participation and the constraints between different genders, race groups, residential types, and nationalities. Significant differences between male and female students in terms of their reasons for participation were reported.

However, male students found enjoyment more important for CRS participation than female students (Janse van Rensburg, 2018). As for constraints, females tend to experience more intrapersonal constraints than male students. Constraints can lead to students experiencing leisure boredom (Wang, 2014).

According to Wang (2014), leisure boredom may be described as the negative state of mind of a person who influenced their perception of an experience. Leisure boredom can be experienced as a meaningless and pointless way of participating in leisure activities (Wang, 2014) and can limit students' abilities to control their leisure experiences or not participate in CRS at all. Hickerson and Beggs (2007) noted that many undergraduate students displayed positive leisure behaviour, but some may exhibit negative behaviour or deviance in their leisure activities such as addiction to the Internet, alcohol abuse, and other factors (Wang, 2014). Students' deviant behaviours may be caused by a lack of leisure skills, such as teamwork, communication, problem-solving, and the presence of leisure boredom (Wang, 2014). Hickerson and Beggs (2007) also explained that if boredom created a problem in the periods of critical development of leisure behaviour, participants might look for relief during their leisure time by experimenting with undesirable methods and behaviours. Forrester (2014) added that while the factors mentioned above cause students' low participation patterns, it has a ripple effect on their satisfaction with life. Campus recreation sport has a significant value to student involvement: it provides students with the opportunity to interact with other students, getting involved in the university community, and avoiding leisure boredom (Agyar, 2013).

In South Africa research and evidence of the patterns of undergraduate university students' frequency of participation in CRS is limited. In contrast, universities in America and Canada are experiencing a growth in their body of knowledge of CRS's patterns and benefits for university students (Weilbach, 2013). A broader platform of knowledge is needed to understand the needs of undergraduate students better. This can be done by answering the following research question: What are the participation patterns in CRS of undergraduate students, and to what degree do they experience satisfaction with life and leisure boredom?

When students' needs are better understood, there can be changes made in the way South African universities plan and deliver on their tasks involving the activities and use of CRS facilities (Miller *et al.*, 2008). The purpose of this study was to determine the participation patterns in CRS of undergraduate students of the NWU and to what degree they experience satisfaction with life and leisure boredom. This study contributes to the literature by exploring the patterns of undergraduate student's satisfaction with life, leisure boredom, and their frequency of participation in CRS.

THEORETICAL FRAMEWORK

The self-determination theory continuum was used to understand and analyse the frequencies of participation in undergraduate students' CRS.

According to Ryan and Deci (2000b), the theory shows that an individual's motivation for participation is determined by the three psychological needs (autonomy, competency, and relatedness). When an activity meets one of the three psychological needs, the individual will experience a higher motivation level (Lox *et al.*, 2006). Individuals will choose to participate in an activity based on the internal and external rewards that come with the activity, thus dividing motivation into three categories, namely intrinsic motivation (personal satisfaction), extrinsic motivation (external, introjected, identified, integrated), and amotivation (no intention to take part in an activity) (Ryan & Deci, 2000a).

METHODOLOGY

Research design

A once-off cross-sectional research design with a quantitative approach was used during this study. This study forms part of a more extensive study, namely "Recreational sport participation and its associated benefits among students at the Potchefstroom Campus of the North-West University".

Ethical considerations

Ethical approval (NWU-0034-16-A1-03) was obtained from the university where the study was done (Appendix C). Furthermore, all requirements for ethics have been met. Students have given informed consent (see Appendix D for informed consent form) and participated voluntarily.

To ensure confidentiality before the data was analysed, the data was given to the then School Director of Biokinetics, Recreation and Sport Science (independent party) who made a separate file from the original data with the participants' copied student numbers. A copy of the original data was given to the study leader for the sub-study and after the analyses, the copy was deleted. All data will be kept safe in a password-protected file. The original data will be kept unchanged with the independent party. Because of the use of online questionnaires, no paper evidence was stored for confidentiality purposes.

Sample

The study's target population included all full-time registered undergraduate students from the Potchefstroom Campus of the NWU, aged between 18 and 30 years, including both males (7,554) and females (9,725). In the end, 581 students responded in the study.

Of the 581 students that completed the survey, 88.1% had participated in some form of recreational sport activity during the first six months of 2017. That left 512 respondents whose feedback will be used in the following tables and explanations. The sample consisted of 48% male students and 52% female students. The different races included white (71%), black (22%), coloured (6%) and Indian/Asian (1%) students. The study included students living in four different residential types known as campus residences on the campus premises (29%), a day-residence (9%) where students do not live on the campus premises, private residence (62%) within the boundaries of Potchefstroom with no affiliation to any campus residence, and students who live outside the boundaries of Potchefstroom in private residences (9%).

Data collection

SurveyMonkey®, a cloud-based software system, was used to develop an online survey to collect the data. The link to the survey was placed on the online learning management system of the NWU. After giving informed consent, access to the research questionnaire (Appendix E) was granted. The questionnaire contained both open-ended and close-ended questions that comprised eight sections. However, for this article, only the sections related to 1) demographic information (age, sex, and race); 2) frequency (number of times of participation) and format (hostel teams, private clubs, friends, or on their own) of participation in recreational sport; 3) satisfaction with life (include items from the Satisfaction with Life Scale); and 4) leisure boredom (items from the LEBYA that relate to boredom) was used. A five-point Likert scale was used to answer the questions to determine the level of agreement that the students had with the question (5=strongly agree; 4=agree; 3=neutral; 2=disagree; 1=strongly disagree). The Statistical Consultation Services of the NWU confirmed the sections used in the questionnaire, and a security feature was put in place to protect the online information from getting leaked or destroyed.

Statistical analysis

The data analysis was conducted by the Statistical Consultation Services of the NWU (Potchefstroom Campus) using SPSS version 24.0 (IBM Corp., Armonk, NY, USA) to describe the CRS's participation patterns, leisure boredom, and satisfaction with the life of the students. In-

depth meaning and descriptions of specific situations like frequencies, demographics, and other variables were provided to the researcher using descriptive statistics, including mean scores, standard deviations, and frequencies. The Cronbach alpha coefficients were calculated for the questionnaire's relevant sections for internal consistency (accepted 0.6) (Janse van Rensburg, 2018). Finally, effect sizes, t-tests, and ANOVAs (Analyses Of Variance), with Tukey's Post Hoc tests, were used to determine the statistical significance or practical differences between demographic variables and the factors extracted.

RESULTS

This section will discuss the analyses of the frequency of participation in various recreational activities and students' satisfaction with life and leisure boredom.

After analysing sixty different recreational sports activities, the top ten activities in which students participated the most were identified. Table 1 outlines the top ten activities, based on the average frequency of participation, in terms of gender, race, and accommodation. Both male and female students are very active in participating in similar recreational sports activities, such as general exercise, road running, jogging, and field hockey. In terms of race, White, African, Coloured and students from "Other" races participate in general exercise the most. Students living in campus, town, and private residences have similar frequencies with the top three activities. The activities identified in Table 1 are not all necessarily recreation sports activities and are known as usual leisure activities that can take place on and off-campus. Some of these activities do not need structured guidelines to function as a proper programme.

Table 1: The overall ten recreational activities students participate in most according to the frequency of participation (times per month)

Top 10 recreational sport activities	Gender		Race				Residential Type		
	Male	Female	White	African	Coloured	Other	Campus	Town	Private
	Average participation frequency per month								
General exercise ⁵	14.92	14.37	14.88	11.50	25.20	23.18	16.26	13.18	14.06
Road running ⁶	11.58	9.09	10.34	8.94	23.00	11.33	16.33	9.00	9.31
Jogging ⁷	10.84	10.74	10.56	9.91	18.83	5.50	11.76	10.68	10.14
Field hockey	6.80	7.24	6.82	8.22	10.00	5.50	7.45	7.14	6.22
Swimming for fun	4.83	5.75	8.40	5.50	6.00	3.60	5.30	4.50	5.55
Social dancing	4.38	6.55	5.05	8.23	14.00	0.00	5.61	6.06	5.73
Squash	4.13	3.45	3.95	1.00	0.00	3.67	3.64	3.56	4.32
Field soccer	2.98	2.15	4.88	5.62	10.50	4.33	6.87	5.50	4.90
Hiking	2.05	2.91	2.50	3.50	3.33	1.67	2.96	3.90	2.02
Golf	2.98	2.15	2.94	2.00	0.00	2.00	2.14	2.70	3.44

In Table 2, the focus is not on the average frequency of participation but on the number of students who participate in the various activities and the difference in these numbers based on gender. An ANOVA reported statistically significant differences between the gender groups' number of persons taking part in netball ($p=0.010$) and social dancing ($p=0.044$). A slight difference was found for field soccer ($d=0.33$) and a medium significant difference for netball ($d=0.53$).

⁵General exercise includes gymnasiums, boot camps etc.

⁶Road running: marathons, competitive running etc.

⁷Jogging: park runs, non-competitive running etc.

Table 2: Differences according to gender in the number of student participation in the top ten recreational sport activities

<i>Gender</i>		$\bar{X}$	SD	<i>p</i> -value	<i>d</i>
General exercise	Male (n=119)	14.92	12,575	0,729	0.04
	Female (n=141)	14.37	13,249		
Jogging	Male (n=89)	10.84	9,728	0,944	0.01
	Female (n=106)	10.74	11,374		
Swimming for fun	Male (n=60)	4.83	5,799	0,419	0.13
	Female (n=73)	5.75	7,291		
Squash	Male (n=60)	4.13	3,972	0,332	0.17
	Female (n=29)	3.45	2,585		
Golf	Male (n=59)	2.98	3,707	0,156	0.22
	Female (n=13)	2.15	1,144		
Field soccer	Male (n=59)	6.12	5,038	0,052	0.33*
	Female (n=19)	4.47	2,220		
Touch rugby	Male (n=58)	7.41	10,736	-	0.60
	Female (n=1)	1.00	-		
Road running	Male (n=48)	11.58	10,724	0,305	0.23
	Female (n=34)	9.09	10,816		
Table tennis	Male (n=39)	5.10	5,025	0,457	0.17
	Female (n=33)	6.52	8,168		
Hiking	Male (n=37)	2.05	1,810	0,256	0.19
	Female (n=45)	2.91	4,597		
Yoga	Male (n=6)	6.33	7,394	0,690	0.18
	Female (n=41)	7.68	7,541		
Netball	Male (n=11)	3.09	2,737	0,010*	0.53**
	Female (n=40)	6.80	6,966		
Putt-putt	Male (n=35)	2.49	5,008	0,428	0.14
	Female (n=27)	1.78	1,311		
Social dancing	Male (n=37)	4.38	4,633	0,044*	0.40
	Female (n=62)	6.55	5,805		

*Small effect size: $d=0.3$; **Medium effect size: $d=0.5$; ***Large effect size: $d=0.8$.

*Statistical significance: $p \leq 0.05$.

d , effect size; SD, standard deviation; $\bar{X}$, Average frequency.

Table 3: Different race groups' top ten recreational activities rank according to the frequency of participation (times per month)

White	N	SD	$\bar{X}$	African	N	SD	$\bar{X}$	Coloured	N	SD	$\bar{X}$	Other	N	SD	$\bar{X}$
General exercise	182	12.074	14.88	General exercise	62	8.345	11.50	Touch rugby	2	49.497	37.00	General exercise	5	28.385	25.20
Jogging	126	11.093	10.56	Jogging	53	7.779	9.91	General exercise	11	27.228	23.18	Road running	3	6.351	11.33
Road running	59	9.718	10.34	Road running	17	8.807	8.94	Jogging	12	14.807	18.83	Swimming for fun	5	9.915	8.40
Field hockey	51	7.919	6.82	Basketball	15	6.043	7.33	Social dancing	3	14.731	14.00	Jogging	4	3.416	5.50
Swimming for fun	104	7.068	5.50	Field soccer	45	4.735	5.62	Field soccer	6	6.473	10.50	Field soccer	3	2.517	4.33
Table tennis	54	6.377	5.50	Off-road running	10	4.849	4.80	Swimming for fun	4	4.243	6.00	Squash	3	1.155	3.67
Squash	85	3.645	3.95	Indoor soccer	15	3.283	4.73	Table tennis	2	2.121	5.50	Indoor soccer	2	0.707	3.50
Golf	64	3.563	2.94	Touch rugby	11	4.735	4.73	Tennis	2	0.000	4.00	Golf	3	1.732	2.00
Hiking	74	3.754	2.50	Tennis	14	4.762	4.29	Chess	2	2.121	3.50	Hiking	3	1.155	1.67
Putt-putt	59	3.941	2.24	Swimming for fun	20	2.664	3.60	Yoga	3	2.000	3.00	Indoor hockey	2	0.707	1.50

$\bar{X}$, Average frequency of participation per month

It is clear from Table 3, that general exercise, jogging, and road running are the top three activities White and African students take part in most frequently. According to the top ten activities, Coloured students took part in touch rugby the most, whereas African students took part in it the least. African students are the only students for whom basketball was in the top ten activities. White students preferred to take part in field hockey and swimming for fun. In terms of the top ten activities, African students took part in swimming for fun, the least of all racial groups. In terms of the top ten activities, golf, tennis, and hiking were the activities with the lowest participation frequency within the top ten.

Table 4: Top ten recreational activities rank according to the frequency of participation (times per month) based on residential type

Campus	N	SD	$\bar{X}$	Town	N	SD	$\bar{X}$	Private	N	SD	$\bar{X}$
General exercise	78	16.002	16.26	General exercise	28	9.157	13.18	General exercise	154	11.703	14.06
Jogging	71	13.091	11.76	Jogging	19	9.753	10.68	Jogging	105	8.820	10.14
Field hockey	31	9.615	7.45	Field hockey	14	6.585	7.14	Road running	54	8.068	9.31
Field soccer	30	5.077	6.87	Social dancing	17	4.697	6.06	Social dancing	44	6.511	5.73
Netball	33	7.178	6.73	Netball	3	2.309	5.33	Swimming for fun	78	5.951	5.55
Table tennis	32	7.318	6.50	Touch rugby	8	4.749	4.63	Field soccer	40	4.012	4.90
Social dancing	38	4.529	5.61	Swimming for fun	18	3.854	4.50	Squash	37	4.691	4.32
Swimming for fun	37	8.888	5.30	Athletics	6	5.357	4.50	Tennis	32	3.689	3.94
Squash	36	2.870	3.64	Off-road running	4	4.082	4.00	Golf	34	4.322	3.44
Golf	28	1.627	2.14	Squash	16	1.548	3.56	Hiking	48	1.756	2.02

$\bar{X}$, Average frequency.

In terms of residential type, general exercise, jogging, field hockey, and road running are the most participated in activities. Differences between preferred activities were identified based on residential types. Town residence students frequently took part in athletics and private residence

students preferred road running over field hockey. Campus residence students frequently took part in table tennis, whereas town residence students frequently took part in off-road running.

Table 5: Format in which students participate in the ten most frequently participated campus recreational sport activities

Format of activity	Gender		Race				Residential Type		
	Male %	Female %	White %	African %	Coloured %	Other %	Campus %	Town %	Private %
General exercise									
Hostel teams	1.7	0.0	0.5	1.6	0.0	0.0	1.3	2.6	0.0
Private clubs	2.5	4.3	3.8	3.2	0.0	0.0	2.6	5.6	3.9
Family	0.9	2.1	2.3	0.0	0.0	0.0	0.0	0.0	2.6
Friends	27.7	20.6	22.5	24.2	36.4	40.0	32.0	16.8	20.8
On my own	67.2	73.0	70.9	71.0	63.6	60.0	64.1	75.0	72.7
Total	100	100	100	100	100	100	100	100	100
Road running									
Hostel teams	-	-	-	-	-	-	-	-	-
Private clubs	14.5	5.9	11.9	5.9	33.3	0.0	20.0	15.4	7.4
Family	4.2	11.8	8.5	5.9	0.0	0.0	6.6	0.0	9.3
Friends	27.1	29.4	27.1	29.5	33.3	33.3	26.7	30.8	27.7
On my own	54.2	52.9	52.5	58.7	33.4	66.7	46.7	53.8	55.6
Total	100	100	100	100	100	100	100	100	100
Jogging									
Hostel teams	1.1	0.0	0.8	0.0	0.0	0.0	1.4	0.0	0.0
Private clubs	2.2	1.9	3.2	0.0	0.0	0.0	2.8	0.0	1.9
Family	4.5	3.8	2.4	7.5	0.0	25.0	1.5	0.0	6.7
Friends	27.0	35.8	31.0	35.9	25.0	25.0	36.6	21.1	30.3
On my own	65.2	58.5	62.6	56.6	75.0	50.0	57.7	78.9	61.1
Total	100	100	100	100	100	100	100	100	100

continued

Table 5: Format in which students participate in the ten most frequently participated campus recreational sport activities *continued*

Format of activity	Gender		Race				Residential Type		
	Male %	Female %	White %	African %	Coloured %	Other %	Campus %	Town %	Private %
Field hockey									
Hostel teams	73.4	42.4	62.7	22.2	100.0	50.0	87.1	64.4	0.0
Private clubs	13.3	21.2	15.7	22.2	0.0	50.0	0.0	21.4	44.4
Family	0.0	6.1	3.9	0.0	0.0	0.0	3.2	7.1	0.0
Friends	13.3	24.2	15.7	44.4	0.0	0.0	9.7	7.1	44.4
On my own	0.0	6.1	2.0	11.2	0.0	0.0	0.0	0.0	11.2
Total	100	100	100	100	100	100	100	100	100
Swimming for fun									
Hostel teams	-	-	-	-	-	-	-	-	-
Private clubs	-	-	-	-	-	-	-	-	-
Family	20.0	15.0	19.2	20.0	0.0	75.0	5.4	5.6	30.8
Friends	46.7	59.0	56.7	60.0	100.0	0.0	75.7	72.2	43.6
On my own	33.3	26.0	24.1	20.0	0.0	25.0	18.9	22.2	25.6
Total	100	100	100	100	100	100	100	100	100
Social dancing									
Hostel teams	0.0	3.2	1.2	0.0	33.3	-	5.3	0.0	0.0
Private clubs	8.1	3.2	2.5	23.1	0.0	-	2.6	5.9	6.8
Family	-	-	-	-	-	-	-	-	-
Friends	89.2	87.1	92.6	61.5	66.7	-	89.5	88.2	86.4
On my own	2.7	6.5	3.7	15.4	0.0	-	2.6	5.9	6.8
Total	100	100	100	100	100	100	100	100	100
Squash									
Hostel teams	6.7	10.3	8.2	0.0	-	0.0	16.7	6.3	0.0
Private clubs	1.7	0.0	1.2	0.0	-	0.0	0.0	0.0	2.7
Family	6.7	13.8	9.4	0.0	-	0.0	2.8	18.8	10.8
Friends	83.3	65.5	76.5	100.0	-	100.0	72.2	75.1	83.8
On my own	1.6	10.4	4.7	0.0	-	0.0	8.3	0.0	2.7
Total	100	100	100	100	100	100	100	100	100

continued

Table 5: Format in which students participate in the ten most frequently participated in campus recreational sport activities *continued*

Format of activity	Gender		Race				Residential Type		
	Male %	Female %	White %	African %	Coloured %	Other %	Campus %	Town %	Private %
<i>Field soccer</i>									
Hostel teams	33.9	47.4	75.0	17.8	50.0	0.0	76.7	62.5	2.5
Private clubs	16.9	10.5	0.0	22.2	33.3	0.0	3.3	12.5	25.0
Family	-	-	-	-	-	-	-	-	-
Friends	49.2	31.6	25.0	55.6	16.7	100.0	20.0	25.0	67.5
On my own	0.0	10.5	0.0	4.4	0.0	0.0	0.0	0.0	5.0
Total	100	100	100	100	100	100	100	100	100
<i>Hiking</i>									
Hostel teams	-	-	-	-	-	-	-	-	-
Private clubs	0.0	4.4	2.7	0.0	0.0	0.0	0.0	10.0	2.1
Family	21.6	44.5	36.5	0.0	0.0	33.3	29.2	50.0	33.3
Friends	64.9	46.7	52.7	100.0	100.0	66.7	62.5	30.0	56.3
On my own	13.5	4.4	8.1	0.0	0.0	0.0	8.3	10.0	8.3
Total	100	100	100	100	100	100	100	100	100
<i>Golf</i>									
Hostel teams	-	-	-	-	-	-	-	-	-
Private clubs	3.4	0.0	3.1	0.0	-	0.0	0.0	0.0	5.9
Family	16.9	15.4	14.1	40.0	-	33.3	21.4	30.0	8.8
Friends	71.2	69.2	73.4	60.0	-	33.4	75.0	60.0	70.6
On my own	8.5	15.4	9.4	0.0	-	33.3	3.6	10.0	14.7
Total	100	100	100	100	100	100	100	100	100

Table 5 shows the format (hostel teams, private clubs, family, friends, and on their own) in which students participate in CRS activities. Friends were identified as the most popular format for participation in most activities, although general exercise, road running, and jogging are primarily participated in by students independently. Students prefer to participate in field soccer, field hockey, and road running within the hostel and private clubs. As seen in Table 5, students will participate in swimming for fun and hiking in a family format.

Table 6: Gender, race and accommodation differences regarding satisfaction with life

		N	M	SD	p-value
Gender	Male	281	3.4847	0.88758	0.849
	Female	300	3.4980	0.79015	
Race	Other	16	3.3375	0.92583	0.024*
	Black	194	3.3722	0.88736	
	Coloured	37	3.3568	0.84213	
	White	334	3.5832	0.79470	
Accommodation	Campus	169	3.4935	0.82434	0.716
	Town	54	3.5778	0.77476	
	Private	358	3.4777	0.85478	

*Statistical significance: $p \leq 0.05$.

M, mean; SD, standard deviation.

There was no practical significance found between gender groups and satisfaction with life. ANOVA showed statistically significant differences between all racial groups' satisfaction with life ($p = 0.024$). Subsequently, the Tukey Post Hoc test and effect sizes showed there were no significant underlying differences when the satisfaction with life of different racial groups was compared to each other.

ANOVA showed no statistically significant differences in satisfaction with life in the total sample regarding all three accommodation types. There were also no underlying differences (Tukey Post Hoc test and effect sizes) with the satisfaction levels of students in different accommodation types compared to each other.

Table 7: Gender, race, and accommodation differences regarding leisure boredom

		N	M	SD	p-value
Gender	Male	281	2.3900	0.87172	0.148
	Female	300	2.4987	0.93458	
Race	Other	16	2.0875	1.00125	0.000*
	Black	194	2.6495	0.87736	
	Coloured	37	2.9568	0.91425	
	White	334	2.2886	0.87325	
Accommodation	Campus	169	2.2982	0.86798	0.017*
	Town	54	2.3519	0.90611	
	Private	358	2.5302	0.91495	

*Statistical significance: $p \leq 0.05$.

M, mean; SD, standard deviation.

There were no statistical significant differences found between gender groups in terms of leisure boredom. ANOVA showed that there were statistically significant differences between all racial groups' leisure boredom ($p=0.000$). Subsequently, the Tukey Post Hoc test showed underlying differences when the leisure boredom of different racial groups was compared to each other, with Coloured students experiencing less boredom than students from "other" races. In terms of effect sizes, medium to large significant differences were found between other/coloured ($d=0.9$), and coloured/white ($d=0.7$) and Other students and African students ($d=0.6$).

ANOVA showed statistically significant differences ($p=0.017$) for leisure boredom in the total sample regarding all three accommodation types. Subsequently, when leisure boredom of the different accommodation types was compared to each other, there were two underlying differences, a minor practical significance ($d=0.3$) between campus accommodation and private accommodation and a medium underlying difference between campus accommodation and town accommodation ($d=0.6$). Thus, the leisure boredom of students living in campus residences is lower than students living in town residences and students living in private residences. Lastly, students living in private residences came across to experience more leisure boredom than students living in campus or town residences.

DISCUSSION

This study aimed to determine patterns in undergraduate students' frequency of participation in CRS, satisfaction with life, as well as the leisure boredom they experience. Differences between gender, race, and accommodation type in CRS activities students take part in and what format they prefer to participate in were revealed in this study. Results will be discussed according to participation patterns, satisfaction with life, and leisure boredom, emphasising the importance of CRS for university students.

Participation patterns

Mugwedi and Mulibana (2014) indicated in their research that there were low participation levels in recreational sports activities at tertiary institutions among students. Table 1 shows the top ten activities that were identified as the activities that undergraduate students take part in the most frequently. Seven out of ten activities (general exercise, road running, jogging, swimming for fun, social dancing, hiking, and golf) occur off-campus and do not necessarily require university facilities to function. Students can participate in these activities on their own and/or in a group. Some students prefer to participate in such activities alone, possibly because not all on-campus activities cater to individual participation, such as road running, marathons, or park runs. Universities can look to offer more CRS activities that focus on individual participation and not just focus on group participation or team-based sports. The top ten activities in Table 1 mainly consist of informal sports. Informal sport is a self-directed sport that focuses on fun and fitness (Ross, 2006). This classification of sport is the least structured. Knowing that students frequently take part in more informal recreation sports activities, universities can turn their attention to providing more opportunities for informal recreation sports activities. Not all students participate in competitive recreation sports and are more interested in activities that focus on fun and are self-directed, as presented in Table 1 (Ross, 2006).

Furthermore, the results show that both male and female students seem to be very active in participating in all recreational sports activities. Bloemhoff (2010), on the other hand, found that male students are more active in physical activities than female students. Barcelona and Ross (2002:47) also stated that male students were more involved in CRS activities than female students. All the activities available for the students are suitable for both male and female students. Female students also participate in field soccer, whereas male students also participate in netball. There was no significant difference between the different genders when it came to them choosing their activities the most. However, Table 2 indicates that female students participate significantly

more frequently in netball and social dancing than male students. This could be because netball is traditionally seen as a woman's sport and has only recently started to cater for male students (Tagg, 2016). Social dancing is an activity that requires high energy levels and physical fitness (Asci, 2002). This activity is participated more by female students, and this could be that they find the energetic activity fun, improve their overall physical fitness and self-perception, and take place in a group format (Asci, 2002). Another reason is that female students frequently participated in social dancing because it provided them with the opportunity to interact with people, form new relationships, and an informal event with fewer administrative resources (Ross, 2006).

It is clear from Table 3 that Coloured students took part in touch rugby the most, whereas African students took part in it almost the least. It should be noted that the frequency for participation in touch rugby was high, but the number of students who participated where low. This can be that Coloured students participate more in the social aspect of the sport and not so much for the competitive side (Morrell, 2017). Table 3 also showed that African students took part in swimming for fun the least of all racial groups, and this could be due to cultural differences having an impact on specific activities, such as swimming aptitude, or these students may not have had the necessary access to swimming facilities (Layne *et al.*, 2020). Although the frequency for participation in touch rugby was high, the number of students who participated where low, possibly due to the small portion that Coloured students who participated in the study and the fact that male students mostly play it.

Table 4 shows that CRS's frequency for students living in private residences is the lowest of the three different residential types. This can be that they have different needs than the other students in terms of activities. The environment and available facilities/activities will determine their participation. These students can feel that they have not developed friendships with other students who can participate, thus not feeling comfortable enough to participate in all the CRS activities (Henchy, 2011). Another reason may be that off-campus/private students are constrained to participate in CRS activities due to transport and their feeling that these activities are inaccessible. Selvaratnam *et al.* (2021) support this statement by adding that constraints impact reducing students' frequency of participation in CRS activities.

Table 5 shows that "on your own" and "friends" are the most popular formats in terms of the different participation formats. Three out of ten of the top ten activities are generally done alone, such as general exercise, road running, and jogging. This leads to the question of why students tend to take part in these CRS activities on their own. This can be answered by examining students' behavioural regulations (Ryan & Deci, 2000b). Ryan and Deci (2000b) identified three different

regulatory styles: amotivation, extrinsic motivation, and intrinsic motivation, focusing on extrinsic motivation. Extrinsic motivation is dependent on four different regulations and the degree to which it is integrated; external regulation, introjected regulation, identified regulation, and integrated regulation. According to the results, a link to identified regulation can be made. This is a more self-determined form of extrinsic motivation. Students will acknowledge the importance of their behaviour and regulate their own (Ryan & Deci, 2000).

For example, when students participate more in CRS that focus on general exercise and jogging, in which they usually participate alone, they will identify it as an activity that contributes to another CRS activity such as field soccer, netball, or athletics, only to name a few (Ryan & Deci, 2000). Intrinsic motivation, on the other hand, can also be a factor of students participating alone. When students are motivated through self-determination, personal goals, or personal rewards, they will experience intrinsic motivation (Ryan & Deci, 2000). Some students may only be interested in participating alone in CRS activities. Referring to the Self-Determination Theory continuum of Ryan and Deci (2000), when students participate in these informal recreation sports areas, they will experience intrinsic motivation. This means that when a student takes part in an activity for pure enjoyment and not to compete with others, they will experience intrinsic motivation. No one can influence them to participate in the activity (Ryan & Deci, 2000). It is purely up to them. It is clear from the results that most of the students participate for this reason only. Thus, when students feel comfortable in a specific environment and know that they are in control of their outcome, the feeling of intrinsic motivation will enhance participation (Ryan & Deci, 2000).

On the other hand, seven out of ten of the top ten activities in Table 5 are done with friends, such as field hockey, swimming for fun, social dancing, squash, field soccer, hiking, and golf. This could be that students are more likely to choose activities that provide social opportunities (Beggs *et al.*, 2014). Various reasons for students to participate with their friends in a group was identified by Beggs *et al.* (2014), such as the need for interpersonal relationships, getting a self-esteem boost from friends, students are more comfortable doing certain things with familiar people, students developing friendships, and maintaining friendships. Beggs and colleagues (2014) found that the social factor was the second-highest-rated motivational factor for CRS participation in their study.

Satisfaction with life

When activities presented on campus are not according to the students' needs or social identity, a feeling of uncertainty will arise, leading to students feeling unsure about themselves (Henchy, 2011; Anderson *et al.*, 2016); as students are still exploring and finding what activity is best for

them (Anderson *et al.*, 2016). When students experience uncertainty, they will most likely show signs of low self-esteem and health-compromising behaviours such as drug abuse and have low satisfaction with life (Weybright *et al.*, 2015).

As shown in Table 6, no practical significance was found between gender groups and satisfaction with life. In contrast, Malinauskas *et al.* (2014) reported a difference in satisfaction with life between male and female Lithuanian students. Female students had higher satisfaction with life than male students (Malinauskas *et al.*, 2014). This could be that not all activities are suitable or challenging for male students. Bugay (2007), on the other hand, found that male Turkish students had higher satisfaction with life levels than female students. This can be that female students tend to have a more emotional response to activities and an unpleasant effect, especially when the activity is not entirely suited for them in terms of masculinity and skills (Diener, 1999). The contrasting nature of the studies' findings highlights that students' satisfaction with life may depend on the specific context and should not be generalised.

Leisure boredom

As seen from the results in Table 7, the "Other" (Indian/Asian) racial group's leisure boredom was lower than that of African students and Coloured students, while White students, African students, and Coloured students also differed from each other. Coloured students came across to experience the most leisure boredom of all four racial groups. Coloured students can experience a lack of interest and have no intention to participate in an activity (amotivation) because they may feel that the university does not cater to their leisure needs, as Weilbach (2013) reported. Some students only participate in activities if it is sensitive towards their specific ethnic group and if they can participate in it with their friends from the same ethnic group (Walker *et al.*, 2007). Not all students are comfortable enough to make friends with other race groups (Walker *et al.*, 2007). Provision of all the CRS programmes should not necessarily be made for everyone, but rather the climate and the environment should be favourable for everyone to feel at home and to be able to participate. Thus, including everyone from different ethnic groups. Walker and colleagues (2007) found similar results that Asian students experienced more interpersonal constraints when it came to them participating in activities. Asian students are more likely to experience leisure boredom due to them not being motivated to participate for social reasons such as not having a significant other to participate with and not having a sense of belonging (Walker *et al.*, 2007). Walker *et al.* (2007) added that this culture sees leisure activities as a negative word and a symbol of capitalist societies.

Thus, Asian students are more likely to participate in CRS with other students from the same ethnic background or with the same values.

Considering the accommodation types, students living in campus residences had lower leisure boredom than students living in town and private residences. These students can access different activities easier than students living off-campus. Not all students living off-campus have the transport to travel to and from the campus to participate in activities presented during different times of the day (Allen & Farber, 2018). Some students depend on specific transport, and that transport only travels during certain times of the day. Weilbach (2013) stated that students staying in private accommodation experienced more structural constraints than students staying in hostels. Programmes need to be developed so that it is accessible for all students any time of the day to maximise participation. This can be done using campus transport to locate students to and from a specific central location in town. Programmes can also be presented during lunchtime (12:00-14:00) when most of the students have a free class period and can participate without excess travelling to and from campus.

CONCLUSION

In conclusion, male students and female students are both very active in CRS participation. It is reported that gender as a variable does not necessarily influence leisure boredom, but race, on the other hand, has a particular influence on leisure boredom. White students tend to participate more frequently in swimming for fun, and African, Coloured, and Other students in field soccer and social dancing. Most of the students prefer to participate on their own or with their friends sharing the same interests. Coloured students experience the most leisure boredom between the different race groups, adding that their satisfaction with life is also the lowest. White and African students had the highest satisfaction with life, and they experienced less leisure boredom. In terms of residential types, students living in campus residence experience less leisure boredom than students living in town and private residences.

A possible reason for the differences mentioned above between genders is that some students experience amotivation (opposite of motivation) (Cooper *et al.*, 2012). Students living in private residences may feel that they have not developed friendships with other students who can participate, thus not feeling comfortable enough to participate in all the CRS activities (Henchy, 2011). Another reason may be that private students are constrained to participate in CRS activities due to transport and their feeling that these activities are inaccessible. Selvaratnam *et al.* (2021)

support this statement by adding that constraints impact reducing students' frequency of participation in CRS activities.

It is recommended that universities focus more on informal recreational sports activities. The activities mentioned in this study focus on informal sport and intramural sport and not so much on the rest of the recreational sports areas. Students tend to participate more in informal recreational sports. Universities must offer more opportunities for the students to participate in this specific area because it is clearly in their interest. This recommendation is also supported by Janse van Rensburg (2018), stating that more non-competitive activities should be held on campus.

By recognising the limitations, the researcher can make suggestions for future studies and closing the gap where it is needed. The sample used in this study was very small (n=581). Only registered undergraduate students from the NWU, Potchefstroom Campus, could participate in the survey, thus limiting the researcher with comparisons and resources from other universities that could have contributed to the study. The survey was compiled in English, hence the terminology, language barriers, and lack of knowledge in the specific field may have impacted how students interpreted the different terminology used in the survey. Future studies at other South African higher education institutions with a larger sample size need to duplicate this study to add to the body of knowledge in order to understand students' participation patterns in CRS. Student groups are changing every year, in terms of diversity, therefore, including students in discussions and conduction a needs assessment will help universities develop future programmes that will focus and deliver on students' needs (Janse van Rensburg, 2018). When universities find new ways of adapting and delivering CRS activities according to students' different needs, all students' inclusion on campus will be promoted.

The NWU may spend money on recreation services, infrastructure, and facilities, but it does not necessarily attract the students. This can lead to students participating on their own and doing other things in their free time. The university needs to review its current programmes and decide how and when they want to present them. The university will also need to review its marketing strategy for current students and decide whether they are optimally satisfied with the way programmes are currently being marketed and whether it lacks adherence. The university must analyse their CRS programmes and ensure that it is inclusive and caters for diversity on campus (Department of Sport & Recreation: 2013). By getting the students involved in CRS, the NWU gains a sense of cohesion, and the students experience a sense of belonging. Students tend to participate alone in CRS, which leads to the NWU not getting that coveted sense of cohesion.

Furthermore, the university can certainly focus on activities that most students participate in, but they should also consider that there may be activities in which fewer people participate, but with a higher frequency. The NWU must balance activities for the mass students who can participate less against the activities that fewer students participate in but participate more.

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CHAPTER 4

Article 2: Correlations between frequency of participation in campus recreation sport, leisure boredom, and satisfaction with life of undergraduate students of the North West University

Nadine Labuschagne (a)*, Dr Cornelia Schreck (b) and Dr Theron Weilbach (c)

(a) *Physical Activity, Sport and Recreation, North-West University, South Africa; Potchefstroom Campus, Private Bag X6001, Potchefstroom, 2520; nlnadine106@gmail.com, ORCID: <https://orcid.org/0000-0001-9685-960X>*

(b) *Physical Activity, Sport and Recreation, North-West University, South Africa; ORCID: <https://orcid.org/0000-0002-7805-0855>*

(c) *Physical Activity, Sport and Recreation, North-West University, South Africa; ORCID: <http://orcid.org/0000-0002-8683-1678>*

* *Corresponding author*

This article will be accepted for publication in the *South African Journal for Research in Sport, Physical Education and Recreation*. The article included is presented in accordance with the specific guidelines for the journal (Appendix A). Exceptions were made for the prescribed margins, line-spacing and font to adhere to the North-West University guidelines to maintain uniformity of the dissertation. Tables and figures will also be included with the text to facilitate easier reading and comprehension.

Correlations between frequency of participation in campus recreation sport, leisure boredom, and satisfaction with life of undergraduate students of the North West University

⁸Many students experience distress, loneliness, or even disengagement in their academic career as they transition from high school to university. The purpose of this study was to determine the correlation between the frequency of participation in Campus Recreation Sport (CRS), leisure boredom, and satisfaction with the life of undergraduate students of the North-West University (NWU). A once-off cross-sectional design with a quantitative approach was used. 48% male and 52% female students completed an online survey. Only the sections related to demographic information, frequency participation, the format in which each activity is presented, satisfaction with life, and leisure boredom were used for this article. The activities they needed to identify in the survey were grouped into six different sport codes namely main, additional, group, outdoor, dance, and exercise. Spearman correlation coefficients were used to determine the relationships between different variables. The study's underlying factor structure was examined through an exploratory/confirmatory factor analysis. Negative statistical significance correlations between satisfaction with life and leisure boredom ($r=-.170, p=0.000$) were reported. Outdoor sport codes ($r=.143, p=0.001$) had a large and positive statistically significant relation to satisfaction with life reporting a larger and negative statistically significant relation to leisure boredom ($r=-.149, p=0.000$). There was a small but, positive statistically significant relation between satisfaction with life, additional sport codes ($r=.123, p=0.039$), and outdoor sport codes ($r=.124, p=0.037$). Leisure boredom had a large, negative statistically significant relation with satisfaction with life ($r=-.214, p=0.000$) and exercise sport codes ($r=-.149, p=0.010$). A large, positive statistically significant relation was found between satisfaction with life and outdoor sport codes ($r=.159, p=0.006$). Statistical significance was found between satisfaction with life and leisure boredom with the total participation frequency ($r=-.170, p=0.000$). The sample used in this study was very small ($n=581$). Only registered undergraduate students from the NWU, Potchefstroom Campus, could participate in the survey, limiting the researcher with comparisons and resources from other Universities.

Keywords: Campus recreation sport, leisure boredom, participation, satisfaction with life, undergraduate students

INTRODUCTION

Many students experience distress, loneliness, or even disengagement in their academic career as they transition from high school to university (Busseri *et al.*, 2010), leading to universities facing issues of recruitment, retention, and student satisfaction with life (Lindsey & Sessoms, 2006). Barnes *et al.* (2015) added that student retention is a great challenge for universities. Students' negative experiences could result from experiencing various leisure constraints, including interpersonal, intrapersonal, and structural constraints, leading to leisure boredom (Caldwell, 2005; Jackson, 2005; Malinauskas *et al.*, 2014; Swanepoel *et al.*, 2015). According to Banta and colleagues (cited by Lindsey & Sessoms, 2006), if the facilities and Campus Recreation Sport (CRS) programmes on campus are not up to par, students are likely to lose interest in what that specific university has to offer. CRS is an informal sport that students take part in on-campus, which plays an essential role in their student life development (Kanters, 2000).

Research has found that students choose a specific university to become more involved in the university's extracurricular activities (Tinto, 1975; Lindsey & Sessoms, 2006), such as CRS. When universities have a strong orientation toward students' needs, they are more likely to pursue such universities (Astin, 1993). Students who participate more in CRS have a greater commitment rate in their overall student lives than those who do not participate (Hall, 2006). These students will also have better academic performance, a high social life, and be more satisfied with their university experience (Astin, 1993). Light (1990) supported this statement by adding that when students become more involved in these activities, they will experience life satisfaction. Therefore, the university must cater to these challenges (low academic performance, leisure boredom, and not experiencing satisfaction with life) with meaningful opportunities for students to form their identities, form new relationships, and explore new interests (Busseri *et al.*, 2010). These meaningful opportunities, which include CRS, give students a feeling of having a purpose in life and enhance their overall satisfaction with life (Spruyt *et al.*, 2018).

Satisfaction with life refers to an individual having a positive emotional reaction to the activities and happenings in their life, and, in the case of university students, this includes recreational sports activities (Lapa, 2013). University students experiment with a broad range of experiences to seek a better understanding of themselves, and CRS is a window of opportunity for students to better understand themselves (Busseri *et al.*, 2010). Gender, race, and language influence students' leisure behaviour (Fourie *et al.*, 2011), and great importance must be placed on students' different preferences. Leisure boredom will arise when a student is not satisfied with an activity or when an

activity is not uniquely designed according to students' needs (Fourie *et al.*, 2011). Leisure boredom is the main negative leisure experience of students. (Fourie *et al.*, 2011). When leisure boredom arises, students will experience an activity as pointless and meaningless (Spruyt *et al.*, 2018). The various benefits of participation in CRS, such as improvement in social skills, achieving intellectual goals, and better academic performance, only to name a few, will increase students' satisfaction with life and decrease their leisure boredom (Wang *et al.*, 2008).

South African universities lack knowledge of how vital CRS activities are in forming students' identity (Fourie *et al.*, 2011). Thus, using this information will help universities grow their body of knowledge in recreational sports on South African campuses and decrease students' chance to experience distress, loneliness, and leisure boredom and partake in negative leisure such as excessive drinking and drug abuse. CRS is beneficial to universities because it is one of the main reasons students do not drop out of universities (Hall, 2006). Thus, asking what the correlation is between student participation in CRS with their satisfaction with life and leisure boredom. Do students experience satisfaction with life when they participate, and do they experience leisure boredom when they do not participate in CRS? Will CRS decrease students' leisure boredom, increase their satisfaction with life and prevent them from dropping out?

PURPOSE OF RESEARCH

This study aimed to determine the correlations between CRS participation, satisfaction with life, and leisure boredom experienced by undergraduate students at the North West University.

METHODOLOGY

Research design

A once-off quantitative survey with a cross-sectional research design was used during this study. This study's data were derived from a more extensive study (Recreational sport participation and its associated benefits among students at the Potchefstroom Campus of the North-West University).

Ethical considerations

Ethical approval for this study was obtained (NWU-00034-16-A1-03) from the university (Appendix C), and all the requirements have been met. The students gave informed consent (see Appendix D), and they participated voluntarily.

To ensure confidentiality before the data was analysed, the data was given to the then School Director of Biokinetics, Recreation and Sport Science (independent party) who made a separate file from the original data with the participants' copied student numbers. A copy of the original data was given to the study leader for the sub-study and after the analyses, the copy was deleted. All data will be kept safe in a password-protected file. The original data will be kept unchanged with the independent party. Because of the use of online questionnaires, no paper evidence was stored for confidentiality purposes.

Sample

The study's target population included all full-time registered undergraduate students from the Potchefstroom Campus of the North-West University (NWU) in 2017. Students were aged between 18 and 30 years. The target population consisted of the students who met the inclusion and exclusion criteria. The demographic statistics indicated that the student population consisted of 7554 male students and 9725 female students, which was composed of 71% white students, 22% African students, 6% Coloured students, and 1% Indian/Asian students. Only 581 of the student population completed the survey of which 69 students did not participate in any form of recreational sport activity within the first six months of 2017. Hence, only the 512 students', who participated within a recreational sport activity within the first six months, data were used.

Data collection

An online survey was developed with a cloud-based system (SurveyMonkey®) to collect data. The link to the survey was available on the online learning management system of the university. Students were informed to give consent to access the questionnaire (Appendix E) that took 10 to 15 minutes to complete. There were eight sections with both open-ended and close-ended questions. For the purpose of this article, only the sections related to demographic information, frequency of participation, the format in which each activity is presented, satisfaction with life, and leisure boredom were used. Demographic information was obtained through closed-ended questions in the questionnaire. The variables of frequency and format of the activities were determined through questions such as how many times a month they participated in an activity and

in which format did the activity they participated in take, such as hostel teams, private clubs, friends, family, or on their own. As for satisfaction with life, the Satisfaction with Life Scale of Diener *et al.* (1985) was used to determine the students' overall satisfaction with life, and the leisure boredom section included items from the Leisure Experience Battery for Young Adults (LEBYA). A five-point Likert scale was used to answer the questions to determine the level of agreement that the students had with the question (5=strongly agree; 4=agree; 3=neutral; 2=disagree; 1=strongly disagree). The Statistical Consultation Services of the NWU confirmed the sections used in the questionnaire and a security feature was put in place to protect the online information from getting leaked or destroyed.

The activities identified in the survey were grouped into six different sport codes as per Janse van Rensburg (2018) larger study on recreation sport at NWU. These sport codes are: *main sport codes* - official university sports (e.g. athletics, hockey, soccer, netball, cricket, rugby, and tennis); *additional sport codes* - a university sport but not seen as a priority sport (e.g. aerobics, badminton, basketball, competitive chess, gala swimming, golf, gymnastics, judo, karate, kayaking, open water swimming, ringball, road marathon, softball, squash, table tennis, Tae Kwon Do, and volleyball); *group sport codes* (e.g. sevens, rugby, action cricket, action hockey, indoor hockey, indoor soccer, mixed martial arts, off-road running, off-road triathlon, and touch rugby), *outdoor sport codes* (e.g. adventure, hiking, mountain biking, paintball, rock climbing, warrior race, water ski, road cycling, road running, archery, target shooting, chip and putt putt, and swimming for fun), *dance sport codes* (e.g. ballet, ballroom, modern dancing, social dancing, and tap), and *exercise sport codes* (e.g. bodybuilding, CrossFit, general exercise, just jogging, Pilates, and yoga) (Janse van Rensburg, 2018).

Statistical analysis

Statistical analysis was conducted by making use of the Statistical Package for Social Sciences (SPSS). Spearman correlation coefficients were used to determine the relationships between different variables. The study's underlying factor structure was examined through an exploratory/confirmatory factor analysis.

RESULTS

This section will discuss the analyses of correlations of variable participation frequency in various recreational sport codes by the participants, variable satisfaction with life, and variable leisure boredom.

The following statistically significant correlations (Table 1) were found using Spearman's rank order correlation analysis. Satisfaction with life had a statistically significant small, negative relationship with leisure boredom ($r=-.170, p=0.000$). Satisfaction with life were, to a small degree, positively related to the level of student participation in additional sport ($r=.090, p=0.029$) and exercise sport ($r=.099, p=0.017$). Outdoor sport ($r=.143, p=0.001$) had a larger, positive statistically significant relation to satisfaction with life. Leisure boredom had a small, negative statistically significant relation to various sport, such as additional sport ($r=-.095, p=0.022$), group sport ($r=-0.089, p=0.032$), dance sport ($r=-.085, p=0.040$), and exercise sport ($r=-.099, p=0.017$). Outdoor sport ($r=-.149, p=0.000$) had a larger, negative statistically significant relation to leisure boredom. Statistical significance was found between satisfaction with life and leisure boredom with the total frequency of participation.

The following sport codes reported large statistically significant correlations with each other: main sport and group sport ($r=.256$), additional sport and group sport ($r=.254$), additional sport and outdoor sport ($r=.284$), additional sport and exercise sport ($r=.251$), group sport and outdoor sport ($r=.247$), outdoor sport and dance sport ($r=.301$), and lastly outdoor sport and exercise sport ($r=.288$).

The following statistically significant correlations were found for male students using Spearman's rank-order correlation analysis (Table 2). There was a small, positive statistically significance between satisfaction with life, additional sport ($r=.123, p=0.039$), and outdoor sport ($r=.124, p=0.037$). Leisure boredom had a small, negative relation with satisfaction with life ($r=-.124, p=0.038$) and outdoor sport ($r=-.140, p=0.018$).

The following sport codes outlined large statistically significant correlations with each other: main sport and group sport ($r=.326$), additional sport and group sport ($r=.291$), additional sport and outdoor sport ($r=.206$), group sport and exercise sport ($r=.268$), and lastly outdoor sport and dance sport ($r=.250$).

Table 1: Spearman correlation of satisfaction with life, leisure boredom, and frequency of participation

		Satisfaction with life	Leisure boredom	Main sport codes	Additional sport codes	Group sport codes	Outdoor sport codes	Dance sport codes	Exercise sport codes	Total
Satisfaction with life	Correlation Coefficient	1.000	-.170**	0.013	.090*	.0019	.143**	0.046	.099*	.135**
	Sig. (two-tailed)		0.000	0.749	0.029	0.652	0.001	0.274	0.017	0.001
Leisure boredom	Correlation Coefficient		1.000	-0.010	-.095*	-0.089*	-.149**	-.085*	-.099*	-.146**
	Sig. (two-tailed)			0.812	0.022	0.032	0.000	0.040	0.017	0.000
Main sport codes	Correlation Coefficient			1.000	.192**	.256**	.093*	0.009	.122**	.347**
	Sig. (two-tailed)				0.000	0.000	0.025	0.836	0.003	0.000
Additional sport codes	Correlation Coefficient				1.000	.254**	.284**	.167**	.251**	.472**
	Sig. (two-tailed)					0.000	0.000	0.000	0.000	0.000
Group sport codes	Correlation Coefficient					1.000	.247**	.099*	.194**	.360**
	Sig. (two-tailed)						0.000	0.017	0.000	0.000
Outdoor sport codes	Correlation Coefficient						1.000	.301**	.288**	.456**
	Sig. (two-tailed)							0.000	0.000	0.000
Dance sport codes	Correlation Coefficient							1.000	.166**	.305**
	Sig. (two-tailed)								0.000	0.000
Exercise sport codes	Correlation Coefficient								1.000	.567**
	Sig. (two-tailed)									0.000

Note: Correlation coefficient = r ; Sig. (two-tailed) = p

** Correlation significant at the 0.01 level (two-tailed)

* Correlation significant at the 0.05 level (two-tailed)

Table 2: Spearman correlation between male students' satisfaction with life, leisure boredom, and participation frequency

		Satisfaction with life	Leisure boredom	Main sport codes	Additional sport codes	Group sport codes	Outdoor sport codes	Dance sport codes	Exercise sport codes
Satisfaction with life	Correlation Coefficient	1,000	-.124*	0,033	.123*	0,005	.124*	-0,006	0,084
	Sig. (two-tailed)		0,038	0,577	0,039	0,929	0,037	0,915	0,159
Leisure boredom	Correlation Coefficient		1,000	-0,012	-0,074	-0,043	-.140*	-0,029	-0,048
	Sig. (two-tailed)			0,846	0,216	0,472	0,018	0,631	0,423
Main sport codes	Correlation Coefficient			1,000	.126*	.326**	-0,014	0,001	.146*
	Sig. (two-tailed)				0,035	0,000	0,817	0,991	0,014
Additional sport codes	Correlation Coefficient				1,000	.291**	.206**	.161**	.165**
	Sig. (two-tailed)					0,000	0,001	0,007	0,006
Group sport codes	Correlation Coefficient					1,000	.292**	.183**	.268**
	Sig. (two-tailed)						0,000	0,002	0,000
Outdoor sport codes	Correlation Coefficient						1,000	.250**	.194**
	Sig. (two-tailed)							0,000	0,001
Dance sport codes	Correlation Coefficient							1,000	0,095
	Sig. (two-tailed)								0,112
Exercise sport codes	Correlation Coefficient								1,000
	Sig. (two-tailed)								

Note: Correlation coefficient = r ; Sig. (two-tailed) = p

** Correlation significant at the 0.01 level (two-tailed)

* Correlation significant at the 0.05 level (two-tailed)

Table 3: Spearman correlation between female students' satisfaction with life, leisure boredom, and participation frequency

		Satisfaction with life	Leisure boredom	Main sport codes	Additional codes	sport	Group sport codes	Outdoor sport codes	Dance sport codes	Exercise sport codes
Satisfaction with life	Correlation	1,000	-.214**	-0,009	0,058		0,022	.159**	0,083	0,111
	Coefficient Sig. (two-tailed)		0,000	0,873	0,316		0,704	0,006	0,154	0,056
Leisure boredom	Correlation		1,000	0,009	-0,102		-.140*	-.142*	-.136*	-.149**
	Coefficient Sig. (two-tailed)			0,876	0,078		0,015	0,014	0,019	0,010
Main sport codes	Correlation			1,000	.217**		0,072	.174**	0,054	0,110
	Coefficient Sig. (two-tailed)				0,000		0,216	0,003	0,352	0,056
Additional sport codes	Correlation				1,000		.124*	.335**	.209**	.349**
	Coefficient Sig. (two-tailed)						0,031	0,000	0,000	0,000
Group sport codes	Correlation						1,000	.125*	.141*	.154**
	Coefficient Sig. (two-tailed)							0,030	0,014	0,007
Outdoor sport codes	Correlation							1,000	.378**	.384**
	Coefficient Sig. (two-tailed)								0,000	0,000
Dance sport codes	Correlation								1,000	.221**
	Coefficient Sig. (two-tailed)									0,000
Exercise sport codes	Correlation									1,000
	Coefficient Sig. (two-tailed)									

Note: Correlation coefficient = r ; Sig. (two-tailed) = p

** Correlation significant at the 0.01 level (two-tailed)

* Correlation significant at the 0.05 level (two-tailed)

Leisure boredom reported a statistically significance negative correlation with satisfaction with life ($r=-.214$, $p=0.000$) and exercise sport ($r=-.149$, $p=0.010$). A statistical positive significance was outlined between satisfaction with life and outdoor sport ($r=.159$, $p=0.006$). Lastly, a small, negative relation was reported between leisure boredom, groups sport ($r=-.140$, $p=0.015$), outdoor sport ($r=-.142$, $p=0.014$), and dance sport ($r=-.136$, $p=0.019$).

The following sport codes delineated large statistically significant correlations with each other: main sport and additional sport ($r=.217$), additional sport and outdoor sport ($r=.335$), additional sport and exercise sport ($r=.349$), outdoor sport and dance sport ($r=.378$), outdoor sport and exercise sport ($r=.384$), and lastly dance sport and exercise sport ($r=.221$).

DISCUSSION

The study aimed to determine the correlation between undergraduate students' satisfaction with life, leisure boredom, and participation frequency in various CRS activities. Students' participation was divided into different sport codes: main sport codes, additional sport codes, group sport codes, outdoor sport codes, dance sport codes, and exercise sport codes (Janse van Rensburg, 2018).

Table 1 shows that students' leisure boredom might decrease if they experience satisfaction with life. Korkutata (2018) supported this finding by stating that students are less likely to experience leisure boredom when they experience life satisfaction. This might be that the university is geographically positioned, making it possible for students to get easy access to CRS programmes that are presented (Korkutata, 2018). Therefore, decreasing students' leisure boredom and increasing satisfaction with life.

Outdoor sport, which includes mountain biking, paintball, rock climbing, only to name a few, had the strongest relationship with student's satisfaction with life. A possible reason for these results can be that outdoor sport is not fully affiliated with the university, meaning that students can participate in an environment where there are no specific set of university sports rules or forms of competition between participants (Kelly, 2019). Andre *et al.* (2017) added that students can benefit from participating in outdoor sport. Benefits include student wellness, better academic performance, increased leadership skills, and the promotion of diversity and inclusion.

Results further indicated that students participating more often in outdoor sport would experience less leisure boredom. The activities that are classified as an outdoor sport can also be seen as informal recreation activities. These activities are the least structured and make it possible for

students to focus on fun and fitness (Human Kinetics, 2006). Knowing that outdoor recreation sports activities had the strongest relationship with satisfaction with life and leisure boredom, universities can turn their attention to providing more opportunities for outdoor recreation sport activities. Crestiani (2019) added that outdoor activities could help students learn abilities such as creating ideas, retaining, remembering better, and in the end experience satisfaction with life.

The results outlined no correlation between main university sports and satisfaction with life. This might be that the main sport is more competitive and has an extrinsic motivational factor, meaning that students might only participate for the reward they receive afterwards. Furthermore, students who participate in main university sports will also participate in other sports because the more they participate, the more they become aware of the other sports available, which can then possibly lead to students wanting to participate in more sports. The study of Diehl *et al.* (2018) similarly posited that upon participating in one university sport, students will be motivated to try another university sport. Lastly, even though life satisfaction had a statistically significant relationship with some of the sport codes, it is clear from the results that satisfaction with life has a statistically significant positive relationship with the total frequency of participation. Thus, students will experience satisfaction with life when they participate more frequently in any form of CRS sport, as supported by Dhurup and Mokoena (2017).

In Table 2, a significant statistical correlation was reported on between male students participating in group sports, and the likelihood of participation in a variety of other sports. This could be that male students are more likely to choose activities that provide social opportunities, such as group sports activities (Beggs *et al.*, 2014). Various reasons for male students to participate within a group were identified by Beggs *et al.* (2014), such as the need for interpersonal relationships, increased self-esteem, students are more comfortable doing certain things with familiar people, students developing friendships, and maintaining friendships. Thomas *et al.* (2019) added that male students tend to participate more in competitive sports, endurance sports, and team sports. (Thomas *et al.*, 2019).

Furthermore, the results indicated no statistical significant relationship between satisfaction with life and main university sports and a small positive, statistical significant relationship between satisfaction with life and additional sports. The assumption can be made that male student who participates in main sports only participate because of university leagues, university sports, sports scholarships for main sports, and competitions. Competitions will not necessarily motivate the students intrinsically, but more so extrinsically, so they participate more in additional sports because they can initiate and participate in that for their benefit (Medic *et al.*, 2007). Another

assumption is that male students possibly take part in main university sports not because they experience leisure boredom but because they are obligated to participate because of sports scholarships (Medic *et al.*, 2007).

Table 3 outlines female students experience life satisfaction when participating in exercise, group, and dance sports. Dance sports activities are activities known for their high energy levels and physical fitness (Asci, 2002). A similar finding by Asci (2002) posited that these activities are participated predominantly by female students as a result of their energetic, fun, and ability to improve one's overall physical fitness and self-perception nature which take place in group format (Asci, 2002). Furthermore, such activities provided female students with the opportunity to interact with people, form new relationships, and being regarded as an informal event, require fewer administrative resources (Human Kinetics, 2006). This is supported by Lindsey (2012), who found that female students participate in these sports for social and community benefits.

Ceurvorst *et al.* (2018), on the other hand, found that female students participated more in outdoor sports and that they feel more confident after their participation. A statistically significant relation showed that when female students participate in main sport codes, they will also tend to participate in additional sport codes. Thomas and colleagues (2019) supported this finding by stating that female students tend to be more active during fitness and additional activities such as aerobics, badminton, basketball, only to name a few. It is important to note that whether students participate in all the sport codes or only a select few, they will experience leisure boredom if they do not participate in it (Korkutata, 2018).

One assumption that can be made, looking at tables two and three, is that students may feel obligated to participate in more additional sport codes because of their hostel's accommodation rules in terms of sport participation. Students are obligated to participate in specific sports activities on campus (Rahman *et al.*, 2020). If the students are not part of a university sports team, they must participate in additional sport codes. The students then gain a certain amount of points from the hostel to continue residency. A study done by Rahman *et al.* (2020) confirmed this assumption by stating that students living in university residences are not satisfied with the authority that comes from residing in a university hostel. This authority will determine the various services and CRS programmes, students can participate in and how many times they participate in them. Residences work with a points system at the NWU. The points system operates at a 60% and 40% ratio. This means that 60% goes for academic achievement and 40% goes for extracurricular activities such as sports, singing groups, cultural groups, etc. Attendance is recorded at each residence function. At the end of the year, all the residents' points are added

together. If the residents have certain points, they may apply or stay in residence again next year, but they may not stay there any longer if their points are not enough.

Active participation in these sports codes will lead to various benefits for both male and female students. Rahman *et al.* (2020) supported this finding by stating that recreational sports programmes will enhance students' academic performance and increase their overall satisfaction with life. One of the reasons that there might be a difference in male and female students' participation patterns is that female students participate to gain various benefits such as increased self-esteem, better class performance, being more social, increased campus community support, and better after-class time usage. In contrast, male students mostly participate to increase their well-being and overall physical fitness (Ceurvorst *et al.*, 2018). Lindsey (2012) supported this statement by adding that male students' reasons for participation tend to cluster around benefits related to the self, whereas female students are more drawn to activities that hold social and community benefits. These benefits will motivate students to participate and decrease the chance of them dropping out.

CONCLUSION

As a whole, the study found a positive statistical significant correlation between frequency of participation and satisfaction with life, a negative statistical significant correlation between frequency of participation and leisure boredom, and lastly, a negative statistical significant correlation between satisfaction with life and frequency of participation, and leisure boredom, respectively.

Universities must focus more on the preferred sport codes to get as many students as possible to participate in CRS. On the other hand, universities must not neglect other sports codes because there are still students interested in participating in them. Students must have exposure to all the sport codes to ensure them having an equal chance to participate in what they are interested in (Weilbach, 2013), thus diversity and inclusivity need to be catered for and delivered on. A suggestion to universities is to present more non-competitive sport on campus to ensure more participation and more students enjoying the activities. The choice of sport codes by female students who participate in exercise sport codes can motivate the university to redesign their programme formats so that students will not feel shy or self-conscious by having female-only activities, closing of venues to spectators, or presenting private programmes. Another factor that needs to be investigated is exposure. Not all students know of all the CRS activities available

around them. Universities should have an open day only focusing on the available CRS activities that they offer, broadening students' awareness of the activities. Weilbach (2013) supported this statement by adding that when students are aware of campus activities, the less leisure boredom they seem to experience. Recreation services, infrastructure, and sports facilities are constantly developed and upgraded, but they do not necessarily attract students. This might lead to students participating in only the available sport codes on campus.

The sample was very small to get a broader response and more accurate result. The NWU consists of three campuses, with only one campus site, namely Potchefstroom Campus, which participated in the study. This made it difficult for the researcher to compare the results and obstruct the study from external resources that could have contributed to the study. A wide variety of recreation terminology was used in the study, making it difficult for some participants to understand. Lastly, this study only reported on correlations; intervention studies might provide more information about the cause-and-effect relationship between the different variables. This study also only used quantitative data, and qualitative methods might give more insight into how the different elements relate to each other.

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CHAPTER 5

Summary, conclusions, limitations and recommendations

5.1 INTRODUCTION

⁹Many South African (SA) universities, as well as other universities worldwide, have experienced a wave of student dropouts in the last two decades, and this is recognised as a global phenomenon (Cabrera *et al.*, 2006:172; Kara, 2019:132; Styger *et al.*, 2015:3). According to Demetriou and Schmitz-Sciborski (2011:312), a solution to students dropping out of university might be to increase student involvement and participation in Campus Recreation Sport (CRS). According to Kanter (cited by Ellis *et al.*, 2002:54), CRS participation is perceived to enhance and contribute to students' quality of life and satisfaction with life, while giving them a sense of belonging and decreasing their leisure boredom (Chiu & Kayat, 2010:33). Currently, limited research has been conducted in SA on CRS and the impact it has on satisfaction with life and leisure boredom. Therefore, the questions answered by this research are the following. Firstly, what are the patterns of participation in CRS, leisure boredom, and satisfaction with life experienced by undergraduate students of North-West University (NWU) Potchefstroom campus? Secondly, what are the correlations between frequency of participation in CRS, leisure boredom, and satisfaction with life experienced by undergraduate students of NWU Potchefstroom campus?

In this chapter, a summary and conclusions of the previous chapters will be given. Recommendations will be made following the conclusions drawn from the literature and the empirical study. Limitations found in the study will provide information for new areas of research in the field of recreational sport within SA.

5.2 SUMMARY

The purpose of this study was to determine the participation patterns in CRS, and to what degree students experience satisfaction with life and leisure boredom. Correlations between participation in CRS, satisfaction with life, and leisure boredom of undergraduate students of NWU were also

See Appendix B for language editor's detail.

determined. An overview of current research, shortcomings in the research, and the research problems and research questions of the study is provided in chapter 1. This chapter also explains the importance of CRS within a university setting and how it can prevent leisure boredom and offer various benefits to students.

An overview of relevant literature (chapter 2) provided the theoretical foundations of CRS, leisure boredom, and satisfaction with life. The concept of recreation and the various constructs that form part of the recreation experience, namely sport, leisure, CRS, satisfaction with life, and leisure boredom, were thoroughly discussed.

Chapters 3 and 4 addressed the specific study objectives, through research articles. In the first article, namely “*Patterns of participation in campus recreation sport, satisfaction with life, and leisure boredom*”, evidence was provided of recreation sport participation patterns, students’ satisfaction with life, and the extent to which students experience leisure boredom. The results of this article outline that the top ten activities that students participate in the most are general exercise, road running, jogging, field hockey, swimming for fun, social dancing, squash, field soccer, hiking, and golf. Additionally, it is clear from the results that students prefer to participate in CRS either alone or with friends.

In the second article, namely “*Correlations between frequency of participation in campus recreation sport, leisure boredom, and satisfaction with life of undergraduate students of the North West University*”, correlations were explored between participation in different types of sports codes and satisfaction with life and leisure boredom. Participation in exercise sport, additional sport, group sport, and dance sport can lead to an increase in students’ satisfaction with life. When students’ satisfaction with life increases, their leisure boredom will decrease, thus leading to fewer students dropping out of university and more students experiencing benefits such as an improvement in their health, better academic performance, and enhanced social skills, to name a few.

5.3 CONCLUSIONS

This study contributes to the literature by exploring the patterns of participation in CRS and correlations between undergraduate students’ satisfaction with life and leisure boredom and the frequency of participation in CRS and the various sports codes within a South African higher education context.

The two related studies (articles 1 and 2) set out to determine the participation patterns of CRS, the level of satisfaction with life, and the level of leisure boredom of undergraduate students. To do so, two research objectives were formulated to delineate the focus of this study.

The first research objective was to understand the patterns of CRS participation, the level of satisfaction with life, and the level of leisure boredom of undergraduate students of NWU. Due to its descriptive nature, objective 1 does not have a hypothesis. With due consideration of the literature review and the findings of article 1, namely “Patterns of participation in campus recreation sport, satisfaction with life, and leisure boredom”, the conclusion can be made that both male students and female students are very active during CRS participation. It is clear from the results that students are more likely to participate on their own. Gender as a variable does not necessarily influence leisure boredom, but rather that race has an influence on leisure boredom. Coloured students were found to experience the most leisure boredom. The results also outline that students living in private residences experience the most leisure boredom. In terms of satisfaction with life, there were no major differences that stood out, except for students experiencing satisfaction with life when they participate in CRS. White and African students had the highest satisfaction with life, while Coloured students experienced satisfaction with life the least. Students living in campus residences experienced the most satisfaction with life. The conflicting nature of the findings from the studies mentioned highlights the fact that students’ satisfaction with life may be dependent on the specific context, and generalisations can therefore not be made

The second research objective sought to establish correlations between participation in CRS, satisfaction with life, and leisure boredom. With article 2, namely “*Correlations between frequency of participation in campus recreation sport, leisure boredom, and satisfaction with life of undergraduate students of the North West University*”, it can be concluded that students who participate in the main university sports will also participate in other sports, because the more they participate, the more they become aware of other sports that are available. Even though satisfaction with life had a statistical significant correlation with some of the sports codes, a clear finding is that satisfaction with life had a statistical significant positive correlation with total frequency of participation in all the sports codes. Thus, the higher students’ total participation frequency in CRS, the more they will experience satisfaction with life. This is confirmed by Dhurup and Mokoena (2017:16). In fact, when students participate more in CRS, they will have increased awareness of the various benefits that CRS holds, such as enhancing students’ academic performance and increasing their overall satisfaction with life, along with decreasing their leisure

boredom (Rahman *et al.*, 2020:328). In terms of the three hypotheses that fall under objective 2, the following conclusions can be made.

Hypothesis 1 states that there will be a statistically significant positive correlation between total frequency of participation in CRS and satisfaction with life. This hypothesis is accepted. The results support this hypothesis and indicate that students do experience more satisfaction with life when their total participation in CRS increases. It was also found that a statistical significant correlations exist between students' satisfaction with life and outdoor sports codes, additional sports codes, group sports codes, and dance sports codes, respectively. It can therefore be concluded that CRS may have a positive impact on the lives of university students. When students participate more in CRS, they can experience an increase in their satisfaction with life.

Hypothesis 2 postulates that there is a statistical significant negative correlation between frequency of participation in CRS and leisure boredom. This hypothesis is also accepted, based on the statistically significant negative correlation between leisure boredom and total frequency of participation in CRS. The results support this hypothesis and indicate that university students will experience leisure boredom when they do not participate in CRS.

Hypothesis 3 states that there is a statistical significant negative correlation between satisfaction with life and leisure boredom. This hypothesis is also accepted, based on the statistical significant negative correlation found between leisure boredom and satisfaction with life. The results support this through evidence that students who have increased satisfaction with life will also experience a decrease in leisure boredom. The conclusion is thus that university students will experience leisure boredom if they do not experience satisfaction with life. The converse is also true, namely that students will not experience satisfaction with life if they experience leisure boredom.

The theoretical contribution of this study is grounded in the knowledge gained from the empirical findings of the study, which contributes to an understanding of recreational sport participation among university students in North West, South Africa. The study examined students' recreational sport participation patterns, satisfaction with life, and leisure boredom. Although the study originates from a leisure field, efforts to improve the quality of life and experiences of university students are highly relevant to university retention theories.

Ryan and Deci's (2002) Self-Determination Theory was used to understand and analyse the frequencies of participation in CRS of undergraduate students. The study findings are significant, firstly for the university's sport department, as well as for the university administrators, and secondly for the higher education institutions offering CRS. The higher education institutions

should also take into consideration that their CRS facilities need to be up to par and accessible to the student

5.4 LIMITATIONS AND RECOMMENDATIONS

The limitations of this study are acknowledged, and recommendations for future research are made. Firstly, the sample used in this study was small (n=581). Only registered undergraduate students were eligible to take part in the survey. The identified exclusion criteria made the sample even smaller. It is thus suggested that future researchers should not limit the sample to undergraduate students, but that postgraduate students that participate in CRS should be included.

Secondly, only students from a single university, NWU (Potchefstroom Campus), were involved in the study, thus it is suggested that this study should be duplicated at other universities nationwide. For a start, NWU's Mafikeng and Vaal Campuses can be involved, and the study can then be extended to other universities. Although it sounds logical to extend the study to other universities, the conflicting results of other studies suggest that such research is very context specific. A better approach to follow in future studies might be to try to determine which factors at different universities influence CRS participation, and the respective correlations.

Thirdly, language could be identified as a barrier, considering that the survey was only available in English. Possibly, some students could not complete the survey due to them not being proficient in the language in which the survey was formulated. Thus, a research instrument that gives participants the option to complete the survey in their home language should be developed.

Fourthly, students' lack of knowledge, specifically in terms of the terminology, could have affected the results. Not all students are familiar with the different terminology used in the survey, such as "recreation sport", and even "leisure". Future research could include an appendix in the survey that explains all the different terms used in the survey and the study to participants.

Lastly, literature on South African undergraduate students' leisure and recreation behaviour is limited, with studies on recreation sport mostly including adolescents and elderly participants. Therefore, more studies in this specific field need to be conducted at other universities, with the focus on undergraduate students. This will give a better understanding of the specific needs of these students.

Practical actions that can be taken are the following:

Recommendation 1

Many variables were taken into consideration when formulating the survey for this study, but one important variable was overlooked, namely facilities. Facilities are a key component in a CRS programme (Henchy, 2013:98). If the university offers a certain activity but does not have the proper facilities to present it, students will find other facilities on campus to participate in it (Henchy, 2013:98). There are facilities on campus to cater for the main sports codes, such as athletics, tennis, cricket, hockey, netball, and rugby. Activities that fall under the other sports codes do not have the necessary facilities to be performed properly. Students that form part of a university sports team will always have facilities to participate in their sport. Students who want to take part in CRS in their free time must find facilities on campus to satisfy their needs. NWU and many other universities must give greater priority to building more recreation facilities.

When students were asked about the context in which they would like to participate, most students indicated that they participate on their own. NWU must provide a safe and accessible environment for students, where they can feel free to participate in CRS in campus facilities, and not off-campus. A suggestion is that a facility audit must be conducted, together with a study on CRS among students, to determine which facilities are needed and what facilities are available. Finally, NWU can close the pool (as it is not available for recreational use) and rebuild the area into a CRS facility where multiple activities that students want to participate in are presented.

Recommendation 2

North West University (Potchefstroom Campus) strives to offer diverse and inclusive services that cater for every student, and this should also be the vision for different CRS activities on campus. On the Potchefstroom Campus, activities such as netball, rugby, cricket, and soccer are to an extent changing from gender-specific sports to non-gender-specific sports. The recommendation is that the university's Sports and Recreation Committee end this stereotype of certain sports being gender-specific, by appropriately marketing the different CRS activities as non-gender-specific. This could ultimately lead to a decrease in the sense of constraint that students feel to participate because they are not deemed to be of the appropriate gender. Another recommendation is that the university can provide more inclusive activities that cater for mixed-gender teams, and they can include them in university events such as the Varsity Cup or sports leagues between hostels and private clubs.

Recommendation 3

Not all students take part in sports activities on campus, as there seems to be a greater interest in leisure activities on campus. It is thus suggested that universities focus on making it possible for students to participate in leisure activities that they are interested in, and that they provide suitable facilities to make this possible. Many students are not fully involved in sports activities on campus. Some students prefer to participate only in leisure activities. Such a focus will help determine the overall leisure behaviour of students.

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APPENDICES

Appendix A:

South African Journal for Research in Sport, Physical Education and Recreation Guidelines

INFORMATION FOR AUTHORS

The *South African Journal for Research in Sport, Physical Education and Recreation* is published by the North-West University, Potchefstroom. Contributions from the fields of Sport Science, Physical Education, Recreation/Leisure Studies, Exercise Science and Dance Studies will be considered for publication. The articles submitted will be administered by the appropriate Subject Review Editor and evaluated by two or more referees. The decision as to whether a particular article is to be published or not, rests with the Editorial Board.

SUBMISSION

Manuscripts that do not comply with the following requirements regarding process, style and format will not be handled.

Manuscripts should be typed with ***SINGLE spacing*** in 10-point Times New Roman letter size for the text. All the text in *tables* and *figures* should be in 10-point Times New Roman font size and single spacing. Please do not use *Calibri*. The original manuscript can be submitted by Email. The length may not exceed 20 pages (tables, figures, references, etc. included). The **page setup** (cm) must be in the following format:

MARGINS

PAPER SIZE

Top: 3.56 cm

Width: 17.5 cm

Bottom: 1.78 cm

Height: 24.5 cm

Left: 2.11 cm

Right: 2.11 cm

Gutter: 0.00 cm

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Each manuscript must be accompanied by a **covering letter** in which the following is declared: (1) that the manuscript contains original research; (2) that the manuscript or parts of the manuscript has not been published elsewhere previously; (3) that the manuscript is not currently being presented elsewhere for publication; and (4) that all the authors have read and approved the manuscript. This signed declaration regarding the originality must accompany each manuscript.

Authors are also requested to name three/3 potential referees, of which one/1 must be an *international* referee (the Journal is not bound to use these referees). Complete information regarding the referees (name, surname, e-mail address and telephone numbers) must be provided in the cover letter.

We discourage the practice of parts of the same study submitted for other issues of this Journal. Authors who submit a manuscript from a study of which some data have been or will be published elsewhere, must provide a strong justification in the accompanying letter to the Editor. The justification for not publishing all the data together in one paper must also be motivated in the covering letter.

The author should also ensure that the **language** of the manuscript has been **edited** thoroughly (English [UK]) by the time of submission. The name, address and telephone number of the person who did the language editing must be provided. Any expenses incurred by the Journal dealing with

language editing will be added to the author's page fees.

The manuscript must have an **ethical clearance number** that was supplied by the authentic ethical committee of a specific institution. The process that was followed to obtain ethical clearance must be described in the manuscript under the heading, 'Ethical clearance'. No manuscript can be published without this declaration. Review, theoretic or philosophical articles do not require ethical clearance.

Any uncertainty regarding the **statistical procedures** that arise during the assessment of the manuscript will be referred to a local statistician. Any expenses incurred by the Journal dealing with statistical procedures will be added to the author's page fees.

PREPARATION OF MANUSCRIPT

Manuscripts must be presented in a format that is compatible with *Microsoft Word for Windows* (PC). Tables, all figures (illustrations, diagrams, etc.) and graphs are regarded as text and must be presented in a format that is compatible with **Word** and figures should be **accessible** to make any text corrections. Photographs must be presented in *jpg* format.

Original manuscripts must contain the following sections in the following sequence: Title page, Abstract, Introduction, Purpose of Research, Methodology, Results, Discussion, Practical application/Recommendations, Conclusions, Acknowledgements (if applicable) and References (not all applicable to review/theoretical/philosophical articles). Appendices are acceptable but must be succinct.

Title page

The first page of each manuscript should indicate the *title* in English and Afrikaans (will be translated for foreign authors), the *names* (title, first name in full and other initials, surname) of the author(s), the *telephone* numbers (work & home [& *mobile* for local authors]), *facsimile* number, *Email* address and the *field of study*. The **complete mailing address** and **telephone numbers** of the corresponding author and the institution (department, faculty, university, city, country) where the work was conducted should be provided in full. When more than one author and/or authors from various departments and institutions are involved, the ¹**author(s)** must be numbered according to their ¹**department(s)**. If any of the above-mentioned information should change during the review process, please inform the Subject Editor. A **short title** of not more than

45 characters (including spaces), should be provided for use as a running heading.

Abstract

Each manuscript must be accompanied by an abstract of approximately 150-200 words in *English* and should be set on a *separate page* as a **SINGLE** paragraph (single spacing). A list of three to seven **keywords** in *English* is required for indexing purposes and should be typed below the abstract in alphabetical order.

Text

Start the text on a new page with the title of the article (centred and *without* the names of the authors). Follow the style of the most recent issue of the Journal regarding the use of headings and subheadings. Use only **one line space** after a paragraph. Only make use of **section breaks** and not **page breaks**. The text, as well as the tables and figures, may not be in any other format than **normal**. Thus, **no style sheets** may be used, also in the case of the list of references.

Tables and figures

Tables and figures should be numbered with *Arabic* numerals (1, 2, etc.). Tables require the heading at the *top*, while figures have the legend *below* and both must **not** be included in the cells of the table/figure. **Note:** Use the decimal POINT (**not** the decimal comma). The site where the table or figure should be placed in the text must be indicated clearly in the manuscript. All tables and figures are to be placed *after the reference list* with each on a **separate page**, always ending with a **section break**. Any preference for the use of *colour* in the case of figures or photographs must be noted and will be at an *additional cost* to the page tariff.

It is essential that tables/figures should be *contained/fit within the page setup* described earlier for this Journal. Portrait layout is preferred for all tables/figures. Tables must use separate rows/columns (do not merge cells) for each item. Figures must be in **Word** and *accessible to make corrections* or changes within the figure where deemed necessary. Please ensure that especially the figures are of high quality for printing purposes. Any preference for the use of *colour* in the case of figures or photographs must be noted and will be at an *additional cost* to the page tariff.

References

In the *text*, the Harvard method must be adopted by providing the author's surname and the date placed in parentheses. *For example*: Daly (1970); King and Loathes (1985); (Botha & Sonn, 2002); McGuines *et al.* (1986) or (Daly, 1970:80) where Daly is not part of the sentence and page number is added for a direct quotation. More than one reference must be arranged **chronologically** (Daly, 1970; King & Loathes, 1985). Note that *et al.* (italics) is used in the body of the text from the beginning when there are **more than two authors**, but never in the list of references, where all authors must be provided.

List of references

Only the references cited in the text should be listed alphabetically according to surname (last name) of authors (uppercase) after the body of text under the heading, **REFERENCES** (uppercase) starting on a new page. In the case where the TITLE of an article, book, etc., is in any other language than English, the author must also provide an **English translation** of the title in parentheses (this applies to Afrikaans titles as well).

In the case of articles published in **JOURNALS**, references listed should include the surnames and initials (upper case and with full-stop and without spaces between initials) of **all** authors, the date of the publication in parentheses, the full title of the article, the full title of the journal (italics and no abbreviations), the volume number, the series/issue number in parentheses (if the said journal does not use issue numbers, the month of publication should be used), followed by a colon and a space with the first and last page numbers separated by a hyphen. In the case of online journals, use “online” if page numbers are not provided. The use of the correct punctuation is of importance.

If the reference is a **BOOK**, the surname (last name, upper case) and initials (with full-stop and without spaces) of the author or editor (Ed.) must be provided, followed by the date of publication in parentheses followed by a full-stop, the title of the book (italics) as given on the title page, the number of the edition (ed.) in parentheses, the city (and abbreviation for the state in the case of the USA OR the country) where published, followed by a colon, a space and the name of the publisher.

For a **CHAPTER** in a book, the page numbers of the chapter cited must be provided in parentheses (not italics) after the title of the book (pp. 20-29). For further details, authors should consult the most recent publication of this Journal for other examples.

If the reference is a **THESIS** (master's level) or **DISSERTATION** (doctoral level), italics is **not**

used in the title as it is an unpublished work. Provide the name of the city, state/country, colon, university and department/faculty.

For **ELECTRONIC SOURCES**, all references start with the same information that would be provided for a printed source (if available). The web page information follows the reference style. It will usually contain the name of the author(s) (if known), year of publication or last revision, title of complete work in *inverted commas*, title of web page, Uniform Resource Locator (URL) or access path in square text brackets (do not end the path statement with a full stop), full stop after the closing bracket and date of access (Retrieved on 10 December 2015]. See "How to cite information from the Internet and the Worldwide Web" at [<http://www.apa.org/journals/webref.html>] for specific examples. When citing a Web site in the text, merely give the author and date. When reference is made to a specific statement (quotation) in the article/document and no page number can be provided, the word 'online' is used for citing in the text (Van der Merwe, 2010: online).

When referencing an article in a **NEWSPAPER**, the key word of the newspaper is typed in capitals, as this is how it will appear in the **alphabetical listing** of references, namely *The-CAPE ARGUS* (*The*) will appear under "C" or *BURGER (Die)* will appear under "B".

In the case of a paper presented in conference **PROCEEDINGS**, the editors and the title of the proceedings, the page numbers of the article being referred to and the details of the congress (when and where it was held) and by whom (city, state, publisher) the proceedings was published should be provided.

Examples of style of formulations for different references

Journal

ZHENG, N.; BARRENTINE, S.W.; FLEISIG, G.S. & ANDREWS, J.R. (2008). Kinematic analysis of swing in pro and amateur golfer. *International Journal of Sports Medicine*, 29(6): 487-493.

Book

WEINBERG, R.S. & GOULD, D. (2011). *Foundations of sport and exercise psychology* (5th ed.). Champaign, IL: Human Kinetics.

Chapter in book

SCHNECK, C.M. (2010). Visual perception. In J. Case-Smith & J.C. O'Brian (Eds.), *Occupational therapy for children* (6th ed.) (pp. 373-403). Maryland Heights, MO: Mosby.

Thesis/Dissertation

SURUJLAL, J. (2004). Human resources management of professional sports coaches in South Africa. Unpublished doctoral dissertation. Johannesburg, South Africa: Rand Afrikaans University.

Proceedings of a conference

HARDMAN, K. & MARSHALL, J. (2001). Worldwide survey on the state and status of physical education in schools. In G. Doll-Tepper & D. Scoretz (Eds.), *World summit on physical education* (pp. 15-37). Proceedings of the "World Summit on Physical Education", 3-5 November 1999. Berlin, Germany: International Council of Sport Science and Physical Education (ICSSPE).

Personal communication/correspondence/interview

BOUKES, P.B. (2015). Personal communication from the Acting Director of Sport at the Nelson Mandela Metropolitan University, Port Elizabeth on 27 February 2015.

JACOBS, L. (2015). Personal interview with the Spokesperson of UNICEF, 25 August, Pretoria.

Newspaper

CAPE ARGUS (*The*) (1997). 25 March, p. 5.

Electronic source

DINOFFER, J. (2011). "Activities to build balance". *Prevent child obesity 101*. Hyperlink: [<http://www.preventchildobesity101.com/Activities/BalanceActivities.php>]. Retrieved on 20 November 2012.

ADMINISTRATION

If authors honour the rules and specifications for the submission of manuscripts, unnecessary delays would be avoided. Requesting ‘copy right’, concerning figures or photographs, is the responsibility of the authors and should be indicated. A manuscript that does not meet the requirements, as set out above, will be returned to the author without being evaluated. A subject specialist Editor administers and coordinates the assessment of the referees and provides the final recommendation.

The corresponding author will receive a complimentary copy of the Journal and five reprints of the article that could be shared with the co-authors. The original manuscripts and illustrations will be discarded one month after publication unless a request is received to return the original to the corresponding author. A page fee of South African **R300** per page is payable on receipt of a statement issued by the Editor.

Appendix B:

Language editors' details

Verklaring

Hiermee verklaar ek, Annamarie Steenekamp (steenekamp.annamarie@gmail.com), dat ek vir Nadine Labuschagne die redigering gedoen het van die opsommende teks:

ABSTRACT

Participation in campus recreational sport, satisfaction with life and leisure boredom of undergraduate students

en dit in Afrikaans vertaal het as:

SAMEVATTING

Deelname aan ontspanningsport op kampus, tevredenheid met die lewe en vryetydsverveeldheid by voorgaadse studente

as deel van haar verhandeling vir die graad MHSc.



C Woudberg

Language Practitioner

cwoudberg@gmail.com | +27 74 338 7289

To whom this may concern:

I hereby confirm that I have completed the language editing of research proposal titled **Link between participation in campus recreation sport, satisfaction with life and leisure boredom of undergraduate students** by N Labuschagne. My involvement was restricted to language usage, spelling, completeness and consistency. I did no structural re-writing of the content and did not influence the academic content in any way.

Kind regards,

Christelle Woudberg

ND Language Practice

Member of the South African Translators' Institute

ANTHONY SPARG

Freelance language practitioner

MA *cum laude* in African Languages (isiXhosa), MA *cum laude* in Linguistics

English language editing, isiXhosa-English and Afrikaans-English translation, and transcription

14 Nahoon Valley Place
Nahoon Valley
East London, 5241
South Africa
Tel.: +27 43 735 4397
Cell: +27 79 106 8179
Email: p.a.sparg@telkomsa.net

26 February 2021

To whom it may concern

ENGLISH LANGUAGE EDITING DECLARATION

I, Anthony Edward Sparg, freelance language practitioner, hereby declare that I language-edited chapter 2 of Nadine Labuschagne's Master of Health Sciences (Recreation Science) dissertation titled "Participation in campus recreation sport, satisfaction with life, and leisure boredom of undergraduate students".

Thank you.

Yours sincerely



.....
Anthony Edward Sparg

C Woudberg

Language Practitioner

cwoudberg@gmail.com | +27 74 338 7289

To whom this may concern:

I hereby confirm that I have completed the language of research article titled **Patterns of participation in campus recreation sport, satisfaction with life, and leisure boredom** by Nadine Labuschagne. My involvement was restricted to language usage, spelling, completeness and consistency, referencing style and general technical formatting. I did no structural re-writing of the content and did not influence the academic content in any way.

Kind regards,

Christelle Woudberg

ND Language Practice

Member of the South African Translators 'Institute

C Woudberg

Language Practitioner

cwoudberg@gmail.com | +27 74 338 7289

To whom this may concern:

I hereby confirm that I have completed the language editing of research article titled **Correlations between frequency of participation in campus recreation sport, leisure boredom, and satisfaction with life of undergraduate students at a South African University** by Nadine Labuschagne. My involvement was restricted to language usage, spelling, completeness and consistency, referencing style and general technical formatting. I did no structural re-writing of the content and did not influence the academic content in any way.

Kind regards,

Christelle Woudberg

ND Language Practice

Member of the South African Translators 'Institute

ANTHONY SPARG

Freelance language practitioner

MA *cum laude* in African Languages (isiXhosa), MA *cum laude* in Linguistics

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East London, 5241
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Cell: +27 79 106 8179
Email: p.a.sparg@telkomsa.net

27 March 2021

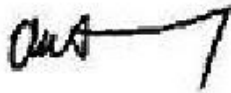
To whom it may concern

ENGLISH LANGUAGE EDITING DECLARATION

I, Anthony Edward Sparg, freelance language practitioner, hereby declare that I language-edited chapter 5 of Nadine Labuschagne's Master of Health Sciences (Recreation Science) dissertation titled "Participation in campus recreation sport, satisfaction with life, and leisure boredom of undergraduate students".

Thank you.

Yours sincerely



.....
Anthony Edward Sparg

Appendix C:

Ethics certificates



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 086 016 9698
Web: <http://www.nwu.ac.za/>

North-West University Health Research Ethics
Committee (NWU-HREC)

Tel: 018 299-1206
Email: Ethics-HRECAppl@nwu.ac.za (for human
studies)

19 November 2019

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the North-West University Health Research Ethics Committee (NWU-HREC) on 19/11/2019, the NWU-HREC hereby approves your study as indicated below. This implies that the NWU-HREC grants its permission that, provided the general conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Link between participation in campus recreation sport, satisfaction with life and leisure boredom of undergraduate students at North-West University																	
Principal Investigator/Study Supervisor/Researcher: Ms CM Schreck																	
Student: N Labuschagne-24326720																	
Ethics number:																	
N	W	U	-	0	0	0	3	4	-	1	6	-	A	1	-	0	3
Institution			Study Number				Year		Status		Sub-study						
<u>Status:</u> S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation																	
Application Type: Sub-study																	
Commencement date: 19/11/2019										Risk:		Minimal					
Expiry date: 30/11/2020																	
Approval of the study is provided for a year, after which continuation of the study is dependent on receipt and review of an annual monitoring report and the concomitant issuing of a letter of continuation. A monitoring report is due at the end of November annually until completion.																	

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- *The principal investigator/study supervisor/researcher must report in the prescribed format to the NWU-HREC:*
 - *Annually on the monitoring of the study, whereby a letter of continuation will be provided annually, and upon completion of the study; and*
 - *without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.*
- *The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the principal investigator/study supervisor/researcher must apply for approval of these amendments at the NWU-HREC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.*
- *Annually a number of studies may be randomly selected for active monitoring.*
- *The date of approval indicates the first date that the study may be started.*
- *In the interest of ethical responsibility, the NWU-HREC reserves the right to:*

- *request access to any information or data at any time during the course or after completion of the study;*
- *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;*
- *withdraw or postpone approval if:*
 - *any unethical principles or practices of the study are revealed or suspected;*
 - *it becomes apparent that any relevant information was withheld from the NWU-HREC or that information has been false or misrepresented;*
 - *submission of the annual monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and/or*
 - *new institutional rules, national legislation or international conventions deem it necessary.*
- *NWU-HREC can be contacted for further information via Ethics-HRECApply@nwu.ac.za or 018 299 1206*

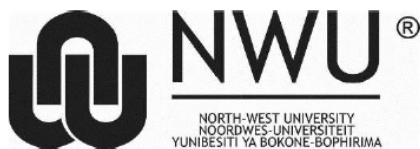
The NWU-HREC would like to remain at your service and wishes you well with your study. Please do not hesitate to contact the NWU-HREC for any further enquiries or requests for assistance.

Yours sincerely,



Digitally signed by
Prof Petra Bester
Date: 2019.11.20
13:33:05 +02'00'

Chairperson: NWU-HREC



Private Bag X6001, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222

Web: <http://www.nwu.ac.za>

**Faculty of Health Sciences Ethics
Office for Research, Training
and Support**

Dr CM Schreck
PhASRec

Tel: 018 299 2092

Email: wayne.towers@nwu.ac.za

30 November 2020

Dear Dr Schreck

FEEDBACK ON NWU-HREC ANNUAL MONITORING REPORT: NWU-00034-16-A1-03

We would like to thank you for submitting the annual monitoring report for your project entitled, *“Link between participation in campus recreation sport, satisfaction with life and leisure boredom of undergraduate students at North-West University”*, to the North-West University Health Research Ethics Committee (NWU-HREC) in a timely manner. Please find below the decision of the NWU-HREC regarding the continuation of your project.

Classification	Mark with X	Comment	
Clarification			
Completion (Final report)			
Suspended			
Continuation	X	Date of next monitoring report:	30 November 2021
Termination			

Please note: Due to the nature of the study i.e. (statistical analysis of previously collected data), this study will be able to proceed during the current alert level, following receipt of the approval letter. No additional COVID-19 restrictions have been placed on the study except that the researcher must ensure that before proceeding with the study that all research team members have reviewed the North-West University COVID-19 Occupational Health and Safety Standard Operating Procedure.

Should you have any further queries, please feel free to contact Mr Buti Majola at your earliest convenience (E-mail: Ethics-HRECMonitoring@nwu.ac.za; Tel: 018 299 2197). We wish you well in your future endeavours.

Yours sincerely


Digitally signed
by Prof Petra
Bester
Date: 2021.03.29
09:37:41 +02'00'

Chairperson: NWU-HREC

Current details: (24355305) G:\My Drive\9. Research and Postgraduate Education\9.1.5.5 HREC Monitoring\NWU-00034-16-A1-03\9.1.5.5.4_Cont_NWU-00134-16-A1-03_30-11-2020.docm

30 November 2020

File reference: 9.1.5.5.4

Appendix D:

Informed consent form

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR STUDENTS OF THE NWU (POTCHEFSTROOM CAMPUS)

TITLE OF THE RESEARCH PROJECT: RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Dr. Theron Weilbach

ADDRESS:

Building K4, Room G15
Fanie du Toit Sport Grounds
NWU
Potchefstroom

CONTACT NUMBER: (018) 299 2037

You are being invited to take part in a research project, titled: **Recreational sport participation and its associated benefits among students at the Potchefstroom Campus of the North-West University**. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is entirely voluntary and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00034-16-A1)** and will be conducted according to the ethical guidelines and principles of the International Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records.

What is this research study all about?

- This study will be conducted only on the Potchefstroom Campus of the NWU and will involve the use of an electronic online questionnaire compiled by experienced researchers trained in leisure and recreation studies. All persons registered as full-time contact students on the Potchefstroom Campus of the NWU will be included as participants in this study.
- The objectives of this research are:
 1. To describe the characteristics of users and non-users of campus recreational sport facilities at the Potchefstroom Campus of the NWU;
 2. To describe the patterns of recreational sport participation of university students at the Potchefstroom Campus of the NWU;
 3. To determine reason for participating in recreational sport among students at the Potchefstroom Campus of the NWU;
 4. To determine the leisure constraints experienced by university students at the Potchefstroom Campus of the NWU;
 5. To determine the relationship between frequency of recreational sport participation and sense of community among university students at the Potchefstroom Campus of the NWU;
 6. To determine the relationship between participation in recreational sport and satisfaction with life among university students at the Potchefstroom Campus of the NWU;
 7. To determine the relationship between participation in recreational sport and body mass index (BMI) among university students at the Potchefstroom Campus of the NWU;
 8. To determine the level of leisure boredom experienced by university students at the Potchefstroom Campus of the NWU.

Why have you been invited to participate?

- You are invited to participate because if you are registered as a full-time contact undergraduate student at the Potchefstroom Campus of the NWU. All races and genders are included in the study, as well as students from any residential type. Your participation in the study will contribute to building a profile of students' recreational sport participation on and around the Potchefstroom Campus, so participants and non-participants in recreational sports are included in the study.
- Additionally, you also have to comply with the following inclusion criteria:
 1. Registered as a full-time undergraduate student at the Potchefstroom Campus of the NWU in any of the faculties;
 2. Students from all language groups are included, however, the only requirement is that you must be able to read, write and comprehend English;
 3. Students must be between 18 and 30 years of age;
 4. Have access to eFundi.
- You are excluded if you do not meet the abovementioned criteria and if you:
 1. Are not registered as a student on NWU's Potchefstroom Campus, because the study focuses on students' recreational sport participation.
 2. Are registered as a student NWU's Potchefstroom Campus but do not have access to eFundi, due to eFundi being the most effective electronic platform to communicate with students.

What will your responsibilities be?

- You will be expected to read the eFundi advert and follow the link to the electronic questionnaire on Survey Monkey. You will be requested to "click" on the block at the bottom of this "Informed Consent" screen indicating that you are willing to participate in the study. You will need to complete the electronic questionnaire, which will take approximately eight to ten minutes to complete. If you would like to stand a chance to win an iPad in a lucky draw, you will need to supply your student number on the first page of the questionnaire.

Will you benefit from taking part in this research?

- The direct benefits for you as a participant will be an opportunity to share your views about recreational sport participation. You also stand a chance to win an iPad.
- The indirect benefit will be that the study will add to the recreation science's body of knowledge and may have practical implications for the justification of recreational sport, planning of recreational sport facilities and provision of recreational sport, which may indirectly benefit students.

Are there risks involved in your taking part in this research?

- The risks in this study are minimal and no sensitive information is required from you. However, to calculate your body mass index (BMI) your weight and length are required. All data will be kept confidential and your identity will not be revealed in any way.
- Although an online questionnaire provides no paper evidence that might compromise confidentiality, a small possibility exist of tampering or access from an outside source when using the internet for collecting information. Therefore, standard security features associated with the use of a formal software program such as Survey Monkey to protect online information from leaking out via the internet will be applied.
- The benefits outweighs the risk

What will happen in the unlikely event of some form of discomfort occurring as a direct result of your taking part in this research study?

- Should you have the need for further discussions after the completion of the electronic questionnaire an opportunity will be arranged for you, at a time of your convenience, to clarify any uncertainties or discuss any other issues which emerged from your participation in the study.

Who will have access to the data?

- Only the researchers will have access to the data. Anonymity will be ensured by removing all identifying information from electronic data. Confidentiality will be ensured by not revealing the participants' identities in any reports resulting from the research. Reporting of findings will be anonymous by not including any identifiable information such as student numbers in the data.

What will happen with the data/samples?

- The data file obtained from Survey Monkey will be stored as a password-protected file on a password-protected computer only used by the researcher. All backup data files will also be password protected and stored in a secure location at building K4 room G15 for a period of seven years.

Will you be paid to take part in this study and are there any costs involved?

- No, you will not be paid to take part in the study. The questionnaire will be available online, thus there will be no costs involved for you, if you do take part.

Is there anything else that you should know or do?

- You can contact Dr. Theron Weilbach at (018) 299 2037 or Mrs. Natasha Janse van Rensburg at (016) 950 7563 if you have any further queries or encounter any problems.
- You can contact the Health Research Ethics Committee via Mrs Carolien van Zyl at (018) 299 2089; carolien.vanzyl@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

How will you know about the findings?

- The findings of the research will be shared with you and the campus community via the office of the Dean of Student Affairs on the Potchefstroom Campus.

*** Declaration by participant**

By selecting "I agree" below, I agree to take part in a research study titled: North-West University students' recreational sport participation and associated benefits: the Potchefstroom Campus

I declare that:

- I have read this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

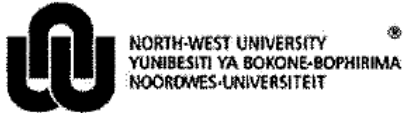
RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG
STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

CONSENT

* To continue with the questionnaire and qualify for the lucky draw, please provide you NWU student number.

☐ I do not wish to supply my student number

☐ I am willing to supply my student number



Appendix E:

Questionnaire

RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHERSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 1: DEMOGRAPHIC INFORMATION

* 1.1 Gender?

☐ Male

☐ Female

* 1.2 What is your date of birth?

DOB: DD MM YYYY

DOE: / /

* 1.3 To which ethnic group do you belong to?

☐ Asian

☐ Black

☐ Coloured

☐ White

☐ Other (please specify) _____

* 1.4 What nationality are you?

☐ South African

☐ Other _____

* 1.5 What type of accommodation do you make use of?

* 1.6 Please indicate which residence you stay in:

☐ Elzenhof

☐ Klawentof

☐ Kallen

☐ Kasteel

☐ Heide

☐ Huis Republiek

☐ Marjaniet

☐ Oosthof

☐ Vinger-ny-ne

☐ Wag'n-belle

☐ Werde

* 1.7 Please indicate which residence you stay in:

☐ Caput

☐ De Wilgers

☐ Excelsior

☐ Horizonte

☐ Laureus

☐ Over-de-Voor

☐ Petia

☐ Plakcorp

☐ Retau Leioce

☐ Veritas

RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHERSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 1: DEMOGRAPHIC INFORMATION

* 1.1 Gender?

☐ Male

☐ Female

* 1.2 What is your date of birth?

DOB: DD MM YYYY

DOE: / /

* 1.3 To which ethnic group do you belong to?

☐ Asian

☐ Black

☐ Coloured

☐ White

☐ Other (please specify) _____

* 1.4 What nationality are you?

☐ South African

☐ Other _____

* 1.5 What type of accommodation do you make use of?

* 1.6 Please indicate which residence you stay in:

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☐ Kallen

☐ Kasteel

☐ Heide

☐ Huis Republiek

☐ Marjaniet

☐ Oosthof

☐ Vinger-ny-ne

☐ Wag'n-belle

☐ Werde

* 1.7 Please indicate which residence you stay in:

☐ Caput

☐ De Wilgers

☐ Excelsior

☐ Horizonte

☐ Laureus

☐ Over-de-Voor

☐ Petia

☐ Plakcorp

☐ Retau Leioce

☐ Veritas

* 1.8 Please indicate which residence you stay in:

- ☐ Vilagers
- ☐ Trekka-ash
- ☐ Helmal



NORTH-WEST UNIVERSITY
UNIBESITHI YA BOCHONE-BOHABANA
NOROONWES-UNIBESITHI

RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 1: DEMOGRAPHIC INFORMATION

* 1.9 Please indicate which residence you stay in:

- ☐ Bellarek
- ☐ Dink
- ☐ Lavalla



NORTH-WEST UNIVERSITY
UNIBESITHI YA BOCHONE-BOHABANA
NOROONWES-UNIBESITHI

RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 1: DEMOGRAPHIC INFORMATION

* 1.10 Do you stay in Potchefstroom or outside of Potchefstroom (during the week and non-holiday/s)?

- ☐ In Potchefstroom
- ☐ Outside Potchefstroom



NORTH-WEST UNIVERSITY
UNIBESITHI YA BOCHONE-BOHABANA
NOROONWES-UNIBESITHI

RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 1: DEMOGRAPHIC INFORMATION

* 1.11 How are you registered at the Potchefstroom Campus?

- ☐ Full-time
- ☐ Part-time
- ☐ E-learning
- ☐ Other (please specify)

* 1.12 At which Faculty at the Potchefstroom Campus are you studying?

- ☐ Arts
- ☐ Natural Sciences
- ☐ Theology
- ☐ Educational Sciences
- ☐ Economic and Management Sciences
- ☐ Law
- ☐ Engineering
- ☐ Health Sciences

* 1.13 How many years have you been on the Potchefstroom Campus of the NWU?

* 1.14 What qualification are you currently registered for?

- ☐ Undergraduate degree
- ☐ Postgraduate diploma
- ☐ Honours degree
- ☐ Master's degree
- ☐ Doctoral degree

* 1.15 Are you currently playing sport for an official team?

- ☐ No
☐ Yes, for a hospital team
☐ Yes, for a NYU team
☐ Yes, for a provincial team
☐ Yes, other (please specify)

* 1.16 What is your weight? (e.g. "63" for sixty three kilograms)

Kilograms

* 1.17 What is your length? (e.g. 1.73 meters)

Length		Meters		Centimeters
--------	--	--------	--	-------------



RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 2: CURRENT RECREATIONAL SPORT PARTICIPATION

* 2.1 Please indicate the recreational sport activities that you have participated in during the last six months:

- | | | |
|---|---|--|
| ☐ None | ☐ Golf | ☐ Road cycling |
| ☐ 7's rugby | ☐ Gymnastics | ☐ Road running |
| ☐ Action cricket | ☐ Hiking | ☐ Road triathlon |
| ☐ Action hockey | ☐ Indoor hockey | ☐ Rock climbing and/or abseiling |
| ☐ Action netball | ☐ Indoor soccer | ☐ Rugby touch |
| ☐ Adventure | ☐ Judo | ☐ Rugby Union |
| ☐ Aerobics | ☐ Judo Juggling | ☐ Social dancing |
| ☐ Archery | ☐ Karate | ☐ Softball |
| ☐ Athletics | ☐ Kayaking and/or canoeing | ☐ Squash |
| ☐ Badminton | ☐ MMA | ☐ Swimming for fun |
| ☐ Badminton | ☐ Modern climbing and/or hip-hop | ☐ Table tennis |
| ☐ Basketball | ☐ Mountain biking | ☐ Tai Kwon Do |
| ☐ Body building | ☐ Netball | ☐ Taekwondo |
| ☐ Chip and put | ☐ Off-road running | ☐ Target shooting |
| ☐ Competitive chess | ☐ Off-road triathlon | ☐ Tennis |
| ☐ Crossfit | ☐ One day cricket | ☐ Volleyball |
| ☐ Field hockey | ☐ Open water swimming | ☐ Warrior races / adventure races |
| ☐ Field soccer | ☐ Parashooting | ☐ Water ski |
| ☐ Gate swimming | ☐ Pilates | ☐ Yoga |
| ☐ General exercise | ☐ Putt putt | |
| ☐ Other (please specify) | ☐ Ringball | |



RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 2: CURRENT RECREATIONAL SPORT PARTICIPATION

* 2.2 On average during the past six months, please indicate how many times a month you have participated in the chosen activities: (e.g. "3" for three times a month)

None	
Golf	
Ts rugby	
Action official	
Action hockey	
Action martial	
Adventure	
Aerobics	
Archery	
Athletics	
Badminton	
Ballet	
Ballroom	
Basketball	
Body building	
Chip and put	
Competitive chess	
Crossfit	
Field hockey	
Field soccer	
Gala swimming	
General exercise	
Gymnastics	
Golf	
Hiking	
Indoor hockey	
Indoor soccer	
Judo	

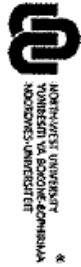
Juist jogging	
Karaté	
Kayaking and/or canoeing	
MMA	
Modern dancing and/or hip-hop	
Mountain biking	
Natball	
Off-road running	
Off-road triathlon	
One day cricket	
Open water swimming	
Paintball	
Pilates	
Put-put	
Rugbyball	
Road cycling	
Road running	
Road triathlon	
Rock climbing and/or abseiling	
Rugby touches	
Rugby Union	
Social dancing	
Sportball	
Squash	
Swimming for fun	
Table tennis	
Tae Kwon Do	
Tap	
Target shooting	

Tennis	
Volleyball	
Winter races / adventure races	
Water ski	
Yoga	
[insert text from Q1e-f]	

* 2.3 Please indicate the context of your activity:

	Home teams	Private clubs	Family	Friends	On my own
None	☐	☐	☐	☐	☐
Golf	☐	☐	☐	☐	☐
It's ugly	☐	☐	☐	☐	☐
Action cricket	☐	☐	☐	☐	☐
Action hockey	☐	☐	☐	☐	☐
Action netball	☐	☐	☐	☐	☐
Adventure	☐	☐	☐	☐	☐
Aerobics	☐	☐	☐	☐	☐
Archery	☐	☐	☐	☐	☐
Athletics	☐	☐	☐	☐	☐
Badminton	☐	☐	☐	☐	☐
Ballet	☐	☐	☐	☐	☐
Ballroom	☐	☐	☐	☐	☐
Basketball	☐	☐	☐	☐	☐
Boat building	☐	☐	☐	☐	☐
Clay and put	☐	☐	☐	☐	☐
Competitive chess	☐	☐	☐	☐	☐
Crossfit	☐	☐	☐	☐	☐
Falsethockey	☐	☐	☐	☐	☐
Field soccer	☐	☐	☐	☐	☐
Gale swimming	☐	☐	☐	☐	☐
General exercise	☐	☐	☐	☐	☐
Gymnastics	☐	☐	☐	☐	☐
Golf	☐	☐	☐	☐	☐

	Home teams	Private clubs	Family	Friends	On my own
Hiking	☐	☐	☐	☐	☐
Indoor hockey	☐	☐	☐	☐	☐
Indoor soccer	☐	☐	☐	☐	☐
Judo	☐	☐	☐	☐	☐
Just jogging	☐	☐	☐	☐	☐
Karate	☐	☐	☐	☐	☐
Kayaking and/or canoeing	☐	☐	☐	☐	☐
MMA	☐	☐	☐	☐	☐
Modern dancing and/or hip-hop	☐	☐	☐	☐	☐
Mountain biking	☐	☐	☐	☐	☐
Natball	☐	☐	☐	☐	☐
Off-road running	☐	☐	☐	☐	☐
Off-road triathlon	☐	☐	☐	☐	☐
One day cricket	☐	☐	☐	☐	☐
Open water swimming	☐	☐	☐	☐	☐
Panball	☐	☐	☐	☐	☐
Parasail	☐	☐	☐	☐	☐
Poleball	☐	☐	☐	☐	☐
Pull-pull	☐	☐	☐	☐	☐
Rugbyball	☐	☐	☐	☐	☐
Road cycling	☐	☐	☐	☐	☐
Road running	☐	☐	☐	☐	☐
Road triathlon	☐	☐	☐	☐	☐
Rock climbing and/or iceclimbing	☐	☐	☐	☐	☐
Rugby touchies	☐	☐	☐	☐	☐
Rugby Union	☐	☐	☐	☐	☐
Social dancing	☐	☐	☐	☐	☐
Soccer	☐	☐	☐	☐	☐
Squash	☐	☐	☐	☐	☐
Swimming for fun	☐	☐	☐	☐	☐
Table tennis	☐	☐	☐	☐	☐
Tae Kwon Do	☐	☐	☐	☐	☐



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RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHETS ROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 3: REASONS FOR RECREATIONAL SPORT PARTICIPATION

	House Teams	Private clubs	Family	Friends	On my own
Tennis	☐	☐	☐	☐	☐
Baseball	☐	☐	☐	☐	☐
Volleyball	☐	☐	☐	☐	☐
Warrior races / adventure races	☐	☐	☐	☐	☐
Water ski	☐	☐	☐	☐	☐
Yoga	☐	☐	☐	☐	☐
[Insert Item from Other]	☐	☐	☐	☐	☐

* 3.1 How much do you agree or disagree with the following statement:

The reason I participate in recreational sport activities is...

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
To have fun.	☐	☐	☐	☐	☐
Because I enjoy the challenges it poses.	☐	☐	☐	☐	☐
To learn new things.	☐	☐	☐	☐	☐
To become physically fit.	☐	☐	☐	☐	☐
To exercise.	☐	☐	☐	☐	☐
To improve my sporting abilities.	☐	☐	☐	☐	☐
To do something that I am good at.	☐	☐	☐	☐	☐
To be with like-minded people.	☐	☐	☐	☐	☐
To test my limits.	☐	☐	☐	☐	☐
To meet new people.	☐	☐	☐	☐	☐
To keep myself busy.	☐	☐	☐	☐	☐
To be popular.	☐	☐	☐	☐	☐
To win.	☐	☐	☐	☐	☐
To have excitement.	☐	☐	☐	☐	☐
To be part of a team or club.	☐	☐	☐	☐	☐
To be healthy.	☐	☐	☐	☐	☐
To be with my family.	☐	☐	☐	☐	☐
To be with my fellow NWU students.	☐	☐	☐	☐	☐
To release some tension or stress.	☐	☐	☐	☐	☐
To be with friends.	☐	☐	☐	☐	☐
To get rid of energy.	☐	☐	☐	☐	☐
As part of a healthy lifestyle.	☐	☐	☐	☐	☐
To get out of my room/house.	☐	☐	☐	☐	☐
To compete for the fun of it.	☐	☐	☐	☐	☐

RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHESTROOM CAMPUS OF THE NORTHWEST UNIVERSITY

SECTION 4: RECREATIONAL SPORT CONSTRAINTS

* 4.1 How much do you agree or disagree with the following statement:

The following are reasons I don't participate more frequently/do not participate in recreational sport activities ...

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I have no one to participate with.	☐	☐	☐	☐	☐
I do not feel that it is appropriate for me to participate.	☐	☐	☐	☐	☐
My friends don't like it.	☐	☐	☐	☐	☐
I don't want to.	☐	☐	☐	☐	☐
I feel uncomfortable.	☐	☐	☐	☐	☐
I don't have the skills.	☐	☐	☐	☐	☐
I feel self-conscious about my body.	☐	☐	☐	☐	☐
It's too competitive.	☐	☐	☐	☐	☐
It's dominated by specific gender.	☐	☐	☐	☐	☐
It's dominated by specific interests.	☐	☐	☐	☐	☐
I feel too shy.	☐	☐	☐	☐	☐
I am scared that I will fall.	☐	☐	☐	☐	☐
I don't enjoy participating.	☐	☐	☐	☐	☐
Sociocultural norms prevent me from participating.	☐	☐	☐	☐	☐
The recreational sport activities available are inappropriate for my gender.	☐	☐	☐	☐	☐

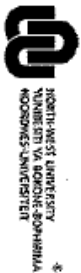
RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHESTROOM CAMPUS OF THE NORTHWEST UNIVERSITY

SECTION 5: RECREATIONAL SPORT NEEDS

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I am scared to participate because it is violent.	☐	☐	☐	☐	☐
I am afraid I am going to injure myself.	☐	☐	☐	☐	☐
I don't have the time.	☐	☐	☐	☐	☐
I don't know what recreational sport activities are available.	☐	☐	☐	☐	☐
I already spend too much time on other recreational activities.	☐	☐	☐	☐	☐
I don't have money.	☐	☐	☐	☐	☐
The recreational sport facilities are too crowded.	☐	☐	☐	☐	☐
I don't have transportation.	☐	☐	☐	☐	☐
I am physically unable to participate.	☐	☐	☐	☐	☐

* 5.1 Please list the activities that you **WOULD LIKE** to participate in at the Potchefstroom Campus:

- | | |
|---|--|
| ☐ None | ☐ Modern dancing and/or hip-hop |
| ☐ Golf | ☐ Mountain biking |
| ☐ 7's rugby | ☐ Netball |
| ☐ Action cricket | ☐ Off-road running |
| ☐ Action hockey | ☐ Off-road triathlon |
| ☐ Action netball | ☐ One day cricket |
| ☐ Adventure | ☐ Open water swimming |
| ☐ Aerobics | ☐ Parahall |
| ☐ Archery | ☐ Pilates |
| ☐ Athletics | ☐ Put-put |
| ☐ Badminton | ☐ Rinkball |
| ☐ Ballet | ☐ Road cycling |
| ☐ Ballroom | ☐ Road running |
| ☐ Basketball | ☐ Road triathlon |
| ☐ Body building | ☐ Rock climbing and/or abseiling |
| ☐ Chip and putt | ☐ Rugby touches |
| ☐ Competitive chess | ☐ Rugby Union |
| ☐ Crossfit | ☐ Social dancing |
| ☐ Field hockey | ☐ Softball |
| ☐ Field soccer | ☐ Squash |
| ☐ Gaita swimming | ☐ Swimming for fun |
| ☐ General exercise | ☐ Table tennis |
| ☐ Gymnastics | ☐ Tai Kwon Do |
| ☐ Golf | ☐ Tap |
| ☐ Hiking | ☐ Target shooting |
| ☐ Indoor hockey | ☐ Tennis |
| ☐ Indoor soccer | ☐ Volleyball |
| ☐ Judo | ☐ Warrior races / adventure races |
| ☐ Judo Joggling | ☐ Water ski |
| ☐ Karate | ☐ Yoga |
| ☐ Karating and/or canoeing | ☐ [Insert text from Other] |
| ☐ MMA | |



RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 5: RECREATIONAL SPORT NEEDS

* 5.2 Indicate the number of times you think you would participate in the activity during a month: (e.g. "3" for three times a month)

None	
Golf	
7's rugby	
Action cricket	
Action hockey	
Action netball	
Adventure	
Aerobics	
Archery	
Athletics	
Badminton	
Ballet	
Ballroom	
Basketball	
Body building	
Chip and putt	
Competitive chess	
Crossfit	
Field hockey	
Field soccer	
Gaita swimming	

General exercise	
Gymnastics	
Golf	
Hiking	
Indoor hockey	
Indoor soccer	
Judo	
Just joggling	
Karate	
Kayaking and/or canoeing	
MMA	
Modern dancing and/or hip-hop	
Mountain biking	
Nordest	
Off-road running	
Off-road triathlon	
One day cricket	
Open water swimming	
Paidball	
Plagues	
Pink-pant	
Ringball	
Road cycling	
Road running	
Road triathlon	
Rock climbing and/or abseiling	
Rugby league	
Rugby Union	
Social dancing	

Satball	
Squash	
Swimming for fun	
Table tennis	
Tae Kwon Do	
Tap	
Target shooting	
Tennis	
Volleyball	
Warrior races / adventure races	
Water ski	
Yoga	
[insert text from Other]	

* 5.3 Please indicate the context of your activity:

	Hostel teams	Private clubs	Family	Friends	On my own
None	☐	☐	☐	☐	☐
Golf	☐	☐	☐	☐	☐
7's rugby	☐	☐	☐	☐	☐
Action cricket	☐	☐	☐	☐	☐
Action hockey	☐	☐	☐	☐	☐
Action netball	☐	☐	☐	☐	☐
Adventure	☐	☐	☐	☐	☐
Aerobics	☐	☐	☐	☐	☐
Archery	☐	☐	☐	☐	☐
Athletics	☐	☐	☐	☐	☐
Badminton	☐	☐	☐	☐	☐
Ballet	☐	☐	☐	☐	☐
Balroom	☐	☐	☐	☐	☐
Basketball	☐	☐	☐	☐	☐
Body building	☐	☐	☐	☐	☐
Club and pub	☐	☐	☐	☐	☐

	Hostel teams	Private clubs	Family	Friends	On my own
Competitive chess	☐	☐	☐	☐	☐
Crossfit	☐	☐	☐	☐	☐
Field hockey	☐	☐	☐	☐	☐
Field soccer	☐	☐	☐	☐	☐
Golf swimming	☐	☐	☐	☐	☐
General exercise	☐	☐	☐	☐	☐
Gymnastics	☐	☐	☐	☐	☐
Golf	☐	☐	☐	☐	☐
Hiking	☐	☐	☐	☐	☐
Indoor hockey	☐	☐	☐	☐	☐
Indoor soccer	☐	☐	☐	☐	☐
Judo	☐	☐	☐	☐	☐
Just jogging	☐	☐	☐	☐	☐
Karate	☐	☐	☐	☐	☐
Kayaking and/or canoeing	☐	☐	☐	☐	☐
MMA	☐	☐	☐	☐	☐
Modern dancing aerobics hip-hop	☐	☐	☐	☐	☐
Mountain biking	☐	☐	☐	☐	☐
Netscape	☐	☐	☐	☐	☐
Off-road running	☐	☐	☐	☐	☐
Off-road triathlon	☐	☐	☐	☐	☐
One day cricket	☐	☐	☐	☐	☐
Open water swimming	☐	☐	☐	☐	☐
Parashut	☐	☐	☐	☐	☐
Plashes	☐	☐	☐	☐	☐
Put-put	☐	☐	☐	☐	☐
Rugby	☐	☐	☐	☐	☐
Road cycling	☐	☐	☐	☐	☐
Road running	☐	☐	☐	☐	☐
Road triathlon	☐	☐	☐	☐	☐
Rock climbing and/or abseiling	☐	☐	☐	☐	☐
Rugby hockey	☐	☐	☐	☐	☐

	Hostel teams	Private clubs	Family	Friends	On my own
Rugby Union	☐	☐	☐	☐	☐
Social dancing	☐	☐	☐	☐	☐
Soccer	☐	☐	☐	☐	☐
Squash	☐	☐	☐	☐	☐
Swimming for fun	☐	☐	☐	☐	☐
Table tennis	☐	☐	☐	☐	☐
Tae Kwon Do	☐	☐	☐	☐	☐
Tap	☐	☐	☐	☐	☐
Target shooting	☐	☐	☐	☐	☐
Tennis	☐	☐	☐	☐	☐
Volleyball	☐	☐	☐	☐	☐
Water races / adventure races	☐	☐	☐	☐	☐
Water ski	☐	☐	☐	☐	☐
Yoga	☐	☐	☐	☐	☐
[Insert text from Other]	☐	☐	☐	☐	☐



RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 6: SENSE OF COMMUNITY

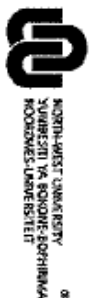
* 6.1 How much do you agree or disagree with the following statement:

At the NWU Potchefstroom Campus ...

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Students care about each other.	☐	☐	☐	☐	☐
I feel valued as a person.	☐	☐	☐	☐	☐
I feel accepted as part of the campus community.	☐	☐	☐	☐	☐

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
University staff (i.e. lecturers) care about students.	☐	☐	☐	☐	☐
Recreational sport programmes effectively foster positive relationships among different cultural communities.	☐	☐	☐	☐	☐
Being part of campus activities will raise my awareness of campus resources.	☐	☐	☐	☐	☐
The institution's traditions and celebrations play an important role in my life as a student.	☐	☐	☐	☐	☐
I have felt lonely on campus.	☐	☐	☐	☐	☐
My experience participating in campus activities has been/has been positive.	☐	☐	☐	☐	☐
There is/are opportunity to interact with other people on campus.	☐	☐	☐	☐	☐
Different cultural communities participate in each other's events.	☐	☐	☐	☐	☐
Student advocates like the SRC (student council) helped/has helped to lead the community on campus.	☐	☐	☐	☐	☐
There is an environment for free and open expression of ideas/opinions/beliefs.	☐	☐	☐	☐	☐
I am satisfied with the range of extracurricular activities and recreational sport programmes.	☐	☐	☐	☐	☐
Students and university staff are engaged in teaching and learning.	☐	☐	☐	☐	☐
University staff are accessible to me when I seek their help.	☐	☐	☐	☐	☐

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
There are opportunities to interact with people from different backgrounds.	☐	☐	☐	☐	☐
I am/was satisfied with the recreational sport programmes and activities at the university.	☐	☐	☐	☐	☐
There is a clear sense of appropriate and inappropriate behaviour on campus.	☐	☐	☐	☐	☐
I would seek/sought the assistance of university staff in case of an emergency.	☐	☐	☐	☐	☐
I am proud of the institution's history and heritage.	☐	☐	☐	☐	☐
Friends share my interests and values.	☐	☐	☐	☐	☐
I am satisfied with the overall quality of institution on campus.	☐	☐	☐	☐	☐
I often felt under a lot of stress during my time on campus.	☐	☐	☐	☐	☐
My social interactions are largely confined to students of my race/ethnicity.	☐	☐	☐	☐	☐

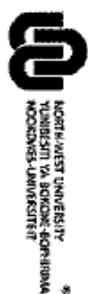


RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 7: SATISFACTION WITH LIFE

* 7.1 How much do you agree or disagree with the following statements ...

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
In most ways my life is close to my ideal.	☐	☐	☐	☐	☐
The conditions of my life are excellent.	☐	☐	☐	☐	☐
I am satisfied with my life.	☐	☐	☐	☐	☐
So far I have gotten the important things I want in life.	☐	☐	☐	☐	☐
If I could live my life over, I would change almost nothing.	☐	☐	☐	☐	☐



RECREATIONAL SPORT PARTICIPATION AND ITS ASSOCIATED BENEFITS AMONG STUDENTS AT THE POTCHEFSTROOM CAMPUS OF THE NORTH-WEST UNIVERSITY

SECTION 8: BOREDOM

* 8.1 How much do you agree or disagree with the following statements ...

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
For me, free time just drags on and on.	☐	☐	☐	☐	☐
Free time is boring.	☐	☐	☐	☐	☐
In my free time I usually don't know what to do.	☐	☐	☐	☐	☐
During my free time I almost always have something to do.	☐	☐	☐	☐	☐
My friends and I often talk about how bored we are.	☐	☐	☐	☐	☐