

Rock climbing certification in South Africa: an explorative descriptive study

M Strauss

 orcid.org/0000-0003-1158-039X

Dissertation submitted in fulfilment of the requirements for the degree Master of Health Science in Recreation Science at the North-West University

Supervisor: Mrs Y Stevens

Graduation: August 2021

Student number: 23502282

DECLARATION

M Strauss: The main author of the dissertation, including articles one and two; developed the proposal; collected the data; analysed and presented the findings; and compiled the dissertation.

Y Stevens: Supervised, reviewed and coordinated the research; obtained ethical approval for the research from HREC; provided guidance and support.

Dr JT Weilbach: Acted as co-supervisor; collaborated with the supervisor; and provided mentorship to the first author and the supervisor.

The dissertation is in fulfilment of the requirements for a Master's degree in *Human Movement Science* within the Physical Activity, Sport and Recreation (PhASRec) focus area in the Faculty of Health Sciences at the North-West University.



Minette Strauss (student)

30 March 2021

Date



Mrs Y Stevens (Supervisor)

30 March 2021

Date



Dr JT Weilbach (Co-supervisor)

30 March 2021

Date

ACKNOWLEDGEMENTS

"Don't be fooled by the calendar. There are only as many days in the year as you make use of. The key is in not spending time but investing in it." Stephen R. Covey

I would like to express my heartfelt appreciation to the following persons who contributed to the completion of my dissertation:

- My two supervisors, Mrs Yolanda Stevens and Dr Theron Weilbach: firstly, thank you for your time, each and every minute of hard work, diligence, patience and encouragement throughout my studies. Thank you for your mentorship and leadership the past few years.
- To all the participants: thank you for your willingness to partake in the study.
- To both City Rock JHB and City Rock Cape Town: thank you for allowing me to conduct the interviews at the gyms.
- My co-coder, Cara Myburg: thank you for taking time off from your own Master's study to assist with mine.
- To Christine Wolmarans, my language editor, for your encouragement and support, more importantly, for your thorough professional work.
- My friends, for all the support, guidance and encouraging words during this time.
- My parents, for providing the opportunity and motivation to further my studies.
- My heavenly Father for the ability, wisdom and strength to complete my studies.

Minette Strauss

The author

March 2021

ABSTRACT

Outdoor adventure activities have shown a tremendous growth over the past few years. The risk related to outdoor adventure activities is inevitable and should therefore be managed properly. Rock climbing is considered to be a high-risk sporting activity and statistics indicate that the sport is related to severe injuries and even death. Due to the increase in adventure activities, tourists are in need of trained and qualified guides to present risk-related adventure activities. Simultaneously, it can be argued that recreational rock climbers are in need of obtaining a form of training to be safe while climbing.

There are two rock climbing training opportunities available in South Africa: the MDT certification and SAQA qualification. Due to limited research conducted regarding rock climbing training, the first objective of the study utilised the Theory of Planned Behaviour as a theoretical framework to analyse the perceptions of rock climbers over the certification process. Interviews were conducted with a total of 28 rock climbers in SA from whom five participants are SAQA qualified, 11 participants are MDT certified and 12 participants with no climbing training. The Theory of Planned behaviour was successfully employed as attitudes, perceived social pressures and control over certification were investigated. Results indicate that participants are in favour of rock climbing training but only for guiding purposes. All participants were opposed to training for recreational rock climbers and mentioned that the barriers to obtaining certification are difficult to overcome. However, results also show that the perceptions of certification might be misplaced as participants have the wrong information. Many participants are of the perception that the MDT certification would allow legal guiding, which is not the case. Only the SAQA qualification can allow a person to guide legally in SA. It was indicated that social pressure does not motivate rock climbers to obtain a certification as the rock climbing community are of meaning that only guides should obtain a qualification. Consequently, rock climbers in SA are reluctant to obtain training for recreational purposes.

Furthermore, the paper focused on the perceptions of SAQA qualified rock climbers regarding the qualification process. Due to the limited number of qualified rock climbing guides in SA, a total of five participants were interviewed. It was evident that there is friction caused by the differences in the SAQA qualification and MDT certification. Participants declared that the technical aspects of the MDT certification and the SAQA qualification are identical. However, it was confirmed that the SAQA qualification is the only training programme that will provide access to legal guiding in SA. Therefore, it became clear that the MDT certification has a different aim and focus on the training of recreational leadership and participation of rock climbers, which fulfils an important role in the

rock climbing industry in SA. It was discovered that rock climbing training in SA is not adequately monitored or regulated to the desired potential. The establishment of a governing body could ultimately change the perception of rock climbing guiding in SA. Such a body could potentially ensure that a rock climbing guiding qualification could be viewed as a professional career path which is well managed.

Keywords: adventure, certification, MDT, qualifications, rock climbing, SAQA, Theory of Planned Behaviour.

OPSOMMING

Buitelug avontuur aktiwiteite het 'n merkwaardig groei getoon oor die afgelope paar jaar. Die risiko verbonde aan buitelug avontuuraktiwiteite is onvermydelik en moet dus behoorlik bestuur word. Rotsklim word beskou as 'n hoë-risiko aktiwiteit en statistieke dui aan dat die sport verband hou met ernstige beserings en selfs die dood. As gevolg van die toename in avontuuraktiwiteite, benodig toeriste opgeleide en gekwalifiseerde gidse om risikoverwante avontuuraktiwiteite aan te bied. Terseldetyd kan daar geredeneer word dat rekreativele klimmers 'n vorm van opleiding benodig om veilig te wees.

Daar is twee opleidingsgeleenthede vir rotsklimmers beskikbaar in SA: die MDT sertifisering en SAQA kwalifikasie. As gevolg van beperkte navorsing oor rotsklimopleiding, is die Teorie van Beplande Gedrag as teoretiese raamwerk gebruik om die persepsie van rotsklimmers oor die sertifiseringsproses te ontleed. Onderhoude is gevoer met 'n totaal van 28 rotsklimmers in SA, waarvan vyf deelnemers SAQA gekwalifiseerd was, 11 deelnemers MDT gesertifiseerd was en 'n verdere 12 deelnemers wat geen opleiding ondergaan het nie. Die Teorie van Beplande Gedrag is suksesvol geïmplimenteer in die studie waar houdings, waargenome sosiale druk en beheer oor sertifisering ondersoek is. Die resultate het aangedui dat deelnemers ten gunste van rotsklimopleiding is, maar slegs dat kwalifikasies slegs vir die gebruik van gidse is. Al die deelnemers was gekant teen die opleiding van rekreativele klimmers en noem ook dat die hindernisse om sertifisering te verwerf moeilik is om te oorkom. Die resultate het egter ook getoon dat die persepsie van sertifisering misplaas is omdat deelnemers verkeerde inligting het. Baie deelnemers is van mening dat die MDT sertifisering wettige leiding moontlik sal maak, wat nie die geval is nie. Slegs die SAQA kwalifikasie kan verwerf word om 'n persoon wettig in SA te laat lei. Daar is aangedui dat sosiale druk klimmers nie motiveer om 'n sertifisering te verwerf nie, aangesien die klimgemeenskap meen dat slegs gidse 'n kwalifikasie moet verwerf. Gevolglik is rotsklimmers in SA huiwerig om opleiding vir ontspanningsdoeleindes te bekom.

Die tweede artikel het gefokus op die persepsies van SAQA gekwalifiseerde klimmers oor die kwalifikasieproses. Vanweë die beperkte hoeveelheid gekwalifiseerde rotsklimgidse in SA is onderhoude met slegs vyf deelnemers gevoer. Dit was duidelik dat daar wrywing is wat veroorsaak word deur die verskille tussen die SAQA kwalifikasie en MDT sertifisering. Deelnemers het verklaar dat die tegniese aspekte van die MDT sertifisering en die SAQA kwalifikasie byna identies is, maar die feit is dat die SAQA kwalifikasie die enigste opleidingsprogram is wat toegang tot gidse in SA sal bied. Dit blyk dat die MDT sertifisering 'n

ander doel het en fokus op die opleiding van rekreative leierskap, wat ook 'n belangrike rol in die rotsklimbedryf in SA speel. Die gevolgtrekking is dat rotsklimopleiding in SA nie ten volle gemonitor word, of tot die gewenste potensiaal gereguleer word nie. Die stigting van 'n beheerliggaam kan uiteindelik die persepsie van rotsklimopleiding in SA verander. Deur hierdie instelling kan 'n kwalifikasie vir rotsklim as 'n professionele loopbaanbaan beskou word.

Sleutelwoorde: avontuur, kwalifikasie, MDT, rotsklim, SAQA, sertifikasie, Teorie van Beplande Gedrag,

TABLE OF CONTENTS

DECLARATION	I
ACKNOWLEDGEMENTS	II
ABSTRACT	III
OPSOMMING	V
TABLE OF CONTENTS.....	VII
TABLE OF APPENDICES	XI
LIST OF TABLES	XII
LIST OF ABBREVIATIONS	XIII

CHAPTER 1

INTRODUCTION.....	1
1.1 BACKGROUND.....	1
1.2 PROBLEM STATEMENT	1
1.3 OBJECTIVES.....	6
1.4 THEORETICAL FRAMEWORK.....	6
1.5 STRUCTURE OF THE DISSERTATION	8
REFERENCES.....	9

CHAPTER 2

LITERATURE REVIEW:

AN OVERVIEW OF THE ROCK CLIMBING INDUSTRY	12
2.1 INTRODUCTION.....	12
2.2 THE CONCEPT OF ROCK CLIMBING.....	13

2.2.1	History of rock climbing	13
2.2.2	Types of rock climbing	14
2.2.3	Rock climbing grading	16
2.3	ADVENTURE ACTIVITY CERTIFICATION	18
2.3.1.	Overview of adventure activity certification	18
2.3.2.	Rock climbing certification process in other countries.....	21
2.3.3.	Rock climbing training in SA	24
2.3.3.1.	The South African Qualifications Authority (SAQA) qualification process.....	24
2.3.3.2.	The Mountaineer Development and Training Trust (MDT) certification process.....	27
2.4	THE THEORY OF PLANNED BEHAVIOUR.....	30
2.4.1.	The Theory of Planned Behaviour as a theoretical framework.....	30
2.4.2	The theory in relation to research	32
2.5	CONCLUSION	34
	REFERENCES.....	35

CHAPTER 3

ARTICLE 1

EXPLORATION AND DESCRIPTION OF CERTIFIED AND NON-CERTIFIED ROCK CLIMBERS' ATTITUDES, PERCEIVED SOCIAL PRESSURES AND CONTROL OVER CERTIFICATION.....

ABSTRACT	46
INTRODUCTION.....	47
METHODOLOGY	49
Research design	49
Terminology clarification.....	50
Participants and setting	50
Data collection.....	50

Data analysis.....	52
Ethical clearance	52
RESULTS AND DISCUSSION	52
Theme 1: Reasons for Obtaining Certification	52
Theme 2: Certification views.....	56
Theme 3: Significant others.....	59
CONCLUSION	62
LIMITATIONS.....	65
RECOMMENDATIONS	65
REFERENCES.....	66

CHAPTER 4

ARTICLE 2

EXPLORATION OF SAQA QUALIFIED ROCK CLIMBERS' PERCEPTIONS REGARDING THE QUALIFICATION PROCESS IN SOUTH AFRICA..... 72

ABSTRACT	73
INTRODUCTION.....	74
METHODOLOGY	76
Research design	76
Participants and setting	76
Data collection and analysis	77
Ethical clearance	77
RESULTS AND DISCUSSION	77
Theme 1 – climbing industry overview.....	78
Theme 2 – the fundamentals.....	81
Theme 3 – climbing culture	85
CONCLUSION	88

LIMITATIONS.....	89
RECOMMENDATIONS	89
REFERENCES.....	91

CHAPTER 5

SUMMARY, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS	96
5.1 INTRODUCTION.....	96
5.2 SUMMARY	96
5.3 CONCLUSION	98
5.4 LIMITATIONS.....	102
5.5 RECOMMENDATIONS	103
5.6 FUTURE RESEARCH	103
REFERENCES.....	105

TABLE OF APPENDICES

APPENDIX A

South African Journal for Research in Sport, Physical education and Recreation Guidelines to Author	107
---	-----

APPENDIX B

NWU HREC Approval Certificate.....	111
Informed Consent Documentation for Certified Rock Climbers in South Africa	114
Informed Consent Documentation for Non-Accredited Rock Climbers in South Africa.....	119
Permission to Use Facility	124
Advertisement for Recruitment	126

APPENDIX C

Certified - Interview Schedule.....	127
Non-Certified - Interview Schedule	130
Biographical Questionnaire	132

APPENDIX D

Proof of Language Editing	133
---------------------------------	-----

LIST OF TABLES

CHAPTER 3:

Table 1:	Theme 1 – Reasons for Obtaining Certification	53
Table 2:	Theme 2 – Certification Views	56
Table 3:	Theme 3 – Significant Others	59

CHAPTER 4:

Table 1:	Main Themes and Sub-Themes.	77
----------	----------------------------------	----

LIST OF ABBREVIATIONS

The following table provides the acronyms and abbreviations used throughout this dissertation.

ABBREVIATION / ACRONYM	MEANING
AMGA	American Mountain Guide Association
AQN	Adventure Qualifications Network
BMG	British Mountain Guides
CATHSSETA	Culture, Arts, Tourism, Hospitality and Sport Sector Education Training Authority
C	Certified
CGC	Certified Guides Cooperative
CPR	Cardiopulmonary Resuscitation
GASG	Generic Adventure Site Guide
IFMGA	International Federation of Mountain Guides Associations
IRCRA	International Rock Climbing Research Association
LTPA	Leisure Time Physical Activity
MDT	Mountain Development and Training Trust
MPI	Multi-Pitch Instructor
NC	Non-certified
NDT	National Department of Tourism
NOLS	National Outdoor Leadership School
RPL	Recognition of Prior Learning
SAQA	South African Qualifications Authority
SAJRSPER	South African Journal for Research in Sport, Physical education and Recreation
SA	South Africa
SPI	Single-Pitch Instructor
USA	United States of America
UK	United Kingdom
WFR	Wilderness First Responder
YDS	The Yosemite Decimal System

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

In the publication entitled 'Effective Leadership in Adventure Programming' Priest and Gass (2005:2) note that leisure service agencies have progressively reported a growing interest in participation in risk-related recreational activities. Together with overall participation growth in recreational activities, outdoor recreation has established itself as one of the strongest, most stable activity populations (Simmons, 2004:1). However, concurrent with this growth, increasing outdoor accidents and environmental damage have combined to make competent outdoor certification both appropriate and necessary (Attarian, 2001:146; Priest & Gass, 2005:37).

1.2 PROBLEM STATEMENT

Rock climbing is widely considered to be a high-risk sporting activity that is associated with a high incidence of severe injury and even death (Schöffl *et al.*, 2010:657). South Africa (SA) has unique geological features therefore, rock climbing has received a considerable amount of attention with top international climbers visiting the country to participate in rock climbing (Graham *et al.*, 2020:59). According to the South African Mountain Accidents Database, there have been a total of 356 mountain-related incidents from 1980 to 2021 in SA, with 41% of these incidents related to rock climbing (The Mountain Club of South Africa, 2021). Table Mountain, being one of the biggest rock climbing attractions in SA, recorded a total of 67 rock climbing incidents resulting in eight deaths to date (The Mountain Club of South Africa, 2021). From the database, most fatalities on Table Mountain emanated from falls, medical issues and rock falls (The Mountain Club of South Africa, 2021). However, to reduce the problem of accidents, an altered approach is necessary (Priest, 1986:14). This approach requires that people who go into the outdoors obtain adequate preparation and education (Priest, 1986:14).

Adventure is when a person willingly involves themselves into unknown situations, where challenges are encountered which are engaging and absorbing (Patterson & Pan, 2007:28). Swarbrooke *et al.* (2003:14) opine that adventure is personally constructed and is based on mental

and emotional perceptions which can be considered as a state of mind. However, for the purpose of this study, adventure will be considered as an activity. Adventure activities like rock climbing require the involvement of professionally trained individuals to provide leadership and ensure safety (Edginton *et al.*, 2011:27; Priest & Gass, 2005:3). By obtaining a professional qualification, individuals can guide an adventure activity (Edginton *et al.*, 2011:27). Adventure can be divided into different quadrants corresponding to high and low levels of adventure; rock climbing can thus be a recreational, leisure or a sporting activity (Miles & Priest, 1999:419). An outdoor leader is a person who maintains an active role in organising, instructing, supervising and care for a group involved in outdoor pursuits or adventure activities and who is responsible for the safety of the group (Priest, 1986:12). Outdoor leaders, instructors and guides are the persons responsible for offering adventure activities.

Rock climbing, together with mountaineering, scuba diving, white water rafting and abseiling, to name a few, can be categorised as adventure recreation activities, also known as risk-taking activities (Ewert *et al.*, 2013:91; Thomas, 2005:36). Risk is one of the critical components that make adventure activities popular and successful (Priest & Gass, 2005:92). Rock climbing has evolved to encompass different types and styles of climbing. The sport has two facets, the one being outdoor rock climbing and the other indoor rock climbing. Outdoor rock climbing can be defined as an adventurous activity during which individuals climb up or across mountains and rappel down (River Rock Climbing, 2013). Outdoor and adventure experiences can be defined as activities with uncertain outcomes, including the potential risk of losing something of value (Priest & Gass, 2005:18; Prouty *et al.*, 2007:53). Outdoor climbing includes bouldering, traditional climbing, free climbing, sports climbing and top-rope climbing (River Rock Climbing, 2013). Indoor rock climbing can be defined as a movement of gymnastic nature on walls fitted with artificial hand and foot holds (Booth *et al.*, 1999:14). The main function of most indoor climbing gyms is to prepare rock climbers to climb outdoors. Harrison and Erpelding (2012:280) argue that most indoor rock climbing gyms offer classes to train climbers in different climbing features such as top-rope climbing and bouldering. Accordingly, indoor rock climbing facilities focus on climbing signals, correct belaying and most importantly, risk management. Despite taking place in a relatively safe and controlled environment, Hyder (1999:32) contributed to the debate on management of risks by claiming that risk management is one of the key issues which has to be addressed when providing an indoor rock climbing gym.

Attarian (2002:238) explains that despite all the safety improvements during recent years, rock climbing remains an inherently dangerous activity where perceived risks can quickly turn into real dangers such as injuries or sometimes even fatalities, both having a substantial probability of occurring (Ewert & Hollenhorst, 1997:22; Redmond *et al.*, 2010:167). When appointed by an

outdoor organisation, designated leaders are in charge of the client group (Priest & Gass, 2005:3) as they are persons most equipped to ensure safety due to their training, experience, expertise and continuous interaction with participants (Attarian, 2012:26). More importantly, leaders hold legal and moral responsibilities for teaching and supervising their participants as well as for ensuring their safety (Priest & Gass, 2005:3). Furthermore, education and assessment of outdoor guides' judgement and knowledge could help reduce the increasing number of outdoor recreation-related injuries (Gory, 2006:5). Outdoor adventure training opportunities would, potentially, positively impact the effect leaders have on their participants and the practices those participants incorporate their outdoor ethics (Gory, 2006:6). Accidents are not the only reason why the industry has been debating training for over three decades (Gory, 2006:4). When unethical or unsafe practices are observed and later employed by individuals, they are putting themselves, other users and the environment at risk (Gory, 2006:4). This is one of the reasons why education and training of outdoor leaders is of paramount importance.

Becoming a competent outdoor leader, requires that a person has to master a wide range of skills (Shooter *et al.*, 2009:11). Based on the groundwork derived from a number of studies, Priest and Gass (2005:5) compiled a list of 12 critical core competencies associated with being an effective outdoor adventure leader. These 12 qualities include the following: (1) technical skills, (2) safety skills, (3) environmental skills, (4) organisational skills, (5) instructional skills, (6) facilitation skills, (7) flexible leadership style, (8) experience-based judgment, (9) problem-solving skills, (10) decision-making skills, (11) effective communication skills and (12) professional ethics. Shooter *et al.* (2009:11) determined that technical skills and interpersonal skills offer a more appropriate and more accurate description of two general categories of outdoor leadership skills. Certification of individual outdoor leaders has been a topic of debate and discussion since the late 1970s (Attarian, 2001:32). However, due to several factors, certification of outdoor leaders has never materialised to meet the needs of contemporary adventure programmes (Attarian, 2001:32). Instead, adventure programs certify their own leaders based on criteria established by individual programmes and the adventure programme industry (Attarian, 2001:33). This gave rise to the need for certification of specific programme guides.

One of the earliest forms of outdoor leadership development, the idea of certifying outdoor recreational professionals had been present as early as the Second World War (Gory, 2006:2). The movement towards the certification of outdoor guides and instructors was identified by Ewert (1987:25) as an area of expected growth. Certification can be defined as a process of guaranteeing that certain minimum standards of competency have been met or exceeded by an outdoor leader, as evaluated by a certifying agency (Gory, 2006:2). Individuals such as Paul Petzoldt, founder of the National Outdoor Leadership School (NOLS), worked continuously together with other

professionals in the industry to bring the issue of certification for professionals to the forefront of the industry (Gory, 2006:2). However, due to various factors, certification of guides and instructors never materialised as a way to meet the challenges faced by today's adventure programmes (Priest & Gass, 2005:37).

Miles and Priest (1990:252) questioned the assumption that the demonstration of good judgement during a certification assessment is a valid indicator of comparable performance in different situations later. Attarian (2001:145) had the same question and suggested that certification failed because it was not able to examine adventure programming in an all-encompassing manner, mainly due to the diversity of programmes, their geographic locations, environments and other factors that make adventure programmes unique. According to Gory, (2006:3) certification programmes focused on technical aspects which were relatively easy to train and assess but that most certifications avoided dealing with soft skills or people orientated factors which would be much more difficult to train and assess. Soft skills involve facilitation, instructional and organisational skills while hard skills include technical, safety, and environmental skills (Goldenberg, 2001:113).

Given the history of the outdoor leadership skills literature and research, Shooter *et al.* (2009: 11) mentioned that the time has come to consider skills development from a programme rather than an individual perspective. In response to many shortcomings regarding the idea of individual certification, the idea of programme accreditation thus evolved (Attarian, 2001:145; Gory, 2006:3). Accreditation is a process during which all aspects of an adventure programme or institution are evaluated in terms of meeting specific standards of operation (American Mountain Guides Association Accreditation, 2012:3; Gory, 2006:3; Priest & Gass, 2005:37; Williamson & Gass, 1995:1). It is not surprising that accreditation, or formal accountability and its subsequent audit, is considered to be a need which should be addressed (Chisholm & Shaw, 2004:320).

In SA, there are two opportunities to obtain rock climbing training. The first being the Mountaineering Development and Training Trust (MDT) certification, which offers different types of rock climbing courses. However, candidates who wish to be registered as legal guides in SA must hold the South African Qualifications Authority (SAQA) qualification, as the MDT certification alone will not meet the requirements (MDT Prospectus, 2015:29). Thus, the second process is to obtain the SAQA qualification through a registered Culture, Arts, Tourism, Hospitality and Sport Sector Education Training Authority (CATHSSETA) provider. SAQA is a body established by the Minister of Education, in consultation with the Minister of Labour (The National Qualifications Framework and the Standards Setting, 2000:3). Qualifications are unit standard-based and recognised by the South African Government for the purpose of registering as a professional guide with the National

Department of Tourism (NDT) in terms of the 3rd Tourism Amendment Act of 2014 (MDT Prospectus, 2015:29).

MDT pledges that the SAQA unit standards have been based on the written MDT programme (MDT Prospectus, 2015:29) and maintains that its certification is the same as required for the SAQA qualification. However, despite the similarities, a person who holds an MDT certification should still obtain the SAQA qualification to become a legal rock climbing guide (MDT Prospectus, 2015:29). Thus, despite MDT having established certification standards and procedures to offer different rock climbing courses, NDT considers only the SAQA qualification as a valid qualification to accredit and register rock climbers in terms of the 3rd Tourism Act of 2014 (MDT Prospectus, 2015:29).

Regardless of a clear delineation between MDT certifications and SAQA qualifications, it should be noted that in terms of the Tourism Act, the SAQA qualification is required for legal guides. This can be defined as “any person who for reward, whether monetary or otherwise, accompanies any person who travels within or visits any place within SA and who furnishes such person with information or comments with regard to any matter” (Tourism Act 3 of 2014). Many rock climbers participate in recreational climbing, and act informally as climbing leaders on a social basis and not for reward, implying that they do not require SAQA qualification and that MDT certification is sufficient. There are rock climbers in SA who act as guides although they are still busy with the training process and not yet qualified as formal guides which could have a major detrimental impact on the outdoor industry in South Africa.

Despite a lack of research regarding why some rock climbers prefer not to gain formal training, online rock climbing forums and media provide some valuable insight into rock climbers' perceptions in this regard. Comments from a climbing forum stated that “you should learn the basics from an instructor or someone who teaches standards” (Climb ZA, 2018), while some rock climbers are aware of the importance of training, as one climber stated: “From a guide/instructor you'll also learn a bunch of techniques that may one day save your life” (Climb ZA, 2018). Yet, perceptions regarding training differ, as reflected in an argument on the climbing forum in which one rock climber stated that: “Doing a course with an instructor is a very wise thing to do” and received a contradicting response saying: “Go to a gym, climb and learn, that is what 99% of everyone does. Taking a guided course is expensive and entirely unnecessary” (Climb ZA, 2018). Deducted from the views of the climbing forums, it seems that some rock climbers have a negative perception towards formal rock climbing training, as reflected by statements such as “outdoor climbing is a skill that I am convinced should be learned not taught” and “courses have their place, but guides tend to be over cautious” (Climb ZA, 2018).

It appears that reasons for obtaining and not obtaining certification can become clear by exploring rock climbers' perceptions regarding the qualification and certifications. To explore the perceptions of rock climbers regarding certification, Ajzen's (1991) Theory of Planned Behaviour will be used as a theoretical framework in this study. In the theory, the intention to perform a certain behaviour (i.e., formal rock climbing training) is based on (1) an individual's attitudes towards the behaviour, (2) an individual's subjective norms regarding the behaviour, and (3) an individual's perceived control over the behaviour (Ajzen, 1991:206).

Based on the above the research question that the study aims to answer is: What are SA rock climbers' (qualified, certified and uncertified) perceptions regarding rock climbing training? By understanding rock climbers' attitudes around certification, reasons for seeking a certification/qualification as well as reasons for not seeking a certification/qualification, may be determined. Through this research, changes could be implemented to influence rock climbers' attitudes to be willing to obtain a rock climbing certification/qualification. The rock climbing certification and qualification process might be effective however, it could be streamlined and improved by addressing participants' attitudes around certification and qualification.

1.3 OBJECTIVES

The objectives of the study are:

- to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification.
- to explore and describe SAQA qualified rock climbers' perceptions regarding the qualification process.

1.4 THEORETICAL FRAMEWORK

This study is based on Ajzen (1991) Theory of Planned Behaviour as theoretical framework. The Theory of Planned Behaviour provides a useful conceptual framework for dealing with the complexities of human social behaviour (Ajzen, 1991:206). The theory incorporates some of the central concepts in the social and behavioural sciences, and it defines these concepts in a way that permits prediction and understanding of behaviours (Ajzen, 1991:206). Ajzen (1991:206) submits that "attitudes towards the behaviour, subjective norms with respect to the behaviour and perceived

control over the behaviour are usually found to predict behavioural intentions with a high degree of accuracy". In turn, these intentions, in combination with perceived behavioural control, can account for a considerable proportion of variance in behaviour.

According to the theory of planned behaviour, the central factor is the intention to perform a given behaviour (Ajzen, 1991:181). The intention of behaviour is determined by: (a) the person's attitudes towards the behaviour, (b) the subjective norms a person believes significant others have concerning the behaviour, and (c) an individual's perception of whether the behaviour can be performed (Ajzen, 1991:182).

The first determinant is the attitude towards the behaviour and refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question (Ajzen, 1991:188). In this study, the researcher will determine what the attitude of certified and uncertified rock climbers are towards the certification process. Attitudes develop reasonably from the beliefs people hold about the objective of the accreditation. Ajzen (1991:191) puts forward that people form beliefs about an object by associating it with certain attributes. In this study the researcher intends to examine the beliefs around certification and if these can be connected to the attitude towards certification.

The second determinant is a social factor termed subjective norm; it refers to the perceived social pressure to perform or not to perform the behaviour (Ajzen, 1991:188). Social pressures are expectations that affect the entire community and, in this case, to obtain certification or not, can possibly be dependent of the societal pressures from the community of the rock climbing club. Ajzen (1991:195) argues that normative beliefs are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing a given behaviour. According to this study, the referent groups or individuals can be regarded as the gym community or climbing partners.

The third determinant is the degree of perceived behavioural control which refers to the perceived ease or difficulty as anticipated impediments and obstacles (Ajzen, 1991:188). If there is a difficulty to obtain certification it will become clear in this stage of the theory of planned behaviour. Ajzen (1991:196) believes that behaviour will be influenced by second-hand information; by the experiences of acquaintances and friends; and by other factors that increase or reduce the perceived difficulty of performing the behaviour. The more resources and opportunities individuals believe they possess, the fewer obstacles they anticipate and the greater their perceived control over their behaviour should be.

1.5 STRUCTURE OF THE DISSERTATION

Chapter one presents the problem statement, the objectives, and hypotheses of the study as well as the structure of the dissertation. This chapter provides an overview of current literature and aims to introduce the problem statement. The chapter is written according to the guidelines and requirements of the NWU, conforming to the NWU Harvard referencing system.

Chapter two presents a thorough review of relevant and current literature in the field of rock climbing, entitled: *An overview of the rock climbing industry*. Chapter two is also written according to NWU guidelines and the NWU Harvard referencing system.

Chapter three contains the first research article, presenting the findings of the first objective of the study titled “Exploration and description of certified and non-certified rock climbers’ attitudes, perceived social pressures and control over certification.” This article will be submitted to the South African Journal for Research in Sport, Physical education and Recreation (SAJRSPER). The chapter was formatted and sourced according to the journal guidelines.

Chapter four, entitled, “*Exploration of certified rock climbers’ perceptions regarding the certification process in South Africa*” presents the findings from the second objective. The article will also be submitted to the South African Journal for Research in Sport, Physical education and Recreation (SAJRSPER). This chapter was formatted and sourced according to the journal guidelines.

Chapter five includes the summary, conclusion, recommendations and limitations of the dissertation. This chapter aims to conclude the research objectives and to stipulate limitations and recommendations for future studies. NWU Harvard referencing system was followed throughout this chapter.

REFERENCES

- Ajzen, I. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50:179-211.
- American Mountain Guides Association Accreditation. 2012. https://amga.com/wp-content/uploads/2013/09/Accred_Manual.pdf Date of access: 29 January 2018.
- Attarian, A. 2001. Trends in outdoor adventure education. *Journal of Experiential Education*, 24(3):141-149.
- Attarian, A. 2002. Rock climbers' self-perceptions of first aid, safety, and rescue skills. *Wilderness & Environmental Medicine*, 13(4):238-244.
- Attarian, A. 2012. Risk Management in Outdoor and Adventure Programs: Scenarios of accidents, incidents, and misadventure. Illinois: Human Kinetics.
- Booth, J., Marino, F., Hill, C. & Gwinn, T. 1999. Energy cost of sport rock climbing in elite performers. *British Journal of Sports Medicine*, 33(1):14-18.
- Chisholm, H. & Shaw, S. 2004. Prove it! The 'tyranny' of audit and accreditation in the New Zealand outdoors industry. *Leisure studies*, 23(4):317-327.
- Climb ZA. 2018. *Climb ZA*. <http://www.climbing.co.za/forum/viewtopic.php?t=8913> Date of access: 20 April 2018.
- Edginton, C.R., Hudson, S.D., Scholl, K.G. and Lauzon, L. 2011. Leadership for recreation, parks, and leisure services. Champaign: Sagamore Publishing.
- Ewert, A.W. 1987. Research in Outdoor adventure: Overview and Analysis. *The Bradford Papers Annual*, 2:15-28.
- Ewert, A.W. & Hollenhorst, S.J. 1997. Adventure recreation and its implications for wilderness. *International Journal of Wilderness*, 3(2):21-26.
- Ewert, A., Gilbertson, K., Luo, Y.C. & Voight, A. 2013. Beyond "because it's there": motivations for pursuing adventure recreational activities. *Journal of Leisure Research*, 45(1):91.
- Goldenberg, M. 2001. Outdoor and Risk Educational Practices. Kansas: Eric.

Gory, R. 2006. *May I See Your Certification Please?* Carbondale: Southern Illinois university (Thesis – Honours).

Graham, W., Tshipala, N.N. & Lötter, M.J. 2020. Spending behaviour of rock climbers in Gauteng province, South Africa. *African Journal for Physical Activity and Health Sciences*, 26(1):58-70.

Harrison, G. & Erpelding, M. 2012. *Outdoor program administration: principles and practices*. USA: Human Kinetics.

Hyder, M.A. 1999. Have your students climbing the walls: The growth of indoor climbing. *Journal of Physical Education, Recreation & Dance*, 70(9):32-39.

MDT Prospectus (South African Mountaineering Development and Training Trust Prospectus). 2015. *Mountain Skills* Training Program.

http://www.samdt.co.za/uploads/8/4/8/7/8487241/mdt_prospectus_2014--2015-02.pdf Date of access: 26 June 2018.

Miles, J.C. and Priest, S. 1990. *Adventure Education*. Michigan: Venture Publishing, Inc.

Miles, J.C. and Priest, S. 1999. *Adventure Programming*. Michigan: Venture Publishing, Inc.

Patterson, I. and Pan, R. 2007. The motivations of baby boomers to participate in adventure tourism and the implications for adventure tour providers. *Annals of Leisure Research*, 10(1):26-53.

Priest, S. 1986. Redefining outdoor education: A matter of many relationships. *The Journal of environmental education*, 17(3):13-15.

Priest, S. & Gass, M.A. 2005. *Effective Leadership in Adventure Programming*. 2nd ed. Illinois: Human Kinetics.

Prouty, D., Panicucci, J. & Collinson, R. 2007. *Adventure education: theory and applications*. Illinois: Human Kinetics.

Redmond, K., Foran, A. & Dwyer, S. 2010. *Quality Lesson Plans for Outdoor Education*. Illinois: Human Kinetics.

River Rock Climbing. 2013. *What is rock climbing?* <http://www.riverrockclimbing.com/climbing-101/> Date of access: 9 March 2017.

Schöffl, V., Morrison, A., Schwarz, U., Schöffl, I. and Küpper, T. 2010. Evaluation of injury and fatality risk in rock and ice climbing. *Sports Medicine*, 40(8):657-679.

Shooter, W., Sibthorp, J. & Paisley, K. 2009. Outdoor Leadership Skills: A Program Perspective. *Journal of Experiential education*, 32(1):1-13.

Simmons, D. 2004. American outdoor recreation participation continues six-year ascent. (Press release: 28 July 2004). Boulder, C.O: Outdoor Industry Association.
<https://outdoorindustry.org/press-release/american-outdoor-recreation-participation-continues-six-year-ascent/> Date of access: 16 Aug 2017.

Swarbrooke, J., Beard, C., Leckie, S. and Pomfret, G. 2003. Adventure tourism: The new frontier. New York: Routledge.

The Mountain Club of South Africa. 2021. *Mountain club of SA*.
<http://alewis.its.uct.ac.za/sama/db/stats-total.php> Date of access: 18 April 2018.

The National Qualifications Framework and the Standards Setting. 2000. *The National Qualifications Framework and the Standards Setting*.
http://www.saqa.org.za/docs/pol/2003/standard_setting.pdf Date of access: 26 June 2017.

Thomas, G. 2005. Traditional adventure activities in outdoor environmental education. *Journal of Outdoor and Environmental Education*, 9(1): 31.

Tourism Act 3 of 2014.

Williamson, J.E. & Gass, M. 1995. Manual of Accreditation Standards for Adventure Programs.
file:///C:/Users/user/Documents/MEESTERS/EAA%20MANUAL%20PDF.pdf Date of access: 7 July 2017.

CHAPTER 2

LITERATURE REVIEW: AN OVERVIEW OF THE ROCK CLIMBING INDUSTRY

2.1 INTRODUCTION

Adventure activities can constitute for risk, uncertainty and challenging conditions. Yet these dangers can be minimised through trained, experienced guides (Buckley, 2007:1428; Donaldson & McKay, 2017:3). Outdoor adventure activities have shown tremendous growth, which resulted in the need for qualified professionals to lead individuals into the wilderness (Attarian, 2015:189). Mackenzie *et al.* (2020:416) explored women's adventure tour guiding experiences in SA and one of the participants explained that most adventure guides in SA understand the level of risk that they are exposing their clients to however, guides do not really connect with risks. Graham *et al.* (2020:60), declared that rock climbing in SA has shown an observable increase that contributes to the growing economy of the country however, the growth has not been supported by extensive research in the industry.

The rapid growth of rock climbing resulted in the development of different styles and difficulty of rock climbing (de Geus *et al.*, 2006:489). To evaluate rock climber's performance in competition and as a recreational activity, different climbing scales was developed to assess the grade of competency needed to ascent a climb (Giles *et al.*, 2006:350; Long, 2010:05). Along with the rapid growth in participation of rock climbing, comes the risk of recreational rock climbers, climbing without the necessary skills and equipment (Buckley; 2006:4). Therefore, recreational rock climbers are in need of trained guides to provide expertise and ensure that participants are safe while rock climbing (Attarian, 2012:26; Ewert & Vernon, 2013:330).

Being certified is evidence that a person has obtained the minimum level of skill and meets the industry standards (Martin *et al.*, 2017:55). Certification has proven to be a need in the outdoor adventure industry to ensure safety. However, there is much debate regarding programme-specific certification and overall outdoor leadership certification (Attarian, 2015:190; Gory, 2006:13; Herrison & Erpelding, 2012:45; Priest & Gass, 2018:37; Rice, 2010:50). Attarian (2001:145) explains that programme-specific certification is based on criteria established by individual adventure programmes. Outdoor leadership involves competencies to challenge individuals,

creating meaningful experiences and can be regarded as a process of influence to direct and/or guide others towards a desirable end (Edginton *et al*, 2011:26). Furthermore, an outdoor leader should have specific technical skills that can be used in specific adventure activities such as climbing, caving, abseiling, white-water kayaking, rafting, diving, skydiving, horse riding and mountain biking (Buckley, 2007:1428; Edginton *et al*, 2011:27).

The Rock climbing guiding profession is largely regulated by the International Federation of Mountain Guides Associations (IFMGA) and acts as a body of mountain guide associations for several countries (Enriquez, 2016:9; IFMGA, 2017; Wozniak & Buchs, 2013:3). The IFMGA standardise international rock climbing training for its member associations in 24 different countries (Enriquez, 2016:2; IFMGA, 2017). SA is not a member of the IFMGA and rock climbing training remains disputed (Venter, 2011:14).

The perceptions regarding rock climbing training differ among rock climbers in SA. Therefore, when South African rock climbing trainings are mentioned, a distinction between MDT courses and SAQA programmes should be recognised. The term *certification* will be used for rock climbers who underwent the MDT training course (for recreational rock climbers) and the term *qualified* will be used for participants who completed the SAQA qualification (for commercialised guides). To explore the perceptions of rock climbers in SA, the Theory of Planned Behaviour will be utilised as a theoretical framework and the intention of behaviour will be determined by: (a) the person's attitudes towards the behaviour, (b) the subjective norms a person believes significant others have concerning the behaviour, and (c) an individual's perception of whether the behaviour can be performed (Ajzen, 1991:182; Walker & Courneya, 2006:225).

By understanding the attitudes among rock climbers regarding rock climbing training, suggestions could be made to improve the rock climbing training process. Furthermore, can the current rock climbing training process be unfolded and the research can contribute to the understanding of the difficulties to obtain rock climbing training in SA.

2.2 THE CONCEPT OF ROCK CLIMBING

2.2.1 History of rock climbing

In the early 1700s the main motivation for rock climbing was to escape from predators and to search for food but later in the 1700s the motivation shifted to climbing for aspiration (Long, 2010:1). During the 1960s rock climbing was first practised by a small group of dedicated rock climbers to ascent

difficult sections of a mountain (Schöffl *et al.*, 2010:658). For the first mountaineers, the summit was the ultimate goal and soon major peaks were climbed in succession. Mount Aiguille was the first recorded alpine ascent, thereafter major peaks were summited by eager mountaineers (Long, 2010:1).

By the early 1970s climbing walls were developed as places to train. Since then, artificial walls have emerged into impressive structures with rocklike features (Oxlade, 2004:7). In the mid-1980s the popularity of rock climbing spread globally and diversified into different categories such as speed climbing, lead climbing, bouldering and climbing on artificial walls (indoor climbing) (Campbell *et al.*, 2015:41). By 1996 there were 169 indoor climbing walls in the United Kingdom (UK) (Wright *et al.*, 2001:181).

Since the early 1990s, climbing competitions started to peak and indoor rock climbing has become a popular sport (Backe *et al.*, 2009:850; Hyder, 1999:32). In the first World Championships in 1991 only a few countries participated (Schöffl *et al.*, 2010:658) but at the 2005 World Championships in München, almost 500 rock climbers from 55 different countries participated (Schöffl & Kuepper, 2006:187). In 2007, the International Federation of Sport Climbing (IFSC) was created to serve as an Olympic Sport Federation (IFSC 2019; Sanchez *et al.*, 2012:67). In the 2012 World championships rock climbers had competed in three separate climbing types: lead climbing; bouldering and speed climbing (Schöffl *et al.*, 2013:658). Sport climbing was added only recently and was scheduled to take place at the Olympic Games Tokyo in 2020 where rock climbers would have competed in a combined format including all three rock climbing types. The final rankings would be determined by multiplying the placement in each discipline (Tokyo, 2020). Due to the Covid-19 outbreak, the Olympic Games Tokyo 2020 was postponed and will now be held on 23 July 2021 (Tokyo, 2020).

Rock climbing is classified as an international competitive sport and different climbing types are practised by professional and recreational rock climbers (Backe *et al.*, 2009:850; Giles *et al.*, 2006:350; Woollings *et al.*, 2015:1094).

2.2.2 Types of rock climbing

With the increase in participation of rock climbing, several types of rock climbing emerged which make it difficult to distinguish what is meant by rock climbing (Campbell *et al.*, 2015:40). For this study, sport climbing, traditional climbing, bouldering, free solo climbing and indoor climbing will be discussed as different types of rock climbing.

- ***Sport climbing***

Sport climbing will be the main climbing technique discussed in this research project because sport climbing can be performed on artificial surfaces as well as natural rock and is most commonly practised by SA rock climbers (Potgieter, 2008:16; Sanchez *et al.*, 2012:67; Woollings *et al.*, 2015:1094). Sport climbing has gradually become the preferred form of climbing because of its secure and convenient nature (Backe *et al.*, 2009:850).

Sport climbing requires gymnastic-like strength, flexibility, finger strength and endurance when climbing each unique and graded route (Booth *et al.*, 1999:14; MacLeod *et al.*, 2007:1433; Schöffl *et al.*, 2010:660). Present anchors, usually steel bolts, are spaced to ensure that falls will be relatively short, and the rock climber can concentrate on solving the movement complexities on the route (de Geus *et al.*, 2006:498; Watts, 1996:7). This provides rock climbers with a form of security when falling. It is also considered normal to fall repeatedly while on the route (Potgieter, 2008:16).

“Quickdraws” are used to clip into the permanent bolts and are spaced from the bottom up (lead climbing) or the rope is anchored at the top of the climb (top roping) to allow rock climbers to sustain frequent falls safely (Sheel, 2004:357; Woollings *et al.*, 2015:1094; Wright *et al.*, 2001:182). A wide range of climbing styles and moves can be practised and the physical difficulty can be increased because of the reduced danger element (Schweizer & Furrer, 2007:211; Sheel, 2004:355). The route length can range from 10 to 100 metres with fixed anchors generally two (2) to five (5) metres apart (Schöffl *et al.*, 2010:660).

- ***Traditional climbing***

Traditional climbing relies heavily on gear that is placed in weaknesses in the rock (Donahue & Luebben, 2014:4; Schuster *et al.*, 2001:405) and two rock climbers who are connected, carry their own gear, which is removable and reusable, for protection (Campbell *et al.*, 2015:41). The equipment is placed in natural features of the rock face and ropes are clipped into the equipment to protect the leader from a fall, while the equipment is retrieved by the second rock climber (Potgieter, 2008:15). Traditional climbing is rarely performed indoors (Woollings *et al.*, 2015:1094) and presents a great challenge for rock climbers as they must create a safety system as well as deal with the danger of a long fall (Paige *et al.*, 1998:2).

- ***Bouldering***

Bouldering is one of the best ways to develop technique and power (Bollen, 1994:49; Donahue & Luebben, 2014:5). A short sequence of powerful and technical moves is used to complete a graded route on large rocks while it does not require ropes to protect rock climbers from falls, instead,

bouldering uses crash mats and spotters who are people standing by in case the climber falls (Schöffl *et al.*, 2010:660). Bouldering routes are usually short and low to the ground, not higher than 10 metres (Hanley *et al.*, 2003:23; Llewellyn *et al.*, 2008:76; Woollings *et al.*, 2015:1094; Wright *et al.*, 2001:182).

When the rock is higher than 10 metres, serious injury or death could result from a fall (Watts, 1996:5). When bouldering outdoors, the anchor system consists of one or more solid points of attachment of the rope to the rock. These anchors may be natural features such as trees or rock horns (Watts, 1996:5).

- ***Free solo climbing***

“Soloing” is ropeless climbing on high rock faces and is arguably the purest form of climbing (Potgieter, 2008:15). The rock climber makes use only of climbing shoes and a small waist bag filled with magnesium carbonate to use as a drying agent on sweaty hands and fingers (Potgieter, 2008:15). This form of climbing can have deadly results if anything goes wrong (Oxlade, 2004:9).

- ***Indoor rock climbing***

Indoor climbing is performed on artificial structures that try to mimic climbing outdoors but in a more controlled environment (Schöffl *et al.*, 2010:663). An indoor climbing gym will have a variety of walls, positioned at various angles and some rock climbers use these gyms for training to increase power, endurance and technique (Lourens, 2005:18). Indoor climbing walls provide a year-round opportunity for climbing, all ages and skill levels can participate and increase their skill level, although walls can also be used for team building and therapeutic interventions (Goldenberg, 2001:131).

Indoor rock climbing was recently added to the Olympic programme of the 2020 Games in Tokyo and this may further increase the sport's professionalism and influence fewer injury rates (Batuev & Robinson, 2018:1674; Schöffl *et al.*, 2018:91). To monitor rock climbers' performance, several different climbing grade scales were developed to measure the difficulty of indoor and outdoor climbing routes (Giles *et al.*, 2006:350; Long, 2010:05; Sheel, 2004:355).

2.2.3 Rock climbing grading

Rock climbing is a popular sport worldwide, as a recreational activity and as a competitive sport (Woollings *et al.*, 2015:1094). As the popularity of rock climbing increased, grading systems were

developed to assess the level of difficulty of a certain climb. Contributing factors to grade a climb may include 1) strength and stamina required; 2) the amount of protection needed to complete the climb and 3) the technical difficulty of the moves (Giles *et al.*, 2006:531). Several climbing grading systems exist and several countries employ different grading systems such as: 1) the British technical grading scale; 2) the Yosemite Decimal System and; 3) the Ewbank system (de Moraes Bertuzzi *et al.*, 2007:293; Draper *et al.*, 2011a:851; Giles *et al.*, 2006:530; Watts, 2004:361; Wright *et al.*, 2001:181).

- ***The British technical grading scale***

The British technical grading scale is used to express the difficulty of traditional routes, where equipment is placed into the rock to protect the lead climber against a fall during an ascent (Draper *et al.*, 2016:89). Heywood (2006:465) suggests that the British technical grading system is quite difficult to understand and can be confusing to non-climbers. This system describes a combined value that assigns both the overall difficulty and exposure of a route, and the degree of difficulty in making the hardest move on the climb, for example Very Severe 6c (Hanley *et al.*, 2002:452; Jones *et al.*, 2018:3). The British technical grading scale starts from a 4a and continues in difficulty to a 7b (Draper *et al.*, 2011b:277). The adjectival provides information about the difficulty of the climb, seriousness and overall potential risks to the rock climber. The number value provides insight about the hardest technical movement required to complete the climb (Jones *et al.*, 2018:3).

- ***The Yosemite Decimal System***

The Yosemite Decimal System (YDS), being the most widely used grading system (de Moraes Bertuzzi *et al.*, 2007:293; Pansiot *et al.*, 2008:33; Watts, 2004:361), is categorised into five classes where class one is walking, classes two to four increase to steep classes of scrambling where no artificial means are used to aid progress (Watts *et al.*, 2003:421). Class five is considered the most vertical climb and requires technical skills to proceed (Giles *et al.*, 2006:531). From class five the decimal scale ranges from 5.0 (easy) to 5.15 (very difficult), with intermediate levels between 5.10 and 5.15 being subdivided by the letters a, b, c, and d (Long, 2010:5; Sheel, 2004:355; Watts *et al.*, 2003:421).

- ***The Ewbank system***

The Ewbank system is named after John Ewbank who invented the grading system in 1960 and is primarily used in Australia, New Zealand and SA. According to Rockfax (2020), this grading system is the most logical as there are no letters or secondary grades, just a single number which increases as the route gets harder (Rockfax, 2020). The Ewbank system grades from 5 to 34, where grade 5

indicates the easiest route and grades above 18 require a significant degree of technical skill (Monasterio, 2005:2).

Research regarding grading systems has grown concurrent with the development of the sport. This has resulted in an increased diversity of nomenclature to describe the ability, grading systems and climber characteristics that are being reported (Schöffl *et al.*, 2011:50). Additionally, the use of different grading systems poses problems for researchers who attempt to make comparisons between studies that use different grading systems (Draper *et al.*, 2011b:277).

The inconsistency between grading scales was soon recognised by industry experts hence, in 2011, the International Rock Climbing Research Association (IRCRA) was formed to assemble rock climbers, coaches and researchers working in the area of rock climbing to improve the understanding and performance of the sport, to share experiences, collaborate on research and to provide a platform for knowledge exchange (Draper *et al.*, 2016:90; IRCRA, 2014). At the International Rock Climbing Research Association Congress in 2014, stakeholders presented a consistent method of reporting climbing characteristics and proposed that one IRCRA scale be used in all statistical analysis (Draper *et al.*, 2016:90).

Not only are there much deliberation and diversity among researchers in the field of rock climbing grading, disagreement also occurs in terms of training of outdoor leaders. Researchers continue the debate around certification and whether there is a need for activity-specific certification or overall outdoor leadership certification (Attarian, 2015:190; Gory, 2006:13; Herrison & Erpelding, 2012:45; Priest & Gass, 2018:37; Rice, 2010:50). Different types of climbing (sport, traditional and bouldering) involve different skills and safety measures which complicate the certification process. The different grading scales also pose more issues as it becomes impossible to standardise certification in terms of which levels of climbing requires certification. This issue involves the determination of the minimum requirements for grading levels that certified rock climbers can guide at. Lastly, climbing motives differ among recreational rock climbers, professional rock climbers (such as athletes) and rock climbing guides. This further complicates the requirements for training among rock climbers.

2.3 ADVENTURE ACTIVITY CERTIFICATION

2.3.1. Overview of adventure activity certification

There are different groups of individuals participating in adventure activities, such as those who are competent enough to regularly enjoy the activities as recreational activities without the need to be led by a qualified guide; those who are largely incompetent and require guides to lead them during

adventure activities; and lastly there are trained adventure guides pursuing a career but who also engage in the activities as a hobby (Evert & Vernon, 2013:324). Furthermore, adventure guides can be classified as individuals who are employed to take groups of clients to engage in an outdoor activity such as white-water rafting, canoeing, kayaking and sky diving (Sharpe, 2005:31). Meanwhile, adventure instructors are individuals who are trained to teach and proficiently facilitate an adventure activity (AMGA, 2020). Instructors can teach adequate skills in a specific adventure activity (Mountain training, 2019). In the early 2000s an attempt was made in SA to regulate and organise the adventure training industry but, unfortunately, the plans to develop the industry failed to materialise (Zygmunt, 2014:28). Another attempt was made to establish a governing body for the rock climbing industry in SA however, according to Meyer (2021) and Friedemann (2021) this also never eventuated.

Adventure activities rely on features of the natural terrain and require specialised equipment which is enforced by the guide to reduce the risk of accidents (Buckley, 2007:1428; Donaldson & McKay, 2017:11). According to Buckley (2006:4) the increased access to rock climbing settings has formed another issue as individuals have the desire, money and fitness level but they do not have the necessary skills, experience or equipment which can lead to drastic safety problems for the rock climbing industry. Guides are present to provide expertise and ensure the safety of participants who do not have the skills to participate in an adventure (Attarian, 2012:26; Ewert & Vernon, 2013:330). Therefore, individuals wanting to participate in recreational adventure activities without a guide need training and skills to be safe, while guided activities provide participants the ease of relying on the guide to ensure their safety and skills (Buckley, 2006:2).

In several countries, including SA, each adventure activity has separate training requirements, assessing individual skills in the specific discipline, for example, hiking, abseiling, rock climbing, mountain biking, zip-lining etc. (Dirty Boots, 2020). Certification can be defined as a process of guaranteeing that certain minimum standards of competency have been met or exceeded, as evaluated by a certifying agency (Attarian, 2015:189; Gory, 2006:2; Jenkins & Pigram, 2004:47). Certification presents best practice gained by experience over several years and should be seen as the minimum standard for participants (Harrison & Erpelding, 2012:45). Priest and Gass (2018:79) argue that certification is appropriate and necessary because of the rise in outdoor accidents, costs and regulations. However, individual certification has long been a topic of debate and experts have questioned whether certification is well-grounded to determine the competency of an outdoor leader (Priest & Gass, 2018:79).

The functions and criteria of certification has been debated by several researchers (Attarian, 2015:190; DeMers, 2012:4; Gory, 2006:13; Herrison & Erpelding, 2012:45; Martin *et al.*, 2017:55;

Priest & Gass, 2018:37; Rice, 2010:50; Sheridan, 2004:3). Some claim that the wilderness environment makes it impossible to certify a guide and those certifications can result in a lack of attention to judgement (Sheridan, 2004:3). In 1984, Simon Priest conducted a study to analyse the view of certification and results indicated that experts in the outdoor leadership field showed support for certification competencies such as hard skills (techniques and knowledge of equipment). Contrastingly, soft skills such as judgement were not favoured by the respondents (Priest, 1986:42). But, Gory (2006:5) said that when outdoor leaders are guiding, it is of utmost importance for them to exercise good judgement for both themselves and their group, furthermore, explains Gory (2006:13), that soft skills should indeed be one of the elements that certification training teach.

Sheridan (2004:3) asserts that any outdoor leader should at least have a first aid certification, life-guarding certification and a cardiopulmonary resuscitation (CPR) certification. Thereafter, certification should be obtained in the specific outdoor activity presented such as kayaking, rock climbing and white-water activities. It has also been argued that certification is costly, time-consuming and excludes well-experienced leaders who are uncertified because it does not evaluate a leader's capacity for judgement (DeMers, 2012:4; Priest & Gass, 2005:39). Rice (2010:4) conducted research to describe adventure practitioners' perceptions of their skills and knowledge in accordance with national certification standards. During the findings, most of the participants indicated that certification should be mandatory for outdoor leaders (Rice, 2010:50). Furthermore, industry leaders find it difficult to agree upon which skills need to be included in certification training (Rice, 2010:14). DeMers (2012:4) mentions that certifications are controversial. Herrison and Erpelding (2012:45) agree that the basic skills such as CPR, basic first aid and first responder skills are essential and advance that every outdoor activity is unique and has its own characteristics. Thus, each activity should have its own operating procedures and standards for certification.

Martin *et al* (2017:55) hold that the real concern regarding certification is the assessment methods that are used to certify individuals and whether individuals are legally responsible for decisions made. It is evident that there is confusion about certification and what it entails. Attarian (2001:147) argues that certification can provide safer and more rewarding adventure experiences for participants.

Today, certification is still a topic that has not yielded an agreement. The main purpose of guides is to reduce risk through training, experience and knowledge of the site. Buckley (2006:278) argues that even with these skills, it requires good judgement to provide a safe and successful experience. Many recreational rock climbers climb without proper training resulting in problems as they place themselves and others in danger (Buckley, 2006:277). It is worrying that guides are required to have certification although recreational rock climbers do not have to obtain certification. Rugg *et al*.

(2020:7602) argue that through proper training and equipment, rock climbing injuries can be prevented. The same argument was raised by Gory (2006:5) who claimed that proper education and training could help to reduce the increasing number of injuries.

2.3.2. Rock climbing certification process in other countries

The idea of outdoor certification was first mentioned by J.V.K Wagar in 1940. However, major arguments emerged for and against the idea of certification of outdoor leaders (Cockrell *et al.*, 1986:297). Paul Petzoldt, a seasoned mountaineer, became the first advocate for a standardised training course for outdoor leaders in the United States of America (USA) (Attarian, 2015:191). In 1965, Petzoldt founded the National Outdoor Leadership School (NOLS) and by 1976, the first instructor training was launched to teach skills and competencies to wilderness instructors (Cockrell *et al.*, 1986:297; Harvey, 1999:17; Prouty *et al.*, 2007:8). Soon, several countries like the UK, New Zealand and Australia started employing different ways of introducing certification.

The International Federation of Mountain Guides Associations (IFMGA) is an international body of mountain guide associations for several countries and was founded in 1965 (Donahue & Luebben, 2014:9; Enriquez, 2016:9). The IFMGA regulates the mountain guiding profession through the support of standard law, regulations involving the climbing profession and the determination of international training standards (Enriquez, 2016:9; IFMGA, 2017; Wozniak & Buchs, 2013:3).

The IFMGA has member associations in 24 countries such as Argentina, Australia, Canada, Italy, Japan, Norway and Nepal to name a few (Enriquez, 2016:2; IFMGA, 2017). The British Mountain Guides (BMG) is an IFMGA association and represents mountain guides in the UK and Europe. It trains and assesses mountain guides in all forms of climbing, mountaineering and ice climbing (BMG, 2020). In Switzerland, guides obtain a Federal Diploma of High Mountain Guide which has achieved recognition for their climbing courses by the IFMGA and operates on the same international standards (Clivaz & Langenbacha, 2019:2).

The American Mountain Guide Association (AMGA) was founded in 1979 and is the only body responsible for the qualification of mountain guides in the USA based on the requirements by IFMGA (Enriquez, 2016:9; Wozniak & Buchs, 2013:3). Nonetheless, there is no mandatory training for mountain guides in the USA since the profession is self-regulated and organised by two associations: AMGA and the Certified Guides Cooperative (CGC) (Wozniak & Buchs, 2013:3). The AMGA supports rock climbers in becoming professional rock climbing guides and follows three educational processes: apprenticeship, self-education and a student-teacher approach (Enriquez, 2016:45). A mentorship programme was suggested by Enriquez (2016:45) as an addition to the educational process to ensure, competent professional AMGA mountain guides. Furthermore,

AMGA offers two different professional programmes namely the AMGA Mountain Guide Programme and the AMGA Climbing Instructors Programme. The AMGA Mountain Guide Programme is aimed at rock climbers who wish to guide people for monetary gain whereas the AMGA Climbing Instructor Programme focuses on climbing facilitation and instruction of skills (AMGA, 2020).

The AMGA Climbing Instructor Programme consists of the following courses: The American Mountain Guide Programme, Single-Pitch Instructor, Multi-Pitch Instructor and Rock Climbing Instructor.

- ***The American Mountain Guide Programme***

The clear, outlined process to become a professional IFMGA Mountain Guide involves training in three different disciplines: alpine, rock and ski (AMGA, 2020; IFMGA, 2017). If a person obtains training in all three disciplines, he/she is endorsed as an American Mountain Guide which is also the highest level of credential attainable by a professional mountain guide (AMGA, 2020).

To achieve this certification, a rock climber needs to:

- complete the American Mountain Guide Association (AMGA training in all three disciplines (86 or more days of training);
- have a CPR certificate;
- obtain a Wilderness First Responder (WFR) certification; and
- complete the avalanche training for the professional mountain guide as outlined in the section for each discipline.

Once the process is completed, a guide is capable of instructing rock climbers in a secure, responsible manner for activities that include alpinism, climbing, sport climbing, ski touring, ice-climbing and high-altitude mountaineering (Enriquez, 2016:9).

- ***The Single-Pitch Instructor (SPI) course***

Single-pitch climbing has an anchor set up at the end of the climb and once the rock climber reaches the anchor, the belayer lowers the climber down (Explore-Share, 2018). The SPI course teaches instructors to facilitate and instruct rock climbing in a single pitch setting and is the only internationally recognised single pitch instructor programme in the USA (AMGA, 2020). The SPI course runs over 27 hours consecutively in three days and thereafter, a 16-hour assessment must be completed over a two-day period (AMGA, 2020). The prerequisites of the course are also clearly

outlined as a rock climber must have: 1) at least 12 months climbing experience; 2) led a minimum of 15 traditional routes and 3) be capable of climbing a difficulty level of 5.8 (YDS) while on top rope (AMGA, 2020).

- ***The Multi-Pitch Instructor (MPI) Course***

A multi-pitch route consists of several pitches or sections and rock climbers climb one rope length to an anchor. From the anchor, another belay is set up again for another pitch, repeating the process to the top (Rock Climbing Fundamentals, 2016).

Candidates who wish to certify themselves further can enrol for the MPI certification and should complete the following (AMGA, 2020):

- the SPI Certification course;
- a 10-day Rock Guide Course;
- an 8-day Multi-Pitch Instructor course and examination;
- obtain a CPR certification; and
- have a WFR certification.

- ***Rock Climbing Instructor***

The Rock Climbing Instructor programme is intended for individuals who wish to facilitate, instruct and monitor climbing experiences proficiently and have a strong desire to teach climbing skills to novices (AMGA, 2020).

To obtain the Rock Climbing Instructor certification, a candidate needs to have completed the Multi-Pitch Instructor course, followed by another six-day Rock Climbing Instructor examination. A few of the important prerequisites for this course include (AMGA, 2020; BMG, 2020):

- at least 22 years of age;
- detailed explanation of climbing experience, consisting of at least 50 multi-pitch climb led, 60 snow and ice climbs and 10 icefall climbs;
- proven experience in Alpine climbing areas including a minimum of 20 Alpine routes as well as 20 ascents of major summits. Of these ten routes five should be at least 800 metres in length and be mixed routes;
- provide details of skiing ability including a minimum of 30 days of ski-mountaineering experience in glaciated Alpine terrain;
- written references from at least two referees, one of whom must be a fully qualified guide;

- a valid first-aid certificate.

The abovementioned rock climbing courses are only applicable to professional guides and instructors who wish to guide for monetary gain or for personal recreation. Recreational rock climbers can also obtain this certification however, it is not compulsory. SA is not a member of the IFMGA and the process to obtain certification is much more complex. Although the certification process in SA is complex, recreational rock climbers are also not obligated to obtain any form of training or certification.

2.3.3. Rock climbing training in SA

2.3.3.1. The South African Qualifications Authority (SAQA) qualification process

In SA, adventure guides are defined as “any person who for reward, whether monetary or otherwise, accompanies any person who travels within or visits any place within South Africa and who furnishes such person with information or comments with regard to any matter” (Tourism Act 3 of 2014). According to the 3rd Tourism Act of 2014, anyone who acts as a guide in SA – nature, culture or adventure – must be legally qualified and registered or face prosecution (Dirty Boots, 2020; Donaldson & McKay, 2017:3; SA Outdoor Academy, 2019; Van den Berg, 2016:6).

SA makes use of the national government to develop tourism and guiding legislation, the same as in other countries such as Australia and Canada (Van den Berg, 2016:132). To be a legal guide in SA a person is required to hold a SAQA registered qualification as stipulated by the National Department of Tourism (NDT) (AQN, 2019:2; SAQA, 2020). SAQA is the oversight body of the National Qualifications Framework (NQF) and was established by the then Minister of Education, in consultation with the then Minister of Labour (NQF, 2000:3). The role of SAQA is to advance the objectives of the NQF, oversee future development and implement the NQF (Van den Berg, 2016:100). SAQA qualifications are unit standard-based and recognised by the SA Government to register as a professional guide with the NDT in terms of the 3rd Tourism Act of 2014 (MDT Prospectus, 2015:29).

To obtain the SAQA qualification, a guide needs to register at a Culture, Arts, Tourism, Hospitality and Sport Sector Education Training Authority (CATHSSETA) service provider. CATHSSETA supplies a list of registered service providers that offer SAQA qualifications (SA Outdoor Academy, 2019). All training providers and assessors have to be accredited by CATHSSETA to train according to the NQF standards (AQN, 2019).

In SA, guiding is classified into three categories, namely (Van den Berg, 2016:53; AQN, 2019):

- i) Adventure guides – conducting a guided experience and activities can include rock climbing, mountain biking, surfing, hiking etc.
- ii) Nature guides – a guided natural experience in a limited area for example nature reserves, birding tours or national parks.
- iii) Cultural guides – conduct a cultural experience which includes churches, museums, political tours and wine farms.

For the purpose of this study, the researcher will only focus on adventure guiding. To become an adventure guide, a person needs to complete the Generic Adventure Site Guide (GASG) skills course. This can be obtained through providers like Adventure Qualifications Network (AQN). This qualification does not teach technical skills for a specific adventure activity, however, the course equips a person with the knowledge and ability to be an adventure guide (AQN, 2019:2; Venture Forth, n.d).

Furthermore, a guide must be assessed and found competent by a registered CATHSSETA provider against a range of adventure unit standards to be rated an adventure guide. The unit standards for the qualification include:

- Research and design a guided experience at a prominent tourism site;
- Conduct a tourist guiding activity;
- Manage and organise groups;
- Lead participants through an outdoor recreation and adventure activity;
- Plan and implement minimum environmental impact practices;
- Set up and operate a camping site;
- Minimise and manage safety and emergency incidents;
- Care for customers; and
- Conduct a guided adventure experience.

The term “site” implies that the adventure activity can be practised in any place in SA and the word “generic” applies to the set of skills, knowledge and abilities that apply in all adventure guiding activities. Yet, the guide is assessed within the context of the activity he/she wishes to offer (AQN, 2019:2). There are also three different classifications of guiding in SA. Firstly, the site guide which allows guides to operate in a limited geographical area, such as Table Mountain. Secondly,

provincial guides are able to guide in specific provinces in SA and thirdly, national guides who are able to guide in any province in SA and at every landmark and attraction (AQN, 2019).

The process to follow when individuals are seeking the site guide qualification are:

1) Attend a course

Individuals with little experience in an adventure activity will have to attend a course with an accredited provider, gain experience and be assessed (AQN, 2019:3; Dirty Boots, 2020; Venture Forth, n.d). There are different CATHSSETA service providers in the country, and each employs its own structure and criteria, however guides need to be assessed by the SAQA unit standards (Dirty Boots, 2020; SA Outdoor Training Academy, 2019; Venture Forth, n.d).

The SA Outdoor Training Academy and Venture Forth are two of the registered service providers listed by CATHSSETA and offer training courses to obtain the SAQA qualification in rock climbing (SA Outdoor Training Academy, 2019). The following qualifications are listed as SAQA registered courses which can be obtained by different service providers in SA (SA Outdoor Training Academy, 2019):

- Conduct a guided mountain walking experience in a limited geographical area;
- Plan and conduct a guided mountain walking experience;
- Provide a guided single pitch abseiling experience of less than 60 metres;
- Provide a guided single pitch abseiling experience of more than 60 metres and fewer than 150 metres;
- Provide a single pitch rock climbing experience; and
- Plan and provide a guided rock climbing experience.

2) Complete an online training course

A self-directed training and assessment programme should be completed online and allows 120 days to complete. Once the online course is completed, a person will need to undertake a practical assessment (AQN, 2019:3; Dirty Boots, 2020). The practical assessment will take an additional day to complete and when all the outcomes have been met, a formal certificate will be issued to the person.

3) Recognition of Prior Learning (RPL) Assessment

This is suitable for recreationally experienced guides who have been working in the industry. Evidence of skills and knowledge should be provided to the assessor. Should it not be sufficient,

the assessor will point out areas which are not up to standard, and an assessment might then be arranged (AQN, 2019:3; Van den Berg, 2016:103).

During the assessment, the individual can expect the following (AQN, 2019:11):

- a copy of the assessor's checklist prior to the assessment;
- a written knowledge assessment which takes about three hours to complete;
- to run a guided activity session of the activity you are being assessed for;
- the assessor may ask questions during the activity and provide coaching to improve technique;
- feedback will be provided after the activity session;
- the assessor will provide a result immediately but, this result is subject to the moderation process, and may be changed.

When the above assessment is successfully completed, the person can register with the NDT and act as a legal guide and after a few months, an official CATHSSETA certificate will be issued (AQN, 2019:11). This entire process is only compulsory for individuals who wish to guide for monetary gain and not for recreational rock climbers.

2.3.3.2. The Mountaineer Development and Training Trust (MDT) certification process

MDT offers different types of rock climbing certifications. The South African Mountain Development and Training Trust was established in 1994 to develop and maintain nationally recognised standards for the many clubs, organisations and individuals active in mountain-related activities (MDT Prospectus, 2015:1). The MDT is a legally constituted body, registered with the master of the Supreme Court in SA and administers the functioning of the National Training Programme (MDT Prospectus, 2015:1). Rock climbing training and assessment courses are run by service providers that are approved and accredited by the MDT management committee (MDT Prospectus, 2015:1).

The MDT clearly states that its certification is recognised by industry role players but is not recognised by the NDT for the purpose of the 3rd Tourism Act of 2014 (MDT Prospectus, 2015:29). Thus, candidates who wish to be registered as legal guides in SA must hold the relevant SAQA qualification, as the MDT certification alone will not meet the NDT requirements (MDT Prospectus, 2015:29).

According to MDT, rock climbing certifications are aimed at a person leading or supervising rock climbers and/or abseils in the mountains of Africa. There are currently four certifying levels for various rock climbing activities in SA: (SAMDT, 2004)

- Level 1 – Abseil supervisor
- Level 2 – Single pitch supervisor
- Level 3 – Rock climbing leader
- Level 4 – Rock climbing instructor

For all the MDT certifications, a three-day training course offered by an appropriate MDT provider, must be attended and the candidate needs to complete an additional one-day assessment by an appropriate MDT provider (SAMDT, 2004:7). Thereafter, a logbook will be issued which has to be completed before the assessment process. The MDT also specifically states that the courses do not cover the skills needed to approach and retreat from mountain cracks or access to any location where escape is not easily possible (SAMDT, 2004:6).

A logbook validates that a candidate gained experience in a certain field. The experience recorded should include: 1) details of the logbook holder; 2) records of experience gained; 3) specifications of the training course to be completed by the instructor and the accredited service and 4) clear details of the assessment (MDT prospectus, 2015:16; AQN, 2019).

Before the assessment, candidates are required to 1) register; 2) attend a training course; 3) act in the capacity of abseil supervisor on at least 20 occasions under the direction of a suitably qualified person and 4) be familiar with all aspects of the syllabus (SAMDT, 2004:9). This needs to be completed within three months after the training. Before registering for the level two course (single pitch supervisor) – candidates must have at least twelve months' experience of rock climbing (SAMDT, 2004:3). With no formal rock climbing training, a candidate should already have 12 months experience in rock climbing before even registering for the entry course.

To complete the Single Pitch Supervisor course, candidates must attend a two-day training course. The Single Pitch Supervisor Scheme Prospectus specifies the following: (SAMDT, 2004:4) "The training course is for potential supervisors and assumes basic competence as a rock climber. It will emphasise those skills which a candidate might have difficulty in learning without expert guidance". Yet, in contrast, a candidate should already have a year's experience before registering for the course.

The level three rock climbing course is the Rock Climbing Leader and provides training and assessment for voluntary leaders who wish to lead groups on multi-pitch rock climbs of moderate

severity (SAMDT, 2004:3). A candidate must attend a five-day training course run by an approved course provider, thereafter the candidate will be provided with a logbook (SAMDT, 2004:4).

MDT claims that the SAQA unit standards have been based on the written MDT programme and asserts that its training course uses of the same unit standards as the SAQA qualification. However, despite the similarities, a person who holds an MDT certification should still obtain the SAQA qualification to become a legal rock climbing guide (MDT Prospectus, 2015:29). Thus, although MDT has established certification standards and procedures, the NDT considers only a SAQA qualification as a valid qualification to accredit and register rock climbers (MDT Prospectus, 2015:29).

In order to understand the meaning of training for rock climbers in SA, it is necessary to analyse the terminology between rock climbing guides, instructors, and recreational rock climbers, as shown in Figure 1.

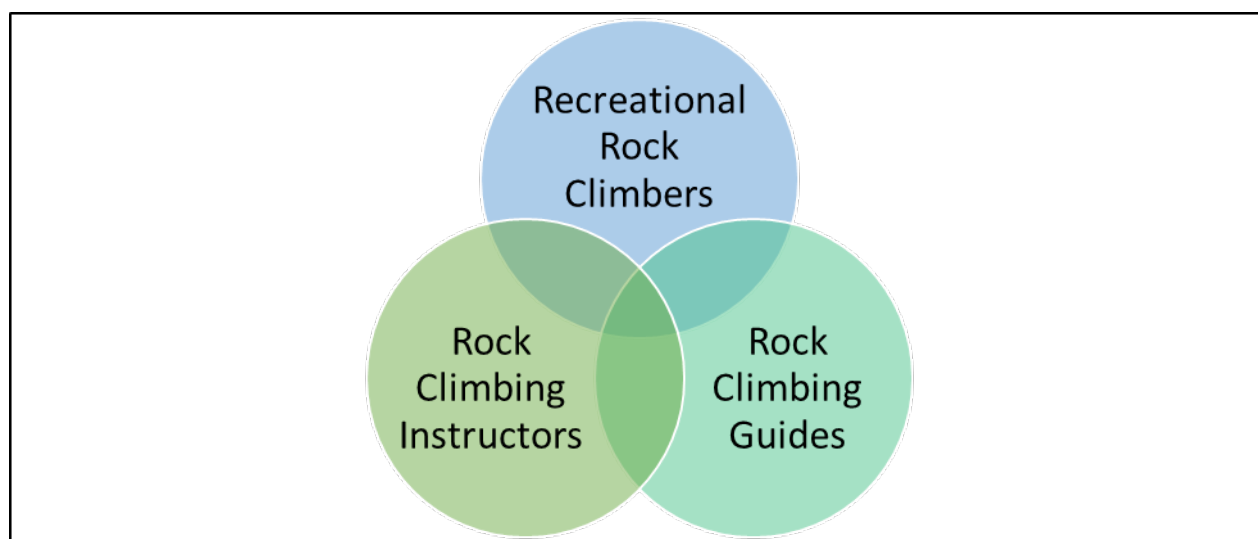


Figure 1: A conceptual analysis of rock climbing training in SA:

Recreational rock climbers are engaging in rock climbing on their own and do not make use of a guide or instructor while climbing (Buckley, 2006:2). Rock climbing instructors are individuals who train and instruct other rock climbers (Cousquer & Beames, 2013). MDT offers rock climbing instructors courses however, these instructors are only permitted to work as instructors at climbing gyms and mountaineering centres (Peak High, 2014). Rock climbing guides are trained by instructors to keep paying clients safe while engaging in a mountain-related activity (Beedie, 2003). Rock climbing guides are qualified by the SAQA standards and are legally authorised to guide rock climbing in SA. SAQA rock climbing guides can further their qualification and become instructors to train other rock climbers to become legal guides, and this causes a confusion between legal

SAQA instructors and MDT instructors. Furthermore, recreational climbers can act as guides with the MDT certification, and not for monetary gain, accompany rock climbers to a mountain crag.

The confusion and cross functions of rock climbing instructors and guides has left the rock climbing industry with confusion and uncertainty. This leads to the research question: What are the perceptions of qualified, certified and non-certified rock climbers regarding rock climbing training?

To understand the perception over certification completely, the Theory of Planned Behaviour will be used as theoretical framework to analyse attitudes, perceived behavioural control and subjective norm.

2.4 THE THEORY OF PLANNED BEHAVIOUR

2.4.1. The Theory of Planned Behaviour as a theoretical framework

This study is based on Ajzen's (1991) Theory of Planned Behaviour as a theoretical framework. The Theory of Planned Behaviour provides a useful conceptual framework for dealing with the complexities of human social behaviour (Ajzen, 1991:206). The theory incorporates some of the central concepts in the social and behavioural sciences, and it defines these concepts in a way that permits prediction and understanding of behaviours (Ajzen, 1991:206). Ajzen (1991:206) explains that "attitudes towards the behaviour, subjective norms concerning the behaviour and perceived control over the behaviour are usually found to predict behavioural intentions with a high degree of accuracy". In turn, these intentions, in combination with perceived behavioural control, can account for a considerable proportion of variance in behaviour.

The Theory of Reasoned Action was developed by Fishbein and Ajzen in 1975. This theory suggests that intention to act represents a plan to perform or not to perform a given behaviour (Chatzisarantis & Biddle, 1998:304). Intentions of behaviour are divided into two variables: the subjective norm and attitudes. The subjective norm constitutes pressure to engage in a behaviour whether significant others want them to or not. Attitudes represent a favourable or unfavourable feeling towards the behaviour (Hagger *et al.*, 2002:3). The Theory of Reasoned Action was widely used to predict behavioural intentions, and this is where Icek Ajzen thought to predict and explain human behaviour in specific contexts and thus developed the Theory of Planned Behaviour (Ajzen, 1991:181).

The Theory of Planned Behaviour is widely used to predict leisure behaviour and consists of the following 1) attitude; 2) subjective norm and 3) perceived behavioural control.

a) Attitude

Francis *et al.* (2004:8) mention that the attitude towards certain behaviour is a person's overall evaluation of the behaviour and has two components which work in conjunction: beliefs about consequences of the behaviour and the corresponding positive or negative judgements about each of these features of the behaviour.

Ajzen (1991:191) suggests that attitudes develop reasonably from the beliefs people hold about the object of the attitude and that people form beliefs about an object by associating it with certain attributes. Each belief links behaviour to a certain outcome and is valued as positive or negative. People automatically and simultaneously acquire an attitude towards the behaviour (Ajzen, 1991:191). People favour behaviours that they believe have largely desirable consequences and form unfavourable attitudes towards behaviours that are associated with the most undesirable consequences (Ajzen, 1991:191).

b) Subjective norm

The second determinant is a social factor termed subjective norm. It refers to the perceived social pressure to perform or not to perform the behaviour (Ajzen, 1991:188). The global measurement of the subjective norm is usually obtained by asking respondents to rate the extent to which 'important others' would approve or disapprove of them performing a given behaviour. Francis *et al.* (2004:9) affirm that subjective norms are assumed to have two components which work in interaction: the beliefs about how other people, who may in some way be important to the person, feel; and the positive or negative judgements about each belief.

Social pressures are expectations that affect the entire community (Francis *et al.*, 2004:9) and, in this case, to obtain certification or not, can be dependent on the societal pressures from the rock climbing community.

c) Perceived behavioural control

Ajzen (1991:196) expressed the opinion that control beliefs may be based on previous experience with the behaviour but will usually also be influenced by second-hand information about the behaviour; by the experiences of acquaintances and friends; and by other factors that increase or reduce the perceived difficulty of performing the behaviour in question. Francis *et al.* (2004:9) agree with Ajzen and submit that perceived behavioural control is the extent to which a person feels able to perform the behaviour. Francis *et al.* (2004:9) also formulated two aspects: 1) how much a person

has control over the behaviour and 2) how confident a person feels about being able to perform or not perform the behaviour.

Ajzen and Driver (1991) have found that it is useful to distinguish between 1) the cost and benefit of the behaviour and 2) beliefs about positive or negative feelings derived from the behaviour (Ajzen & Driver, 1991:187). Pleasant or unpleasant feelings regarding the obtaining of certification will become clear during this stage of the theory analysis. Ajzen (1991:196) explains that the more resources and opportunities individuals believe they possess, the fewer obstacles they anticipate, and the greater their perceived control over their behaviour should be.

2.4.2 The theory in relation to research

Numerous studies have been conducted to understand behavioural intentions (Ajzen & Driver, 1992:313; Archer *et al.*, 2008:771; Biddle *et al.*, 1987:327; Charng *et al.*, 1988:309; Conner & Sparks, 2005:121; Hrubes *et al.*, 2001:176; Latimer & Martin Ginis, 2005:389; Norman *et al.*, 2000:250; Pierro *et al.*, 2003:49; Poulter *et al.*, 2008:2058; Quine *et al.*, 2001:328; Donald *et al.*, 2014:45; van Gelderen *et al.*, 2008:539). Biddle *et al.* (1987:327) conducted research regarding the modes of thought that cause decision making to remain at or to leave the institution of higher education where they were then enrolled at and three separate thought modes were investigated: norms, preferences and self-referent labels. After the completion of the study, Biddle *et al.* (1987:335) came to the conclusion that there is a need for theory and more research regarding behaviour intentions (Biddle *et al.*, 1987:335). Charng *et al.* (1988:306) reached the same conclusion and decided to compare behaviour predictions acquired from the theory of reasoned action and the identity theory regarding intentions to donate blood. In the results of the study, it was evident that both attitude and subjective norms are predictors of behavioural intentions (Charng *et al.*, 1988:309).

Ajzen and Driver conducted a study regarding the application of the Theory of Planned Behaviour to leisure choice in the 1990s. Five types of leisure activities were presented: biking, boating, jogging or running, spending time at the beach and mountain climbing. The results signalled that participation in these activities was influenced by normative beliefs about the expectation of important others and by control beliefs (Ajzen & Driver, 1992:313). The same instruments were later used to assess the willingness to pay for participation in these five leisure activities. The attitude towards subjective norm and perceived control overpaying a user fee was assessed (Ajzen & Driver, 1992:300). It became clear that participants are willing to pay for the engagement in leisure

activities provided that they enjoy the activity, its affordability and whether expectations of important others are met (Ajzen & Driver, 1992:313).

The theory had an enormous influence on literature concerning different study fields such as education, (Archer *et al.*, 2008:771) the legal profession, (Poulter *et al.*, 2008:2058) psychology, (Donald *et al.*, 2014:45) and entrepreneurship (van Gelderen *et al.*, 2008:539). The Theory of Planned Behaviour is one of the most widely used frameworks to predict and explain leisure behaviour (Hagger *et al.*, 2002:3; Latimer & Martin Ginis, 2005:389). The successful application of the Theory of Planned Behaviour is validated in several other studies regarding behaviour in leisure activities (Conner & Sparks, 2005:121; Norman *et al.*, 2000:250; Quine *et al.*, 2001:328). Hrubes *et al.* (2001:177), researched hunting intentions and behaviour and applied the theory. The outcomes implied that the theory offers a great deal of power in predicting participation in hunting (Hrubes *et al.*, 2001:176). The study also indicated that wildlife value orientations and life values can account for wildlife-related beliefs and attitudes that determine the decision to engage or not to engage in hunting (Hrubes *et al.*, 2001:177). The Theory of Planned Behaviour was also used to predict Leisure Time Physical Activity (LTPA) among individuals with spinal cord injuries (Latimer & Martin Ginis, 2005). The results of the study supported the use of the theory as attitudes, subjective norm and perceived behaviour control are unique predictors of intentions and in turn, intentions are significant predictors of behaviour (Latimer & Ginis, 2005:393). Pierro *et al.* (2003:47) researched self-identity and the Theory of Planned Behaviour in the prediction of health behaviour and leisure activity. The first study intended to investigate the intention to attend Latin-American dance classes. The second study investigated the intention to purchase low-fat food (Pierro *et al.*, 2003:49). The results of both studies confirmed that the Theory of Planned Behaviour can account for a considerable portion of the variance in behavioural intention. However, the expanded model that includes self-identity denoted a significant effect of personal identity on different types of behavioural intentions (Pierro *et al.*, 2003:57).

By using the Theory of Planned Behaviour as a theoretical framework for the present study, the researcher can provide more insight to describe certified and non-certified rock climbers' attitudes, perceived social pressure and control over certification. The theory was used as a guideline to create the questionnaire that will be used during the interviews with certified rock climbers and non-certified rock climbers (Appendix C). The theory incorporates some of the central concepts in the social and behavioural sciences, and it defines these concepts in an attempt to understand behaviour (Ajzen, 1991:206).

2.5 CONCLUSION

Based on the literature reviewed above, it is clear that there is a need to research rock climbing training in SA. There is a lack of research regarding outdoor activities, especially rock climbing in SA and this paper aims to provide more insight into the different training process and the perception of rock climbers regarding rock climbing certification and qualification.

The first objective of the study is to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification. In this study the researcher will: a) determine what the attitude of certified and uncertified rock climbers is towards the certification process; b) explore the perceived social pressure by examining the effects of the climbing community on participants and c) address control over certification by exploring difficulties to obtain certification.

It is not compulsory for recreational rock climbers to obtain any form of training or certification in SA. Therefore, the researcher will explore the attitudes regarding certification for recreational and professional rock climbers. Social pressure will be investigated to establish if there is any pressure from the rock climbing community to obtain certification or not. The extent of control over certification will be measured in terms of the difficulties and barriers that rock climbers in SA face to obtain certification. Furthermore, the response from participants will be analysed by using the Theory of Planned Behaviour as a theoretical framework.

The second objective of the study is to explore and describe certified rock climbers' perceptions regarding the certification process. The researcher will discuss topics pertaining to recreational certified rock climbers and not legally qualified guides. The different ways of obtaining a qualification will be analysed and explained, thereafter reasons for the difficulty in obtaining the qualification can be assessed. The issue of being experienced but not qualified will be explored to analyse how rock climbers in SA view climbing training. This will shine a light on the ongoing struggle that rock climbers face to obtain a guiding qualification. The participants in the study will reveal the advantages and disadvantages of being qualified guides in SA which will assist the researcher to determine reasons for not obtaining a guiding qualification. From the data gathered, the researcher will be able to make recommendations regarding the qualification process to improve the industry as a whole.

REFERENCES

- AQN (Adventure Qualifications Network). 2019. *Generic Adventure Site Guide*.
<https://www.adventure-qualifications.com/wp-content/uploads/2020/03/GASG-Info-flyer-CURRENT.pdf> Date of access: 19 June 2020.
- AMGA (American Mountain Guiding Association). 2020. *Programs*. <https://amga.com/programs/>
Date of access: 17 June 2020.
- Archer, R., Elder, W., Hustedde, C., Milam, A. and Joyce, J. 2008. The theory of planned behaviour in medical education: a model for integrating professionalism training. *Medical Education*, 42(8):771-777.
- Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2):179-211.
- Ajzen, I. and Driver, B.L. 1991. Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the theory of planned behavior. *Leisure Sciences*, 13(3):185-204.
- Ajzen, I. and Driver, B.L. 1992. Contingent value measurement: On the nature and meaning of willingness to pay. *Journal of Consumer Psychology*, 1(4):297-316.
- Attarian, A. 2001. Trends in outdoor adventure education. *Journal of Experiential Education*, 24(3):141-149.
- Attarian, A. 2012. Risk Management in Outdoor and Adventure Programs: Scenarios of accidents, incidents, and misadventure. Illinois: Human Kinetics.
- Attarian, A. 2015. Certification in outdoor programmes. In *Routledge International Handbook of Outdoor Studies*. New York: Routledge.
- Backe, S., Ericson, L., Janson, S. and Timpka, T. 2009. Rock climbing injury rates and associated risk factors in a general climbing population. *Scandinavian Journal of Medicine & Science in Sports*, 19(6):850-856.
- Batuev, M. and Robinson, L. 2018. Organizational evolution and the Olympic Games: the case of sport climbing. *Sport in Society*, 22(10):1674-1690.
- Biddle, B.J., Bank, B.J. and Slavings, R.L. 1987. Norms, preferences, identities and retention decisions. *Social Psychology Quarterly*, (1):322-337.

BMG (British Mountain Guiding). 2020. *About the British Mountain Guiding*.

<https://www.bmg.org.uk/about-bmg/> Date of access: 17 Jun. 2020.

Bollen, S. 1994. Training for rock climbing. London: Pelham Books.

Booth, J., Marino, F., Hill, C. and Gwinn, T. 1999. Energy cost of sport rock climbing in elite performers. *British Journal of Sports Medicine*, 33(1):14-18.

Buckley, R. 2006. Adventure tourism. Cambridge: CAB International.

Buckley, R. 2007. Adventure tourism products: Price, duration, size, skill, remoteness. *Tourism Management*, 28(6):1428-1433.

Campbell, A.D., Davis, C., Paterson, R., Cushing, T.A., Ng, P., Peterson, C.S., Sedgwick, P.E. and McIntosh, S.E. 2015. Preparticipation evaluation for climbing sports. *Wilderness & Environmental Medicine*, 26(4):40-46.

Charng, H.W., Piliavin, J.A. and Callero, P.L. 1988. Role identity and reasoned action in the prediction of repeated behavior. *Social Psychology Quarterly*, (1):303-317.

Chatzisarantis, N.L. and Biddle, S.J. 1998. Functional significance of psychological variables that are included in the Theory of Planned Behaviour: A Self-Determination Theory approach to the study of attitudes, subjective norms, perceptions of control and intentions. *European Journal of Social Psychology*, 28(3):303-322.

Clivaz, C. and Langenbach, M. 2020. Organisation and professional development of mountain guides and leaders in tourist regions: The Swiss case compared with the French experience. *Journal of Outdoor Recreation and Tourism*, 29:100257.

Cockrell, D., Detzel, D. and Braun, S.L. 1986. Certified wilderness trip leaders: their knowledge levels, safety records, and opinions of certification courses. In R.C. Lucas., ed. *Conference proceedings*. National Wilderness Research Conference: Current Research. Fort Collins. July 23 – 26, 1985. Ogden: Intermountain Research Association. 297-304.

Conner, M. and Sparks, P. 2005. Theory of planned behaviour and health behaviour. *Predicting Health Behaviour*, 2(1):121-162.

De Geus, B., O'Driscoll, S.V. and Meeusen, R. 2006. Influence of climbing style on physiological responses during indoor rock climbing on routes with the same difficulty. *European Journal of Applied Physiology*, 98(5):489-496.

- De Moraes Bertuzzi, R.C., Franchini, E., Kokubun, E. and Kiss, M.A.P.D.M. 2007. Energy system contributions in indoor rock climbing. *European Journal of Applied Physiology*, 101(3):293-300.
- DeMers, A. 2012. *Desirable competencies when hiring outdoor pursuits trip leaders on university and college campuses*. La Cross: University of Wisconsin. (Dissertation - PhD).
- Dirty Boots. 2020. *Outdoor Adventure Training Courses in South Africa*.
<https://www.dirtyboots.co.za/training-programs/overview> Date of access: 17 Jun. 2020.
- Donahoe, T. and Luebben, C. 2014. Rock climbing: Mastering basic skills. 2nd ed. USA: Mountaineers Books.
- Donald, I.J., Cooper, S.R. and Conchie, S.M. 2014. An extended theory of planned behaviour model of the psychological factors affecting commuters' transport mode use. *Journal of Environmental Psychology*, 40:39-48.
- Donaldson, R. and McKay, T. 2017. A Snap Review of Adventure Tourism (AT) Operators in Cape Town. Tourism Department by Tourism and Urban Research Unit.
- Draper, N., Dickson, T., Blackwell, G., Fryer, S., Priestley, S., Winter, D. and Ellis, G. 2011a. Self-reported ability assessment in rock climbing. *Journal of Sports Sciences*, 29(8):851-858.
- Draper, N., Canalejo, J.C., Fryer, S., Dickson, T., Winter, D., Ellis, G., Hamlin, M., Shearman, J. and North, C. 2011b. Reporting climbing grades and grouping categories for rock climbing. *Isokinetics and Exercise Science*, 19(4):273-280.
- Draper, N., Giles, D., Schöffl, V., Konstantin Fuss, F., Watts, P., Wolf, P., Baláš, J., Espana-Romero, V., Blunt Gonzalez, G., Fryer, S. and Franchini, M. 2016. Comparative grading scales, statistical analyses, climber descriptors and ability grouping: International Rock Climbing Research Association position statement. *Sports Technology*, 8(3-4):88-94.
- Edginton, C.R., Hudson, S.D., Scholl, K.G. and Lauzon, L. 2011. Leadership for recreation, parks, and leisure services. Champaign: Sagamore Publishing.
- Enriquez, K.R. 2016. *Exploring the relationship between mentorship and the development of professional competencies within the American mountain guides association*. Alaska: Alaska Pacific University. (Dissertation – PhD).
- Ewert, A. & Vernon, F. 2013. Outdoor and adventure recreation. In Introduction to Recreation and Leisure. 2nd ed. Illinois: Human Kinetics.

Explore-Share. 2018. *What are the different types of climbing?* <https://www.explore-share.com/blog/different-types-climbing/> Date of access: 8 Sept. 2020.

Francis, J., Eccles, M.P., Johnston, M., Walker, A.E., Grimshaw, J.M., Foy, R., Kaner, E.F., Smith, L. and Bonetti, D. 2004. Constructing questionnaires based on the theory of planned behaviour: A manual for health services researchers. University of London. Newcastle upon Tyne, UK: Centre for Health Services Research, University of Newcastle upon Tyne.

Friedemann, A. 2021. Personal interview with the Spokesperson of SAMGA, 18 March, Johannesburg.

Giles, L.V., Rhodes, E.C. and Taunton, J.E. 2006. The physiology of rock climbing. *Sports Medicine*, 36(6):529-545.

Goldenberg, M. 2001. Outdoor and Risk Educational Practices. USA: ERIC.

Gory, R. 2006. *May I See Your Certification Please?* Carbondale: Southern Illinois University. (Thesis – Honours).

Graham, W., Tshipala, N.N. & Lötter, M.J. 2020. Spending behaviour of rock climbers in Gauteng province, South Africa. *African Journal for Physical Activity and Health Sciences*, 26(1):58-70.

Hagger, M.S., Chatzisarantis, N.L. and Biddle, S.J. 2002. A meta-analytic review of the theories of reasoned action and planned behavior in physical activity: Predictive validity and the contribution of additional variables. *Journal of Sport & Exercise Psychology*, 24(1):1-32.

Hanley, N., Wright, R.E. and Koop, G. 2002. Modelling recreation demand using choice experiments: climbing in Scotland. *Environmental and Resource Economics*, 22(3):449-466.

Hanley, N., Shaw, W.S. and Wright, R.E. 2003. The new economics of outdoor recreation. United Kingdom: Edward Elgar Publishing Ltd.

Harrison, G. and Erpelding, M. 2012. Outdoor program administration: principles and practices. Illinois: Human Kinetics.

Harvey, M. 1999. The National Outdoor Leadership School's wilderness guide: The classic handbook, revised and updated. New York: Simon and Schuster.

Heywood, I. 2006. Climbing monsters: excess and restraint in contemporary rock climbing. *Leisure Studies*, 25(4):455-467.

Hrubes, D., Ajzen, I. and Daigle, J. 2001. Predicting hunting intentions and behavior: An application of the theory of planned behavior. *Leisure Sciences*, 23(3):165-178.

Hyder, M.A. 1999. Have your students climbing the walls: The growth of indoor climbing. *Journal of Physical Education, Recreation & Dance*, 70(9):32-39.

IFMGA (International Federation of Mountain Guides Association). 2017. *Member Associations*. <https://ifmga.info/members> Date of access: 16 Jun. 2020.

IFSC. 2019. International Federation of Sport Climbing. <https://www.ifsc-climbing.org/> Date of access: 8 Sept. 2020.

IRCRA. 2014. International Rock Climbing Research Association. <https://www.ircra.rocks/single-post/2014/10/08/Welcome-to-the-new-home-of-the-IRCRA> Date of access: 22 Sept. 2020.

Jenkins, J. and Pigram, J. 2004. Encyclopedia of leisure and outdoor recreation. In Routledge International Handbook of Outdoor Studies. New York: Routledge.

Jones, G and Sharples, P and Johnson, M. 2018. *Improving Design Characteristic to Estimate Load for Future Rock Climbing Studies*. In Jones, G and Sharples, P and Johnson, M., eds. *Conference proceedings*. 4th Congress International Rock Climbing Research Association, Chamonix. 8 – 14 July 2018.

Latimer, A.E. and Martin Ginis, K.A. 2005. The theory of planned behavior in prediction of leisure time physical activity among individuals with spinal cord injury. *Rehabilitation Psychology*, 50(4):389-396.

Llewellyn, D.J., Sanchez, X., Asghar, A. and Jones, G. 2008. Self-efficacy, risk taking and performance in rock climbing. *Personality and Individual Differences*, 45(1):75-81.

Long, J. 2010. How to rock climb! Rowman & Littlefield. Kearney: Morris Book Publishing.

Lourens, T. 2005. Guide to climbing. United Kingdom: Stackpole Books.

Mackenzie, S.H., Boudreau, P. and Raymond, E. 2020. Women's adventure tour guiding experiences: Implications for well-being. *Journal of Hospitality and Tourism Management*, 45(1):410-418.

MacLeod, D., Sutherland, D.L., Buntin, L., Whitaker, A., Aitchison, T., Watt, I., Bradley, J. and Grant, S. 2007. Physiological determinants of climbing-specific finger endurance and sport rock climbing performance. *Journal of Sports Sciences*, 25(12):1433-1443.

Martin, B., Breunig, M., Wagstaff, M. and Goldenberg, M. 2017. Outdoor leadership. Illinois: Human Kinetics.

MDT Prospectus (South African Mountaineering Development and Training Trust Prospectus). 2015. *Mountain Skills* Training Program.
http://www.samdt.co.za/uploads/8/4/8/7/8487241/mdt_prospectus_2014--2015-02.pdf Date of access: 26 June 2020.

Meyer, W. 2021. Personal interview regarding SAMGA, 18 March, Johannesburg.

Monasterio E. 2005. Accident and fatality characteristics in a population of mountain climbers in New Zealand. *The New Zealand Medical Journal*, 118(1208):1-8.

Mountain training. 2019. *Rock climbing instructor candidate handbook*. <http://mt-demo.blahcms.com/Content/Uploaded/Downloads/MLT/e52fa4dc-76e0-486e-b55f-f1d64324f892.pdf> Date of access: 30 October 2020.

Norman, P., Conner, M. and Bell, R. 2000. The theory of planned behaviour and exercise: Evidence for the moderating role of past behaviour. *British Journal of Health Psychology*, 5(3):249-261.

NQF (The National Qualifications Framework and the Standards Setting). 2003. *South African Qualifications Authority*. http://www.saqa.org.za/docs/pol/2003/standard_setting.pdf Date of access: 26 June 2017.

Oxlade, C. 2004. Rock climbing. Minneapolis: Lerner Publications.

Paige, T.E., Fiore, D.C. and Houston, J.D. 1998. Injury in traditional and sport rock climbing. *Wilderness & Environmental Medicine*, 9(1):2-7.

Pansiot, J., King, R.C., McIlwraith, D.G., Lo, B.P. and Yang, G.Z. 2008. Climber performance monitoring with BSN. In 2008 5th International Summer School and Symposium on Medical Devices and Biosensors (pp. 33-36). IEEE: Institute of Biomedical Engineering at Imperial College London, UK.

Pierro, A., Mannetti, L. & Livi, S. 2003. Self-Identity and the Theory of Planned Behavior in the Prediction of Health Behavior and Leisure Activity. *Self and Identity*, 2(1):47-60.

Potgieter, S.A. 2008. *Exploring rock climbing discourses*. Pretoria: University of Pretoria. (Dissertation - PhD).

Poulter, D.R., Chapman, P., Bibby, P.A., Clarke, D.D. and Crundall, D. 2008. An application of the theory of planned behaviour to truck driving behaviour and compliance with regulations. *Accident Analysis & Prevention*, 40(6):2058-2064.

Peak High. 2014. *Mountain Development Trust Certified Courses*.
<https://peakhigh.co.za/courses/certified-courses/> Date of access: 26 June 2019.

Priest, S. 1986. Certification: Always an issue, but no longer a trend. *Bradford Papers Annual*, 11(2):37-44.

Priest, S. & Gass, M.A. 2005. *Effective Leadership in Adventure Programming*. 2nd ed. Illinois: Human Kinetics.

Priest, S. and Gass, M. 2018. *Effective leadership in adventure programming*, 3rd Ed. Illinois: Human Kinetics.

Prouty, D., Panicucci, J. & Collinson, R. 2007. *Adventure education: theory and applications*. Illinois: Human Kinetics.

Quine, L., Rutter, D.R. and Arnold, L. 2001. Persuading school-age cyclists to use safety helmets: Effectiveness of an intervention based on the Theory of Planned Behaviour. *British Journal of Health Psychology*, 6(4):327-345.

Rice, J. 2010. *Assessment of challenge course facilitators who are WAHPERD members on their perceived knowledge and skills in association with national certification*. La Cross: University of Wisconsin. (Dissertation - PhD).

Rivis, A. and Sheeran, P. 2003. Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis. *Current Psychology*, 22(3):218-233.

Rock climbing fundamentals. 2016. *Rock climbing Fundamentals*.
<https://static1.squarespace.com/static/5761c870e4fcb510bfb26cbe/t/581225739f7456092ce219bf/1477590761207/Rock+Climbing+Fundamentals-15+meg+file.pdf> Date of access: 9 Sept. 2020.

Rockfax (n.d.) *Grade conversions*. <http://www.rockfax.com/publications/grades/> Date of access: 17 May 2020.

Rugg, C., Tiefenthaler, L., Rauch, S., Gatterer, H., Paal, P. and Ströhle, M. 2020. Rock Climbing Emergencies in the Austrian Alps: Injury Patterns, Risk Analysis and Preventive Measures. *International Journal of Environmental Research and Public Health*, 17(20):7596.

SAMDT (South African Mountaineering Development and Training Programme). 2004. *Single Pitch Supervisor Scheme Prospectus*.
<http://www.samdt.co.za/uploads/8/4/8/7/8487241/spsprospectus.pdf> Date of access: 16 May 2020.

Sanchez, X., Lambert, P., Jones, G. and Llewellyn, D.J. 2012. Efficacy of pre-ascent climbing route visual inspection in indoor sport climbing. *Scandinavian Journal of Medicine & Science in Sports*, 22(1):67-72.

SAQA (South African Qualifications Authority). 2020. *Registered Unit Standards*.
<http://regqs.saqa.org.za/viewUnitStandard.php?id=9285> Date of access: 9 Jan. 2020.

SA Outdoor Academy. 2019. *Formal NQF Endorsed Qualifications*.
<https://saclimbingacademy.co.za/index.php/training-courses/formal-nqf-endorsed-qualifications>
Date of access: 19 Jun. 2020.

Schuster, R.M., Thompson, J.G. and Hammitt, W.E. 2001. Rock climbers' attitudes toward management of climbing and the use of bolts. *Environmental Management*, 28(3):403-412.

Schöffl, V., Morrison, A., Hefti, U., Ullrich, S. and Küpper, T. 2011. The UIAA Medical Commission injury classification for mountaineering and climbing sports. *Wilderness & Environmental Medicine*, 22(1):46-51.

Schöffl, V., Morrison, A., Schwarz, U., Schöffl, I. and Küpper, T. 2010. Evaluation of injury and fatality risk in rock and ice climbing. *Sports Medicine*, 40(8):657-679.

Schöffl, V. and Kuepper, T. 2006. Injuries at the 2005 World Championships in rock climbing. *Wilderness & Environmental Medicine*, 17(3):187-190.

Schöffl, V., Lutter, C., Woollings, K. and Schöffl, I. 2018. Paediatric and adolescent injury in rock climbing. *Research in Sports Medicine*, 26(1):91-113.

- Schweizer, A. and Furrer, M. 2007. Correlation of forearm strength and sport climbing performance. *Isokinetics and Exercise Science*, 15(3):211-216.
- Sharpe, E.K. 2005. "Going above and beyond:" The emotional labour of adventure guides. *Journal of Leisure Research*, 37(1):29-50.
- Sheel, A.W. 2004. Physiology of sport rock climbing. *British Journal of Sports Medicine*, 38(3):355-359.
- Sheridan, P.T. 2004. Qualifications for wilderness trip leaders. *Camping Magazine*, 77(1):38-43.
- Tokyo. 2020. *Sport climbing*. <https://tokyo2020.org/en/sports/sport-climbing/> Date of access: 17 Jun. 2020.
- Tourism Act 3 of 2014*.
- Van den Berg, L.M. 2016. *Tourist guiding legislation: South Africa, Australia and Canada in a comparative perspective*. Pretoria: University of Pretoria. (Dissertation – PhD).
- Van Gelderen, M., Brand, M., Van Praag, M., Bodewes, W., Poutsma, E. and Van Gils, A. 2008. Explaining entrepreneurial intentions by means of the theory of planned behaviour. *Career Development International*, 13(6):538-559.
- Venter, D.H. 2011. *Crew resource management: a model for safety training in the South African adventure industry*. Pretoria: Tshwane University of Technology. (Dissertation – PhD).
- Venture Forth. N.d. *Generic Adventure Site Guide*. <https://www.ventureforth.co.za/gasg> Date of access: 17 Jun. 2020.
- Walker, G.J. and Courneya, K.S. 2006. Ethnicity, Gender, and the Theory of Planned Behavior: The Case of Playing the Lottery. *Journal of Leisure Research*, 38(2): 224-248.
- Watts, P.B. 1996. Rock climbing: Outdoor pursuits series. Illinois: Human Kinetics.
- Watts, P.B., Joubert, L., Lish, A.K., Mast, J.D. and Wilkins, B. 2003. Anthropometry of young competitive sport rock climbers. *British Journal of Sports Medicine*, 37(5):420-424.
- Watts, P.B. 2004. Physiology of difficult rock climbing. *European Journal of Applied Physiology*, 91(4):361-372.

Wright, D.M., Royle, T.J. and Marshall, T. 2001. Indoor rock climbing: who gets injured? *British Journal of Sports Medicine*, 35(3):181-185.

Woollings, K.Y., McKay, C.D. and Emery, C.A. 2015. Risk factors for injury in sport climbing and bouldering: a systematic review of the literature. *Br J Sports Med*, 49(17):1094-1099.

Wozniak, S. and Buchs, A. 2013. US National Parks and "The Tragedy of the Commons". A contribution to the characterization of US mountain guides' professional practice. *Journal of Alpine Research*, 101(4):1-11.

Zygmunt, C.S. 2014. A phenomenographical study of the qualitative variation of adventure/wilderness programme experiences among adolescent high school participants in the Western Cape. Stellenbosch: Stellenbosch University. (Dissertation – PhD).

CHAPTER 3

ARTICLE 1: EXPLORATION AND DESCRIPTION OF CERTIFIED AND NON-CERTIFIED ROCK CLIMBERS' ATTITUDES, PERCEIVED SOCIAL PRESSURES AND CONTROL OVER CERTIFICATION

Minette Strauss
072 507 0854
minettestrauss56@gmail.com
Leisure Studies

Mrs Yolanda Stevens
083 392 6510
yolanda.stevens@nwu.ac.za
Leisure Studies

Dr J. Theron Weilbach
082 358 6830
theron.weilbach@nwu.ac.za
Leisure Studies

Physical Activity, Sport and Recreation (PhASRec), Faculty of Health Sciences, North-West University, Private Bag X6001, Potchefstroom 2520, South Africa.

The article is presented in accordance with the specific guidelines for the *South African Journal for Research in Sport, Physical education and Recreation* (SAJRSPER)¹. However in order to keep the standardisation of the dissertation, the prescribed margins, line-spacing and font are according to the NWU Harvard guidelines. For the ease of reading and understanding, the tables and figures will also be included with the text.

¹ Appendix A provide the guidelines for articles to be submitted to the SAJRSPER

ABSTRACT

The study explored recreational and certified rock climbers' attitudes regarding certification; social pressure to obtain certification; and the extent of control over certification. A qualitative design was used to interview a total of 28 participants of which 11 participants are MDT certified and five participants who are SAQA qualified. The remaining 12 participants have no formal training and are non-certified. Data was collected through semi-structured one-on-one interviews and the Theory of Planned Behaviour was used as a theoretical framework to analyse the perceptions of rock climbers over certification in South Africa. The findings showed that the perceptions of non-certified rock climbers might be based on wrong information and that certification is unnecessary to obtain when social pressure is not present. Furthermore, participants argued that only professional guides need proper training. Conversely, instructors who are teaching climbing are not in need of the same qualification. Ultimately, if rock climbers change their attitude towards the need for training, South African rock climbing could result in an internationally recognised industry.

KEYWORDS: adventure, certification, recreation, rock climbing, Theory of Planned Behaviour.

Exploration and description of certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification.

INTRODUCTION

Certification of individual outdoor instructors has been a topic of debate since the late 1970s and consequently, there are several advocates for and against the certification of outdoor instructors (Attarian, 2001; Priest & Gass, 2018). Individuals in favour of certification argue that guides are trained to ensure the safety of the public and the environment; it establishes a calibre of excellence and motivates outdoor guides to adhere to higher standards (DeMers, 2012; Priest & Gass, 2018). In contrast, individuals against certification argue that certification does not hold value for individual professionals or the industry at large (Martin *et al.*, 2017). Rice (2010) submits that professionals find it difficult to agree upon which skills need to be included in certification training, while Martin *et al.* (2017) are of the same opinion and raise the question of whether guides are legally responsible for decisions made.

Several advocates of certification agree that every outdoor activity is unique and has its own characteristics thus, each activity should have its own operating procedures and standards for certification (Sheridan, 2004; Harrison & Erpelding, 2012). In the United States of America, (USA) certification programmes can be designed by organisations or private vendors who have expertise in a particular adventure activity (Attarian, 2015). Certifications are earned directly from vendors and recognition is granted to individuals who have met the specific predetermined qualifications that were set up by the vendor (Attarian, 2015). In South Africa (SA), certification programmes are offered by private training providers and the training material varies in-depth and quality (Van den Berg, 2016). SA does not have a single governing body that regulates rock climbing training and Zygmunt (2014:28) argue that there are no laws governing the provision of adventure programmes in SA. South African Mountain Guides Association (SAMGA), was possibly established to fill this function however, SAMGA does not exist anymore and was hardly ever functioning (Friedemann, 2021; Meyer, 2021).

The mountain guiding profession is widely regulated by The International Federation of Mountain Guides Associations (IFMGA) and has associations in twenty-four countries that follow their certification standards (Enriquez, 2016; Donahue & Luebben, 2014; Wozniak & Buchs, 2013). SA is not a member of the IFMGA but has government organisations such as the South African Qualifications Authority (SAQA) and activity-specific training advisory bodies like the Mountaineering Development and Training Trust (MDT) that are responsible for the

professionalisation and standardisation of rock climbing instructors within the country (Van den Berg, 2016).

SAQA is the oversight body of the National Qualifications Framework (NQF) and was established by the Minister of Education, in consultation with the Minister of Labour (NQF, 2000). To obtain the SAQA qualification, a guide needs to be registered at a Culture, Arts, Tourism, Hospitality and Sport Sector Education Training Authority (CATHSSETA) provider. SAQA qualifications are unit standard-based and recognised by the SA Government to register as a professional guide with the National Department of Tourism (NDT) in terms of the 3rd Tourism Act of 2014 (Donaldson & McKay, 2017; Dirty Boots, 2020; SA Outdoor Academy, 2019; Van den Berg, 2016).

The rock climbing profession consists of two distinct avenues namely rock climbing guides and rock climbing instructors. Instructors are individuals who wish to train and instruct other rock climbers to be safe and professional (Cousquer & Beames, 2013), whereas guides have a legal and moral responsibility to keep paying clients safe while engaging in a mountain-related activity (Beedie, 2003). Consequently, there are various levels and types of guiding qualifications within the SAQA qualifications framework. However, there is only one skills programme that is 'generic' for all adventure guides. The Generic Adventure Site Guide (GASG) qualification can be obtained through providers such as Adventure Qualifications Network (AQN). The GASG qualification does not teach technical skills: this skills programme focuses on the set of adventure skills, knowledge and abilities that all adventure guiding contains and is not restricted to one activity (AQN, 2019; Venture Forth, n.d). After completion of the GASG qualification, it is recommended that a person enrolls for skills training in a specific adventure activity from a registered CATHSSETA provider. Thereafter, an aspiring guide will be assessed by an accredited CATHSSETA assessment provider under the specific adventure skills programme which is registered with SAQA.

Another certification body in SA is the MDT which provides training and assessment courses that are run by individuals approved and accredited by the Trust (MDT Prospectus, 2015). The MDT is a legally constituted body, registered with the master of the Supreme Court in SA and administers the functioning of the MDT National Training Programme (MDT Prospectus, 2015). MDT clearly states that its certification is recognised by industry role players but, is not recognised by the NDT for the purpose of the 3rd Tourism Act of 2014 (MDT Prospectus, 2015). MDT offers two distinct courses for rock climbers in SA. Firstly, supervisor award courses that are aimed at supervising different climbing types and secondly, courses that are suitable for individuals working as instructors at climbing gyms and mountaineering centres

(Peak High, 2014). Moreover, candidates who are working as instructors are only permitted to run MDT courses and assessments which must conform to the MDT guidelines and requirements (Peak High, 2014). MDT certified rock climbers may thus not legally guide clients in mountaineering and climbing activities, unless they also have relevant SAQA guiding qualifications.

There seems to be a lack of knowledge around certification among rock climbers in SA. Rock climbers are unsure about the correct process to follow in order to be a legal guide. Furthermore, the lack of awareness around legal certification creates confusion between recreational rock climbers and legal qualified guides (Climb ZA, 2020). Many recreational rock climbers are climbing without proper training or skills, which results in an increase in mountain-related accidents (Buckly, 2006). The result of this confusion and uncertainty is that some guides and instructors working in the industry do so without the required qualifications. Additionally, recreational rock climbers who may need training and guidance to be safe when climbing are unregulated and all rock climbers have open access to mountain crags. Therefore, this study aims to explore and describe what qualified, certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification are.

The Theory of Planned Behaviour will be utilised as a theoretical framework and the intention of behaviour will be determined by: (1) the person's attitudes towards the behaviour, (2) the subjective norms a person believes significant others have concerning the behaviour, and (3) an individual's perception of whether the behaviour can be performed (Ajzen, 1991; Walker & Courneya, 2006). Through this research, reasons for seeking certification as well as reasons for not seeking certification, may be determined. This can aid in creating and implementing an effective certification process, thus strengthening the rock climbing industry in SA.

METHODOLOGY

Research design

The study utilised a qualitative descriptive research design and the Theory of Planned Behaviour was used as a theoretical framework. Theory of Planned Behaviour has been used in several studies to describe, understand and predict behaviour in leisure activities (Ajzen & Driver, 1991; Ajzen & Driver, 1992; Hrubes *et al.*, 2001; Latimer & Martin Ginis, 2005; Hobbs *et al.*, 2013; Norman *et al.*, 2000; Pierro *et al.*, 2003). The Theory of Planned Behaviour is an expectancy-value model based on the assumption that attitudes have a natural impact on behavioural intentions and can be determined by investigating attitudes towards a behaviour, subjective norms and perceived behavioural control (Florenthal & Shoham, 2001; Pierro *et al.*, 2003).

Terminology clarification

For the purpose of the study, a terminology clarification will be used to describe words and phrases with their expected meaning. The term *certification* will be used for rock climbers that underwent the MDT training course (for recreational rock climbers) and the term *qualified* will be used for participants who completed the SAQA qualification (for commercialised guides). During the discussion of results, a distinction will be made between certified and qualified participants. Non-certified participants refer to participants who did not obtain any form of formal training and are consequently regarded as non-certified.

A clear distinction should be made between a guide and an instructor. When a guide is mentioned in the study, it refers to a person who acts as a leader of a mountain-related activity with the focus of keeping their paying clients safe. Instructors can also instruct guides to become guides however, for the purpose of this study, when instructors are mentioned, it refers to individuals who train and instruct other rock climbers but are not allowed to guide for the purpose of earning an income.

Participants and setting

A total of 28 participants were recruited through advertisements (Appendix B) and snowball sampling technique. Five participants were SAQA qualified, 11 participants MDT certified, and the remaining 12 participants had no formal climbing training. All participants were asked to sign an informed consent letter (Appendix B) prior to the interviews which were conducted at two major climbing gyms in SA (Appendix B). The criteria to participate in the study for certified rock climbers included: 1) must have completed the MDT or SAQA rock climbing certification, 2) climb frequently indoor and outdoor, at least twice a week; 3) participants cannot have any other adventure certification or international certification. The criteria for non-certified rock climbers included: 1) active South African rock climbers with no formal climbing certification; 2) climb both indoor and outdoor, at least twice a week; 3) participants who have any link to SAQA were excluded from the study to avoid a biased view regarding the certification process.

Data collection

Semi-structured one-on-one interviews were conducted to focus attention on each participant individually. Recommendations from previous studies using the Theory of Planned Behaviour as a framework were taken into consideration (Hagger *et al.*, 2002:289; Hrubes *et al.*, 2001; Pierro *et al.*, 2003) to create open-ended questions. Each determining factor of the Theory of

Planned Behaviour was analysed and previous research was consulted to address each factor.

a) Attitude

In this study the researcher determined what the attitude of certified and uncertified rock climbers were towards the certification process. Attitudes develop reasonably from the beliefs people hold about the object of certification. Pierro *et al.* (2003:51) used a seven-item scale in the questionnaire to find out what the attitude towards attending Latin-America dance classes is. Hrubes *et al.* (2001:168) also used the seven-item scale to predict hunting intentions and behaviour. As the study will utilise a qualitative descriptive design, the researcher will determine attitudes of rock climbers by asking questions such as “how do you feel about rock climbing certification” and “do you believe that every climber should be certified”.

b) Subjective norm

Pierro *et al.* (2003:51) only included one question in this category: “Most people who are important to me would approve that I attend Latin-American dance classes within the next six months”. Participants were asked if they agree completely or disagree completely. Hrubes *et al.* (2001:168) asked participants to indicated whether most people who are important to them would (disapprove–approve) of their engaging in hunting. According to the present study, the referent groups or individuals can be seen as the gym community or climbing partners. To completely understand the subjective norm, the researcher asked questions about participant’s climbing community such as “Who does your climbing community consist of?” Thereafter, questions like “Do you think your social group approve or disapprove of certification?” and “Do you feel social pressure to obtain certification” was be asked.

c) Perceived behavioural control

Pierro *et al.* (2003:51) used a question to assess perceived behavioural control: “How easy is it for you to attend Latin-American dance classes within the next six months?” Hagger *at al.* (2002:289) used the seven-point scale to measure perceived behavioural control and asked: “Do you think it would be easy or difficult to do physical activities which make you out of breath at least three times in your own time in the next week?” Hrubes *et al.* (2001:168) asked “If I wanted to, I could easily go hunting in the next twelve months.” The questions in this study included: “What are the potential barriers for most climbers to obtain certification?”

The duration of interviews varied between 20 and 40 minutes per interview. The researcher conducted a trial interview with the manager of the climbing gym as this allowed the researcher to discuss and interpret the interview questions (Appendix C), to ensure usefulness, to provide clarity, and relevance for the objectives of the study (Silverman, 2013). The interviews were

recorded by using a digital voice recorder. Thereafter, the researcher transcribed the recorded interviews and all recorded interviews were deleted from the recording device to keep the participants anonymous. The participants were also required to complete a biographical questionnaire to find out more about their climbing history and background.

Data analysis

The computer programme Atlas.ti, a computer-assisted qualitative data analysis software (CAQDAS) package, was used to organise and manage the data. An inductive content analysis was used to organise the qualitative data. This process includes open coding, creation of categories and abstraction (Elo & Kyngäs, 2008). After comparing major categories, different themes were identified and grouped to reflect the data in a conceptual manner. An independent co-coder analysed the data separately and a consensus was reached by the co-coder and the researcher after discussions regarding the categories and themes.

Ethical clearance

Ethical clearance (NWU-00119-18-S1) was granted by the Faculty of Health Sciences of the North-West University's Health Research Ethics Committee (Appendix B). Each participant signed an informed consent form (Appendix B) which explained the study and in which they gave permission for conducting and recording the interviews. Before the interviews, participants were advised that their participation would be purely voluntary, and should they feel to withdraw from the study, it would be accepted without prejudice.

RESULTS AND DISCUSSION

This paper explores and describes the attitudes, perceived social pressures and control over certification. Responses from certified and qualified participants will be discussed in conjunction and where relevant, a clear distinction will be drawn between the responses of qualified or certified participants. The following abbreviations will be used: C for certified rock climbers and NC for non-certified rock climbers. From the data collected, three themes emerged: 1) reason for obtaining certification; 2) certification views and 3) significant others. Eleven sub-themes were identified and will be discussed in accordance with each theme.

Theme 1: Reasons for Obtaining Certification

As illustrated in Table 1, reasons to obtain certification were identified as the first theme after a question was asked about what advantages and disadvantages certification presents. The Theory of Planned behaviour suggests that attitude is one of the determining factors that

influences behaviour. In theory, an attitude will develop from the beliefs an individual hold about a certain behaviour (Hobbs *et al.*, 2013; Pierro *et al.*, 2003).

TABLE 1: THEME 1 – REASONS FOR OBTAINING CERTIFICATION

Certified participant response	Non-certified participant response
Safety	
“Safety safety safety. Knowing your equipment knowing its limitations, knowing how to keep yourself safe, first and foremost as the guide.”	“...this industry involves a lot of safety so now if you are not certified, how are you going to prove to people that you know everything is safe...”
Guides should be qualified	
“If you're doing it on a professional basis you should have a certification.”	“If there are people who want to be taken out on weekends, tour guys have to be certified.”
Liability cover	
“I think it protects one legally if there is ever an incident.”	“Who's liable for if there's an accident?”

The first sub-theme under theme 1 relates to the fact that rock climbers feel that certification contributes towards safety. All the participants in the study mentioned that it is an advantage to have certification and the biggest drive, therefore, is safety concerns. When asked about reasons for obtaining certification, a certified participant said that: “Safety safety safety. Knowing your equipment, knowing its limitations, knowing how to keep yourself safe, first and foremost as the guide.” Non-certified participants opined that: “...this industry involves a lot of safety so now if you are not certified, how you are going to prove to people that you know that everything is safe...” Rice (2010) and Prouty *et al.* (2007) propose that instructors should be able to minimise risks by ensuring safety procedures and prepare participants for what they will experience during the activity. By nature, adventure activities present risks to participants engaging in the activity. Buckley (2010) argues that it is the duty of guides and instructors to manage risks closely while simultaneously providing a safe and exciting experience to participants. This highlights the necessity and importance of training for adventure instructors and guides.

All participants strongly expressed that all guides should be qualified, consequently, the second sub-theme emerged (Table 1). C3 said that: “If you're doing it on a professional basis you should have a certification.” The findings from this study are concurrent with that of Clinch

and Filimonau (2017), as participants stated that unqualified guides should be prevented from working with tourists. A certified staff member at a climbing gym expressed that: “as a gym, we felt the need for our instructors to be certified because they are teaching...”.

One of the certified participants explained the difference between the SAQA qualified guides and the MDT instructors' certification and said: “If you have a person who is taking a person guiding and you are being paid for the purpose of taking this person as an entertaining exercise, let's say you have a German tourist and you would take them walking on Table Mountain or you have a businessman in Johannesburg who wants to climb on a Sunday, whatever, you are being paid for the service directly, and the central purpose of the activity is to provide information and entertainment to this person, then the Tourism Act defines you as a tour guide and you have to be registered with the Tourism Department. But in another circumstance, the primary purpose of the activity is to take part in what they call situational or circumstantial learning. So, what circumstantial learning means is, if you are a school teacher, and you take your group of kids on a historical hike, the primary purpose of the activity is teaching, to show the kids the environment of the hike, then that particular activity falls under the Department of Education, not under the Department of Tourism. You are not a tour guide, so that teacher who takes kids on a hike, is not required to be a tour guide, but he does have to show for liability reasons that he had some training and assessment in the skills. And there the MDT is applicable”. Another certified participant added to that: ...there is a grey area when you are leading on behalf of an organisation, I think the organisation has a duty of care to ensure that the leaders meet some sort of standard”. Duty of care is a responsibility of guides and instructors to ensure that their clients come to no harm during adventure activities and can include all aspects of safe practise, providing appropriate safety equipment and the supervision of activities (Natynczuk, 2014:30). Since the learners are under the leadership of MDT trained rock climbers, it is their duty of care to ensure that learners are safe and that the necessary training was obtained, in such cases the MDT certification is sufficient.

In SA, guides face prosecution if they act as a guide without being legally registered and qualified (Donaldson & McKay, 2017; Dirty Boots, 2020; SA Outdoor Academy, 2019; Van den Berg, 2016). However, if you are taking a group of learners to a mountain crag, you do not need a guiding qualification. This is controversial as the principle remains the same: a person is leading a group of people while climbing. C11 said that: “Not even 10% of the guides out there are legal”. Wozniak and Buchs (2013) argue that guides with insufficient training will definitely put their clients' lives in danger. This statement can possibly also reflect on people offering circumstantial learning since the mere fact that they are not functioning in the capacity

of a guide, does not negate the risk related to climbing and therefore they still need proper training to keep the group safe.

All non-certified participants are in favour of certification. However, it seems as if non-certified participants have a misunderstanding about the difference between MDT certification and the SAQA qualification. NC6 said: "Get yourself a certificate if you want it for commercial use." Another non-certified participant also said: "The fact or opportunity to make some money off of doing something you enjoy, and you know because if you make some money so that you can buy more gear..." Most of the non-certified participants mentioned that certification can be beneficial because then they can act as guides. It appears that non-certified participants have a misperception about certification because once they are certified, they are still not legally qualified to act as guides and gain monetary benefits.

Liability cover emerged as the third subtheme as certified and non-certified participants showed concerns around the legal protection. C7 said that: "I think it protects one legally if there is ever an incident." NC6 had the same view and said: "Who is liable when there is an accident...I don't think clients should go with a non-certified person". Liability issues will continue to manifest themselves as problems (Young and Jamieson, 1999) consequently, it is essential for a company to obtain the appropriate insurance (Buckley, 2010; Edginton *et al.*, 2011). Interestingly, one of the participants explained that: "A lot of people don't realise that every single insurance policy in this country has a clause that says if you are violating the law; if you're breaking the law; if you're committing a crime; your insurance policy is null and void. Because if you are not legal you're breaking the law, or you are committing a crime. And that means your insurer will simply say that the clause was broken...because who is to say that the accident would have happened if you had been appropriately certified." This is evidence that liability cover means nothing if a person is not legally compliant with the law in SA. Williams and Soutar (2005) argue that it is of cardinal importance that adventure operators understand legal liability: it is no longer a case of just simply signing indemnity forms and taking out liability insurance. More time needs to be spent on legal advice as this has an enormous potential impact on adventure operators (Callander and Page, 2003). To be legally compliant, guides and instructors must possess the required experience, training and good leadership skills (Callander & Page, 2003; Williams and Soutar, 2005).

The Theory of Planned Behaviour will be used to analyse the reasons for obtaining certification as well as reasons not to obtain certification. To obtain certification, the first determining factor, attitudes, is described as a person's evaluation (positive or negative) of the target behaviour (Conner & Sparks, 2005). In previous studies that used the theory to explain behaviour,

attitudes were measured by the liking or disliking of a given behaviour (Norman & Coner, 2005; Donald *et al.*, 2014). In this case, all certified and non-certified participants agreed that certification is beneficial. This suggests that all participants are in favour of rock climbing certification. Although both certified and non-certified participants are of the opinion that certification will provide more safety, they are also under the impression that certification will provide access to guiding which is not the case and participants' attitude around certification might be grounded on the wrong information and assumptions. Non-certified participants are in favour of obtaining certification, however, their misperception might cause them to argue differently if they knew that a SAQA qualification is necessary to become a legal guide. Additionally, Hrubes *et al.* (2010) posit that the Theory of Planned Behaviour assumes that attitudes towards a behaviour are derived from beliefs about the behaviour's consequences. Non-certified participants are under the impression that the consequence of obtaining certification will be monetary gain while guiding. This is inaccurate as they will not be legally qualified guides.

Theme 2: Certification views

The participants' perception of certification is reflected by certification views, which emerged as the second theme (Table 2). The second determining factor of the Theory of Planned behaviour being perceived behaviour control, is influenced by beliefs about whether a person has access to the necessary resources and opportunities to perform a behaviour (Ajzen, 1991). If individuals believe they have access to resources and recognise opportunities to perform the behaviour, they are likely to have a high degree of behavioural control (Conner & Sparks, 2005). To assess the perceived behavioural control that participants have over certification, the barriers to obtain certification were investigated. During the result analysis, four sub-themes emerged namely 1) availability and accessibility; 2) expense; 3) lack of assessors; and 4) easy process.

TABLE 2: THEME 2 – CERTIFICATION VIEWS

Certified participant response	Non-certified participant response
Availability and accessibility	
"I think they can definitely up their game a little bit to make it more accessible."	"Maybe just make it more available..."
Expense	
"...cost is the biggest one..."	"I know it is quite expensive."
Lack of assessors	

"That there are just a few instructors available..."	"...there are only two places you can go..."
Easy process	
"...once you have your logbook and your first aid, it is pretty quick."	"So I think it's pretty easy if you know where to go..."

The first sub-theme, availability and accessibility to certification, is viewed as two of the most common barriers by all participants. NC7 said: "Maybe just make it more available..." A certified participant stated that: "At the moment it seems to be very uncoordinated. It is if you look online it is very scattered around the place. There's no clear answer of what you really need". Evert *et al.* (2006) claim that the availability of information regarding rock climbing on the internet has seen significant growth over the past few years. However, in SA, it is a different case: there is limited information available regarding the certification process. A non-certified participant said that: "...no one really knows about it, besides what you hear from the staff here who have done it." When asked where he got information regarding certification, C12 said: "...Through connections essentially, so I knew other guides and asked how they got certified and then they sent me to this company." From the responses of the participants, it can be deduced that information about certification is not widely accessible and information regarding the process of obtaining certification is not common knowledge amongst the climbing community. One of the non-certified participants mentioned that: "...I didn't know there was a qualification until I started working here, but as soon as I heard about it, I was like I want in!" This opinion was shared by other non-certified participants as they also claim that they would like to be certified. The results of the study correlate with that of Clinch and Filimonau (2017) who concluded that participants have a strong desire for accessible training opportunities. It seems as if non-certified participants would like to obtain certification, but the barriers seem to be greater than the reward of certification.

The expensive cost of certification emerged as the second sub-theme (Table 2). Most of the certified and non-certified participants agree that the cost of certification is one of the biggest barriers why there are so few rock climbers who are certified, as illustrated by C9 who said: "Expense I think is what puts people off." And NC12: "Definitely I think if you don't have the funds to do it that's definitely a barrier." This view was also raised by DeMers (2012) and Attarian (2001) who asserted that there are several outdoor leaders who are experienced and have good judgement, nevertheless, they do not have certification because it is expensive and time-consuming. To obtain the legal guiding qualification in SA is expensive: Donaldson and McKay (2017) found that the cost of getting guides legally compliant is high. C2 Said that the process can be time consuming because: "...the logbook obviously takes a while to complete

because you actually have to do the effort to go climbing and gain the experience.” C9 explained the expense and said that: “...an aspiring guide needs climbing experience across three different geographical regions... the cost of the gear is expensive and the assessments”. Contrastingly, only one of the qualified participants argued that the cost is reasonable as one can earn a living from the SAQA qualification and guide legally. C11 said: “No one sees I’m earning myself a qualification from which I can earn a living.” The cost of the certification might be justifiable if a person can guide legally and gain monetary benefits therefrom. However, C13 explained that: “To get the required 200 days for a climbing guide will take four or five years”.

The lack of assessors emerged as the next sub-theme as there is limited access to assessors for the certification courses (Table 2). A certified participant said that: “...It is hard to find somebody to actually certify even level 1...” C5 mentioned that: “...people in that position (assessors) are very insistent that it stays a small market and there is a bit of a hold onto that power.” When a question was asked about how to access certification, C4 said that: “...Getting into the system through peer mentorship, finding someone who is knowledgeable and getting clued up in that way...” One of the certified participants provided a better insight and said that: “Accessibility to assessors is a problem, but the problem will be solved by compliance with the law because the moment you get people who are compliant, there is more demand for training and assessment and then it becomes more viable for people to become trainers and assessors.” According to the findings, one of the biggest reasons why rock climbers are not certified is because of the lack of SAQA and MDT assessors in the country.

There were a few participants who said that the certification process was easy. This forms the last sub-theme (Table 2). The ease of the certification process is explained by participant C6 who said: “It was easy because it was organised for us by the climbing gym”. This may be the case when an employer arranges for the employees to undertake certification. C2 explained that: “We are quite fortunate; we have set up a deal with an instructor where he gets a free membership, and we get some staff certified.” The gym funded the certification for employees, thus they might feel that the certification process was easy. For other rock climbers in the community, the process is much more difficult, and these obstacles can be some of the reasons why rock climbers in SA are not certified.

Perceived behaviour control is the extent to which a person displays or does not display a behaviour (Ajzen, 1991; Francis *et al.*, 2004; Latimer & Martin Ginis, 2005). Thus, it can be concluded that non-certified rock climbers may not obtain certification because the benefit and worth of certification in comparison to the cost thereof, and this might not be enough motivation

to pay for the expenses. According to Conner and Sparks (2005), behavioural control can serve as actual control over a behaviour when individuals are realistic about their judgements of the difficulty inherent in a certain behaviour. In addition, Ajzen (1991) explains that when a person has the opportunities, resources and intends to perform a behaviour, it is almost guaranteed that the person will display the given behaviour. Based on the findings, it is evident that the participants do not have complete volitional control over certification because there are several barriers to obtain certification.

In the case, of non-certified participants not obtaining certification, the lack of opportunities (i.e. information, access to trainers and assessors) and resources (i.e. finances) may result in very weak intentions to get certified. It seems as if the worth of certification does not exceed the need and benefit that non-certified rock climbers are seeking; therefore, the financial constraint does not justify the benefit of obtaining certification. In conclusion, it is possible that the barriers are too great and non-certified rock climbers would rather choose not to obtain certification.

Theme 3: Significant others

To find out what the climbing community's view is about certification, questions were asked about how the climbing community views certification. The last theme was thus identified as significant others (Table 3). According to the Theory of Planned behaviour, insight into participants' social groups would assist in analysing behaviour intentions (Hrubes *et al.*, 2001; Pierro *et al.*, 2003).

TABLE 3: THEME 3 – SIGNIFICANT OTHERS

Certified participant response	Non-certified participant response
Confirmation of certification	
"I don't know anyone who wouldn't approve of people needing to be certified."	"They would approve. Definitely."
Social group	
"I think they pretty much don't care about it."	"I would say climbers in general are not much concerned about much other than just climbing."
Clients' attitude	
"It does give people bit more peace of mind."	"...just giving them that peace of mind and because I've been on a few outings guys get

	really anxious even though nothing's gone wrong."
Pressure	
"It was an internal pressure. It was a case of if I want to do this, I want to do it right. And it is also a marketing value. I am a qualified mountain walking and rock climbing instructor. So, it was very much internally driven."	"No, I don't feel any real pressure. I would not say that there is much peer pressure for people to do it. I think the only instance where it is more pressured is in a working environment where people are required to give courses and advice where they represent the company."

Sub-theme one, *confirmation of certification*, was identified after determining if the community would approve or disapprove of certification. Most of the participants said the community would be in favour of rock climbing certification for. C3 explained the community's perspective by saying that: "I think that they would certainly see the need or the value of being certified as a climbing guide". This again shows that the climbing community does not understand the legal requirements to act as guides in SA because the MDT certified rock climbers are not legally registered guides. However, the climbing community might view them as "guides" who have the responsibility to accompany clients in the outdoors. Later, the participant also mentioned that "...they would be highly opposed to the need for certification for recreational climbers." This is concurrent with the findings in a study by Rice (2010) regarding the certification of challenge course facilitators where data revealed that the majority of participants are in favour of making certification mandatory for individuals who own, manage, or work on challenge courses. At this stage, rock climbing certification is aimed at recreational rock climbers due to the restrictions of taking clients outdoors for payment. Contrastingly, the SAQA qualification is aimed at guides who aspire to gain monetary benefits by taking clients to participate in the respective adventure activity, like rock climbing.

As presented in Table 3, the second sub-theme *social group* was formed in the question which asked how the climbing community feels about certification and the responses from the participants were mostly similar as C3 said: "Climbers, in general, are not much concerned about much other than just climbing." NC8 said: "I think they pretty much do not care about it." C12 said: "In terms of my climbing mates they couldn't give a hoot about certification because it doesn't apply to them, they don't need it." The findings from these two questions raise a concern because the community approves of certification, but it is not necessary for every rock climber and they do not seem to care much about certification. The participants in the study are of the opinion that guides should be qualified, but recreational rock climbers do not need any form of training before starting to climb. Therefore, recreational rock climbers can

gamble with risk to start climbing without certification but arguably, guides should have obtained the relevant qualification to guide other beginner rock climbers, which essentially does not make sense.

To analyse the subjective norm fully, insight into clients' attitude regarding certification needed to be gained. Considering the natural risk of adventure activities, clients might assume that instructors have the knowledge to minimise risk and keep them safe (Rice, 2010). The study showed similar results: one participant said: "I don't think a public person would just go climb with you if they don't know you're qualified". Rice (2010) also affirms that the amount of risk that clients are exposed to is related to the knowledge and skills of the instructor operating the activity. By analysing the data, it can be assumed that clients would like to know that guides are qualified as C7 explained: "I think it would give them a degree of confidence if you know that they actually hold a formal qualification." DeMers (2012) presents similar results and explains that it is important that clients trust the person who is leading them in the wilderness. C11 claimed that: "Clients assume that if you are advertising, you are legal because to them it's unthinkable that you would guide and not be qualified, so it never occurs to check it out." This statement poses great danger as none of the certified participants who do not have the SAQA qualification are legally allowed to take groups of clients outdoors. It is worrying that clients might think that certified rock climbers have the correct qualification to accompany paying clients.

The last subtheme emerged when participants explained the pressure behind obtaining certification or not (Table 3). To discover the social pressure to obtain certification, the participants were asked if they were socially pressured to obtain certification. Interestingly, responses from the participants revealed that internal pressure was the most common reason to obtain certification. C11 said that: "No, it was an internal pressure. It was a case of if I want to do this, I want to do it right." Others had similar thoughts and C7 said: "As in my situation a personal desire to be safe and to be responsible." Social pressure includes expectations that affect the entire community (Francis *et al.*, 2004) and in this case, to obtain certification or not, can be determined by the social pressure from the climbing community. Conner and Sparks (2005) reported that behaviour needs to be understood and recognised in terms of broader social pressures. Results from a study conducted by Latimer and Martin Ginis (2005) demonstrate that high social pressure will motivate individuals to engage in a particular behaviour. Another study by Quine *et al.* (2001) concludes that the perceptions of what significant others think one should do may be more important than one's own beliefs. On the contrary, there is no social pressure in SA to obtain certification, thus, participants might follow the social norm of not obtaining certification even if they believe certification to be beneficial.

The last determinant of the Theory of Planned behaviour is a social factor which refers to the perceived social pressure to perform or not to perform a particular behaviour (Ajzen, 1991). Francis *et al.* (2004) affirm that subjective norms are assumed to have two components which work in interaction: beliefs about how other people, who may be in some way important to the person feel; and the positive or negative judgements about each belief. Several studies attempting to explain behaviour-related decisions have found that the subjective norm is the strongest indicator of behavioural intentions (Rutter, 2000; Lacy, 1981; Quine *et al.*, 2001).

Ajzen and Driver (1991) propose that only when individuals informally believe that their social group thinks they should perform the behaviour, would motivation to comply be expected to suggest a positive correlation with the frequency of performance. The findings of this study are concurrent with the findings of Ajzen and Driver (1991) where the influence on leisure behaviour from five social referents (friends, parents, boyfriends/ girlfriends, brothers/ sisters, other family members) was measured as a determinant of engaging in recreational activities. Results illustrated that mountain climbing as a leisure activity correlates significantly with the perceived normative pressure from all five social referents. It can thus be inferred that rock climbers would obtain certification if their social group considered certification as important and necessary.

CONCLUSION

From the findings of the study, it is evident that the attitudes, perceived social pressures and control over certification are mostly similar among rock climbers in SA. The Theory of Planned Behaviour was successfully used in the study as guideline to explore and describe the perceptions of rock climbing certification in SA.

Attitudes

The attitudes regarding certification are fairly positive as all the participants in the study agreed that certification is beneficial. Three reasons to obtain certification were identified as safety; guides should be qualified; and legal liability. Although the attitude around obtaining certification is positive, the participants may be reluctant to obtain certification because they do not believe that it is a necessity. The participants are of the opinion that only guides should have the SAQA qualification and that instructors do not need the same qualification.

Additionally, non-certified rock climbers pointed out that they would like to obtain the certification to be able to guide for monetary gain. This is where the lack of knowledge regarding certification became evident as certified rock climbers are not legally allowed to

guide for monetary gain. It can be concluded that the attitude about certification might be misplaced as the non-certified rock climbers have the wrong perception of what certification allows individuals to do. Without the SAQA qualification, certification is only applicable to recreational rock climbers. It can thus be deduced that the attitudes of certified and non-certified participants are flawed as they do not have the correct information about what the certification entails and permits a person to do. It can be assumed that the attitude regarding certification in SA might be different if participants had the relevant information regarding the certification and qualification requirements in SA.

Behavioural control

Ajzen (1991) explained in the early 90s that the more resources and opportunities a person believes he or she has, and the fewer obstacles predicted, the greater should be their perceived control over the behaviour. Availability and accessibility, expenses, and the lack of assessors were discussed as potential barriers that rock climbers face to obtain certification. Accessibility to assessors is one of the main barriers that rock climbers face in SA. Nonetheless, this problem might be addressed if there were more compliance with the law because the moment rock climbers are compliant with legal guiding qualifications, the demand for training will increase. Consequently, if there is a higher demand for training, it becomes viable for people to become trainers and assessors. The last sub-theme was identified as easy process where some participants felt that the certification process was easy, firstly, because the course was paid for by the employer and secondly, the employer has an arrangement with an assessor to assess staff members. However, for other rock climbers the process to obtain certification might not be as easy.

From the findings of the study, it became clear that rock climbers are of the opinion that certification is expensive. Becoming a legal guide in SA is indeed expensive, although a person can earn a living from the qualification. Acquiring a rock climbing qualification is no different to other occupations where a person needs to study to obtain the necessary skills and knowledge. It can thus be concluded that the participants believe that certification is costly in terms of the benefits gained because certification does not allow rock climbers to enjoy monetary benefits.

Subjective norm

According to several studies, the subjective norm has the biggest influence on behavioural intentions (Lacy, 1981; Ravis & Sheeran, 2003; Rutter, 2000; Quine *et al.*, 2001). The first sub-theme indicated that rock climbers approve of a qualification for guides; however, sub-theme two indicated that the community might not want certification for themselves as recreational

rock climbers. Additionally, in sub-theme three, participants indicated that clients might feel at ease when a guide has formal training.

In SA, recreational rock climbers may adopt the same perception of certification because the community feels that certification is only for guides. It can therefore be argued that rock climbers in SA opine that certification for recreational rock climbers is unnecessary, but they also argue that certification can keep climbers safe. Currently, certified rock climbers are not legally allowed to take clients for an outdoor experience, implying that certification courses can be considered only as a recreational climbing certification. However, through certification courses, beginner rock climbers can be taught to be safe and responsible, resulting in fewer risks and accidents.

Rutter (2000) has found that the more positive respondents' attitudes are towards a behaviour, and the greater the social pressure, the more they are inclined to act on the behaviour. Sub-theme four reflected that there is no social pressure on non-certified participants to obtain certification. Consequently, beginner rock climbers will adopt the same mindset and be reluctant to obtain training which can aid in greater risks for the rock climbing industry as a whole. Seeing that certification can be aimed at recreational rock climbers, it would be beneficial for the industry to market certification courses as a training platform for beginner climbers, as well as for recreational rock climbers who want to progress to more advanced forms of climbing. The certification would not provide monetary benefit, but it will ensure that rock climbers are safe and as a result, the industry will be regarded as more professional and regulated.

The Theory of Planned Behaviour postulates that intention is the central determinant of future behaviour. This study aimed to incorporate the Theory of Planned Behaviour in order to understand the perceptions of certification of rock climbers in SA. It would be beneficial for the climbing industry in SA to view certification courses as favourable for recreational rock climbers and climbers who wish to improve their skills. Furthermore, to urge more rock climbers to be legally compliant, the perception around rock climbing training needs to change. The broader rock climbing community needs to understand the process of obtaining a qualification which authorises a person to guide legally, additionally resulting in monetary benefits. This will motivate more rock climbers to obtain the correct qualifications because they will be able to earn a living from guiding. Furthermore, it will result in the need for more assessors who can assess aspiring guides. This will also open a new opportunity for rock climbers in the country. Ultimately, South African rock climbing qualifications could be recognised internationally by the IFMGA.

LIMITATIONS

The sample population of the study consisted of only 28 active rock climbers in two provinces of SA and therefore the perceptions of rock climbers in other regions were not included. Many of the non-certified participants in the study are employed by a climbing gym in SA and their views on certification could have been different from that of other rock climbers. Limited literature revealing the perceptions of rock climbers hindered the researcher's ability to compare findings with other research. Grant *et al.* (2001) also declared that there is limited literature regarding rock climbing despite the popularity and growth of the sport.

RECOMMENDATIONS

Future studies regarding rock climbers' behaviour can include perceived behavioural control as well as perceived behavioural difficulties as reviewed by Trafimow *et al.* (2002). This study provides useful insight into the rock climbing community and the difficulties to obtain certification. Future studies may include ways to minimise barriers to obtain certification in SA and how to provide accessible certification courses to the broad rock climbing community. Future studies may also include an elaboration on the past behaviour of participants. Norman *et al.* (2000) propose that past behaviour of participants can have a direct effect on future behaviour over and above the Theory of Planned Behaviour.

REFERENCES

AQN (Adventure Qualifications Network). 2019. *Generic Adventure Site Guide*. Hyperlink: [https://www.adventure-qualifications.com/wp-content/uploads/2020/03/GASG-Info-flyer-CURRENT.pdf]. Retrieved on 19 June 2020.

AJZEN, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision processes*, 50(2):179-211.

AJZEN, I. AND DRIVER, B.L. (1991). Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the Theory of Planned Behavior. *Leisure Sciences*, 13(3):185-204.

AJZEN, I. AND DRIVER, B.L. (1992). Contingent value measurement: On the nature and meaning of willingness to pay. *Journal of consumer psychology*, 1(4):297-316.

ATTARIAN, A. 2001. Trends in outdoor adventure education. *Journal of Experiential Education*, 24(3):141-149.

ATTARIAN, A. (2015). *Certification in outdoor programmes*. In Routledge International Handbook of Outdoor Studies. New York: Routledge.

BEEDIE, P. (2003). Mountain guiding and adventure tourism: Reflections on the choreography of the experience. *Leisure Studies*, 22(2):147-167.

BUCKLEY, R. (2010). *Adventure tourism management*. New York: Routledge.

CALLANDER, M. AND PAGE, S.J. (2003). Managing risk in adventure tourism operations in New Zealand: a review of the legal case history and potential for litigation. *Tourism Management*, 24(1):13-23.

CLIMB ZA. (2020). "Climb ZA". Hyperlink: [http://www.climbing.co.za/forum/viewtopic.php?t=8913]. Retrieved on 20 Oct. 2020.

CLINCH, H. AND FILIMONAU, V. (2017). Instructors' perspectives on risk management within adventure tourism. *Tourism Planning & Development*, 14(2):220-239.

- COUSQUER, G.O. AND BEAMES, S. (2013). Professionalism in mountain tourism and the claims to professional status of the international mountain leader. *Journal of Sport & Tourism*, 18(3):185-215.
- CONNER, M. AND SPARKS, P. (2005). Theory of planned behaviour and health behaviour. *Predicting Health Behaviour*, 2(1):121-162.
- DEMERS, A. (2012). Desirable competencies when hiring outdoor pursuits trip leaders on university and college campuses. Unpublished doctoral dissertation. La Cross, United States of America: University of Wisconsin.
- DIRTY BOOTS. (2020). "Outdoor Adventure Training Courses in South Africa". Hyperlink: [https://www.dirtyboots.co.za/training-programs/overview]. Retrieved on 17 Jun. 2020.
- DONAHOE, T. AND LUEBBEN, C. (2014). *Rock climbing: Mastering basic skills*. Seattle: Mountaineers Books.
- DONALD, I.J., COOPER, S.R. AND CONCHIE, S.M. (2014). An extended theory of planned behaviour model of the psychological factors affecting commuters' transport mode use. *Journal of Environmental Psychology*, 40:39-48.
- DONALDSON, R. AND MCKAY, T. (2017). A Snap Review of Adventure Tourism (AT) Operators in Cape Town. Tourism Department: Tourism and Urban Research Unit.
- EDGINTON, C.R., HUDSON, S.D., SCHOLL, K.G. AND LAUZON, L. (2011). Leadership for recreation, parks, and leisure services. Champaign: Sagamore Publishing.
- EWERT, A., ATTARIAN, A., HOLLENHORST, S., RUSSELL, K. AND VOIGHT, A. 2006. Evolving Adventure Pursuits on Public Lands: Emerging Challenges for Management and Public Policy. *Journal of Park & Recreation Administration*, 24(2).
- ELO, S. & KYNGÄS, H. (2007). The qualitative content analysis process. *Journal of Advanced Nursing*, 62:107–115.
- ENRIQUEZ, K.R. (2016). Exploring the relationship between mentorship and the development of professional competencies within the American mountain guides association. Unpublished doctoral dissertation. Alaska: Alaska Pacific University.

FRIEDEMANN, A. (2021). Personal interview with the Spokesperson of SAMGA, 18 March, Johannesburg.

FLORENTAL, B. AND SHOHAM, A. (2001). The impact of persuasive information on changes in attitude and behavioral intentions toward risky sports for arousal-seeking versus arousal-avoidance individuals. *Sport Marketing Quarterly*, 10(2):83-95.

FRANCIS, J., ECCLES, M.P., JOHNSTON, M., WALKER, A.E., GRIMSHAW, J.M., FOY, R., KANER, E.F., SMITH, L. AND BONETTI, D. (2004). *Constructing questionnaires based on the theory of planned behaviour: A manual for health services researchers*. London: University of London.

GRANT, S., HASLER, T., DAVIES, C., AITCHISON, T.C., WILSON, J. AND WHITTAKER, A. (2001). A comparison of the anthropometric, strength, endurance and flexibility characteristics of female elite and recreational climbers and non-climbers. *Journal of Sports Sciences*, 19(7):499-505.

HAGGER, M.S., CHATZISARANTIS, N.L. AND BIDDLE, S.J. 2002. The influence of autonomous and controlling motives on physical activity intentions within the Theory of Planned Behaviour. *British Journal of Health Psychology*, 7(3):283-297.

HARRISON, G. AND ERPELDING, M. (2012). *Outdoor program administration: principles and practices*. Illinois: Human Kinetics.

HOBBS, N., DIXON, D., JOHNSTON, M. AND HOWIE, K. (2013). Can the theory of planned behaviour predict the physical activity behaviour of individuals? *Psychology & Health*, 28(3):234-249.

HRUBES, D., AJZEN, I. & DAIGLE, J. (2001). Predicting hunting intentions and behavior: an application of the theory of planned behavior. *Leisure Sciences*, 23(3):165-178.

IFMGA (International Federation of Mountain Guides Association). (2017). "Member Associations". Hyperlink: [<https://ifmga.info/members>]. Retrieved on 16 June 2020.

LACY, W.B. (1981). The influence of attitudes and current friends on drug use intentions. *The Journal of Social Psychology*, 113(1):65-76.

LATIMER, A.E. AND MARTIN GINIS, K.A. (2005). The Theory of Planned Behavior in prediction of leisure time physical activity among individuals with spinal cord injury. *Rehabilitation Psychology*, 50(4):389.

MARTIN, B., BREUNIG, M., WAGSTAFF, M. AND GOLDENBERG, M. (2017). Outdoor leadership. Illinois: Human Kinetics.

MDT PROSPECTUS (South African Mountaineering Development and Training Trust Prospectus). (2015.) "Mountain Skills Training Program". Hyperlink: [http://www.samdt.co.za/uploads/8/4/8/7/8487241/mdt_prospectus_2014--2015-02.pdf]. Retrieved on 26 June 2017.

MEYER, W. (2021). Personal interview regarding SAMGA, 18 March, Johannesburg.

NATYNCZUK, S. 2014. Solution-focused practice as a useful addition to the concept of adventure therapy. *InterAction-The Journal of Solution Focus in Organisations*, 6(1):23-36.

NORMAN, P., CONNER, M. AND BELL, R. (2000). The theory of planned behaviour and exercise: Evidence for the moderating role of past behaviour. *British Journal of Health Psychology*, 5(3):249-261.

NORMAN, P. AND CONNER, M. (2005). The theory of planned behavior and exercise: Evidence for the mediating and moderating roles of planning on intention-behavior relationships. *Journal of Sport and Exercise Psychology*, 27(4):488-504.

NQF (The National Qualifications Framework and the Standards Setting). (2003). "South African Qualifications Authority". Hyperlink: [http://www.saqa.org.za/docs/pol/2003/standard_setting.pdf] Retrieved on 28 June 2020.

PEAK HIGH. (2014). "Mountain Development Trust Certified Courses". Hyperlink: [https://peakhigh.co.za/courses/certified-courses/]. Retrieved on 30 January 2021.

PIERRO, A., MANNETTI, L. AND LIVI, S. (2003). Self-identity and the theory of planned behavior in the prediction of health behavior and leisure activity. *Self and Identity*, 2(1):47-60.

PRIEST, S. AND GASS, M. (2018). *Effective Leadership in Adventure Programming*. (3rd Ed). Illinois: Human Kinetics.

PROUTY, D., PANICUCCI, J. & COLLINSON, R. (2007). *Adventure education: theory and applications*. Illinois: Human Kinetics.

QUINE, L., RUTTER, D.R. AND ARNOLD, L. (2001). Persuading school-age cyclists to use safety helmets: Effectiveness of an intervention based on the Theory of Planned Behaviour. *British Journal of Health Psychology*, 6(4):327-345.

RICE, J. (2010). Assessment of challenge course facilitators who are WAHPERD members on their perceived knowledge and skills in association with national certification. Unpublished doctoral dissertation. La Cross, United States of America: University of Wisconsin.

RIVIS, A. AND SHEERAN, P. (2003). Social influences and the theory of planned behaviour: Evidence for a direct relationship between prototypes and young people's exercise behaviour. *Psychology and Health*, 18(5):567-583.

RUTTER, D.R. (2000). Attendance and re-attendance for breast cancer screening: A prospective 3-year test of the Theory of Planned Behaviour. *British Journal of Health Psychology*, 5(1):1-13.

SA OUTDOOR ACADEMY. (2019). "Formal NQF Endorsed Qualifications". Hyperlink: [<https://saclimbingacademy.co.za/index.php/training-courses/formal-nqf-endorsed-qualifications>]. Retrieved on 19 Jun. 2020.

SHERIDAN, P.T. (2004). Qualifications for wilderness trip leaders. *Camping Magazine*, 77(1):38-43.

SILVERMAN, D. (2013). *Doing qualitative research: A practical handbook*. (4th ed). London: SAGE Publications Limited.

TRAFIMOW, D., SHEERAN, P., CONNER, M. AND FINLAY, K.A. (2002). Evidence that perceived behavioural control is a multidimensional construct: Perceived control and perceived difficulty. *British Journal of Social Psychology*, 41(1):101-121.

VAN DEN BERG, L.M. (2016). Tourist guiding legislation: South Africa, Australia and Canada in a comparative perspective. Unpublished doctoral dissertation. Pretoria, South Africa: University of Pretoria.

WALKER, G.J. AND COURNEYA, K.S. (2006). Ethnicity, Gender, and the Theory of Planned Behavior: The Case of Playing the Lottery. *Journal of Leisure Research*, 38(2): 224-248.

WILLIAMS, P. AND SOUTAR, G. (2005). Close to the “edge”: Critical issues for adventure tourism operators. *Asia Pacific Journal of Tourism Research*, 10(3):247-261.

WOZNIAK, S. AND BUCHS, A. (2013). US National Parks and “The Tragedy of the Commons”. A contribution to the characterization of US mountain guides’ professional practice. *Journal of Alpine Research| Revue de Géographie Alpine*, (101-4).

YOUNG, S.J. AND JAMIESON, L.M. (1999). Perceived liability and risk management trends impacting recreational sports into the 21st century. *Legal Aspects Sport*, 9(1):151-161.

ZYGMONT, C.S. (2014). A phenomenographical study of the qualitative variation of adventure/wilderness programme experiences among adolescent high school participants in the Western Cape. Unpublished doctoral dissertation. Stellenbosch, South Africa: Stellenbosch University.

CHAPTER 4

ARTICLE 2: EXPLORATION OF SAQA QUALIFIED ROCK CLIMBERS' PERCEPTIONS REGARDING THE QUALIFICATION PROCESS IN SOUTH AFRICA.

Minette Strauss
072 507 0854
minettestrauss56@gmail.com
Leisure Studies

Mrs Yolanda Stevens
083 392 6510
yolanda.stevens@nwu.ac.za
Leisure Studies

Dr J. Theron Weilbach
082 358 6830
theron.weilbach@nwu.ac.za
Leisure Studies

Physical Activity, Sport and Recreation (PhASRec), Faculty of Health Sciences, North-West University, Private Bag X6001, Potchefstroom 2520, South Africa.

The article is presented in accordance with the specific guidelines for the *South African Journal for Research in Sport, Physical education and Recreation* (SAJRSPER)². However in order to keep the standardisation of the dissertation, the prescribed margins, line-spacing and font are according to the NWU Harvard guidelines. For the ease of reading and understanding, the tables and figures will also be included with the text.

² Appendix A provide the guidelines for articles to be submitted to the SAJRSPER

ABSTRACT

As individuals engage in progressively more recreational activities, the rock climbing industry has shown tremendous growth in SA. There are very few qualified adventure guides in SA who specialise in rock climbing as an adventure activity. This research aimed to explore the perceptions regarding the SAQA guiding qualification process to identify any difficulties or hindrances facing rock climbers. Due to the limited number of qualified rock climbing guides, semi-structured interviews were conducted with five SAQA qualified guides in SA. From the findings, it became clear that the South African qualification process is different to that of other countries and the perception about the SAQA guiding qualifications can be perceived as inferior. If the correct information about the qualification is available, the perceptions of the qualification might become more positively persuaded. The pinnacle of the SAQA qualification would be to establish a single governing body that regulates all training courses and programmes that are available in SA. Hereby, the qualification can be regulated and monitored in a professional structured manner. This will ensure that adventure guiding in SA is considered as a professional career path from which a person could earn a living.

Keywords: adventure guiding, perception, rock climbing, SAQA qualification, training,

Exploration of SAQA certified rock climbers' perceptions regarding the certification process in South Africa.

INTRODUCTION

The increase in access to rock climbing has resulted in diverse ways to engage in the sport such as training for performance, climbing recreationally and guiding rock climbers for commercialised purposes (Lee *et al.*, 2017). Graham *et al.* (2020:59) says that rock climbing in South Africa has a rich history in popularity and that rock climbing is emerging into an industry in its own right. Buckley (2006) explains that commercialised guiding is when clients pay a tour operator or guide to provide an adventure experience, while adventure recreation is when individuals carry out an adventure activity on their own. According to Buckley (2006), the increased access to rock climbing settings has presented another challenge as individuals have the desire, money and fitness level but they do not have the necessary skills, experience or equipment. This gives rise to potential significant safety problems for the rock climbing industry.

As participation rates in adventure activities continues to rise (Backe *et al.*, 2009; Buckley, 2007; Boyes & O'Hare, 2003; Schuster *et al.*, 2001) hazards and risks need to be managed effectively and controlled by commercial guides providing adventure experiences (Bentley & Cater, 2010). Adventure experiences inevitably position participants at risk due to the nature of the activity (Wearing & Archer, 2002; Clinch & Filimonau, 2017), therefore, it is the responsibility of adventure guides to provide safe yet exciting experiences (Cater, 2006). Adventure guides can be classified as leaders of adventure experiences and have a moral and legal responsibility towards the welfare of the group members and present activities such as rock climbing, mountain biking, hiking, kayaking, abseiling, skydiving and diving (Buckley, 2006; Boyes & O'Hare, 2003; Collins, 2000). Guides often have to deal with participants who have no experience or understanding of adventure activities, consequently, the guide is responsible for the safety and quality of the experience (Boyes & O'Hare, 2003).

The need for mountain guides was recognised in 1821 when the world's first mountain guide union – Compagnie des guides de Chamonix was established in Val de Chamonix, France (Walchester, 2018). The French climbing community created an elite training centre, the École Nationale de Ski et d'Alpinisme (ENSA) where a 3-year diploma is offered to aspiring guides (Cousquer & Beames, 2013). Other countries have similar training centres and programmes such as the American Mountain Guide Association (AMGA) which is the body responsible for the training of mountain guides in the United States of America (USA) (Enriquez, 2016; Wozniak &

Buchs, 2013). The British Mountaineering Council (BMC) is the governing body for rock climbing courses in the United Kingdom (UK). Mountain Training UK is an organisation offering mountain-related skills courses and qualifications under the umbrella of the BMC (Mountain training, 2020). In 1956 the need for an international standardised guiding qualification was recognised by a group of French, Swiss, Italian and Australian guides who established the International Federation of Mountain Guides Associations (IFMGA) (Donahue & Luebben, 2014:9; Enriquez, 2016). The IFMGA regulates the mountain guiding profession by adhering to the determined international training standards and has member associations in 26 countries (Enriquez, 2016; IFMGA, 2017; Wozniak & Buchs, 2013). IFMGA guides are qualified by an accredited institution, recognised by the global training standards of the IFMGA (Explore-share, 2020). Countries that use IFMGA standards to regulate mountain guiding also accept foreign IFMGA guides (Eikje *et al.*, 2019). SA is not a member of the IFMGA and consequently, must rely on the government to form and regulate rock climbing training (Van den Berg, 2016).

In SA, the Mountain Club of South Africa (MCSA) was established in 1891 and is affiliated with the International Climbing and Mountaineering Federation (UIAA). The MCSA does not offer or regulate climbing training programmes in SA; the purpose of the MCSA is to negotiate access to climbing routes and act as a platform for rock climbers to receive information about rock climbing in SA (MCSA, 2020). The UIAA represents 90 member associations and federations in 67 countries and pledges to advocate access to climbing areas (UIAA, 2020). Zygmunt (2014:28) argue that there are no laws governing the provision of adventure programmes or the qualification of guides and instructors in SA. Rock climbers in SA are facing two distinct pathways – a rock climber can decide either to become a professional guide or to pursue recreational climbing.

To be a qualified guide in SA, a person must obtain a South African Qualifications Authority (SAQA) qualification, as stipulated by the National Department of Tourism (NDT) (Donaldson & McKay, 2017; Dirty Boots, 2020; SA Outdoor Academy, 2019; Van den Berg, 2016). SAQA is the oversight body of the National Qualifications Framework (NQF) and the NQF acts as a quality assurance system in terms of the development and registration of qualifications (NQF, 2000). To be a legally compliant guide in SA, an individual needs to register at a Culture, Arts, Tourism, Hospitality and Sport Sector Education Training Authority (CATHSSETA) provider and attend a course in the specific adventure activity that he/she wishes to guide (AQN, 2019; Dirty Boots, 2020; Venture Forth, n.d). After completion of the training, adequate experience should be gained as stipulated by the provider. Thereafter, the individual has to be assessed by a qualified assessor to be deemed competent in the particular adventure activity (AQN, 2019; Dirty Boots, 2020; Venture Forth, n.d). Furthermore, the aspiring guide needs to complete a skills programme, called

the Generic Adventure Site Guide (GASG). This course teaches the skills, knowledge and ability to be an adventure guide (AQN, 2019; Venture Forth, n.d).

There is another rock climbing course available in SA which is managed by the Mountain Development and Training Trust (MDT). Rock climbing training and assessment courses are run by service providers that are approved and accredited by the MDT management committee (MDT Prospectus, 2015). MDT offers supervisor and instructor courses that enable a person to instruct or supervise climbs in a recreational capacity however, they are not legally authorised to be compensated (Peak High, 2014). MDT is not recognised by the NDT and therefore, MDT courses do not authorise a person to guide clients for monetary gain.

Guides require specialised training to keep a group safe (Cater, 2006). However, in SA there are many unqualified guides operating illegally and this led to the research aim: what are the perceptions of SAQA qualified rock climbers of the qualification process? In this chapter it will be revealed that rock climbers in SA face difficulties in obtaining a guiding qualification. These will consequently be discussed and analysed to ultimately provide better insight into the rock climbing qualifications in SA.

METHODOLOGY

Research design

The study utilised a qualitative descriptive research design as this method provides a deeper understanding of social phenomena (Silverman, 2000). The aim is to formulate a condensed description of the phenomenon. The outcome of the analysis was categorised into themes and sub-themes.

Participants and setting

Due to limited access to qualified rock climbing guides in SA, a purposive snowball sampling method was used to select participants for the study. By making use of advertisements at a climbing gym (Appendix B), only one participant with the SAQA qualification were recruited. By using a reference system, only four other participants with the SAQA qualification were prepared to participate in the study. This indicates that there are very few SAQA qualified guides in SA as only five participants could be recruited for the study. All participants were asked to sign an informed consent letter (Appendix C) prior to the interviews. The criteria to participate in the study included: 1) participants must have successfully completed the SAQA rock climbing qualification, 2) participants must have at least three years' climbing experience; 3) instructors working at the

specific climbing gyms were allowed to participate in the study; and 4) participants must climb indoors and outdoors on a regular basis at least twice a week.

Data collection and analysis

Semi-structured, one-on-one interviews (Appendix C) were conducted, and the duration of the interviews varied between 40 and 60 minutes per interview. The interviews were recorded by using a digital voice recorder. Thereafter, the researcher transcribed the recorded interviews and all recorded interviews were deleted. Questions in the interviews aimed to understand the rock climbing qualification process in SA. The main questions of the interviews consisted of: "Can you describe the process to obtain a SAQA rock climbing guiding qualification?" And: "How does MDT fit into the rock climbing qualification process?"

The computer programme Atlas.ti, a computer-assisted qualitative data analysis software (CAQDAS) package, was used to organise and manage the data. The data was categorised into themes and sub-themes by using an inductive content analysis. An independent co-coder analysed the data separately and consensus was reached by the co-coder and the researcher followed by a thorough discussion of the categories and themes.

Ethical clearance

Ethical clearance (Appendix B) was granted by the Faculty of Health Sciences of the North-West University's Health Research Ethics Committee (NWU-00119-18-S1). Each participant signed an informed consent form (Appendix B) which detailed the study and gave permission to conduct and record the interviews. Prior to the interviews, participants were advised that their participation would be purely voluntary, and should they choose to withdraw from the study, it would be accepted without prejudice.

RESULTS AND DISCUSSION

This paper explores and describes the perception of SAQA qualified guides of the qualification process in SA. From the findings of the study, three themes and eight sub-themes were identified. Table 1 summarises a breakdown of the main themes and sub-theme.

TABLE 1: MAIN THEMES AND SUB-THEMES.

THEME	SUB-THEME
1 – CLIMBING INDUSTRY OVERVIEW	1.1 Legal compliant guiding
	1.2 Illegal guiding

THEME	SUB-THEME
2 – THE FUNDAMENTALS	2.1 First-aid
	2.2 Training
	2.3 Logbook
	2.4 Assessment
3 – CLIMBING CULTURE	3.1 Experience versus training
	3.2 Recreational climbing

Theme 1 – climbing industry overview

To understand the different rock climbing courses in SA fully, questions were asked regarding which qualification to acquire to become a legal guide. The first theme consists of three sub-themes namely: 1) legal compliant guiding; 2) unlawful guiding; and 3) barriers.

1.1 Legally compliant guiding

All the participants mentioned that there is some politics involved concerning the different rock climbing training opportunities in SA. Participant 4 said: “The politics has always been there, I mean it has been there since the 70s when I started climbing...” Participants mentioned that consensus regarding the different training opportunities could not be reached. Participant 3 said: “It is just the politics that goes around, the people who think that they are much higher than the NQF system”. Another participant said that: “A lot of politics went on 20 years ago when this whole system happened and the likes of NQF.” Participant 5 elaborated on the politics: “It is just two or three years ago when we sat down with CATHSSETA to get the frustrations out...and we just could not get to a compromise about two different standards. The MDT said their qualifications are higher and the NQF claimed it is the same qualification”. It is clear that there are several issues concerning the different training opportunities in SA and the perceptions of qualifications and certifications differ among rock climbers. Many rock climbers claimed that the MDT certification is valid and sufficient to guide people. Other rock climbers agreed with the law that the SAQA qualification is the only legal qualification to obtain when a person wishes to guide.

All participants in the study are aware of the different training providers and certifications/qualifications offered in SA. Interestingly, all participants referred to the SAQA qualification as the NQF qualification. Participant 3 said: “MDT is not affiliated to CATHSSETA and it is not on the National database, you cannot guide with an MDT qualification”. Participant 2

had the same view and said: “It is pretty clear; the law says you must have a SAQA registered qualification”. All participants in the study agreed that a person can legally guide only with the SAQA qualification. Participant 3 stated that: “People need to realise that there are laws in place and those laws are statutory requirements to become a guide...they do not recognise the MDT certification, although the training is good, the certification they offer will not allow you to become a professional guide”.

The findings from the study correlate with that of Harper and Robinson (2005) where participants specify that guides should have the legal and technical competence to guide a group. Interestingly, the participants in the study agreed that the technical aspect of the SAQA qualification is the same as for the MDT recreational climbing courses. Participant 1 mentioned: “The MDT technical aspect of their qualification is identical to the NQF and the NQF which is currently offered, is derived from the MDT”. The MDT provides the same information and states that it's certification is recognised by industry role players but is not recognised by the NDT for the purpose of the 3rd Tourism Act of 2014 (MDT Prospectus, 2015). This means that all rock climbers who are certified by the MDT have the same competencies as SAQA qualified guides but, according to the law, they are not authorised to guide. This might be one of the reasons why there is confusion between the different rock climbing training opportunities in SA. One participant said: “There is a lot of politics and some people believe that the MDT is the only voice...” Many rock climbers are of the opinion that they do not need a SAQA qualification to guide because the MDT certification is technically the same. Participant 3 explained the difference between MDT and SAQA: “The NQF which is currently offered, is derived from the MDT. The MDT was around and then we developed it further and produced a formal qualification based on the MDT's original structure.” Consequently, the MDT certification focuses on the technical aspects of rock climbing whereas the SAQA qualification has an additional skills programme (GASG) which focuses on guiding administration and the management of clients which will essentially provide guiding skills.

Participant 2 pointed out that: “We also offer beginners' climbing courses, more advanced courses and produce an MDT certificate”. MDT courses are offered by accredited service providers that have been approved by MDT (Peak High Mountaineering, 2014; Venture Forth, n.d.). Participant 4 said: “People who do the MDT courses are going to be doing one of two things: they are either going to be teaching recreational type skills or people are doing the course to gain skills to eventually do an NQF assessment to become a guide”. The purpose of the MDT rock climbing courses is mainly to supervise individuals or groups and rock climbers working as instructors at climbing gyms and mountaineering centres (Peak High Mountaineering, 2014). Participant 4 mentioned that: “The two schemes are not really comparable in the sense that the MDT is aimed

at voluntary leaders...they do not look at guiding skills which is what the NQF programme looks at". The MDT courses aim to upskill rock climbers and their ability to climb safely. One of the participants posited that: "The MDT was always looking at voluntary leadership of recreational participation as opposed to professional participation". The participants are of the opinion that guides should be SAQA qualified but leaders of a recreational climbing group do not necessarily have to obtain the SAQA qualification, only the MDT certification. In this instance, the principle of guiding remains the same: leading a group for recreational purposes or leading a group for monetary gain. This might be where the confusion regarding rock climbing training originated from. It is clear that the participants in the study understand that SAQA is the only validating qualification to guide legally, but other rock climbers in SA might not have the same view or knowledge and would continue to guide illegally.

1.2. Unlawful guiding

Participant 1 revealed that: "Only 10% of guides out there are actually legal". A news article was published in TRAVEL NEWS where the spokesperson for the South African Mountain Guides Association (SAMGA), Andrew Friedemann (Travel news, 2020), said that he is concerned about "...The high incidence of unqualified guides taking international travellers into South African mountain ranges" (Travel news, 2020). Despite the legalities in the form of qualifications, the participants in the study revealed that some people still guide without the proper qualification. The findings from this study correlate with that of Clinch and Filimonau (2017) who assert that there is a proper legal qualification available for guides, but they choose not to be compliant with the law and still guide illegally. In the news article (Travel News, 2020) people are encouraged to report unqualified guides. This will urge individuals and organisations to undergo training and obtain the legal qualification. However, participant 1 confessed: "I have reported a couple of guides...but they do nothing about it". This might be one of the reasons why illegal guiding continues to occur: there are no real consequences, so people are continuing to guide illegally. Furthermore, SAMGA does not seem to exist anymore. There is no available information regarding SAMGA or what the function of SAMGA used to be. SAMGA does not exist anymore and actually was hardly ever functioning (Friedemann, 2021; Meyer, 2021).

In SA, it will not be regarded as unlawful if a recreational rock climber takes friends to a mountain crag and guide them to climb without the proper qualification and without monetary gain. But, if the recreational rock climber charges a fee for the guiding, it becomes illegal. This essentially does not make sense as the person who is being guided, is still in need of a properly trained person, whether or not they pay for it. However, a person should be prevented from guiding if they do not have the proper quantification in place. The rock climbing industry is not regulated

enough to prevent people from guiding unlawfully and the fact that recreational rock climbers can freely climb anywhere in SA, makes the industry even harder control. It could be beneficial for SA to have a governing body that can monitor and regulate rock climbing training. The idea of a guiding association would be ideal as there could be a standardised process to follow to become a guide as well as directors who can monitor and oversee the guiding qualification.

Theme 2 – the fundamentals

There is limited information available regarding the process to obtain the SAQA rock climbing qualification. Consequently, the researcher asked the participants to explain the process to obtain the SAQA guiding qualification in SA. Participant 5 summarised the process as: “There are three things we need to provide, what you call a portfolio of evidence to CATHSSETA for assessment...firstly a first-aid certificate...second is the logbook and the third is the training and assessment”. The second theme consists of four sub-themes which were identified regarding the process to obtain a SAQA qualification as: 1) first-aid; 2) logbook; 3) training and 4) assessment.

2.1. First-aid

All aspiring adventure guides in SA are required by law to have a level 3 first-aid certificate which involves a 40-hour test with a written and practical examination (Dirty Boots, 2021). Participant 5 explained: “The first thing you need is a first-aid, which is the easiest of the three to do”. The findings of the study by Attarian (2002) concluded that 99% of participants who are rock climbers felt that guides should have a first-aid certificate. The study correlates with the findings of Attarian as all participants agreed that a first-aid certificate is essential. Participant 1 said: “Once you are qualified as an adventure guide, the only recertification you need to do is the first-aid”. The requirements in SA are similar to those in other countries as the AMGA Rock Guiding qualification also requires a first-aid certificate to be able to guide legally (AMGA, 2020).

Participant 1 said: “Once you are qualified as an adventure guide, the only recertification you need to do is the first-aid, so I could disappear into a completely different field for ten years and come back and still be a legal guide”. Attarian (2015) argues that most qualifying bodies have a renewal process every three to five years. However, in SA, only the first-aid certificate should be renewed every two years (Van den Berg, 2016). This means that a person is not required to keep his/her skills up to date. When the qualification is issued, it has a lifelong validity. This may inflict major issues upon the climbing industry in SA. Clinch and Filimonau (2017) assert that the adventure guiding industry can be successful only if guides obtain training which is regularly re-tested and developed to maintain skills and knowledge. It is evident that the qualification is not monitored, and guides are not continuing to develop their skills from a training perspective.

2.2. Training

After registering as a student at a CATHSSETA provider, a person should undergo a training programme in the desired adventure activity (AQN, 2019; Dirty Boots, 2020; Venture Forth, n.d). Individuals with little experience in an adventure activity will have to attend a programme with an accredited provider to gain experience (AQN, 2019; Dirty Boots, 2020; Venture Forth, n.d). Experienced rock climbers can apply for Recognition of Prior Learning (RPL) where evidence of skills can be provided to the assessor and consequently such rock climbers may be exempted from the training (AQN, 2019; Van den Berg, 2016). *“Recognition of Prior Learning (RPL) is a process through which non-formal learning and informal learning are measured, mediated for recognition across different contexts, and certified against the requirements for credit, access, inclusion or advancement in the formal education and training system, or workplace”* (AQN, 2019). Evidence of experience and knowledge must be presented, and the service provider may decide to exempt a person from the training programme after assessing the evidence provided (AQN, 2019).

In SA, if not making use of the RPL process, aspiring guides need to attend a five-day training programme in the specific adventure activity that they wish to guide. Thereafter, students are provided with a logbook (SAMDT, 2004). Participant 4 described the training course material: “In the formal training course, we don’t teach you to handle a specific problem. We give you a toolbox of skills that you can then combine to create your own solution”. The AMGA Rock Guiding qualification requires a ten-day Rock Guiding Course as well as a ten-day Advanced Rock Guide Course & Aspirant Exam (AMGA, 2020). The SAQA guiding activity training is only a five-day training that is followed by a logbook and thereafter an assessment.

A discernment was offered by participant 4 about the SAQA training programme: “I am not saying it is perfect. There are a lot of things I would like to introduce into the training programme, but the finances and the situation in the country have to be taken into consideration...so we have to take into consideration the economics, the social situation in the country and come up with a programme which is possible, and not create something that is impossible”. Rock climbing industry role players could investigate other countries’ qualification systems and analyse the process that they follow to suggest a smoother working system for the SAQA qualification. The mentioned factors should be taken into consideration. However, attention should also be paid to the clients who are risking their lives to go climbing with unqualified guides. This could essentially harm the industry. Arguably, it could be more beneficial to create a structured professional

qualification to improve the status of the climbing industry than to consider the economy and financial status of the country.

2.3. Logbook

To be a legally compliant guide in SA, a person needs to log relevant climbing experience in a logbook. The logbook is issued once a person has completed the training course and validates that a candidate has gained experience in a certain field. The experience recorded should include: 1) details of the logbook holder; 2) records of experience gained; 3) specifications of the training course to be completed by the instructor and the accredited service and 4) clear details of the assessment (AQN, 2019; MDT Prospectus, 2015). Dirty Boots (2021) explains that a logbook must be updated with the past three years' experience and a person needs a minimum of 21 days logged as an assistant to qualified guides. However, according to participant 2: "A rock climbing guide requires 200 days experience, and the logbook must have a clear indication of all the different outings that are diverse...and experience in leading groups...and experience in the activity that he/she is looking at...". This implies that a person should only log climbs where the experience was gained as a leader and only in the specific activity a person wishes to guide.

The researcher asked the participants if anyone is monitoring the logbook and if the aspiring guides must complete the required hours in the logbook. Interestingly, one participant responded: "They do not have to...there is a lot that needs to improve...there is very little monitoring". The process is not monitored or verified – this might lead to inexperienced guides leading groups. The AMGA focuses on four major processes for aspiring rock climbing guides which were identified by Enriquez (2016:10) as apprenticeship, self-education, student-teacher education, and mentorship. In SA, a logbook is required to show evidence of experience. This can be considered as an "apprenticeship". However, it is not validated by anyone once a person has completed the required 200 days of experience. A regulated apprenticeship for aspiring guides in SA might assist in obtaining the qualification more quickly as there might be an element of responsibility to complete the apprenticeship. An added mentorship programme would also be beneficial for the SAQA qualification as a student would have the necessary motivation and guidance while completing the required days for the logbook. A mentor can oversee the logbook and ensure that all days are correctly recorded.

2.4. Assessment

Assessment is the third step in the SAQA process that an aspiring guide needs to complete. Participant 3 explained: "You have to undergo an assessment...so you have to find an assessor who has got the appropriate qualification and then either present the evidence that you can do

that, or you would have to undergo a practical assessment". People who already have skills, might be promoted during a programme. Yet, this works well only with skills-based programmes and is inappropriate when intangible qualities are calculated (Christie & Mason, 2003). Participant 4 questioned the assessment process and said that: "If you compare NQF to other guiding systems in the world, it says, set up a belay system, now go and do it 100 times and then we will find you competent, not when you have done it once or twice". The participant believes that the assessment does not carry enough weight since the practical training days required are much fewer than that of other countries.

An obvious distinction was revealed when comparing the SAQA guiding qualification to the Rock Climbing Instructor course offered by Mountain Training UK, which has the same scope as the SAQA qualification. The Rock Climbing Instructor course are being assessed by a panel of at least three assessors (Mountain Training, 2020) but, in SA, the SAQA qualification requires only one assessor. Therefore, SA is in need of a governing body to regulate the rock climbing profession. A governing body can represent the interests of rock climbers in government and therefore, successfully manage the qualification without involving the government on a continual basis. This might also change the perceptions of climbing training in SA because people might view the qualification as more worthy and professional.

After the assessment, guides are still required to complete the online GASG course which focuses on knowledge and the ability to be an adventure guide (AQN, 2019; Venture Forth, n.d). Participant 2 gave more insight and said: "The generic guiding qualification involves environmental issues, guiding practices and general things related to guiding". These qualities might be considered to be difficult to measure in a practical scenario. Consequently, it is being completed online, and these skills and knowledge are not tested in a practical capacity. The MDT certification course focuses only on the technical aspect of rock climbing where SAQA further teaches skills to act efficiently as a guide. This might also be a reason why rock climbers in SA feel that the SAQA qualification is unnecessary, because if they have obtained the MDT certification, they have the same technical competencies, but they lack the guiding skills.

A concern is that rock climbers in SA are not willing to sacrifice the time and money to obtain the guiding qualification. Participant 4 said: "Mindset and determination...there is a lot of additional information and skills you have to have and not necessarily rock climbing skills: the ability to plan, write up an itinerary, everything that involves planning a trip, logistics, legal requirements, you have to know how to cover the administrative side as well...whereas a lot of people who are rock climbers are only interested in the climbing." Another participant presented a view regarding the

administrative side and claimed: “The type of person who wants to be a guide is maybe more of a practical type of person and they are not good at admin and they just don’t get the generic guiding qualification done”. Christie and Mason (2003) argue that guiding programmes often lack in influencing trainees intellectually and suggest that a programme for guides should focus on knowledge as well as practical guiding skills. Cousquer and Beames (2013) advance that professional training programmes should develop an individual’s wisdom and technical competencies. SA can benefit from a mentorship programme which could be ideal in cases where trainees can learn from experienced guides and acquire the administration skills in a practical manner. By adding a mentorship programme to the SAQA qualification, it can also ensure that aspiring guides are fully trained to pass the assessment successfully.

Participant 5 further explained the process: “After the assessment, all the evidence will be sent to a moderator to check that all is in order. CATHSSETA will then issue a certificate that you are competent in that activity. You then take all that to your local Provincial Tourism Registrar with R240 and an ID photo and they then issue you with a card that say you are a legal guide”. Contrastingly, participant 4 said that: “Some guides are being qualified through various dodgy means based on evidence...present a bunch of photographs but do not check to see the real skills”. After completion of both the skills assessment and the GASG online course, a person can take the documentation to the NDT to be granted as a legal adventure guide. Christie and Mason (2003) put forward that assessors are not always interested in the training process but rather interested in the skills presented during the assessment. This can potentially pose a great danger as guides may not have all the skills that are required. Instead, they will only focus on skills that will be measured during the assessment. Additionally, Christie and Mason (2003) assent that a concern in many training programmes is the lack of theoretical knowledge, ignoring qualities that are difficult to measure. In SA, the qualities that are difficult to measured are tested by the GASG online skills course, which focuses on guiding administration and the management of clients but, these qualities are not measured practically (AQN, 2019). The assessment involves only the technical side of rock climbing and not the administrative side of the qualification. This is where a mentorship programme could accommodate students: the mentors could ask students to manage the administration of a rock climbing trip.

Theme 3 – climbing culture

The theme of climbing culture emerged through questions asked around how participants felt about experience versus training. Many rock climbers in SA believe that training is only for climbers who wish to guide while other climbers feel that beginners should undergo a training

programme. From the last theme, two sub-themes were formed as: 1) training versus experience and 2) recreational climbing.

3.1. *Training vs experience*

Buckley (2006) emphasises that recreational rock climbers want to climb without the necessary apprenticeship in mountaineering skills. This ensues in enormous problems for the rock climbing industry. Participant 2 explained that: “For recreational aspects where a person is taking another person climbing, a leader or scout master or an indoor climbing gym...I feel there has to be some certification that shows competency, and that certificate needs to come from an assessment...so yes, I would say there is a place for recreational rock climbers to have some sort of qualification”.

There was a discussion around training and certification on a climbing forum in SA where experienced rock climbers argued the need for certification for beginner rock climbers. On the forum, one person stated that: “New climbers need to have acquired the knowledge and learning insights either from a mentor or through some form of training.” (Climb ZA, 2020). Another person responded by saying: “Courses are the way forward indeed.” It is evident that there is an ongoing debate around the need for training. Another rock climber has a different view: “Courses and qualifications can be dangerous because the very nature of being qualified ostensibly is a measure of competence. It isn't!” (Climb ZA, 2020). The climbing community has different views on rock climbing training, but, rock climbers agree that beginner climbers should be equipped to be safe while climbing. The climbing industry in SA requires a structured process to follow whether an experienced rock climber wants to obtain a guiding qualification or a beginner who wants to learn the basics of climbing.

All the participants in the study have more than 10 years climbing experience and has been working in the industry since the establishment of MDT. One of the participants mentioned: “...I will give you my experience over 20 years of assessing climbers”. Attarian (2002) concludes that “old school” rock climbers have gained experience through years of mentoring other rock climbers and by climbing at various climbing sites. It is not just about experience – but it is also learning from the experiencing and adapting. It does not necessarily mean that one gained the correct technical skills during experience, as indicated by Participant 4 who said: “I have seen people who have been climbing for 30 years who are absolutely, completely dangerous...and I have seen people who have a year of instruction who are not so dangerous”.

Participant 4 said that: “I have seen people who have been climbing for 30 years who are absolutely, completely dangerous...and I have seen people who have a year of instruction who

are not so dangerous". Similarly, participant 3 said there are two sides to it: "Experience is probably better but there are certain things you don't get from normal climbing experience rather than what you get from proper training and assessment". The results of the study are concurrent with the conclusions of Attarian (2002) who holds that it is evidence that new rock climbers often lack the experience to deal with the unpredictable nature of the sport. This study also affirms that experience might not be the deciding criterion as training might provide new insight into climbing. A combination of proper training and a mentorship would be ideal to train guides in SA.

3.2. Recreational climbing

Recreational rock climbers may practise on a more occasional basis although they also require instruction from a professional guide (Cousquera & Beames, 2013). MacKenzie *et al.* (2020) proposes that there has been a shift from adventure recreation to adventure tourism: participants would rather pay guides to provide the necessary level of expertise to engage in an adventure activity. This has resulted in the need for well trained and experienced guides to take clients rock climbing. Buckley (2006) argues that activities such as rock climbing require prior skills and that even qualified guides will only take skilled participants to remote areas and guide them once they are there. In SA, several beginner rock climbers are climbing without prior skills or experience and this imposes an increased level of risk for guides. Many recreational rock climbers set foot in climbing without acknowledging the dangers and risks and ignoring the need for practice and instruction (Attarian, 2002). This postulation impacts the rock climbing industry in SA as many beginner rock climbers are unaware of the safety hazards that they impose. Participant 5 gave an insight into climbing accidents in SA: "There has only been one accident in the last 20 years, and the inquest into that turned out to be no fault of the guide whatsoever...whereas we have plenty of accidents every year involving recreational rock climbers". It can thus be concluded that recreational rock climbers are in need of an informal training course where they are taught the basics of climbing to be safe.

Furthermore, Participant 1 offered another thought on recreational climbing in SA: "The nature of climbing is that it is like a free-spirited event...A total beginner can walk into a climbing shop and buy rope and gear and go on the most dangerous climb with no restrictions." Participant 2 said: "It is just not in the nature of climbing that you have to be trained to climb". However, not all participants shared the same view as participant 3 said: "I will be behind that, any good training is worth the money and worth the time to put into because you will be safer". In the climbing community, recreational rock climbers are hesitant to undergo training. The uncertainty surrounding training could be the cause of their attitude. If recreational rock climbers can undergo

a beginner training course which is not too time consuming or expensive, they might be willing to change their perspective to deem it compulsory. Participant 4 mentioned that: "I do believe that they should attend a training course...but they do not need to go through an assessment". This might be the ultimate structure for recreational climbing in SA, where it should be mandatory for beginner rock climbers to undergo a training course to be safer. This course will not allow one to teach any other climbers but just to climb safely on a recreational basis. If more experienced rock climbers in the community change their perception around training for recreational purposes, the attitude of beginner climbers might be influenced, and they could be willing to undergo a training course for recreational purposes. Training for beginner rock climbers should not be a legal requirement to climb recreationally, but recreational rock climbers should be motivated by experienced climbers to attend a training course to guarantee their safety and responsibility while climbing without a guide.

CONCLUSION

This study aimed to explore and describe SAQA qualified rock climbers' perceptions about rock climbing qualification process in SA. By interviewing five SAQA qualified participants, the researcher could categorise the findings into three different themes and further classify the themes into eight sub-themes. Firstly, it was established that the SAQA qualification is the only course that will allow rock climbers to guide legally. All participants in the study agreed that the MDT courses and SAQA qualifications share the same technical aspects, but the MDT courses are aimed more at recreational leadership.

All guides are required to obtain a first-aid certificate. This is also similar in other countries. Nevertheless, the required logbook is not validated or monitored to its complete potential. The SAQA training days are only half the number of days compared to other international climbing institutions. Moreover, SAQA only requires one assessor where other institutions require a minimum of three assessors. Some of the participants in the study are of the opinion that the SAQA process does not allow enough training and the assessment process is not thorough enough. This might result in inexperienced qualified guides. All participants shared similar perceptions regarding illegal rock climbers, and it was found that one of the main concerns for many rock climbers is the number of illegal guides in SA as well as the beginner rock climbers who are climbing without any form of training. The participants in the study agreed that beginner rock climbers should undergo a training course, but an assessment is not necessary.

One of the participants argued that SA is not ready for a more complex training programme and that the financial status of the country should be taken into consideration. But it could also be

argued that SA could benefit from tourism and that properly trained guides might lead to satisfied international visitors who could return to SA. This is obviously preferable to negative international publicity on injured tourists who engaged in an adventure activity with an untrained guide.

Fundamentally, SA requires a governing body which would be responsible for the qualification of rock climbing guides. SAMGA could have had this responsibility, however, the entity does not exist anymore. The MDT is a governing body which regulates only MDT certifications. An umbrella institution like SAMGA can regulate the SAQA qualification together with the MDT certification. Training standards could be modulated and adapted to future trends to stay up to date to new technology. This body could also monitor the logbook that aspiring guides need to complete as well as the regulation of first-aid certificates that have to be updated when expired. All rock climbing guides in SA should then register with this body and the qualification, along with the first-aid should be renewed every three years. Thereafter, a certificate of good standing can be issued. Consequently, if a person is guiding and cannot show a valid membership of this body, he/she will be guiding illegally and could face prosecution.

When there is a regulatory body that controls rock climbing guides in SA, the process to obtain the qualification would be structured and managed. The perception of rock climbing guiding might then change to a professional and respected career path. This could also ensure that aspiring guides who enrol for the qualification, complete the qualification and pursue rock climbing guiding as a profession. Consequently, there will be a clearer distinction between recreational rock climbers and professional guides.

LIMITATIONS

Limited research has been conducted on the adventure tourism industry in South Africa (Govindasamy, 2012; Ntanjana, 2018; Visser & Rogerson, 2004). Consequently, minimal supportive research is mentioned in the study. No previous research has been conducted regarding rock climbing qualifications in SA. The population of the study were only five participants, possibly not representing the entire rock climbing guiding community in SA. Since a snowball sampling method was utilised, no new participants were designated for the researcher to conduct more interviews. Moreover, very few rock climbers are qualified as adventure guides who completed rock climbing specifically as an adventure activity for the GASG qualification.

RECOMMENDATIONS

After investigating the perceptions of qualified rock climbers in SA, the barriers and issues could be highlighted and addressed. As previously discussed, the AMGA is using apprenticeship, self-

education, student-teacher, and mentorship as educational tools to assist aspiring guides to become qualified. The SAQA qualification does include an apprenticeship in the form of the logbook, however, it is not ideal. Enriquez (2016) suggests that the AMGA include the mentorship phase of the AMGA Rock Guide Qualification and this is exactly what the SAQA qualification can also benefit from. Mentorship is a relationship between a more experienced mentor and a less experienced protégé or mentee (Enriquez, 2016). The introduction of a mentorship programme will motivate rock climbers to complete the logbook more quickly and more effectively as there will be someone to verify whether the rock climber has completed the required number of days. By assisting a professional guide, the protégé can learn physical techniques and skills and gain intellectual experience to pass the GASG written qualification.

REFERENCES

- AMGA (American Mountain Guiding Association). (2020). "Programs". Hyperlink: [https://amga.com/programs/]. Retrieved on 17 November 2020.
- ATTARIAN, A. (2002). Rock climbers' self-perceptions of first aid, safety, and rescue skills. *Wilderness & Environmental Medicine*, 13(4):238-244.
- ATTARIAN, A. (2015). *Certification in outdoor programmes*. In Routledge International Handbook of Outdoor Studies. New York: Routledge.
- AQN (Adventure Qualifications Network). (2019). "Generic Adventure Site Guide". Hyperlink: [https://www.adventure-qualifications.com/wp-content/uploads/2020/03/GASG-Info-flyer-current.pdf]. Retrieved on 19 June 2020.
- BACKE, S., ERICSON, L., JANSON, S. AND TIMPKA, T. (2009). Rock climbing injury rates and associated risk factors in a general climbing population. *Scandinavian Journal of Medicine & Science in Sports*, 19(6):850-856.
- BENTLEY, T.A., CATER, C. AND PAGE, S.J. 2010. Adventure and ecotourism safety in Queensland: Operator experiences and practice. *Tourism Management*, 31(5):563-571.
- BOYES, M.A. AND O'HARE, D. (2003). Between safety and risk: A model for outdoor adventure decision making. *Journal of Adventure Education & Outdoor Learning*, 3(1):63-76.
- BUCKLEY, R. (2006). *Adventure tourism*. Cambridge: CAB International.
- BUCKLEY, R. (2007). Adventure tourism products: Price, duration, size, skill, remoteness. *Tourism management*, 28(6):1428-1433.
- CATER, C.I. (2006). Playing with risk? Participant perceptions of risk and management implications in adventure tourism. *Tourism Management*, 27(2):317-325.
- CHRISTIE, M.F. AND MASON, P.A. (2003). Transformative tour guiding: Training tour guides to be critically reflective practitioners. *Journal of Ecotourism*, 2(1):1-16.

CLINCH, H. AND FILIMONAU, V. (2017). Instructors' perspectives on risk management within adventure tourism. *Tourism Planning & Development*, 14(2):220-239.

CLIMB ZA. (2020). "Climb ZA". Hyperlink: [http://www.climbing.co.za/forum/viewtopic.php?t=8913]. Retrieved on 20 October 2020.

COLLINS, R. (2000). *Becoming a tour guide*. London: Verite Reily Collins.

COUSQUER, G.O. AND BEAMES, S. (2013). Professionalism in mountain tourism and the claims to professional status of the international mountain leader. *Journal of Sport & Tourism*, 18(3):185-215.

DONAHOE, T. AND LUEBBEN, C. (2014). *Rock climbing: Mastering basic skills*. United States of America: Mountaineers Books.

DONALDSON, R. AND MCKAY, T. (2017). A Snap Review of Adventure Tourism (AT) Operators in Cape Town. Tourism Department by Tourism and Urban Research Unit.

DIRTY BOOTS. (2020). "Outdoor Adventure Training Courses in South Africa". Hyperlink: [https://www.dirtyboots.co.za/training-programs/overview]. Retrieved on 17 June 2020.

EIKJE, C.A., HORGEN, A. AND ARNEGÅRD, J. (2019). The organizing and regulation of mountain guiding in Scandinavia 1820–2016, with a glance at the Alps. *Sport in Society*, 22(4):555-572.

ENRIQUEZ, K.R. (2016). Exploring the relationship between mentorship and the development of professional competencies within the American mountain guides association. Unpublished doctoral dissertation. Alaska: Alaska Pacific University.

EXPLORE-SHARE. 2020. "What is IFMGA? An Intro to the International Mountain Guide Certification". Hyperlink: [https://www.explore-share.com/blog/what-is-ifmga-international-mountain-guide-certification/]. Retrieved on 12 March 2021.

FRIEDEMANN, A. (2021). Personal interview with the Spokesperson of SAMGA, 18 March, Johannesburg.

GRAHAM, W., TSHIPALA, N.N. AND LÖTTER, M.J. (2020). Spending behaviour of rock climbers in Gauteng province, South Africa. *African Journal for Physical Activity and Health Sciences*, 26(1):58-70.

HARPER, N. AND ROBINSON, D.W. (2005). Outdoor adventure risk management: Curriculum design principles from industry and educational experts. *Journal of Adventure Education & Outdoor Learning*, 5(2):145-158.

IFMGA (International Federation of Mountain Guides Association). (2017). "Member Associations". Hyperlink: [<https://ifmga.info/members>]. Retrieved on 16 June 2020.

GOVINDASAMY, K. (2012). Adventure tourism in the Kwazulu-Natal Province: identification of hotspots and mobile knowledge. Unpublished doctoral dissertation. Johannesburg, South Africa: University of South Africa.

LEE, K., BENTLEY, J. AND HSU, H.Y.M. (2017). Using characteristics of serious leisure to classify rock climbers: a latent profile analysis. *Journal of Sport & Tourism*, 21(4):245-262.

MACKENZIE, S.H., BOUDREAU, P. AND RAYMOND, E. (2020). Women's adventure tour guiding experiences: Implications for well-being. *Journal of Hospitality and Tourism Management*, 45(1):410-418.

MCSA. (2020). "The Mountain Club of South Africa". Hyperlink: [<https://mcsa.org.za/about/>]. Retrieved on 30 October 2020.

MDT PROSPECTUS (South African Mountaineering Development and Training Trust Prospectus). (2015). "Mountain Skills Training Program". Hyperlink: [http://www.samdt.co.za/uploads/8/4/8/7/8487241/mdt_prospectus_2014--2015-02.pdf]. Retrieved on 26 June 2020.

MEYER, W. (2021). Personal interview regarding SAMGA, 18 March, Johannesburg.

MOUNTAIN TRAINING. (2020). "Rock climbing instructor candidate handbook". Hyperlink: [<http://mt-demo.blahcms.com/Content/Uploaded/Downloads/MLT/e52fa4dc-76e0-486e-b55f-f1d64324f892.pdf>]. Retrieved on 30 October 2020.

NTANJANA, A., MALEKA, M., TSHIPALA, N. AND DU PLESSIS, L. (2018). Employment condition differences based on gender: A case of adventure tourism employees in Gauteng, South Africa. *African Journal of Hospitality, Tourism and Leisure*, 7(4).

NQF (The National Qualifications Framework and the Standards Setting). (2003). "South African Qualifications Authority". Hyperlink: [http://www.saqa.org.za/docs/pol/2003/standard_setting.pdf] Retrieved on 28 June 2020.

PEAK HIGH. (2014). "Mountain Development Trust Certified Courses". Hyperlink: [<https://peakhigh.co.za/courses/certified-courses/>]. Retrieved on 30 January 2021.

SA OUTDOOR ACADEMY. (2019). "Formal NQF Endorsed Qualifications". Hyperlink: [<https://saclimbingacademy.co.za/index.php/training-courses/formal-nqf-endorsed-qualifications>] Retrieved on 28 October 2020.

SAMDT. (South African Mountaineering Development and Training Programme). (2004). "Rock Climbing Leader Scheme Prospectus". Hyperlink: [<http://www.samdt.co.za/uploads/8/4/8/7/8487241/rclprospectus.pdf>]. Retrieved on 16 May 2020.

SCHUSTER, R.M., THOMPSON, J.G. AND HAMMITT, W.E. (2001). Rock climbers' attitudes toward management of climbing and the use of bolts. *Environmental Management*, 28(3):403-412.

SILVERMAN, D. (2000). *Doing qualitative research: A practical handbook*. London: SAGE Publications Limited.

TRAVEL NEWS. (2020). "Unqualified guiding debate peaks again". Hyperlink: [<https://www.travelnews.co.za/article/unqualified-guiding-debate-peaks-again?page=2>]. Retrieved on 25 February 2021.

UIAA. (2020). "International Climbing and Mountaineering Federation". Hyperlink: [<https://www.theuiaa.org/about/>]. Retrieved on 3 November 2020.

VAN DEN BERG, L.M. (2016). Tourist guiding legislation: South Africa, Australia and Canada in a comparative perspective. Unpublished doctoral dissertation. Pretoria, South Africa: University of Pretoria.

VENTURE FORTH. (N.d). "Generic Adventure Site Guide". Hyperlink:
[<https://www.ventureforth.co.za/gasg>]. Retrieved on 17 June 2020.

VISSER, G. AND ROGERSON, C.M. (2004). Researching the South African tourism and development nexus. *GeoJournal*, 60(3):201-215.

WALCHESTER, K. (2018). Alpine guides, gender, and British climbers, 1859–85: the boundaries of female propriety in the British periodical press. *Victorian Periodicals Review*, 51(3):521-538.

WEARING, S. AND ARCHER, D. (2002). Challenging interpretation to discover more inclusive models: The case of adventure tour guiding. *World Leisure Journal*, 44(3):43-53.

WOZNIAK, S. AND BUCHS, A. (2013). US National Parks and "The Tragedy of the Commons". A contribution to the characterization of US mountain guides' professional practice. *Journal of Alpine Research*, 101(4):1-11.

ZYGMONT, C.S. (2014). A phenomenographical study of the qualitative variation of adventure/wilderness programme experiences among adolescent high school participants in the Western Cape. Unpublished doctoral dissertation. Stellenbosch, South Africa: Stellenbosch University.

CHAPTER 5

SUMMARY, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The aim of this chapter is to amalgamate the different chapters of the study in order to draw clear conclusions and make recommendations regarding what has been written. A summary of the study, containing overviews of each chapter, will first be presented. Thereafter, a conclusion will be drawn based on the problem statement and the two objectives of the study. Recommendations for future studies will be discussed to further the rock climbing industry and research database in South Africa (SA).

5.2 SUMMARY

Chapter one provided an overview of the rock climbing industry in SA, as climbing accidents are a regular occurrence (The Mountain Club of South Africa, 2018), and thus, the importance of rock climbing training was highlighted. A distinction between the training and the career possibilities and scope of practice of the Mountaineering Development and Training Trust (MDT) training, and South African Qualifications Authority (SAQA) recognised training, was discussed. The problem of unqualified guides was emphasised, and insight was given into recreational rock climbers who are acting informally as climbing leaders. Very few rock climbers in SA have the correct qualification to act as legal guides in SA and this provided the reason for investigating the different perceptions regarding rock climbing training in SA. Based on the above, two objectives were identified: 1) to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification and, 2) to explore and describe SAQA qualified rock climbers' perceptions regarding the qualification process. For the purpose of this study, a distinction is made between *certified* and *qualified* rock climbers. Certified rock climbers are regarded as rock climbers who underwent the MDT training course (for recreational rock climbers) and the term qualified was used for participants who completed the SAQA qualification (for commercialised guides).

The second chapter reviewed available literature regarding the rock climbing industry. A brief history of the origin of rock climbing was discussed followed by the different descriptions of climbing styles that are practised. The debate about certification was analysed through different researchers sharing their views on the certification and training of adventure guides. To examine rock climbing certification in SA, insight needed to be given on different certification and qualification opportunities around the world. It became clear that the process to obtain a guiding qualification in SA is much different from that in other countries. In SA, no previous research has been conducted regarding rock climbing certification or qualifications and, therefore, the Theory of Planned Behaviour was utilised as a theoretical framework to analyse the perceptions of rock climbers regarding rock climbing certification in SA. This theory is one of the most widely used frameworks to predict and explain leisure behaviour. It was used to explore the attitudes, perceived social pressure and control of certification in SA.

The third chapter entailed the first article, *Exploration and description of certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification*. The Theory of Planned Behaviour was successfully utilised as a guideline to examine and describe the perceptions of rock climbing certification by analysing participants' attitudes, perceived behavioural control and subjective norms. From the data collected, three main themes, with various sub-themes emerged, namely 1) reason for obtaining certification; 2) certification views and 3) significant others. The first theme represented the first determining factor of the Theory of Planned Behaviour, which is attitude. The attitude concerning a specific behaviour could be determined by the liking or disliking of certain behaviour and in this case, all participants mentioned that it is an advantage to have some form of certification. Findings also indicated that participants have a misconception about rock climbing training in SA and that the correct information regarding qualifications might influence their attitudes. Secondly, perceived behaviour control was themed. This can be regarded as beliefs about whether a person has access to the necessary resources and opportunities to perform a behaviour. Participants were asked what barriers there are to obtain certification and it was found that the lack of assessors and the high cost of certification could influence participants' perceptions of certification. In addition, if more rock climbers obtain the correct qualification, the need for qualified guides will open new possibilities for rock climbers in SA. Lastly, the theme regarding the influence of significant others on the participants provided insight into participants' social groups and the rock climbing community. Results demonstrated that certain rock climbers are not concerned with certification and, according to the Theory of Planned Behaviour, if rock climbers' social groups consider certification as unimportant, it will limit their intentions to obtain certification.

Chapter four entitled, *Exploration of SAQA qualified rock climbers' perceptions regarding the qualification process in South Africa* presented an in-depth description of the perceptions of SAQA qualified guides regarding the SAQA qualification process in SA. In this chapter, three main themes were identified as: 1) climbing industry overview; 2) the fundamentals and 3) climbing culture. A total of eight sub-themes were identified under the respective main themes. Firstly, all participants expressed that there is a lot of politics around the different training standards in SA and that an agreement about the training standards has not been reached. More importantly, it was validated that the SAQA qualification is the only qualification that will allow guides to operate legally for monetary gain in SA and that MDT courses and assessments are aimed at recreational leaders, where circumstantial learning can take place. A discussion was also held about the fact that the MDT and SAQA share the same technical aspects, which could be the reason for the confusion regarding which training authorises a person to guide legally. The MDT is concerned with the technical aspects of rock climbing while SAQA also emphasises the learning of administrative and guiding skills. This could also be the origin of rock climbers' misperceptions regarding climbing training because the two training structures are almost identical, the SAQA qualification only has an additional skills programme to complete. Furthermore, the perception concerning the SAQA qualification is that the logbook is not thoroughly monitored or controlled, thus, aspiring guides are possibly not obtaining adequate experience prior to obtaining the qualification. The South African rock climbing industry needs a governing body that can regulate and monitor rock climbing training. This will eliminate any confusion regarding the available training opportunities and having only one point of contact would allow rock climbers to access information successfully. This might change the perceptions about rock climbing guiding and assist the industry to implement a structured process to obtain a qualification, to ultimately earn a living from.

5.3 CONCLUSION

To describe and analyse the qualified, certified and non-certified rock climbers' perceptions regarding the different training processes in SA, two objectives were formulated.

The first objective was to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification. By incorporating the Theory of Planned Behaviour as a theoretical framework, the participants' behaviour was analysed through three factors (1) the person's attitudes towards the behaviour, (2) the subjective norms a person believes significant others have concerning the behaviour, and (3) an individual's perception of

whether the behaviour can be performed (Ajzen, 1991:182; Walker *et al.*, 2006:225). The three categories of the Theory of Planned Behaviour were considered when the themes for this chapter were compiled. Consequently, theme one connects to the first category of the Theory which is *attitudes*, theme two was connected to *behavioural control*, the second category of the Theory and lastly, theme three was linked to the *subjective norm* category of the Theory.

REASONS FOR OBTAINING CERTIFICATION

Three reasons to obtain certification were identified as sub-themes: *safety*; *guides should be qualified* and *legal liability*. All participants agreed that certification is an advantage and that safety concerns would be a reason to obtain certification. The participants concluded that only guides should have a qualification and concerns were raised about legal liability. Certified rock climbers asserted that if a person does not have the correct qualification, it might have legal consequences. Contrastingly, non-certified participants advanced that certification could allow guiding for monetary gain but, highlighted that some participants have a misperception regarding the two different training options in SA, as some were under the impression that the MDT certification would allow them to guide for monetary gain.

CERTIFICATION VIEWS

Availability and accessibility to certification, expenses, and the lack of assessors were identified as the main barriers to obtaining certification. Some rock climbers in SA are not compliant with the law and are guiding illegally, whether knowingly or not. However, if more rock climbers could obtain a qualification, there would be a higher demand for training and assessments. Consequently, it would become feasible for rock climbers to become trainers and assessors. Furthermore, all participants agreed that obtaining a certification is expensive in terms of the benefits gained because certification does not allow legal guiding for monetary gain. The participants' perceptions would be different if they knew that only the SAQA qualification could allow guiding for financial gain. Only one participant mentioned that rock climbers should keep in mind that the SAQA qualification could be used to earn a living.

SIGNIFICANT OTHERS

The last theme constitutes of the perceptions of the participants' social groups and the pressure to obtain certification (Lacy, 1981; Ravis & Sheeran, 2003; Rutter, 2000; Quine *et al.*, 2001). Social

pressure is the biggest factor that will influence a person's behaviour (Francis *et al.*, 2004:9). The results indicated that there is no social pressure for non-certified participants to obtain certification; thus, the behaviour is not followed through. Furthermore, all participants are in favour of a guiding qualification but are resistant to obtain certification for recreational purposes. Rock climbers are of the opinion that training for recreational rock climbers is unnecessary, but they also argue that certification can keep climbers safe.

The rock climbing community in SA needs more accurate information regarding the correct process to follow to obtain a guiding qualification. This will encourage rock climbers to obtain the SAQA qualification, which could ultimately open admission to a career where they could earn a living from guiding. This will generate more rock climbers who are qualified to assess and train aspiring guides. Ultimately, the rock climbing community can grow professionally, South African rock climbing guiding qualifications can be internationally recognised and can be associated with the International Federation of Mountain Guides Associations (IFMGA).

The second objective of this study focused on exploring and describing SAQA qualified rock climbers' perceptions regarding the qualification process. Findings revealed that there are many years of politics surrounding the different training opportunities, and this might be the origin of the confusion between the MDT certification and SAQA qualifications. It was verified by participants that the SAQA qualification is the only qualification that would grant access to legal guiding in SA. Results indicated that the SAQA qualification process is different to other countries which have more training days. More intense assessments and three assessors are used for students' assessments, where in SA, only one assessor is necessary. Some of the participants in the study view rock climbing as a free-spirited culture where no formal training should be present. Other participants, though, believe that beginner rock climbers need a short introductory training course. A participant mentioned that the financial situation of the country should be assessed before any changes are introduced to the SAQA qualification but, the lives of people are in danger if untrained people are allowed to guide. Urgent attention should rather be given to the qualification process to ensure that clients are safe while being guided. Furthermore, the industry should be better monitored as it became clear that SA has many untrained, illegal guides guiding international tourists. It could have an effect on the financial situation in SA if international tourists are being guided by untrained, illegal guides and an injury or death occurs. The participants in the study's perception of the SAQA qualification is that the qualification does need some adjustments and that too many untrained guides are actively guiding in SA which should be addressed. Furthermore, accidents occur more often when rock climbers are climbing for recreational purposes, rather than climbing with a guide. Qualified participants in the study indicated that

recreational rock climbers require an informal training course that could keep climbers safe on a recreational basis.

In order to answer the research question, it can be concluded that the perception of rock climbing training is different for recreational rock climbers (including certified and uncertified rock climbers) and for qualified rock climbers. All certified and non-certified participants regard training as important to be safe, but some opine that only guides should have a proper qualification. There is no social pressure from the climbing community to obtain certification or a qualification. Despite the fact that most climbing injuries happen during recreational climbing, both certified and non-certified rock climbers argue that recreational rock climbers should not be obligated to obtain any form of training because rock climbing has a free-spirited culture. Qualified participants said that it could be beneficial if recreational rock climbers could obtain informal training where an assessment is not necessary, just to be safe and keep accidents and risks low.

Certified and non-certified participants mentioned that a reason to obtain the MDT certification is to be safe. In contrast, qualified participants hold that many rock climbers should obtain MDT certification because their end goal is to get the SAQA qualification to become a guide. However, this is not the case as certified participants have very limited knowledge about the SAQA qualification in general. Interestingly, most of the certified participants are aware of another qualification to obtain when they would like to operate for monetary gain, but they have no knowledge about the SAQA qualification, what it entails or how to start the process.

Participants mentioned that certification and qualification are not monitored or regulated properly. In terms of the SAQA qualification, the required logbook is not validated; there is no renewal of the qualification; and the first-aid expiry is not monitored. This implies that it is essential for SA to establish a governing body that could administer these functions. A governing body could be responsible for all rock climbing training opportunities in SA and all guides should then be registered with the body to regulate the rock climbing guiding industry in SA.

After analysing the findings of this study, the following functions could be administered by the establishment of a governing body:

- Organise the re-testing of skills, every three to four years when the qualification expires;
- Introduce new technology to all registered guides;
- Work together with the MDT to provide training opportunities for recreational leadership;
- Validate experience recorded in the logbook;
- Publish regular news articles regarding the rock climbing industry in SA and other countries;

- Introduce a mentorship programme and provide access to mentors with adequate experience;
- Write standards for different rock climbing training programmes;
- Establish and promote a course for recreational rock climbers;
- Create possibilities for members to attend international seminars to gain experience in other countries;
- The portfolio of evidence could be examined and approved by the governing body instead of the local Provincial Tourism Registrar;
- The governing body can issue the guiding cards that the local Provincial Tourism Registrar is currently doing;
- Disciplinary measures could be outlined and actioned to address non-compliance with the law.

A governing body would be the ultimate solution for the issues and challenges that the rock climbing guiding industry currently faces. Many of the barriers that qualified, certified and non-certified participants mentioned, could be overcome by the abovementioned functions of a governing body. By establishing this body, the perceptions of rock climbing guides might change as the qualification will prove to be professional and well managed. In SA, adventure guides are often being underpaid (Ntanjana et al., 2018:3). If the qualification carries more weight and is perceived to be professional and structured, the remittance of guides could increase. This will also ensure that there is a clear difference between recreational rock climbers and professional rock climbing guides.

5.4 LIMITATIONS

Several studies have been conducted to understand the motives for participating in recreational activities (Aaltonen *et al.*, 2011:175; Molanorouzi *et al.*, 2015:4; Zhou *et al.*, 2020:12). Yet, little attention has been awarded to the psychology of adventure guides and very few studies focus on the perceptions of adventure guides (Buckley, 2006:19; Clinch & Filimonau, 2017:222; Mackenzie & Kerr, 2013:4). Limited previous research was available for this study regarding the South African rock climbing industry.

The study also used a small sample of SAQA qualified guides, and it would be difficult to generalise the findings. Grant *et al.* (2001:499) have also found that previous literature about rock climbing is restricted. Therefore, more research should be conducted to understand the industry

fully to be able to draw more accurate conclusions. Additionally, the study did not investigate the perceptions of beginner rock climbers to determine their attitudes regarding training courses. This might shine some light on training for recreational rock climbers and could serve as market research for future training courses.

5.5 RECOMMENDATIONS

Enriquez (2016:10) suggests that the following four elements should be present in rock climbing qualifications: apprenticeship, self-education, student-teacher, and mentorship. These recommendations by Enriquez (2016:10) could be investigated further to incorporate the four elements into the current qualification structure. The SAQA qualification process can benefit by including these elements and ultimately make the process more structured and accountable. In Australia, the voluntary EcoGuide Programme was established to support nature and ecotourism guides by providing best practice guiding standards through recognition and reward (Black & Ham, 2005:179). This could be an excellent motivation for South African rock climbers to obtain a qualification and become more qualified. The EcoGuide Programme rewards guides who achieve specified competencies and standards (Black & Ham, 2005:179). SA could benefit from such a programme to drive and inspire guides to become assessors, hence, growing the climbing industry.

5.6 FUTURE RESEARCH

This study provided a platform for researchers to expand on the knowledge regarding rock climbing certifications and qualifications in SA. Future research can focus on the establishment of a governing body that could manage and regulate rock climbing guiding. This concept could be adopted by several other adventure guiding professions in SA and each profession could administer and control its own qualification standards. Research could also be conducted on other adventure guiding professions to ultimately compare different guiding standard operating procedures. Questions to answer could include reasons why MDT claims that their qualifications are higher than the NQF qualification yet, MDT is not considered to be a legal guiding qualification. This will lead to professional, established adventure guiding qualifications in SA which could consequently benefit the adventure tourism industry in SA.

Further research could be conducted to analyse the qualification process to incorporate the four elements that AMGA is utilising. There is a very viable opportunity in SA to expand the rock

climbing industry, specifically focusing on training programmes and courses. Further investigations could be conducted to analyse the perceptions of clients benefiting from their experiences with qualified guides. This will provide better insight into the clients' requirements and how to improve the current SAQA qualification. Furthermore, research could be conducted to investigate the process to become associated with the IFMGA. This will ultimately provide guides with the support and structure of a proper international qualification.

REFERENCES

- Ajzen, I. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2):179-211.
- Aaltonen, S., Leskinen, T., Morris, T., Alen, M., Kaprio, J., Liukkonen, J. and Kujala, U. 2012. Motives for and barriers to physical activity in twin pairs discordant for leisure time physical activity for 30 years. *International Journal of Sports Medicine*, 33(02):157-163.
- Black, R. and Weiler, B. 2005. Quality assurance and regulatory mechanisms in the tour guiding industry: A systematic review. *Journal of Tourism Studies*, 16(1):24.
- Buckley, R. 2006. Adventure tourism. Cambridge: CAB International.
- Clinch, H. and Filimonau, V. 2017. Instructors' perspectives on risk management within adventure tourism. *Tourism Planning & Development*, 14(2):220-239.
- Enriquez, K.R. 2016. *Exploring the relationship between mentorship and the development of professional competencies within the American mountain guides association*. Alaska: Alaska Pacific University. (Dissertation – PhD).
- Francis, J., Eccles, M.P., Johnston, M., Walker, A.E., Grimshaw, J.M., Foy, R., Kaner, E.F., Smith, L. and Bonetti, D. 2004. Constructing questionnaires based on the theory of planned behaviour: A manual for health services researchers. London: University of London.
- Grant, S., Hasler, T., Davies, C., Aitchison, T.C., Wilson, J. and Whittaker, A. 2001. A comparison of the anthropometric, strength, endurance and flexibility characteristics of female elite and recreational climbers and non-climbers. *Journal of Sports Sciences*, 19(7):499-505.
- Lacy, W.B. 1981. The influence of attitudes and current friends on drug use intentions. *The Journal of Social Psychology*, 113(1):65-76.
- Mackenzie, S.H. and Kerr, J.H. 2013. Stress and emotions at work: An adventure tourism guide's experience. *Tourism Management*, 36(1):3-14.
- Molanorouzi, K., Khoo, S. and Morris, T. 2015. Motives for adult participation in physical activity: type of activity, age, and gender. *BMC Public Health*, 15(66):1-12.

Ntanjana, A., Maleka, M., Tshipala, N. and Du Plessis, L. 2018. Employment condition differences based on gender: A case of adventure tourism employees in Gauteng, South Africa. *African Journal of Hospitality, Tourism and Leisure*, 7(4).

Quine, L., Rutter, D.R. and Arnold, L. 2001. Persuading school-age cyclists to use safety helmets: Effectiveness of an intervention based on the Theory of Planned Behaviour. *British Journal of Health Psychology*, 6(4):327-345.

Rivis, A. and Sheeran, P. 2003. Social influences and the theory of planned behaviour: Evidence for a direct relationship between prototypes and young people's exercise behaviour. *Psychology and Health*, 18(5):567-583.

Rutter, D.R. 2000. Attendance and re-attendance for breast cancer screening: A prospective 3-year test of the Theory of Planned Behaviour. *British Journal of Health Psychology*, 5(1):1-13.

The Mountain Club of South Africa. 2018. *Mountain club of SA*. <http://alewis.its.uct.ac.za/sama/db/stats-total.php> Date of access: 18 April 2018.

Walker, G.J., Courneya, K.S. and Deng, J. 2006. Ethnicity, gender, and the theory of planned behavior: The case of playing the lottery. *Journal of Leisure Research*, 38(2):224-248.

Zhou, L., Chlebosz, K., Tower, J. and Morris, T. 2020. An exploratory study of motives for participation in extreme sports and physical activity. *Journal of Leisure Research*, 51(1):56-76.

APPENDIX A

SOUTH AFRICAN JOURNAL FOR RESEARCH IN SPORT, PHYSICAL EDUCATION AND RECREATION GUIDELINES TO AUTHOR

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	
Header:	2.03 cm	
Footer:	0.89 cm	

Original manuscripts may be submitted in English and should be sent to:

The Editor (Prof. Hanlie Moss)
*South African Journal for Research in Sport,
Physical Education and Recreation*
Physical Activity, Sport and Recreation
Research Unit
North-West University, POTCHEFSTROOM
Republic of South Africa

Editorial Office
Tel.: +27 (0)18-299 1821
E-mail: sajrsper@nwu.ac.za

CONDITIONS

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. The cover letter must contain a rationale for how the manuscript is novel, why it is relevant to the journal, and how the research contributes to the field or advances the evidence base.

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). These must be from a different institution to the first author and not have

published with any member of the writing group in the previous 3 years. 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.

All studies testing the effect of an intervention have to be registered with a trials registry to be eligible for peer review. We **STRONGLY** recommend prospective registration but will consider retrospectively registered trials with appropriate justification.

For completed randomised controlled trials, *SAJRSPER* requires the submission of a populated CONSORT checklist and flow diagram. The flow diagram should be included in the main body of the text and the checklist should be provided as an additional file. Both the flow diagram and the checklist should be referenced in the text. Submissions received without these elements will be returned to the authors as incomplete. A Word file of the checklist and flow diagram can be downloaded [here](#).

For all intervention components, authors are required to use the TIDieR Checklist, which should be provided as an additional file. The TIDieR Checklist is available to download as a [PDF](#) and a [Word file](#).

For observational studies, *SAJRSPER* requires the submission of a populated STROBE checklist (<http://strobe-statement.org/index.php?id=available-checklists>) along with the manuscript. For observational studies that focus on nutrition, the checklist should be modified to reflect the revised STROBE-nut guidelines (<http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002036>). The completed checklist should be provided as an [additional file](#).

For systematic reviews and Meta-analyses, the PRISMA checklist and flow diagram (<http://www.equator-network.org/reporting-guidelines/prisma/>) should be completed. The Checklist should be uploaded as an additional file and the flow diagram included in the manuscript. The PRISMA Checklist as a [Word file](#) and flow diagram [word file](#) as can be downloaded [here](#).

For the reporting of therapeutic exercise interventions in rehabilitation, the [CERT](#) guidelines should be followed and the [checklist](#) uploaded as an additional file

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, 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 'copyright', 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

NWU HREC APPROVAL CERTIFICATE



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: <http://www.nwu.ac.za>

Research Ethics Regulatory Committee
Tel: 018 299-4849
Email: nkosinathi.machine@nwu.ac.za

11 April 2019

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the North West University Health Research Ethics Committee (NWU-HREC) on 11/04/2019, the NWU Health Research Ethics Committee hereby approves your study as indicated below. This implies that the North-West University Research Ethics Regulatory Committee (NWU-RERC) grants its permission that, provided the special 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: Explorative description of rock climbing certification in South Africa.																															
Study Leader/Supervisor (Principal Investigator)/Researcher: Ms Y Stevens																															
Student: M Strauss																															
Ethics number:	<table border="1"><tr><td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>0</td><td>1</td><td>1</td><td>9</td><td>-</td><td>1</td><td>8</td><td>-</td><td>A</td><td>1</td></tr><tr><td colspan="3">Institution</td><td></td><td colspan="4">Study Number</td><td></td><td>Year</td><td colspan="5">Status</td></tr></table>	N	W	U	-	0	0	1	1	9	-	1	8	-	A	1	Institution				Study Number					Year	Status				
N	W	U	-	0	0	1	1	9	-	1	8	-	A	1																	
Institution				Study Number					Year	Status																					
<u>Status:</u> S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation																															
Application Type: Single Study	Risk: <table border="1"><tr><td>Minimal</td></tr></table>	Minimal																													
Minimal																															
Commencement date: 11/04/2019																															
Expiry date: 30/04/2020																															
Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.																															

Special in process conditions of the research for approval (if applicable):

- If other gymnasiums are to be included in the study, please provide the HREC with copies of the goodwill permission letters from the managers of these gymnasiums, granting access to the gymnasiums. If no other gymnasiums are to be included, then it is requested that the researcher inform the NWU-HREC so that it can be officially noted on the application file.

General conditions:
<i>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:</i>
• The study leader/supervisor (principle investigator)/researcher must report in the prescribed format to the NWU-HREC: – annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, 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 study leader/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 an external audit. • The date of approval indicates the first date that the study may be started. • In the interest of ethical responsibility the NWU-RERC and 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 (or otherwise stipulated) 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 or any report templates via Ethics-HRECApply@nwu.ac.za or 018 299 1206.

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

Yours sincerely



Digitally signed by Wayne
Towers
Date: 2019.05.21
20:58:19 +02'00'

Prof Wayne Towers
Chairperson NWU Health Research Ethics Committee

Original details: (22351930) C:\Users\22351930\Desktop\ETHICS APPROVAL LETTER OF STUDY.docm
8 November 2018

Current details: (22351930) M:\DSS1\8533\Monitoring and Reporting Cluster\Ethics\Certificates\Templates\Research Ethics Approval Letters\9.1.5.4.1 HREC Ethical Approval
Letter.docm
3 December 2018

File reference: 9.1.5.4.2



Ms Y Stevens
PhASRec

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**

Tel: 018 299 2092
Email: wayne.towers@nwu.ac.za

30 April 2020

Dear Ms Stevens

FEEDBACK ON NWU-HREC ANNUAL MONITORING REPORT: NWU-00119-18-A1

We would like to thank you for submitting the annual monitoring report for your project entitled, “**Explorative description of rock climbing certification in South Africa**”, 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 April 2021
Termination		

Please note: Due to the current status of the study i.e. (qualitative analysis of data that has already been collected), this study will be able to proceed during the current alert level, following receipt of the continuation 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.

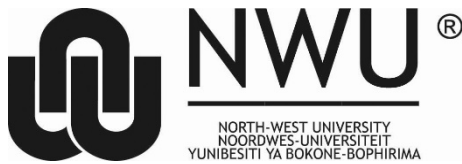
Yours sincerely

 Digitally signed
by Prof Petra
Bester
Date:
2021.01.14
11:46:33 +02'00'

Chairperson: NWU-HREC

Current details: (24355305) G:\My Drive\9. Research and Postgraduate Education\9.1.5.5 HREC Monitoring\NWU-00119-18-A1\9.1.5.5.4_Cont_NWU-00119-18-A1_31-05-2020.docm
31 May 2020
File reference: 9.1.5.5.4

INFORMED CONSENT DOCUMENTATION FOR CERTIFIED ROCK CLIMBERS IN SOUTH AFRICA



Private Bag X1290, Potchefstroom
South Africa 2520
Tel: +2718 299-1111/2222
Fax: +2718 299-4910
Web: <http://www.nwu.ac.za>



INFORMED CONSENT DOCUMENTATION FOR CERTIFIED ROCK CLIMBERS IN SOUTH AFRICA

TITLE OF THE RESEARCH STUDY: Rock climbing certification in South Africa: an explorative descriptive study.

ETHICS REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Yolanda Stevens

POST GRADUATE STUDENT: Minette Strauss

ADDRESS: Building K4 Office G17, Fanie Du Toit Sports Ground, North West University, Potchefstroom Campus.

CONTACT NUMBER: (018) 299-2038 / 083 392 6510

You are being invited to take part in a **research study** that forms part of a Degree in Master of Science in Recreational Science. Please take some time to read the information presented here, which will explain the details of this study. Please ask the researcher or person explaining the research to you any questions about any part of this study that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. Also, your participation is **entirely voluntary**, and you are free to say no 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 now. This study has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00119-18-A1)** and will be conducted according to the ethical guidelines and principles of Ethics in Health Research: Principles,

Processes and Structures (DoH, 2015) and other international ethical guidelines applicable to this study. It might be necessary for the research ethics committee members or other relevant people to inspect the research records.

What is this research study all about?

- In South Africa, there are two processes an individual can follow to obtain rock climbing certification. The first process is to obtain a rock climbing qualification from the Mountain Development Trust (MDT) and the second certification process is to obtain the South African Qualifications Authority (SAQA) qualification through Culture, Arts, Tourism, Hospitality and Sport Sector Education Training Authority (CATHSETA). However, candidates who wish to be registered as legal guides in South Africa must hold the SAQA qualification. Through this research, reasons for seeking certification, as well as reasons for not seeking certification, may be determined and lead to recommendations for creating and implementing an effective certification process, thus strengthening the rock climbing industry in South Africa.
- We plan to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification and,
- Explore and describe certified rock climbers' perceptions regarding the certification process.

Why have you been invited to participate?

- You have been invited to be part of this research because you are experienced climbers in the field of rock climbing and experience both indoor and outdoor climbing.
- You also fit the research because you have first-hand experience of rock climbing certification as well as the process thereof.

Criteria to participate in the study:

- Participants must have successfully completed the MDT or SAQA rock climbing certification assessment.
- Participants must have at least three years' climbing experience.
- Participants must climb at least twice a week, indoor and outdoor climbing.
- To participate in the study, you cannot have any other adventure certification.
- Participants must climb indoors and outdoors on a regular basis of at least twice a week.
- Participants with certification obtained in any other country than South Africa will be excluded because of the different certification processes used.
- You will not be able to take part in this research if you are a founder or trainer of MDT. If you have any link to SAQA you cannot take part in this study.
- Participants must be able to speak English.

What will be expected of you?

- You will be expected to answer questions asked by the researcher in a semi-structured interview. The duration of the interviews will be one and a half hour. The interviews will take place between February 2019 and April 2019.
- Interviews will be recorded by the researcher and transcribed data will be analysed after completion of the interviews.
- Participant will be expected to complete a biographical questionnaire before the interview.

Will you gain anything from taking part in this research?

- The indirect benefit of the study is that the industry can use the information to streamline the process of certification.

Are there risks involved in you taking part in this research and what will be done to prevent them?

Risks	Precautionary measurements
There will be a very low risk of causing any emotional harm	After every interview an opportunity will be available for participants to speak about any uncertainty or discomfort. The details of a counsellor will be made available if there is a need from a participant due to a potential emotional reaction resulting from the interview
There is a slight chance of boredom of participants during interviews	To reduce this risk questions will be kept short and as relevant as possible
Loss of time	To reduce this risk, questions will be kept in context and unnecessary time will not be wasted

How will we protect your confidentiality and who will see your findings?

Anonymity of your findings will be protected by the researcher and co-coder. Your privacy will be respected by downloading the recordings of interviews in a password-protected folder on a computer and then deleted from the recording device. Your results will be kept confidential by replacing the participant's names with numbers. The researcher will transcribe the recorded semi-structured interviews, and these transcripts will be used to analyse the data. After all the interviews have been transcribed, and research concluded, all interviews will be removed from the researchers computer and moved to a password protected folder on an external hard drive of the study supervisor for a period of seven years. The study supervisor, the researcher as well as the co-coder will be the only individuals with access to the data. Original interviews and the transcribed data will remain available and used only for the study's purpose. After this period the study supervisor will permanently delete the data from the external hard drive.

What will happen with the findings or samples?

- The findings of this study will only be used for this study.

How will you know about the results of this research?

- After completion of the study, a summary of the study and the published articles will be individually emailed to each participant.

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

- No, you will not be paid to take part in the study.
- Refreshments will be served before and after the interviews take place.
- A voucher from the climbing retailer will be given to each participant as a small token of appreciation.
- There will thus be no costs involved for you, if you do take part in this study.

Is there anything else that you should know or do?

- You can contact Yolanda Stevens @ yolanda.stevens@nwu.ac.za if you have any further questions or have any problems.
- You can also contact the Health Research Ethics Committee via Mrs Carolien van Zyl at 018 299 1206 or carolien.vanzyl@nwu.ac.za if you have any concerns that were not answered about the research or if you have complaints about the research.
- You will receive a copy of this information and consent form for your own purposes.
- The researcher will make use of field notes to enrich the findings of the study.

Declaration by participant

By signing below, I agree to take part in the research study titled: Rock climbing certification in South Africa: an explorative descriptive study.

I declare that:

- I have read this information/it was explained to me by a trusted person in a language with which I am fluent and comfortable.
- The research was clearly explained to me.
- I have had a chance to ask questions to both the person getting the consent from me, as well as the researcher and all my questions have been 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 handled in a negative way if I do so.
- I may be asked to leave the study before it has finished, if the researcher feels it is in the best interest, or if I do not follow the study plan, as agreed to.
- A voice recorder may be used during the interview.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

Declaration by person obtaining consent

I (*name*) declare that:

- I clearly and in detail explained the information in this document to

.....

- I did/did not use an interpreter.
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I gave him/her time to discuss it with others if he/she wished to do so.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I Minette Strauss declare that:

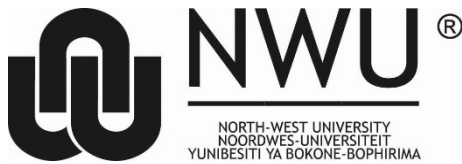
- I had it explained by the centre manager from the selected climbing gym, who I trained for this purpose.
- I did not use an interpreter
- I encouraged him/her to ask questions and took adequate time to answer them and I was available should he/she want to ask any further questions.
- The informed consent was obtained by an independent assistant.
- I am satisfied that he/she adequately understands all aspects of the research, as described above.
- I am satisfied that he/she had time to discuss it with others if he/she wished to do so.

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

INFORMED CONSENT DOCUMENTATION FOR NON-ACCREDITED ROCK CLIMBERS IN SOUTH AFRICA



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222

Fax: +2718 299-4910

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



INFORMED CONSENT DOCUMENTATION FOR NON-ACCREDITED ROCK CLIMBERS IN SOUTH AFRICA

TITLE OF THE RESEARCH STUDY: Rock climbing certification in South Africa: an explorative descriptive study.

ETHICS REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Yolanda Stevens

POST GRADUATE STUDENT: Minette Strauss

ADDRESS: Building K4 Office G17, Fanie Du Toit Sports Ground, North West University, Potchefstroom Campus.

CONTACT NUMBER: (018) 299-2038 / 083 392 6510

You are being invited to take part in a **research study** that forms part of a Degree in Master of Science in Recreational Science. Please take some time to read the information presented here, which will explain the details of this study. Please ask the researcher or person explaining the research to you any questions about any part of this study that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. Also, your participation is **entirely voluntary**, and you are free to say no 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 now.

This study has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00119-18-A1)** and will be conducted according to the ethical guidelines and principles of Ethics in Health Research: Principles,

Processes and Structures (DoH, 2015) and other international ethical guidelines applicable to this study. It might be necessary for the research ethics committee members or other relevant people to inspect the research records.

What is this research study all about?

- In South Africa, there are two processes an individual can follow to obtain rock climbing certification. The first process is to obtain a rock climbing qualification from the Mountain Development Trust (MDT) and the second certification process is to obtain the South African Qualifications Authority (SAQA) qualification through Culture, Arts, Tourism, Hospitality and Sport Sector Education Training Authority (CATHSETA). However, candidates who wish to be registered as legal guides in South Africa must hold the SAQA qualification. Through this research, reasons for seeking certification, as well as reasons for not seeking certification, may be determined and lead to recommendations for creating and implementing an effective certification process, thus strengthening the rock climbing industry in South Africa.
- We plan to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification and,
- Explore and describe certified rock climbers' perceptions regarding the certification process.

Why have you been invited to participate?

- You have been invited to be part of this research because you are experienced climbers in the field of rock climbing and experience both indoor and outdoor climbing.

Criteria to participate in the study:

- Active South African climber with no climbing certification.
- You will not be able to take part in this research if you are a founder or trainer of MDT.
- If you have any link to SAQA you cannot take part in this study.
- You are obligated to have a minimum of one year indoor and outdoor rock climbing experience and be climbing actively at least twice a week.

What will be expected of you?

- You will be expected to answer questions asked by the researcher in a semi-structured interview. The duration of the interviews will be one and a half hour. The interviews will take place between February 2019 and April 2019.
- Interviews will be recorded by the researcher and transcribed data will be analysed after completion of the interviews
- Participant will be expected to complete a biographical questionnaire before the interview.

Will you gain anything from taking part in this research?

- The indirect benefit of the study is that the industry can use the information to streamline the process of certification.

Are there risks involved in you taking part in this research and what will be done to prevent them?

Risks	Precautionary measurements
There will be a very low risk of causing any emotional harm	After every interview an opportunity will be available for participants to speak about any uncertainty or discomfort. The details of a counsellor will be made available if there is a need from a participant due to a potential emotional reaction resulting from the interview
There is a slight chance of boredom of participants during interviews	To reduce this risk questions will be kept short and as relevant as possible
Loss of time	To reduce this risk, questions will be kept in context and unnecessary time will not be wasted

How will we protect your confidentiality and who will see your findings?

Anonymity of your findings will be protected by the researcher and co-coder. Your privacy will be respected by downloading the recordings of interviews in a password-protected folder on a computer and then deleted from the recording device. Your results will be kept confidential by replacing the participant's names with numbers. The researcher will transcribe the recorded semi-structured interviews, and these transcripts will be used to analyse the data. After all the interviews have been transcribed, and research concluded, all interviews will be removed from the researchers computer and moved to a password protected folder on an external hard drive of the study supervisor for a period of seven years. The study supervisor, the researcher as well as the co-coder will be the only individuals with access to the data. Original interviews and the transcribed data will remain available and used only for the study's purpose. After this period the study supervisor will permanently delete the data from the external hard drive.

What will happen with the findings or samples?

- The findings of this study will only be used for this study.

How will you know about the results of this research?

- After completion of the study, a summary of the study and the published articles will be individually emailed to each participant.

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

- No, you will not be paid to take part in the study.
- Refreshments will be served before and after the interviews take place.
- A voucher from the climbing retailer will be given to each participant as a small token of appreciation.
- There will thus be no costs involved for you, if you do take part in this study.

Is there anything else that you should know or do?

- You can contact Yolanda Stevens @ Yolanda.stevens@nwu.ac.za if you have any further questions or have any problems.

- You can also contact the Health Research Ethics Committee via Mrs Carolien van Zyl at 018 299 1206 or carolien.vanzyl@nwu.ac.za if you have any concerns that were not answered about the research or if you have complaints about the research.
- You will receive a copy of this information and consent form for your own purposes.
- The researcher will make use of field notes to enrich the findings of the study.

Declaration by participant

By signing below, I agree to take part in the research study titled: Rock climbing certification in South Africa: an explorative descriptive study.

I declare that:

- I have read this information/it was explained to me by a trusted person in a language with which I am fluent and comfortable.
- The research was clearly explained to me.
- I have had a chance to ask questions to both the person getting the consent from me, as well as the researcher and all my questions have been 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 handled in a negative way if I do so.
- I may be asked to leave the study before it has finished, if the researcher feels it is in the best interest, or if I do not follow the study plan, as agreed to.
- A voice recorder may be used during the interview

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

Declaration by person obtaining consent

I (*name*) declare that:

- I clearly and in detail explained the information in this document to
.....
- I did/did not use an interpreter.
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I gave him/her time to discuss it with others if he/she wished to do so.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I Minette Strauss declare that:

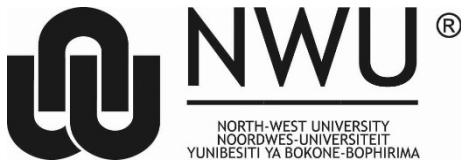
- I had it explained by the centre manager from the selected climbing gym, who I trained for this purpose.
- I did not use an interpreter
- I encouraged him/her to ask questions and took adequate time to answer them and I was available should he/she want to ask any further questions.
- The informed consent was obtained by an independent assistant.
- I am satisfied that he/she adequately understands all aspects of the research, as described above.
- I am satisfied that he/she had time to discuss it with others if he/she wished to do so.

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

PERMISSION TO USE FACILITY



Private Bag X6001,
Potchefstroom
South Africa 2520

Tel: +2718 299-2038

Fax: +2718 299-1808

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

LETTER FOR PERMISSION TO USE FACILITY

Dear gym owner/manager

We are currently conducting a research study that forms part of a Degree in Master of Science in Recreational Science. The aim of the research is to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification in South Africa. In order for us to complete the research we would like to request your permission to use your gym to recruit potential participants and conduct interviews with interested participants.

Advertisements will be placed at the front desk or at the allowed areas for advertisement to recruit participants for the interviews. Once we recruited the participants, we would need to schedule interviews in an available office. The duration of the interviews will be an hour to an hour and a half. The interviews will take place during November 2019, according to availability of the participants. During the interviews we will also provide refreshments to the participants. After the completion of the study, results will be made available to you and the participants.

Your favourable response will be highly appreciated.

Regards

Yolanda Stevens
yolanda.stevens@nwu.ac.za
083 392 6510

I _____ gym owner/manager of _____ gives permission
for the interviews to take place at the climbing gym.

Signed at _____ this day _____ of 2019.

Signature of the gym owner/manager

Invitation to all Rock Climbers

**INTERVIEWS
WITH CERTIFIED
AND NON-
CERTIFIED ROCK
CLIMBERS
EXPLORING THE
CERTIFYING
PROCESS AND;
PERCEPTIONS
REGARDING
CERTIFICATION.**



REQUIREMENTS:

- South African resident and must climb at least twice a week.
- Participate in indoor and outdoor climbing.
- Can't be employed by MDT.
- SAQA and MDT qualified instructors are welcome.
- Climbers without certification also welcome to participate.

**DURATION OF INTERVIEWS:
1 AND A HALF HOUR**

**PLACE: CITY ROCK
CLIMBING GYM**

**FOR MORE INFORMATION
CONTACT: YOLANDA
STEVENS @ 083 392 6510
or THALITA vd MERWE
@ 082 291 4916**

**CONTACT THE GYM
MANAGER IF INTERESTED!**

APPENDIX C

CERTIFIED - INTERVIEW SCHEDULE

(Introduction) Good afternoon. How are you...

If you are ready, I am going to switch on the voice recorder now.

I am currently a master's student at the NWU. I am conducting research in the recreation industry regarding rock climbing certification. The aim of my study is to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification and, to explore and describe certified rock climbers' perceptions regarding the certification process.

Do you have any questions for me?

Before we begin, I just want to remind you that you can withdraw from the study at any moment.

(I will make notes during the interview just to capture most of the session)

Have you read through, and signed the consent form? Is there anything that you do not understand?

START-UP QUESTIONS	
Can you provide me with a brief overview of your climbing history?	
MAIN QUESTIONS	PROBING QUESTIONS
Attitude	
How do you feel about rock climbing certification in South Africa?	• What are the advantages and disadvantages of rock climbing certification? • For you as a climber? For the industry? • What type of costs were involved in the certification process? • Briefly explain what you had to do to get certified. The hours that you had to climb. • Do you believe that every climber should be certified? Why?

Subjective norm	
How does the climbing community's (e.g. friends, climbers, climbing gym, etc.) perception of certification influence your willingness to gain certification?	• Why do you think your social group approve or disapprove of certification? • How did social pressure influence you to obtain certification? Elaborate.
How do you think does being a certified instructor influence clients' experience?	• How do you mention that you are certified to clients before you go climbing? • What do you tell clients about rock climbing certification if they ask?
Control	
How do you feel about the rock climbing certification process in South Africa?	• What are the potential barriers for most climbers to obtain certification? Elaborate. • What are the factors or circumstances that encourage or aid climbers to obtain certification? Motivate.

OBJECTIVE 2 – Certification process	
Can you elaborate on the process to obtain SAQA/ MDT rock climbing certification?	• Was there any cost involved? • What pre-requirements did you have to meet in order to start with the certifying process? • What entails the assessment? Practical hours? Clients? • How long did it take to obtain the certification? • How did you experience the assessment? • Who was responsible for your assessment? Who was it determined? • Does your certification restrict you in any way? Explain. ▪ Number of clients? ▪ Anywhere in South Africa? ▪ Are you being monitored as a certified climber in any way? ▪ How does MDT/ SAQA fit into the certifying process?

OBJECTIVE 2 – Certification process	
	▪ For how long is the certification valid for? What record-keeping requirements do you have to keep the certification?
Should there be a difference between the indoor and outdoor certification process?	• Why should it differ? • How should certification differ?

Do you have any questions for me?

Is there anything else that you would like to add?

Close – Thank you.

NON-CERTIFIED - INTERVIEW SCHEDULE

(Introduction) Good afternoon. How are you...

If you are ready, I am going to switch on the voice recorder now.

I am currently a master's student at the NWU. I am conducting research in the recreation industry regarding rock climbing certification. The aim of my study is to explore and describe certified and non-certified rock climbers' attitudes, perceived social pressures and control over certification and, to explore and describe certified rock climbers' perceptions regarding the certification process.

Do you have any questions for me?

Before we begin, I just want to remind you that you can withdraw from the study at any moment.

(I will make notes during the interview just to capture most of the session)

Have you read through, and signed the consent form? Is there anything that you do not understand?

START-UP QUESTIONS	
Can you provide me with a brief overview of your climbing history?	
MAIN QUESTIONS	PROBING QUESTIONS
Attitude	
How do you feel about rock climbing certification in South Africa?	• What are the advantages and disadvantages of rock climbing certification? • For you as a climber? For the industry? • What type of costs were involved in the certification process? • Do you believe that every climber should be certified?
Subjective norm	
How does the climbing community's (e.g. friends, climbers, climbing gym, etc.) perception of certification influence your willingness to gain certification?	• Why do you think your social group approve or disapprove of certification? • Did/ Do you feel social pressure to obtain certification? Elaborate.

	Is the gym community motivating you to get rock climbing certified? Explain how or why not?
How do you think does being a certified instructor influence clients' experience?	- How do you mention that you are not certified to clients before you go climbing? - What do you tell clients about rock climbing certification if they ask?
Control	
How do you feel about the rock climbing certification process in South Africa?	- What are the potential barriers for most climbers to obtain certification? Elaborate. - What are the factors or circumstances that encourage or aid climbers to obtain certification? Motivate.

Do you have any questions for me?

Is there anything else that you would like to add?

Close – Thank you.

BIOGRAPHICAL QUESTIONNAIRE

<https://www.surveymonkey.com/r/HN2NCBC>

GENERAL INFORMATION			
Name:			
Surname:			
Contact details:			
Cell phone:			
E-mail:			
Gender:		Age	
Town:			
Province			
BRIEF OVERVIEW OF YOUR CLIMBING HISTORY AND EXPERIENCE			
When did you start climbing?			
Do you climb indoor and/or outdoor?	☐ Indoor ☐ Outdoor		
How often do you climb?	Indoor: ☐ a week Outdoor: ☐ a week		
Do you prefer to climb on your own or with a climbing community (can include: friends, climbers, climbing gym, etc.)	☐ Own ☐ Climbing community ☐ Both		
How many people in your climbing community is certified?			
Do you have rock climbing certification? MDT or SAQA?			
If yes, at which company did you obtain the certification?			
How long did it take to obtain the qualification?			
Are you currently employed as an instructor at a climbing gym?	Full-time ☐ Yes ☐ No		
	Part-time ☐ Yes ☐ No		

APPENDIX D

PROOF OF LANGUAGE EDITING

