

Playing time of professional senior rugby players across all levels of South African rugby, 2007 –2012: implications for transformation

By

Jacques du Toit

(DTTJAC019)

SUBMITTED TO THE UNIVERSITY OF CAPE TOWN
in fulfillment of the requirements for the degree

Master of Science

(MSc)

UCT/MRC Research Unit for Exercise Science and Sports Medicine, Department
of Human Biology, Faculty of Health Sciences,

UNIVERSITY OF CAPE TOWN

Sports Science Institute of South Africa, Boundary Road

Newlands 7700, South Africa

10 February 2014

Supervisor:

Professor Michael I. Lambert, PhD

UCT/MRC Research Unit for Exercise Science and Sports Medicine, Department of Human Biology,
Faculty of Health Sciences, University of Cape Town



The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

Playing time of professional senior rugby players across all levels of South African rugby, 2007 – 2012: implications for transformation

Mr. Jacques du Toit *Ba (Hons) Biokinetics*

Master of Science
Department of Human Biology, Exercise Science and Sports Medicine
Faculty of Health Sciences
University of Cape Town

Correspondence:

Jacques du Toit
Department of Human Biology, Exercise Science and Sports Medicine
Faculty of Health Sciences
University of Cape Town
3rd Floor Sports Science Institute of South Africa
Boundary Road
Newlands, 7700
Cape Town
South Africa
Tell: 074 140 0506
Email: biokinjdt@gmail.com

Contents

Declaration.....	6
Acknowledgements.....	7
List of Figures	8
List of Abbreviations, Definitions and Symbols	10
Abstract.....	12
Background and Motivation for the Study	14
Chapter One.....	16
LITERATURE REVIEW AND SCOPE OF THESIS	16
1. Introduction.....	17
1.1 <i>The Birth of Rugby Football</i>	17
1.2 <i>Technical Side of Rugby Union</i>	18
1.3 <i>Rugby in South African Context</i>	19
1.3.1 <i>Apartheid</i>	19
1.3.2 <i>Sport and Rugby during Apartheid</i>	20
1.3.3 <i>Sport and Rugby Post-Apartheid</i>	21
1.4 <i>Unity through sport</i>	22
1.5 <i>Representation</i>	23
1.5.1 <i>Sporting Representation</i>	23
1.5.2 <i>Transformation Charter for South African Sport</i>	24
1.6 <i>Transformation</i>	25
1.7 <i>Transformation Facilitating Programmes</i>	25
1.7.1 <i>“Spoornet Rugby Excellence” and “Nike All Stars” programmes</i>	25
1.7.2 <i>Mobile Team Training System and Mobile School Training System</i>	26
1.7.3 <i>Green Squads and Elite Squad Project</i>	29

1.7.4	<i>Modified Competition Formats</i>	29
1.8	<i>Measuring Transformation</i>	30
1.9	<i>Provincial Ethnic Profiles</i>	30
1.10	<i>Synopsis</i>	32
1.11	<i>Research Aims and Objections</i>	33
1.12	<i>Research Methods</i>	33
Chapter Two.....		35
METHODOLOGY		35
2.	<i>Methodology</i>	36
2.1	<i>Study Sample</i>	36
2.2	<i>Playing Time and Number of Players</i>	36
2.3	<i>Player Classification</i>	37
2.4	<i>Arithmetical Accuracy</i>	37
Chapter Three		38
RESULTS.....		38
Chapter Four		56
DISCUSSION		56
4.	<i>Discussion</i>	57
4.1	<i>International and Provincial Competitions</i>	58
4.1.1	<i>Springboks</i>	58
4.1.2	<i>Super Rugby Competition</i>	59
4.1.3	<i>Currie Cup Competition</i>	60
4.1.4	<i>Vodacom Cup Competition</i>	60
4.2	<i>Union Representation</i>	62
4.2.1	<i>Super Rugby Unions</i>	62
4.2.2	<i>Currie Cup Unions</i>	63

4.2.2.1 Premier Division Unions vs. First Division Unions	64
4.2.3 Vodacom Cup Unions.....	65
4.2.3.1 North Division vs. South Division	65
4.3 Transformation, what does the data show?	66
Chapter Five	69
PRACTICAL APPLICATION & CONCLUSIONS	69
Chapter Six	72
REFERENCES	72

Declaration

I, **Jacques du Toit** hereby declare that the work on which this dissertation is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university.

No part of this dissertation may be reproduced, stored in a retrieval system, or transmitted in any form or means without prior permission in writing from the author or the University of Cape Town, Department of Human Biology, Exercise Science and Sports Medicine.

.....

(Signature)

.....

(Date)

Acknowledgements

I would like to thank the following people for their guidance, encouragement and support, in my pursuit in completing this thesis as part of my requirements for the Master of Science postgraduate degree.

- To my Lord and savior, Jesus Christ, who gives me strength to achieve all things through He who strengthens me.
- To my amazing wife Kim and daughter Tayla, for their unconditional love, support and for always being a pillar of strength.
- To my parents and brother for teaching and showing me that any goal is achievable through hard work and dedication. Also for their unconditional love and support.
- To Professor Mike Lambert, for his patience's, guidance and commitment to quality.
- To my manager, Mr. Justin Durandt, for allowing me extra time to complete my studies and for being a role model in the High Performance Centre.
- To the Sports Science Institute of South Africa, and Mrs. Marlene Coetzee for their financial support for my studies.

List of Figures

Figure 1. Rugby union playing positions.....	19
Figure 2. Placement of the MTTs gymnasia according to regional rugby unions	28
Figure 3. Placement of the MSTs gymnasia according to regional rugby unions	28
Figure 4. Borders of South African Provincial rugby unions.....	31
Figure 5. Summary showing whether players had the expected playing time (=), overplayed (↑), or underplayed (↓) in the Springbok, Super Rugby, Currie Cup and Vodacom Cup (2007-2012).....	43
Figure 6. Playing time (%) and playing numbers (%) of Springboks and Super Rugby from 2007 - 2012 per year and ethnicity.....	50
Figure 7. Playing time (%) and playing numbers (%) of Currie Cup and Vodacom Cup Rugby from 2007 - 2012 per year and ethnicity.....	51
Figure 8. Playing time (%) and playing numbers (%) of Super Rugby franchise (Blue Bulls, Cheetahs and Golden Lions) from 2007 - 2012 per year and ethnicity.....	52
Figure 9. Playing time (%) and playing numbers (%) of Super Rugby franchise (Sharks and Stormers) from 2007 - 2012 per year and ethnicity.....	53
Figure 10. Playing time (%) and playing numbers (%) of premier and first division for Currie Cup from 2007 - 2012 per year and ethnicity.....	54
Figure 11. Playing time (%) and playing numbers (%) of North and South division for Vodacom Cup from 2007 - 2012 per year and ethnicity.	55

List of Tables

Table 1. The number and (%) of white, black and coloured rugby players for the Springboks, Super Rugby, Currie Cup and Vodacom Cup teams, 2007-2012	39
Table 2. Total playing time (minutes) and (%) of white, black and coloured rugby players for the Springboks, Super Rugby, Currie Cup and Vodacom Cup teams, 2007-2012	40
Table 3. Summary showing whether players had the expected playing time (=), overplayed (↑), or underplayed (↓) in the Springbok, Super Rugby, Currie Cup and Vodacom Cup (2007-2012).....	41
Table 4. The number and (%) of white, black and coloured rugby players per franchise for Super Rugby, 2007-2012.....	44
Table 5. Total playing time (minutes) and (%) of white, black and coloured rugby players per franchise for Super Rugby, 2007-2012	45
Table 6. Total numbers and (%) of white, black and coloured rugby players per union for Currie Cup, 2007-2012	46
Table 7. Total playing time and (%) of white, black and coloured rugby players per union for Currie Cup, 2007-2012	47
Table 8. Total numbers and (%) of white, black and coloured rugby players per union for Vodacom Cup, 2007-2012.....	48
Table 9. Total playing time and (%) of white, black and coloured rugby players per union for Vodacom Cup, 2007-2012.....	49

List of Abbreviations, Definitions and Symbols

SSISA	Sport Science Institute of South Africa
HPC	High Performance Centre
SARU	South African Rugby Union
MTTS	Mobile Team Training System
MSTS	Mobile School Training System
IRB	International Rugby Board
RWC	Rugby World Cup
NP	National Party
ANC	African National Congress
SARFB	South African Rugby Football Board
SACRB	South African Coloured Rugby Board
SABRB	South African Bantu Rugby Board
SARFU	South African Rugby Football Union
SACOS	South African Council of Sport
IOC	International Olympic Committee
ICC	International Cricket Council
ODI	One Day International
Springboks	South African Rugby national side
Baby Boks	South African Rugby u20 national side
Proteas	South African Cricket national side
Transformation	A conscious process of eliminating discrimination

CSA	Cricket South Africa
Grant Khomo Week	National Rugby u16 competition
Academy Week	National Rugby u18b competition
Craven Week	National Rugby u18a competition
Varsity Cup	National University Rugby Competition
u19	Age group representation of players. Aged under 19 years
u21	Age group representation of players. Aged under 21 years
Players of colour	Euphemism used by the SARU to represent both black and coloured players
Playing time	Actual time (minutes) played during a match

Abstract

Introduction

A single governing body to govern South African rugby was formed in 1992. This allowed for changes to governmental policies to South African sport, resulting in South African sport being fully representative of the population. The South African Rugby Union (SARU) therefore has a continual challenge to make rugby fully representative at both provincial and national levels. Previously rugby has been dominated by white players at all levels. The SARU has implemented various programmes in order to accelerate the development of players of colour. Previously the success of these programmes has not been evaluated because the players representing different ethnic groups have not been quantified in a systematic way.

Objectives

The aim was to quantify playing time and playing numbers of South African professional rugby players of different ethnic groups from 2007 to 2012 at all professional levels (Springboks, Super Rugby, Currie Cup and Vodacom Cup). Quantifying playing time and playing numbers was done to establish changes in profile of South African rugby players across the given time period. Thus the efficacy of the SARU programmes to accelerate transformation was indirectly evaluated. A further aim was to determine if there had been a change in ethnic profiles between the various rugby unions from 2007 to 2012.

Methods

Players were divided into ethnic groups (white, black or coloured) by using the same ethnic classification used by the SARU. Playing time was recorded for all professional rugby players for all sanctioned matches over six seasons (2007-2012).

Results

There were proportionally more white players at all levels of competition. Followed by coloured and then black players. This pattern did not change when comparing both duration (2007 to 2012) and level of competition. Based on the ratio of playing numbers vs. playing times, 54% of the situations were equally represented, 21% of the situations were

overrepresented and 25% of the situations were underrepresented. In all competitions across all seasons, white players were overrepresented 46% of the time, black players were never overrepresented and coloured players were 17% of the situations overrepresented. White players were underrepresented 4% of the situations, black players 42% of the situations and coloured players 29% of the situations were underrepresented. White players were equally represented in 50% of the situations, black players were equally represented in 58% of the situations and coloured players were equally represented in 54% of the situations. At Springbok level white players played more than expected, whereas black players were underrepresented. At Super Rugby white players were overrepresented in 2009 and 2010 while black players were underrepresented in 2007 and 2010. At Currie Cup level white players played more than expected and were overrepresented in five of the six years while both black and coloured players played less than expected. The Vodacom Cup had the most consistency, out of a possible 18 situations (6 years X 3 ethnic groups X 1 Competition) 83% of the time the players were equally represented.

Conclusion

The SARU has implemented many programmes and invested large funds in trying to eradicate the negative after effects of the apartheid system. The aim of the SARU is to make rugby fully representative at all levels. Despite the SARU's efforts, the game remains dominated by white players at all levels. Players from previously disadvantage areas are still struggling to be represented at a professional level.

Background and Motivation for the Study

The Sport Science Institute of South Africa (SSISA) was founded in 1995 by Professor Timothy Noakes and Morne du Plessis. The goal of the SSISA is to provide a facility that applies science to improve sporting performance. The Discovery High Performance Centre (HPC) is a unit within the SSISA that works directly with high performance athletes and teams.

Rugby union became professional in 1995 and the demands on the players increased. This prompted a more integrated scientific approach to manage the players to ensure their well-being while also improving the fitness characteristics associated with rugby. To fulfill this requirement, an ongoing close working relationship has been established between the HPC and the South African Rugby Union (SARU). The HPC therefore performs various projects in conjunction with the SARU to continuously improve South African rugby.¹⁻³

The HPC has provided various services to the SARU since 1995 when SSISA opened. These services include the following but are not limited to;

- Providing scientific approach to talent identification and talent development programmes.
- Preparation and planning of high performance camps at various ages.
- Physiological assessment of players to determine the player's physiological profile; performed through reliable, valid and standardized tests.
- Implementation of national rugby census (primary school, high school and club level) to accurately determine the number of rugby players, clubs and schools that offer rugby as a sport in each province.
- Player tracking of every professional South African rugby player to determine the playing time of each player.
- Implementation of the Mobile Team Training System (MTTS) and the Mobile School Training System (MSTS) programmes. This programme is designed to provide strength training equipment to previously disadvantaged areas.

The playing time of senior South African rugby players has been tracked annually since 2005 to provide information about their playing workloads. It was anticipated that this would be

useful to understand changes in the pattern of overuse injuries. However, it was subsequently realized that the player tracking could also provide a method to quantify the effectiveness of transformation programmes and policies. The next section will put this into context followed by the experimental chapter, discussion of the results and the practical applications of the results.

Chapter One

LITERATURE REVIEW AND SCOPE OF THESIS

1. Introduction

1.1 *The Birth of Rugby Football*

Located within Warwickshire, England, is a small town named Rugby. During a game of football in 1823 at Rugby House School in Rugby, a pupil William Webb Ellis picked up the ball and ran with complete disregard for the rules of football.⁴ This story whether fact or fiction, has been credited with the “formation” of the game of rugby football. The popularity of the game played by Rugby House School continued to grow and spread across the United Kingdom (UK). In 1845 the first set of rules were drawn up by students from Rugby House School with the assistance of their school headmaster.⁵ Only 26 years later in 1871, the first rugby football international was played between England and Scotland. This international match laid the foundation for the first international competition to be played in 1883, the Four Home Nations Championship (England, Scotland, Wales and Ireland) which today is commonly known as the Six Nations Championship (with inclusion of Italy and France).^{6,7} Rugby unions continued to form across the UK, a need for an international governing body arose and the International Rugby Board (IRB) was founded in 1886 by Ireland, Scotland and Wales.⁸

It was not until 1895 before the inevitable split in Rugby Football occurred. Rugby League split away from Rugby Football. Rugby football then became known as Rugby Union.⁹ Rugby League removed the restriction on financial payments to players in 1898, becoming a professional sport and continued to grow in popularity.¹⁰ Rugby union continued to remain an amateur sport and the first Rugby World Cup (RWC) was held in 1987.^{11,12} The RWC has subsequently been held every 4 years and remains the premier international tournament.

In 1995 the IRB removed restrictions on payments to players and benefits to those connected to the game, allowing rugby union to become professional.¹³ Since the start of the professional era, the game has experienced exponential global growth. The IRB reports that there are currently over 3.5 million men, women and children playing rugby worldwide. There has also been an increase in the number of members of the IRB, expanding now to 117 unions.¹⁴ The growth of rugby union is reflected through a continuous increase in

television viewership, with an estimated record of 41.8 million people tuning in to watch the 2011 RWC final.¹⁵

In the following review the development of rugby union and South African rugby in particular will be discussed. The changes experienced by South African rugby through a shift from amateur to professional status and pre-apartheid to post-apartheid era will be discussed. Also the various programmes that have been implemented by the SARU to accelerate the changes in demographic profile of South African rugby players will be discussed.

1.2 Technical Side of Rugby Union

The object of rugby union (referred to as rugby from here onwards) is to score points by either placing the ball down in the opponents in goal area by hand (a try) or by kicking the ball through the posts and over the bar following a penalty, a drop goal or a try.¹⁶ Rugby is a contact sport played by two teams consisting of 15 players each and 7 substitutes. The team is further divided into 8 forward players (forwards) and 7 backline players (backs), each with different roles within the team (Fig 1). The forwards are also further divided into front row, second row and loose forwards. The forwards main responsibility is to obtain and maintain possession of the ball. The backs are divided into half backs, inside backs and outside backs. The main responsibility of the backs is to attack and run with quickness and agility in an attempt to get the ball over the oppositions try line.¹⁷ At senior level the game is played over an 80 minute period with two halves of 40 minutes each. After the first half the teams change the playing direction.

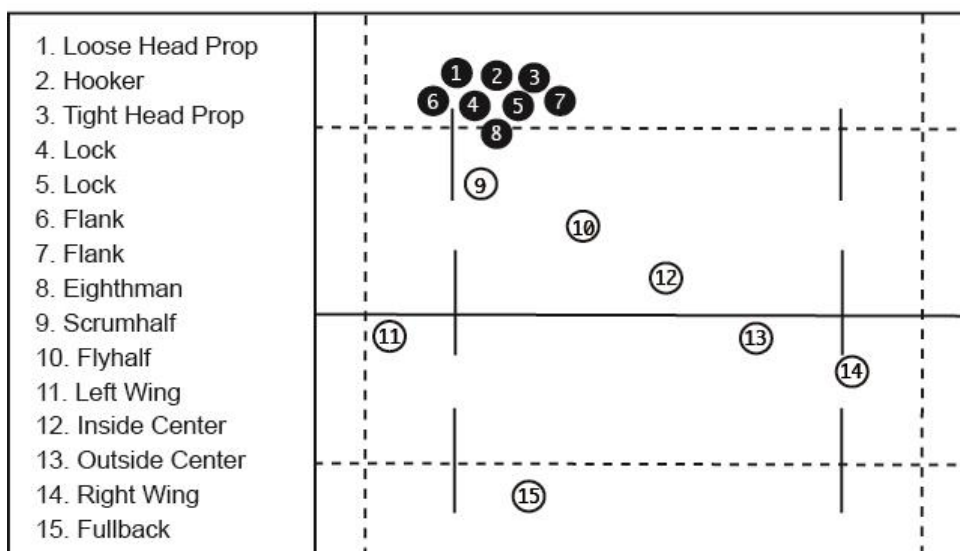


Figure 1. Rugby union playing positions

1.3 Rugby in South African Context

1.3.1 Apartheid

The national governing body of South Africa at the time, the National Party (NP) passed legislation in 1948 enforcing a system based on racial segregation. This system was commonly known as Apartheid and allowed for white supremacy of an Afrikaner minority who ruled through a legislation which classified the community into four racial groups, namely white, coloured, native and Asian.^{18,19} The NP further passed various Acts to reinforce and entrench Apartheid, such as the Population Registration Act (identification cards to be carried at all times indicating race), the Group Areas Act (separated living areas and use of public areas defined by race) and the Bantu Education Act (separate education for non-whites designed to develop laborers). The Apartheid system with the implemented Acts described above resulted in the ruling white community having access to the best education, medical facilities, public areas, public services and sporting facilities. Conversely the non-white population groups that were subjected to the Apartheid system were negatively affected in all these aspects including sporting development facilities and structure across all sporting codes.¹⁹

Protests against Apartheid started across the nation in the 1950's. These protests gained international momentum, leading to international economic sanctions (enforced by United Nations) and a number of sporting bans prevented international participation by any South

African team.¹⁹ Years of national unrest drew international attention which ultimately provided the impetus needed for the abolishment of the Apartheid system. President Frederick Willem de Klerk lifted the ban on the African National Congress (ANC) on the 2nd of February 1990. On 17 June 1991 the Apartheid system was abandoned and abolished. However, by then after 43 years of discrimination against non-white players, the development of national sport had been severely affected. Most of the national representative teams were dominated by white players for several years after the abolishment of Apartheid, national teams remained overrepresented with white players.

1.3.2 Sport and Rugby during Apartheid

A governmental system based on racial segregation filtered through all South African sport. For example, South African rugby was controlled by three national governing bodies each established for and controlled by a specific racial group; (i) the South African Rugby Football Board (SARFB), (ii) South African Coloured Rugby Board (SACRB), (iii) and South African Bantu Rugby Board (SABRB).

The SARFB was established in 1889 and governed rugby played by white players. Out of the three governing bodies, only the SARFB was recognized at the time by the IRB. Rugby continued to grow outside of the white community, leading to the formation of the SACRB in 1897. The SACRB governed rugby played by both coloured and black players. In 1935 the SABRB broke away to govern rugby played by the South African black community. Rugby continued to grow in all communities, leading to the establishment of provincial leagues and tournaments. Every year unions governed by SARFB competed for the Currie Cup, while the Rhodes Cup was contested by unions governed by the SACRB.

The SARFB Springboks had been participating in international tours and test matches since they played their first test match on 30th July 1891 against the British Isles. While the SACRB and SABRB selected their own Springboks to play local test matches against each other.

The same seclusion and segregation was seen throughout South African cricket. Coloured players were not allowed to play first class cricket, a right reserved exclusively for white players. In 1960 Basil D'Oliveira, a talented coloured cricketer, immigrated to England to

play international cricket. The 1968 England national tour to South Africa was immediately placed in jeopardy due to the inclusion of Basil D'Oliveira into the English touring team. Due to policies governing South African cricket, coloured players were not allowed to play international cricket for South Africa or within South African borders and after various meetings the tour was cancelled.²⁰

Despite social unrest, racial segregation continued within South African sport and ultimately resulted in international bans. Team South Africa was banned from the 1964 Summer Olympics, when the International Olympic Committee (IOC) withdrew South Africa's invitation to compete in the games.²¹ In 1970, the International Cricket Council (ICC), suspended South Africa (currently known as the Proteas) from competing internationally with immediate effect.²² The South Africa rugby team (currently known as the Springboks) was excluded from the Rugby World Cup in 1987 and 1991.²³

The South African Council on Sport (SACOS) was established in 1973. This organization created a structure through which disadvantaged communities could oppose Apartheid and in particular provide a direct platform for black politicians to consolidate and oppose Apartheid using sport as a vehicle.²⁴

1.3.3 Sport and Rugby Post-Apartheid

After the abolishment of Apartheid in June 1991, there was a lifting of international sanctions on South African sport. Cricket was the first major code to be readmitted into international sport. Since readmission the Proteas have been ranked mostly in the top half of the ICC test and One Day International (ODI) rankings. The pinnacle of Proteas cricket was achieved late in 2012, when the Proteas held the world number one ranking for three different formats (ICC test cricket, one day international cricket and International twenty twenty cricket) simultaneously.²⁵

In 1992 the South African Rugby Football Union (SARFU) was formed. This was a single body designed to govern all rugby within South Africa, irrespective of racial classification. Under this body the Springboks were in 1992 readmitted into international rugby.²⁶ In 2005, the SARFU changed its name to the South African Rugby Union (SARU). Since their

reinstatement, the Springboks have excelled internationally at all age groups. The Springboks won the Tri-Nations (a competition between Australia, South Africa and New Zealand) in both 1998 and 2004, and also the Rugby World Cup in both 1995 and 2007.²⁷ South Africa has further had success at junior level winning the u19 Rugby World Championship in 2005 and the u21 Rugby World Championship in 2002 and 2005. Both tournaments were replaced in 2008 by the IRB Junior World Championship. The national u20 side (commonly known as “Baby Boks”) won the IRB Junior World Championship in 2012.

Since re-admission to international sport South Africa has hosted major international sporting events. For example, South Africa hosted the Rugby World Cup in 1995, the Cricket World Cup in 2003 and FIFA Soccer World Cup in 2010. South Africa was furthermore awarded a grade 9 out of 10 for the organization of the FIFA World Cup from FIFA president, Sepp Blatter.²⁸

1.4 Unity through sport

South African sport has been targeted and used to oppose racial and cultural segregation. For example, the “First Springboks” toured Great Britain in 1906. The team was culturally divided and was led by Paul Roos. This division can be attributed to the Anglo-Boer War that ended 4 years before the tour, leaving animosity between English and Afrikaans speaking South Africans. On this tour the Springboks beat Wales, France, and Ireland, drew with England and lost to Scotland. The team’s success brought about a sense of unity between English and Afrikaans speaking South Africans.

In 1992, the first democratic elections were held in South Africa and Nelson Mandela was elected as South Africa’s first black president. This was a volatile period and Nelson Mandela constantly called for peace and was given the task of appeasing those people who had been discriminated against (black population) while trying to reassure the white population that they had a future in South Africa.²⁹

The Springbok emblem at the time was synonymous with oppression and Apartheid. Political squabble broke out as some politicians opposed the Springbok emblem, which

however remained important to the Afrikaans population. President Mandela took a controversial stance and maintained the Springbok emblem as he saw it as an opportunity to join two previously separated worlds. On the eve of the 1995 World Cup semi-final against France, President Mandela while wearing a Springbok cap, made a national statement through both his speech and actions as he addressed a crowd at a youth rally. President Mandela expressed his desire for the country to support the Springboks, as it was now a team that represented the entire nation and no longer only a white minority.³⁰

South Africans across cultures started to unite behind the Springboks as the President led the way. The inclusion of Chester Williams marked a significant moment as he was the first player of colour (a euphemism used by the SARU for both black and coloured players) to represent the Springboks in a RWC. Moments before the RWC final at Ellis Park, Nelson Mandela walked out to greet the team. The President was wearing the jersey of the Springbok captain, an Afrikaner, Francois Pienaar. This moment would become synonymous with South African sport, as a black African jailed under the Apartheid system embraced the national captain, an Afrikaner and vice versa. “One Team, One Country” the appropriate slogan of the Springboks during the 1995 RWC.²⁴ President Mandela transformed the image of the Springbok to that of one which speaks of hope and change. This important time in South African history was depicted in the movie “Invictus”, starring Morgan Freeman as Nelson Mandela and Matt Damon as the Springbok captain Francois Pienaar.³¹

1.5 Representation

1.5.1 Sporting Representation

The South African population of 40,583,573 people in 1996 increased to 51,770,560 people by 2011. Over the same time period the black population increased from 77.4% to 79.2%, the coloured population decreased from 9.0% to 8.9%, the white population decreased from 11.0% to 8.9%, while the Asian/Indian population decreased from 2.6% to 2.5%.³² Despite the demographic profile of South Africa, the majority of the sporting codes, except soccer have remained dominated by white players.

Transformation is defined as a conscious process of eliminating discrimination as a result of unequal opportunity following Apartheid.³³ As in the sporting context transformation can be understood as a process of increasing the representation of players of colour in all teams, so that representative teams reflect the demographics of the population and are selected on merit. Once an equal environment with equal opportunities are established, transformation processes would no longer be needed.³³

In November 2011, a memorandum of understanding was established between The Department of Basic Education and the Department of Sport and Recreation South Africa. The memorandum dictated the method of implementing an integrated schools sports framework which would see an increase in sport participation in all schools in the country. Furthermore the memorandum described the implementation of physical education at schools. This framework was designed to contribute to transformation by increasing the opportunity for all young people to participate in sport and also improving facilities in rural areas.³⁴

1.5.2 Transformation Charter for South African Sport

The National 2012 Transformation Charter for South African sport was published at the Sport and Recreation indaba towards the end of 2011.³³ The transformation charter forms the framework for all South African sport. The purpose of the charter is to change the delivery of sport to ensure:

- The socio-economic benefits of sport are harnessed
- The constitutional right to sport is recognized
- Increased access and opportunities to all South Africans

The charter outlines the principles and basis for designing and implementing a transformation strategy on the basis of broad-based empowerment. Furthermore, the charter includes a transformation scorecard and measurement system. This scorecard is designed to assist administrators of sporting codes to manage the transformation process and provide direction for fund allocation.

1.6 Transformation

Since South Africa's readmission into international sport, players of colour were eligible for national participation. Despite the availability of international competitions, the South African national teams have generally been underrepresented with players of colour. The National cricket team that participated in the 1999 Cricket World Cup comprised of an all-white squad.³⁵ The Apartheid system allowed for white players to receive superior education, opportunities and sporting facilities to that of their black and coloured counterparts. This resulted in white players having improved opportunities for development and exposure to sport of a higher level and contributed to white dominance within South African sport, particularly rugby and cricket.

Various programmes were implemented within Cricket South Africa (CSA) to aid the transformation process. Research was carried out to evaluate the success of these programmes show that from the 1996/1997 to the 2007/2008 season, the representation of players of colour based on head count had increased in the provincial 4 day competition.³⁶ However, further studies showed a very low representation of black batsmen at both junior and senior provincial levels.³⁷

The SARU recognized the need to implement various programmes and projects to facilitate the development of players of colour and eradicate the hindrances of Apartheid. These will be discussed in the next section.

1.7 Transformation Facilitating Programmes

1.7.1 "Spoornet Rugby Excellence" and "Nike All Stars" programmes

The SpoorNet Rugby Excellence programme was the first programme designed to specifically accelerate black rugby players into high levels of performance. The programme was initiated in 1998 and continued until 2002. The programme targeted players of all ages and the aim of the programmes were to provide players with the support needed to develop into professional players and participate within the senior ranks of South African rugby. All players selected for the programme underwent a full medical examination by a sports

physician. The programme funded any further interventions that the examination might have exposed. The players performed physiological testing from which a physiological profile was developed. Based on the physiological profile, customized strength training programmes were developed for each player. Players were also given access to strength training facilities close to their homes. Training camps were held for these players for continual development and ongoing assessments. Players also received transport and educational grants where appropriate. (Justin Durandt, personal communication)

The Nike All Stars programme started in 1999 and focused on identifying talented players between the age of 12 and 15 years old. Provincial trials were held to identify players for the programme. The identified players attended annual training camps where they were exposed to the demands and expectations of a professional athlete. The training camps included physiological testing, nutritional advice, life skills workshops and technical coaching. The programme continued until 2002. (Justin Durandt, personal communication)

1.7.2 Mobile Team Training System and Mobile School Training System

A study performed at the national u/18 week (Craven Week) in 2002 showed that the body mass of players of colour was on average 8kg less than the white players.³⁸ This study also revealed that most white players had access to training facilities that enabled them to improve their strength, in contrast to many players of colour who did not have access to weight training equipment. As a consequence of this study the SARU introduced high-performance workshops at Craven Week to educate players about the importance of strength training.

These findings also prompted the SARU, in conjunction with the Sport Science Institute of South Africa (SSISA), to launch the Mobile Team Training System (MTTS). These were shipping containers which were modified to include quality strength training equipment. They were designed so that an entire squad could simultaneously perform strength training in a circuit. The MTTS were also designed so that they could be transported into remote areas that were identified by the SARU as regions with limited or no strength training facilities. Consultants from the SSISA performed strength training workshops with both the

coaches and players of the region which received the MTTS. The same consultants provided ongoing support and visited the MTTS regularly to either service or replace damaged equipment. By the end of 2013, the SARU had distributed 36 MTTS units across the country and 2 internationally (One in Kenya and another in Namibia).

In 2010 the Mobile School Training System (MSTS) was provided to twenty schools selected by the SARU. They were all rugby-playing schools in previously disadvantaged areas and did not have access to strength training facilities. The MSTS is a smaller container compared to the MTTS, but follows the same concept. The MSTS also contains high quality strength training equipment but in smaller quantity to that of the MTTS. Strength training workshops were held at each school prior to the start of training. Players of the u18 and u16 rugby teams of each school were tested for various physiological and morphological characteristics once they received the MSTS unit and then again at the end of the season. The school with the best improvements in the measurements received a further incentive from the SARU.

In 2013, the compliant schools received further support (n=15). The non-compliant schools failed to make adequate use of the MSTS and failed to complete the provided training logbook. These schools were replaced by other schools identified by their respective regional unions. Furthermore an additional 10 MSTS units were provided to 10 schools in the Northern region within the country. The MTTS and the MSTS programme received international recognition from the IRB. The SARU was awarded the 2012 “IRB Development Award” for its approach to player development.³⁹

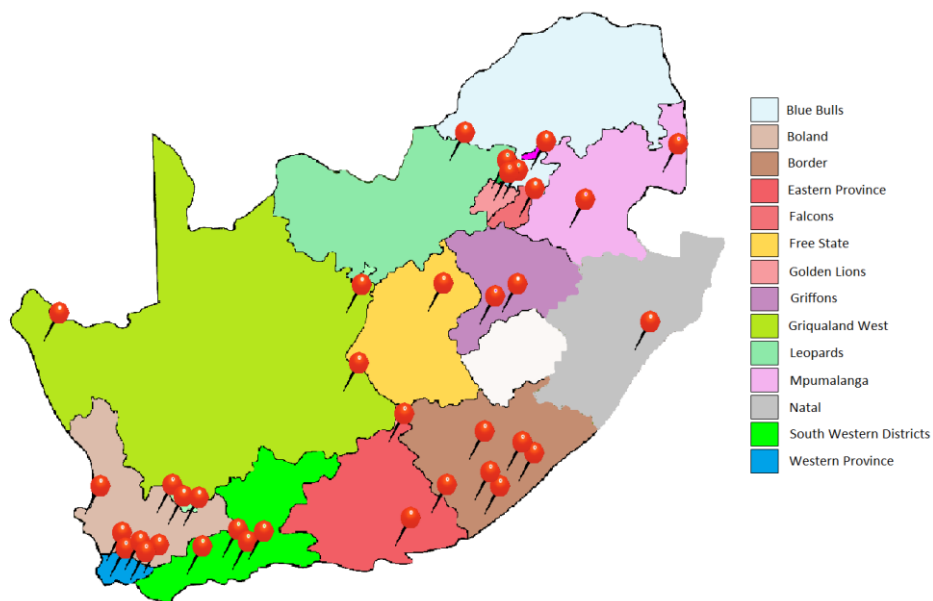


Figure 2. Placement of the MTTs gymnasia according to regional rugby unions

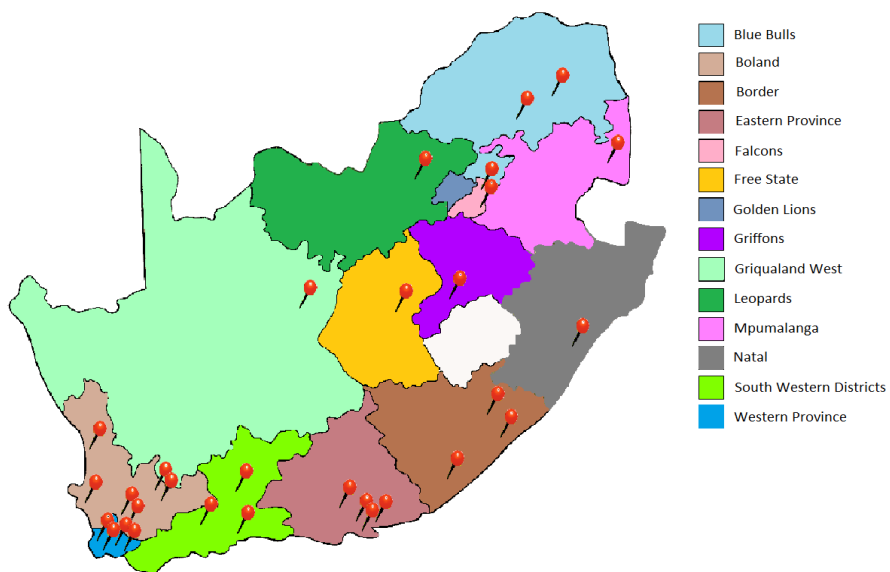


Figure 3. Placement of the MSTs gymnasia according to regional rugby unions

1.7.3 Green Squads and Elite Squad Project

The Green Squad was initiated in 2003 with the aim of developing talent. Players were identified according to their rugby skills by a national panel of selectors. About 100 players were chosen per age group for five different ages groups, under -16, -17, -18, -19 and -20. These identified players were assessed on 3 occasions per year. The assessments included physiological tests, nutritional questionnaires and skill assessment. In 2007, the SARU replaced the Green Squad with the Elite Squad Project. A need for nutritional, supplementation and strength training interventions were identified. Therefore, the elite Squad Project supplied each rugby union with supplements for players and testing equipment to enable the regional staff to measure the physical characteristics of the player. The SARU also gave the provinces financial support for the project. The Elite Squad project ran for 3 years, from 2007 – 2010.

1.7.4 Modified Competition Formats

In addition to the programmes designed to facilitate transformation, the SARU have also made various rule changes to competitions. For example, there are quotas at all junior national weeks; Craven Week (U18A), Academy Week (U18B) and Grant Khomo Week (U16), enforcing squads to be chosen according to targets for certain racial demographics. Different competitions have different quotas for players of colour. Provincial squads are selected at Craven Week with a ratio of maximum 13 white players to a minimum of 9 players of colour. At both Academy Week and Grant Khomo Week, provincial squads are selected with a ratio of maximum 11 white players and a minimum of 11 players of colour.⁴⁰ This competition format was used at all youth weeks in 2013.

The National 2011 Varsity cup Competition (University Rugby Competition) had regulations that the squad of 23 players had to contain at least 5 players of colour of which at least 3 had to be on the field at all times.⁴¹ In 2013, the competition format changed from the enforced inclusion of 5 players of colour to a minimum of 6 players of colour in the match day squad.⁴²

1.8 Measuring Transformation

Although efforts have been made in an attempt to increase the number of players of colour at all levels of South African rugby, the success of the various methods implemented by the SARU is difficult to determine because a clear measurable definition of transformation does not exist.

In 2006 a meeting was held between all provincial rugby union presidents. The provincial presidents discussed the shortcomings of defining transformation by simply counting the number of players of colour in a team.⁴³ A system based on simply counting heads is misleading as it does not distinguish between players selected on merit from “token” players in the team, players who are selected just to achieve the required racial demographics within the squad. Such players would not contribute much to the playing team and therefore mask the “real” transformation of the team.

The 2012 Transformation Charter for South African Sport specifies the monitoring of transformation. National, provincial, club, senior school and junior schools are encouraged and expected to fill out a transformation scorecard. The scorecard requires an indication of the total number of black people in the facility structure, staff members, coaches and players. This system again defines transformation based on head counts.³³

1.9 Provincial Ethnic Profiles

The responsibility for ensuring transformation of rugby at the national level in South African rugby is largely the responsibility of the SARU. In addition to the implementation of national programmes that aid transformation, the successes of these programmes are largely dependent on the involvement of the provincial unions. Each of the fourteen provincial rugby unions represents a different region, Blue Bulls (Pretoria), Boland (Wellington), Border (East London), Eastern Province (Port Elizabeth), Falcons (Springs), Free State (Bloemfontein), Golden Lions (Gauteng), Griffons (Welkom), Griqualand West (Kimberley), Leopards (Potchefstroom), Mpumalanga (Witbank), Natal (Durban), South Western Districts (George) and Western Province (Cape Town).

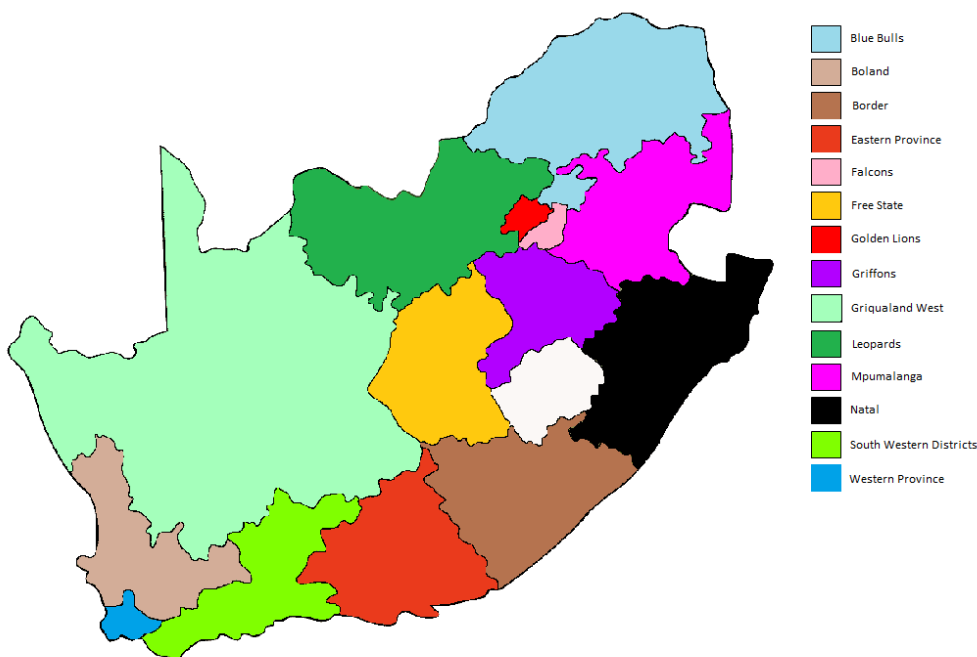


Figure 4. Borders of South African Provincial rugby unions

The earliest representation of South Africa’s diversity was the Bushman and Khoisan. European settlement in the Cape began with the arrival of a Dutchman, Jan van Riebeeck, in 1652. His task was to establish a port in Cape Town to service ships on the Eastern trade route. Independent farmers of Dutch origin began to migrate to the North and East resulting in an increase in the slave trade. Slaves from elsewhere in Africa and the East, descendants of the Khoisan and white colonists formed the basis of the mixed race group now known as “coloureds”. As the colonists moved East, they encountered Xhosa and Zulu speaking black people. The European colonizing of South Africa has led to the development of a multi-racial country with 11 official languages.⁴⁴

Therefore, each region within South Africa contains a different ethnic profile. According to the National Census carried out in 2011, black people account for over 70% of the population in all provinces except in Western and Northern Cape. The coloured population is highest in the Northern and Western Cape. While the highest white population can be found in Western Cape and Gauteng Province. The largest Indian population can be found in Natal. The ethnic profile of each provincial union would therefore be very different from union to union due to the distribution of South Africa’s population.³²

CSA has recognized the Eastern Cape as a region being rich in cricketing history with specific reference to producing black players. Majority of black players that have represented the South African National team have come from this region, including Makhaya Ntini, Monde Zondeki and Lonwabo Tsotsobe.⁴⁵ In rugby terms, the majority of black players to represent the Springboks have also originated from the Eastern Cape, including the Ndungane twins, Lwazi Mvovo and Bandise Maku. This further emphasizes the need to understand that the ethnic profile of each union will differ vastly.

1.10 Synopsis

The review of the literature has shown there have been changes in the trends of both international rugby and South African rugby. For example, rugby has continued to gain public favor as it moved through the stages from being semi-professional to the professional era. The exposure and workload placed on players increase as they progress through the different provincial and national age groups. In South Africa the change of government policies from the Apartheid system to democracy has created the opportunity to include all players into the structures within South African rugby.

A number of steps have been taken by the SARU to assist, and in some cases accelerate, the progression and development of players of colour with the goal of making the game fully representative at all levels. These steps have included programmes aimed at talent identification and development, competition rule changes to regulate the playing exposure to players of colour and the provision of strength training facilities and expertise in previously disadvantaged areas in the country. Despite the attempts by the SARU to transform the game, no studies have been done to determine the efficacy of these programmes.

While players from different racial groups can be counted in teams, this method of measuring transformation is simplistic. We propose that an alternative and better way of defining and monitoring transformation is to report the total playing time of players in a season. This approach would circumvent the problem of having ‘token’ players in the team

who were selected to merely make up numbers so the team could conform to the required demographics. This approach of quantifying transformation programmes is in alignment with the National Sports Plan with which all sporting governing bodies are expected to comply.⁴⁶

1.11 Research Aims and Objectives

The aim of this study will be to assess how rugby has transformed at the professional level from 2007 to 2012. This study will provide the methodology that can be used to measure the efficacy of programmes designed to promote transformation in rugby and other sports.

The aim of this research is;

1. To determine if the attempts by the SARU to transform rugby by implementing programmes at junior level is reflected in the demographics of the professional rugby players from 2007 to 2012.
2. Do the changes in demographic profile of professional rugby players from 2007 to 2012 differ between rugby unions?

1.12 Research Methods

The research and ethics committee of the University of Cape Town granted approval for the study (HREC REF 158/2013). All players involved in Springbok test matches, Super Rugby competitive matches, Absa Currie Cup league matches and Vodacom Cup league matches during these six seasons (2007-2012) were included in the study. The playing time of each player was obtained off the official SARU website which is in the public domain. The playing time of each player was determined per match and then totaled for the season. The players self-reported ethnicity was obtained from the player's profile on the official SARU website. If this was not available the player's union was contacted and asked about the player's self-reported ethnicity. The data are reported as white, coloured and black players. In the

discussion the data are also reported as “players of colour” which refers to both black and coloured players.

Chapter Two

METHODOLOGY

2. Methodology

2.1 Study Sample

The sample consisted of all senior South African rugby players that played at least one minute in either Springbok test matches, Super Rugby competitive matches, Absa Currie Cup league matches and/or Vodacom Cup league matches between 2007 and 2012 (six seasons). The total sample consisted of 7301 players (Springboks n=263, Super Rugby n=995, Currie Cup n=3132, Vodacom Cup n=2911). Players that did not qualify to represent South Africa at international level were excluded from the study (n=111). Such players included players from other countries playing in the South African competitions. The total playing time per competition did not include any playing time of players that were excluded from the study.

2.2 Playing Time and Number of Players

The playing time for all players of each competition was recorded per year. Playing time was defined as the actual time the player spent on the field of play. Playing time was only recorded for competition matches. The playing time was obtained retrospectively for each match from the match reports loaded on the official SARU website (www.sarugby.co.za). Each match had an official dedicated to recording match activity and then producing an after the match report. These match reports are in the public domain and accessible on the official SARU website.

Red and yellow cards, tactical substitutions and blood injury substitutions were considered in the calculations. If a player received a red card he was only credited with the playing time before he received the red card. If a player received a yellow card, the player had the time he was off the field subtracted from the individual total playing time. This was usually 10 minutes but not always the case. When a player was temporarily substituted for blood injury, the playing time was credited to the player replacing the player receiving treatment. The maximum total playing time a player could receive for a match was 80 minutes, unless the competition format allowed for additional halves to be played to determine a winner, as in the case of knock out matches.

If a player played at least 1 minute in either a Springbok test match, Super Rugby league match, Currie Cup league match or Vodacom league match they were accredited with having participated in that year and accredited with an appearance in that match.

2.3 Player Classification

All players were classified according to their ethnicity. This racial classification was the same system used during Apartheid and categorises players as white, black or coloured. The player's ethnicity was based on self-reported ethnicity. The player's ethnicity was obtained through either the players profile (self-reported) on the official SARU website or through contacting the union the player is contracted to.

2.4 Arithmetical Accuracy

Each match was checked for arithmetical error by ensuring the total of the individual playing time during a match accumulated to 1200 minutes per team (15 players x 80 minutes). The total was adjusted if the team received a yellow or red card. Matches from each competition were randomly chosen based on television schedules and viewing availability. The match was then viewed and the playing time of the players was determined through creating a playing time match report. The playing time obtained was then compared to the match report posted on the official SARU website to check for accuracy, no discrepancies between the reports were observed.

Chapter Three

RESULTS

During 2007 to 2012, the total eligible players for this study were 263 players that represented the Springboks, 974 players that competed in the Super Rugby competition, 3080 players competed in the Currie Cup and 2873 players competed in the Vodacom Cup.

The total number of players per season in different competitive levels and breakdown of ethnicities can be seen in Table 1. Across the six year period (competition vs. year) there were proportionally more white players, followed by coloured and then black players. The playing numbers per competition for Springboks, Super Rugby and Vodacom Cup over the six years remained relatively constant. There was a noteworthy increase in number of players in the Currie Cup in 2012.

Table 1. The number and (%) of white, black and coloured rugby players for the Springboks, Super Rugby, Currie Cup and Vodacom Cup teams, 2007-2012

		2007	2008	2009	2010	2011	2012
Springbok	White	38 (76%)	26 (65%)	28 (74%)	35 (70%)	31 (72%)	33 (79%)
	Black	2 (4%)	7 (18%)	4 (11%)	5 (10%)	4 (9%)	2 (5%)
	Coloured	10 (20%)	7 (18%)	6 (16%)	10 (20%)	8 (19%)	7 (17%)
	<i>Total</i>	<i>50</i>	<i>40</i>	<i>38</i>	<i>50</i>	<i>43</i>	<i>42</i>
Super Rugby	White	125 (81%)	121 (78%)	124 (78%)	138 (80%)	137 (83%)	138 (82%)
	Black	7 (5%)	12 (8%)	12 (8%)	15 (9%)	9 (5%)	11 (7%)
	Coloured	23 (15%)	22 (14%)	22 (14%)	19 (11%)	20 (12%)	19 (11%)
	<i>Total</i>	<i>155</i>	<i>155</i>	<i>158</i>	<i>172</i>	<i>166</i>	<i>168</i>
Currie Cup	White	360 (71%)	368 (70%)	356 (71%)	364 (73%)	371 (75%)	414 (75%)
	Black	51 (10%)	56 (11%)	64 (13%)	60 (12%)	53 (11%)	59 (11%)
	Coloured	94 (19%)	102 (19%)	82 (16%)	72 (15%)	73 (15%)	81 (15%)
	<i>Total</i>	<i>505</i>	<i>526</i>	<i>502</i>	<i>496</i>	<i>497</i>	<i>554</i>
Vodacom Cup	White	314 (69%)	309 (65%)	308 (67%)	339 (69%)	378 (73%)	358 (74%)
	Black	56 (12%)	57 (12%)	56 (12%)	59 (12%)	60 (12%)	49 (10%)
	Coloured	83 (18%)	108 (23%)	93 (20%)	90 (18%)	79 (15%)	77 (16%)
	<i>Total</i>	<i>453</i>	<i>474</i>	<i>457</i>	<i>488</i>	<i>517</i>	<i>484</i>

* Totals may not be 100% as a result of rounding percentages

The total playing time per ethnic group for each competition over the six year period is represented in Table 2. The total playing time of white players was higher than that of their black and coloured counterparts. There were no obvious trends over the given time period.

Table 2. Total playing time (minutes) and (%) of white, black and coloured rugby players for the Springboks, Super Rugby, Currie Cup and Vodacom Cup teams, 2007-2012

		2007	2008	2009	2010	2011	2012
Springbok	White	14 451 (81%)	9 967 (64%)	10 918 (76%)	12 666 (71%)	8 321 (77%)	10 408 (79%)
	Black	217 (1%)	1 627 (10%)	1 185 (8%)	913 (5%)	572 (5%)	667 (5%)
	Coloured	3 068 (17%)	3 965 (25%)	2 210 (15%)	4 361 (24%)	1 863 (17%)	2 092 (16%)
	<i>Total</i>	<i>17 736</i>	<i>15 559</i>	<i>14 313</i>	<i>17 940</i>	<i>10 756</i>	<i>13 167</i>
Super Rugby	White	67 201 (82%)	60 102 (78%)	61 443 (80%)	65 685 (82%)	78 812 (81%)	78 895 (81%)
	Black	2 759 (3%)	6 484 (8%)	6 938 (9%)	5 433 (7%)	5 572 (6%)	7 035 (7%)
	Coloured	11 781 (14%)	10 325 (13%)	8 840 (11%)	9 109 (11%)	13 444 (14%)	11 799 (12%)
	<i>Total</i>	<i>81 741</i>	<i>76 911</i>	<i>77 221</i>	<i>80 227</i>	<i>97 828</i>	<i>97 729</i>
Currie Cup	White	157 282 (75%)	161 464 (72%)	149 868 (71%)	160 152 (75%)	166 155 (77%)	171 942 (78%)
	Black	17 630 (8%)	22 110 (10%)	24 844 (12%)	20 557 (10%)	19 898 (9%)	21 683 (10%)
	Coloured	33 904 (16%)	39 798 (18%)	35 719 (17%)	32 571 (15%)	28 748 (13%)	27 346 (12%)
	<i>Total</i>	<i>208 816</i>	<i>223 372</i>	<i>210 431</i>	<i>213 280</i>	<i>214 801</i>	<i>220 971</i>
Vodacom Cup	White	85 660 (73%)	86 502 (66%)	77 896 (68%)	89 544 (68%)	104 184 (72%)	89 426 (73%)
	Black	12 894 (11%)	14 730 (11%)	14 087 (12%)	17 632 (13%)	15 944 (11%)	11 849 (10%)
	Coloured	18 054 (15%)	29 128 (22%)	22 735 (20%)	24 141 (18%)	24 082 (17%)	20 498 (17%)
	<i>Total</i>	<i>116 608</i>	<i>130 360</i>	<i>114 718</i>	<i>131 317</i>	<i>144 210</i>	<i>121 773</i>

* Totals may not be 100% as a result of rounding percentages

Based on the total percentage playing numbers, logic suggests that if players are equally represented then the total percentage playing numbers should equal percentage playing time. Table 3 shows a summary using this logic. If the proportion of playing time was less than the proportion of playing numbers, then that group was underrepresented (↓). If the proportion of playing time was equal to the proportion of playing numbers then the group was equally represented (=) and if the proportion of playing time exceeded the proportion of playing numbers the group was overrepresented (↑). A 1% margin of error was accepted in this interpretation.

Table 3. Summary showing whether players had the expected playing time (=), overplayed (↑), or underplayed (↓) in the Springbok, Super Rugby, Currie Cup and Vodacom Cup (2007-2012)

	Springboks			Super Rugby			Currie Cup			Vodacom Cup		
	W	B	C	W	B	C	W	B	C	W	B	C
2007	↑	↓	↓	=	↓	=	↑	↓	↓	↑	=	↓
2008	=	↓	↑	=	=	=	↑	=	=	=	=	=
2009	↑	↓	=	↑	=	↓	=	=	=	=	=	=
2010	=	↓	↑	↑	↓	=	↑	↓	=	=	=	=
2011	↑	↓	↓	↓	=	↑	↑	↓	↓	=	=	↑
2012	=	=	=	=	=	=	↑	=	↓	=	=	=

B = black, C = coloured, W = white

These data are displayed visually in figure 1 where the sum of playing time is expressed as a percentage and is plotted on the x axis while the sum of playing numbers is plotted on the y axis. The line of unity represents the point where percentage playing time is equal to percentage playing number. Therefore, if the data point is on the line of unity, playing time is proportional to the number of players for that group. If the data point is below the line then the group is underrepresented and if the data point is above the line then the group is overrepresented. If players are continuously being underrepresented for playing time it suggests that those players are being chosen to achieve quota demands. If players are continuously being overrepresented then it suggests that players are being overrepresented to compensate for quota players.

Over the six year period, there were 72 possible situations (6 years X 12 categories per year). Playing numbers and playing time were equally represented in 54% of the situations. Players were overrepresented in 21% of the situations, while players were underrepresented in 25% of the situations. Across all competitions and years, white players were overrepresented in 46% of the cases, black players 0% of the cases and coloured players 17% of the cases. White players were underrepresented 4% of the cases, black players 42% of the cases and coloured players 29% of the cases. White players were equally represented 50% of the cases, black players 58% of the cases and coloured players 54% of the cases.

At Springbok level white players played more than expected and were overrepresented in 2007, 2009 and 2011. Black players played less than expected and were underrepresented in five out of six seasons. At Super Rugby level, white players were overrepresented in 2009 and 2010. Black players were underrepresented in 2007 and 2010. At Currie Cup level, white players played more than expected and were overrepresented in five of the six years while both black and coloured players played less than expected. The Vodacom Cup competition had the most consistency. For example, out of a possible 18 situations (6 years X 3 ethnic groups X 1 Competition) the players were equally represented 83% of the time.

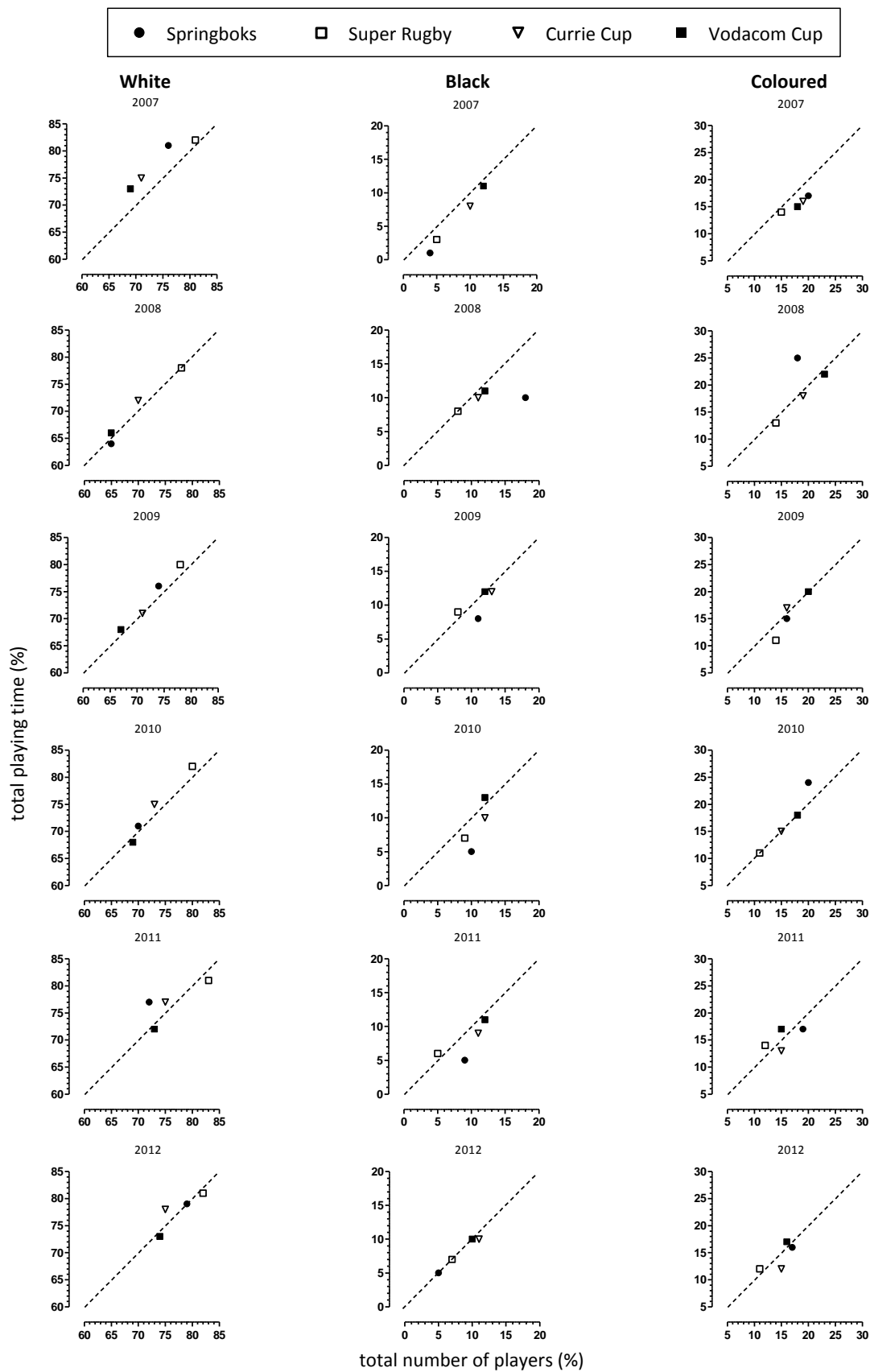


Figure 5. Summary showing whether players had the expected playing time (=), overplayed (\uparrow), or underplayed (\downarrow) in the Springbok, Super Rugby, Currie Cup and Vodacom Cup (2007-2012)

The total number of players per season and breakdown of ethnicities in Super Rugby per franchise as shown in Table 4. Across the six year period for all franchises, playing numbers for white players was highest in 2007 for Golden Lions franchise (87%). Playing numbers for black rugby players was highest in 2008 and 2010 for Blue Bulls franchise (13%) and also 2009 and 2012 for Sharks franchise (13%). Playing numbers for coloured players was highest in 2008 for Blue Bulls franchise (19%) and in 2007 for Stormers franchise (19%).

Table 4. The number and (%) of white, black and coloured rugby players per franchise for Super Rugby, 2007-2012

		2007	2008	2009	2010	2011	2012
Blue Bulls	White	29 (81%)	22 (69%)	21 (75%)	30 (79%)	23 (79%)	24 (83%)
	Black	2 (6%)	4 (13%)	2 (7%)	5 (13%)	3 (10%)	3 (10%)
	Coloured	5 (14%)	6 (19%)	5 (18%)	3 (8%)	3 (10%)	2 (7%)
	<i>Total</i>	<i>36</i>	<i>32</i>	<i>28</i>	<i>38</i>	<i>29</i>	<i>29</i>
Cheetahs	White	27 (84%)	24 (83%)	26 (81%)	31 (82%)	30 (86%)	30 (81%)
	Black	1 (3%)	1 (3%)	2 (6%)	3 (8%)	0 (0%)	1 (3%)
	Coloured	4 (13%)	4 (14%)	4 (13%)	4 (11%)	5 (14%)	6 (16%)
	<i>Total</i>	<i>32</i>	<i>29</i>	<i>32</i>	<i>38</i>	<i>35</i>	<i>37</i>
Golden lions	White	23 (79%)	32 (86%)	27 (84%)	31 (79%)	28 (85%)	33 (87%)
	Black	1 (3%)	1 (3%)	1 (3%)	3 (8%)	2 (6%)	1 (3%)
	Coloured	5 (17%)	4 (11%)	4 (13%)	5 (13%)	3 (9%)	4 (11%)
	<i>Total</i>	<i>29</i>	<i>37</i>	<i>32</i>	<i>39</i>	<i>33</i>	<i>38</i>
Sharks	White	21 (81%)	22 (79%)	25 (78%)	23 (79%)	26 (84%)	25 (83%)
	Black	2 (8%)	3 (11%)	4 (13%)	3 (10%)	3 (10%)	4 (13%)
	Coloured	3 (12%)	3 (11%)	3 (9%)	3 (10%)	2 (6%)	1 (3%)
	<i>Total</i>	<i>26</i>	<i>28</i>	<i>32</i>	<i>29</i>	<i>31</i>	<i>30</i>
Stormers	White	25 (78%)	21 (72%)	25 (74%)	23 (82%)	30 (79%)	26 (76%)
	Black	1 (3%)	3 (10%)	3 (9%)	1 (4%)	1 (3%)	2 (6%)
	Coloured	6 (19%)	5 (17%)	6 (18%)	4 (14%)	7 (18%)	6 (18%)
	<i>Total</i>	<i>32</i>	<i>29</i>	<i>34</i>	<i>28</i>	<i>38</i>	<i>34</i>

* Totals may not be 100% as a result of rounding percentages

The total playing time per ethnic group for each franchise is represented in Table 5. There were no obvious trends over the given time period. Across the six year period for all franchises, playing time for white players was highest in 2007 for Golden Lions franchise (90%). Playing time for black rugby players was highest in 2008 for Stormers franchise (16%). Playing time for coloured players was highest in 2011 for Stormers franchise (22%).

Table 5. Total playing time (minutes) and (%) of white, black and coloured rugby players per franchise for Super Rugby, 2007-2012

		2007	2008	2009	2010	2011	2012
Blue Bulls	White	14 084 (81%)	11 648 (76%)	12 857 (75%)	15 011 (84%)	16 878 (80%)	15 469 (76%)
	Black	899 (5%)	1 312 (9%)	1 448 (8%)	463 (3%)	1 730 (8%)	2 204 (11%)
	Coloured	2 424 (14%)	2 447 (16%)	2 855 (17%)	2 303 (13%)	2 599 (12%)	2 669 (13%)
	<i>Total</i>	<i>17 407</i>	<i>15 407</i>	<i>17 160</i>	<i>17 777</i>	<i>21 207</i>	<i>20 342</i>
Cheetahs	White	12 337 (84%)	13 117 (85%)	12 322 (80%)	13 130 (83%)	14 760 (82%)	16 624 (87%)
	Black	341 (2%)	781 (5%)	1 336 (9%)	1 694 (11%)	0 (0%)	466 (2%)
	Coloured	1 988 (14%)	1 534 (10%)	1 680 (11%)	937 (6%)	3 166 (18%)	2 060 (11%)
	<i>Total</i>	<i>14 666</i>	<i>15 432</i>	<i>15 338</i>	<i>15 761</i>	<i>17 926</i>	<i>19 150</i>
Golden lions	White	13 391 (90%)	13 543 (87%)	13 082 (87%)	11 957 (83%)	15 209 (84%)	15 922 (85%)
	Black	10 (0%)	26 (0%)	692 (5%)	1 443 (10%)	1 060 (6%)	803 (4%)
	Coloured	1 529 (10%)	1 985 (13%)	1 258 (8%)	990 (7%)	1 785 (10%)	1 997 (11%)
	<i>Total</i>	<i>14 930</i>	<i>15 554</i>	<i>15 032</i>	<i>14 390</i>	<i>18 054</i>	<i>18 722</i>
Sharks	White	13 483 (79%)	12 158 (75%)	11 875 (79%)	11 683 (78%)	16 194 (80%)	15 991 (82%)
	Black	887 (5%)	2 006 (12%)	1 580 (11%)	1 817 (12%)	2 750 (14%)	2 384 (12%)
	Coloured	2 727 (16%)	1 978 (12%)	1 511 (10%)	1 489 (10%)	1 321 (7%)	1 154 (6%)
	<i>Total</i>	<i>17 097</i>	<i>16 142</i>	<i>14 966</i>	<i>14 989</i>	<i>20 265</i>	<i>19 529</i>
Stormers	White	13 906 (79%)	9 636 (67%)	11 307 (77%)	13 904 (80%)	15 771 (77%)	14 889 (74%)
	Black	622 (4%)	2 359 (16%)	1 882 (13%)	16 (0%)	32 (0%)	1 178 (6%)
	Coloured	3 113 (18%)	2 381 (17%)	1 536 (10%)	3 390 (20%)	4 573 (22%)	3 919 (20%)
	<i>Total</i>	<i>17 641</i>	<i>14 376</i>	<i>14 725</i>	<i>17 310</i>	<i>20 376</i>	<i>19 986</i>

* Totals may not be 100% as a result of rounding percentages

Table 6 and Table 7 show the total playing number and playing time per season and ethnicity for all Currie Cup rugby unions from 2007 – 2012. The highest playing numbers and playing time across all unions for white players was in 2012 for Griquas rugby union (91% and 92% respectively). Playing numbers and playing time of black players in 2009 was the highest and was achieved by Border rugby union (58%). Boland rugby union achieved the highest coloured playing numbers and playing time in 2012 (53% and 51% respectively).

The total number of players and playing time per season and breakdown of ethnicities in Vodacom Cup per rugby union are shown in Table 8 and Table 9. The highest playing numbers and playing time of white players was in 2009 by the Falcons rugby union (93% and 92% respectively). Border rugby union had the highest black players playing numbers in 2011 (59%) and playing time in 2010 (70%). The highest playing numbers for coloured players was in 2012 by Boland rugby union (55%), while highest playing time was also by Boland rugby union in 2010 and 2012 (55%).

Table 6. Total numbers and (%) of white, black and coloured rugby players per union for Currie Cup, 2007-2012

		2007	2008	2009	2010	2011	2012
Blue Bulls	White	31 (82%)	26 (65%)	29 (73%)	34 (81%)	31 (79%)	33 (79%)
	Black	4 (11%)	6 (15%)	6 (15%)	4 (10%)	5 (13%)	4 (10%)
	Coloured	3 (8%)	8 (20%)	5 (13%)	4 (10%)	3 (8%)	5 (12%)
Boland	White	24 (63%)	26 (57%)	24 (59%)	16 (53%)	16 (53%)	11 (31%)
	Black	2 (5%)	3 (7%)	3 (7%)	1 (3%)	2 (7%)	6 (17%)
	Coloured	12 (32%)	17 (37%)	14 (34%)	13 (43%)	12 (40%)	19 (53%)
Border	White	20 (54%)	14 (37%)	11 (33%)	13 (36%)	13 (46%)	26 (63%)
	Black	15 (41%)	17 (45%)	19 (58%)	19 (53%)	15 (54%)	13 (32%)
	Coloured	2 (5%)	7 (18%)	3 (9%)	4 (11%)	0 (0%)	2 (5%)
EP Kings	White	17 (55%)	16 (52%)	23 (64%)	25 (69%)	23 (72%)	28 (72%)
	Black	5 (16%)	5 (16%)	7 (19%)	10 (28%)	6 (19%)	9 (23%)
	Coloured	9 (29%)	10 (32%)	6 (17%)	1 (3%)	3 (9%)	2 (5%)
Falcons	White	38 (84%)	37 (79%)	33 (72%)	24 (75%)	27 (79%)	43 (90%)
	Black	3 (7%)	4 (9%)	5 (11%)	1 (3%)	2 (6%)	2 (4%)
	Coloured	4 (9%)	6 (13%)	8 (17%)	7 (22%)	5 (15%)	3 (6%)
Free State	White	31 (84%)	28 (80%)	27 (82%)	30 (88%)	29 (85%)	33 (87%)
	Black	2 (5%)	1 (3%)	3 (9%)	2 (6%)	2 (6%)	2 (5%)
	Coloured	4 (11%)	6 (17%)	3 (9%)	2 (6%)	3 (9%)	3 (8%)
Golden Lions	White	26 (72%)	33 (80%)	31 (89%)	29 (83%)	24 (83%)	32 (82%)
	Black	4 (11%)	3 (7%)	0 (0%)	3 (9%)	1 (3%)	2 (5%)
	Coloured	6 (17%)	5 (12%)	4 (11%)	3 (9%)	4 (14%)	5 (13%)
Griffons	White	29 (78%)	26 (81%)	24 (75%)	29 (83%)	31 (76%)	35 (76%)
	Black	2 (5%)	2 (6%)	4 (13%)	3 (9%)	3 (7%)	4 (9%)
	Coloured	6 (16%)	4 (13%)	4 (13%)	3 (9%)	7 (17%)	7 (15%)
Griquas	White	19 (70%)	28 (80%)	25 (76%)	30 (88%)	27 (79%)	30 (91%)
	Black	3 (11%)	0 (0%)	2 (6%)	1 (3%)	1 (3%)	1 (3%)
	Coloured	5 (19%)	7 (20%)	6 (18%)	3 (9%)	6 (18%)	2 (6%)
Leopards	White	23 (70%)	21 (72%)	28 (78%)	33 (85%)	33 (85%)	37 (82%)
	Black	1 (3%)	1 (3%)	1 (3%)	1 (3%)	4 (10%)	3 (7%)
	Coloured	9 (27%)	7 (24%)	7 (19%)	5 (13%)	2 (5%)	5 (11%)
Pumas	White	24 (80%)	29 (81%)	26 (81%)	28 (76%)	28 (82%)	32 (86%)
	Black	2 (7%)	3 (8%)	1 (3%)	3 (8%)	1 (3%)	2 (5%)
	Coloured	4 (13%)	4 (11%)	5 (16%)	6 (16%)	5 (15%)	3 (8%)
Sharks	White	27 (75%)	32 (78%)	30 (77%)	29 (78%)	32 (82%)	30 (79%)
	Black	4 (11%)	6 (15%)	6 (15%)	6 (16%)	5 (13%)	6 (16%)
	Coloured	5 (14%)	3 (7%)	3 (8%)	2 (5%)	2 (5%)	2 (5%)
SWD	White	21 (60%)	23 (66%)	19 (58%)	14 (50%)	23 (59%)	17 (49%)
	Black	0 (0%)	2 (6%)	5 (15%)	4 (14%)	4 (10%)	3 (9%)
	Coloured	14 (40%)	10 (29%)	9 (27%)	10 (36%)	12 (31%)	15 (43%)
WP	White	30 (67%)	29 (73%)	26 (79%)	30 (73%)	34 (76%)	27 (73%)
	Black	4 (9%)	3 (8%)	2 (6%)	2 (5%)	2 (4%)	2 (5%)
	Coloured	11 (24%)	8 (20%)	5 (15%)	9 (22%)	9 (20%)	8 (22%)

* Totals may not be 100% as a result of rounding percentages

Table 7. Total playing time and (%) of white, black and coloured rugby players per union for Currie Cup, 2007-2012

		2007	2008	2009	2010	2011	2012
Blue Bulls	White	15 660 (86%)	13 721 (72%)	15 133 (78%)	13 995 (83%)	14 074 (73%)	10 979 (83%)
	Black	1 639 (9%)	3 085 (16%)	1 088 (6%)	1 669 (10%)	3 238 (17%)	1 084 (8%)
	Coloured	922 (5%)	2 302 (12%)	3 084 (16%)	1 106 (7%)	1 894 (10%)	1 127 (9%)
Boland	White	8 491 (62%)	11 752 (59%)	7 549 (51%)	6 422 (52%)	8 709 (59%)	6 023 (36%)
	Black	1 447 (11%)	1 590 (8%)	1 714 (11%)	142 (1%)	779 (5%)	2 193 (13%)
	Coloured	3 810 (28%)	6 555 (33%)	5 661 (38%)	5 671 (46%)	5 203 (35%)	8 534 (51%)
Border	White	7 575 (63%)	3 815 (32%)	3 619 (31%)	4 114 (37%)	5 362 (48%)	11 213 (69%)
	Black	4 178 (35%)	5 815 (49%)	6 747 (58%)	6 123 (55%)	5 829 (52%)	4 342 (27%)
	Coloured	246 (2%)	2 330 (19%)	1 285 (11%)	987 (9%)	0 (0%)	680 (4%)
EP Kings	White	8 595 (65%)	5 339 (47%)	6 665 (55%)	9 351 (71%)	9 976 (80%)	15 978 (80%)
	Black	1 954 (15%)	2 454 (22%)	2 669 (22%)	3 833 (29%)	1 520 (12%)	2 612 (13%)
	Coloured	2 593 (20%)	3 523 (31%)	2 689 (22%)	15 (0%)	1 030 (8%)	1 364 (7%)
Falcons	White	14 011 (85%)	16 812 (88%)	8 417 (67%)	8 423 (71%)	11 019 (82%)	15 163 (87%)
	Black	1 315 (8%)	596 (3%)	2 237 (18%)	544 (5%)	499 (4%)	926 (5%)
	Coloured	1 104 (7%)	1 651 (9%)	1 975 (16%)	2 896 (24%)	1 978 (15%)	1 244 (7%)
Free State	White	16 683 (85%)	14 639 (76%)	15 393 (79%)	16 999 (87%)	15 268 (86%)	12 321 (86%)
	Black	280 (1%)	775 (4%)	2 036 (10%)	922 (5%)	331 (2%)	1 072 (7%)
	Coloured	2 725 (14%)	3 889 (20%)	2 085 (11%)	1 630 (8%)	2 151 (12%)	923 (6%)
Golden Lions	White	15 770 (80%)	14 818 (85%)	13 669 (87%)	14 575 (85%)	15 461 (88%)	10 790 (82%)
	Black	1 480 (8%)	828 (5%)	0 (0%)	397 (2%)	499 (3%)	973 (7%)
	Coloured	2 462 (12%)	1 754 (10%)	2 031 (13%)	2 209 (13%)	1 627 (9%)	1 394 (11%)
Griffons	White	11 410 (90%)	12 628 (84%)	8 153 (67%)	10 320 (88%)	10 254 (76%)	15 287 (85%)
	Black	39 (0%)	577 (4%)	1 788 (15%)	520 (4%)	647 (5%)	1 501 (8%)
	Coloured	1 163 (9%)	1 791 (12%)	2 241 (18%)	943 (8%)	2 506 (19%)	1 199 (7%)
Griquas	White	9 651 (75%)	12 820 (75%)	10 792 (71%)	13 548 (83%)	11 484 (76%)	10 948 (92%)
	Black	613 (5%)	0 (0%)	1 542 (10%)	173 (1%)	934 (6%)	147 (1%)
	Coloured	2 540 (20%)	4 264 (25%)	2 908 (19%)	2 630 (16%)	2 746 (18%)	866 (7%)
Leopards	White	6 463 (60%)	9 994 (74%)	12 707 (79%)	12 221 (79%)	13 025 (88%)	13 214 (77%)
	Black	80 (1%)	1 106 (8%)	534 (3%)	958 (6%)	1 227 (8%)	2 226 (13%)
	Coloured	4 238 (39%)	2 456 (18%)	2 780 (17%)	2 323 (15%)	606 (4%)	1 671 (10%)
Pumas	White	8 722 (79%)	10 755 (77%)	11 742 (81%)	11 271 (73%)	14 370 (86%)	16 944 (91%)
	Black	743 (7%)	2 053 (15%)	474 (3%)	687 (4%)	323 (2%)	467 (3%)
	Coloured	1 604 (14%)	1 212 (9%)	2 294 (16%)	3 562 (23%)	1 985 (12%)	1 148 (6%)
Sharks	White	12 329 (72%)	13 081 (82%)	14 458 (84%)	16 433 (83%)	15 493 (86%)	12 028 (84%)
	Black	2 616 (15%)	1 189 (7%)	1 878 (11%)	3 078 (15%)	2 129 (12%)	1 949 (14%)
	Coloured	2 098 (12%)	1 709 (11%)	949 (5%)	370 (2%)	457 (3%)	382 (3%)
SWD	White	9 280 (69%)	10 184 (75%)	8 994 (66%)	7 009 (52%)	7 498 (62%)	10 393 (64%)
	Black	0 (0%)	326 (2%)	1 355 (10%)	1 462 (11%)	1 241 (10%)	1 394 (9%)
	Coloured	4 239 (31%)	3 043 (22%)	3 199 (24%)	5 048 (37%)	3 387 (28%)	4 565 (28%)
WP	White	12 642 (70%)	11 106 (69%)	12 577 (79%)	15 471 (83%)	14 162 (78%)	10 661 (78%)
	Black	1 246 (7%)	1 716 (11%)	782 (5%)	49 (0%)	702 (4%)	797 (6%)
	Coloured	4 160 (23%)	3 319 (21%)	2 538 (16%)	3 181 (17%)	3 178 (18%)	2 249 (16%)

* Totals may not be 100% as a result of rounding percentages

Table 8. Total numbers and (%) of white, black and coloured rugby players per union for Vodacom Cup, 2007-2012

		2007	2008	2009	2010	2011	2012
Blue Bulls	White	32 (78%)	25 (66%)	23 (72%)	26 (74%)	35 (76%)	31 (84%)
	Black	7 (17%)	9 (24%)	6 (19%)	7 (20%)	6 (13%)	2 (5%)
	Coloured	2 (5%)	4 (11%)	3 (9%)	2 (6%)	5 (11%)	4 (11%)
Boland	White	21 (64%)	20 (59%)	16 (55%)	14 (50%)	17 (61%)	13 (39%)
	Black	2 (6%)	1 (3%)	1 (3%)	0 (0%)	1 (4%)	2 (6%)
	Coloured	10 (30%)	13 (38%)	12 (41%)	14 (50%)	10 (36%)	18 (55%)
Border	White	14 (47%)	10 (33%)	9 (27%)	11 (37%)	11 (38%)	22 (67%)
	Black	13 (43%)	14 (47%)	19 (58%)	17 (57%)	17 (59%)	10 (30%)
	Coloured	3 (10%)	6 (20%)	5 (15%)	2 (7%)	1 (3%)	1 (3%)
EP Kings	White	16 (59%)	16 (44%)	19 (51%)	13 (43%)	20 (67%)	26 (74%)
	Black	4 (15%)	4 (11%)	6 (16%)	9 (30%)	7 (23%)	6 (17%)
	Coloured	7 (26%)	16 (44%)	12 (32%)	8 (27%)	3 (10%)	3 (9%)
Falcons	White	22 (79%)	26 (81%)	25 (93%)	28 (78%)	27 (84%)	23 (85%)
	Black	2 (7%)	3 (9%)	0 (0%)	1 (3%)	2 (6%)	1 (4%)
	Coloured	4 (14%)	3 (9%)	2 (7%)	7 (19%)	3 (9%)	3 (11%)
Free State	White	25 (83%)	30 (75%)	24 (80%)	37 (88%)	41 (89%)	33 (77%)
	Black	2 (7%)	2 (5%)	1 (3%)	3 (7%)	1 (2%)	6 (14%)
	Coloured	3 (10%)	8 (20%)	5 (17%)	2 (5%)	4 (9%)	4 (9%)
Golden Lions	White	21 (66%)	28 (74%)	29 (76%)	38 (76%)	28 (76%)	27 (77%)
	Black	5 (16%)	3 (8%)	1 (3%)	4 (8%)	4 (11%)	2 (6%)
	Coloured	6 (19%)	7 (18%)	8 (21%)	8 (16%)	5 (14%)	6 (17%)
Griffons	White	29 (85%)	22 (76%)	22 (71%)	23 (70%)	24 (69%)	28 (82%)
	Black	2 (6%)	1 (3%)	2 (6%)	3 (9%)	4 (11%)	2 (6%)
	Coloured	3 (9%)	6 (21%)	7 (23%)	7 (21%)	7 (20%)	4 (12%)
Griquas	White	22 (65%)	20 (69%)	21 (70%)	28 (85%)	26 (84%)	27 (90%)
	Black	5 (15%)	1 (3%)	4 (13%)	0 (0%)	0 (0%)	1 (3%)
	Coloured	7 (21%)	8 (28%)	5 (17%)	5 (15%)	5 (16%)	2 (7%)
Leopards	White	20 (71%)	23 (77%)	25 (78%)	23 (74%)	41 (85%)	32 (86%)
	Black	2 (7%)	1 (3%)	0 (0%)	1 (3%)	3 (6%)	5 (14%)
	Coloured	6 (21%)	6 (20%)	7 (22%)	7 (23%)	4 (8%)	0 (0%)
Pumas	White	25 (78%)	22 (71%)	27 (82%)	25 (81%)	30 (81%)	25 (86%)
	Black	2 (6%)	3 (10%)	1 (3%)	2 (6%)	2 (5%)	1 (3%)
	Coloured	5 (16%)	6 (19%)	5 (15%)	4 (13%)	5 (14%)	3 (10%)
Sharks	White	24 (71%)	27 (71%)	28 (74%)	26 (74%)	30 (79%)	33 (80%)
	Black	7 (21%)	9 (24%)	9 (24%)	7 (20%)	6 (16%)	7 (17%)
	Coloured	3 (9%)	2 (5%)	1 (3%)	2 (6%)	2 (5%)	1 (2%)
SWD	White	19 (59%)	19 (58%)	18 (64%)	17 (52%)	15 (43%)	14 (45%)
	Black	0 (0%)	2 (6%)	3 (11%)	3 (9%)	5 (14%)	3 (10%)
	Coloured	13 (41%)	12 (36%)	7 (25%)	13 (39%)	15 (43%)	14 (45%)
WP	White	24 (63%)	21 (58%)	22 (56%)	30 (73%)	33 (73%)	24 (62%)
	Black	3 (8%)	4 (11%)	3 (8%)	2 (5%)	2 (4%)	1 (3%)
	Coloured	11 (29%)	11 (31%)	14 (36%)	9 (22%)	10 (22%)	14 (36%)

* Totals may not be 100% as a result of rounding percentages

Table 9. Total playing time (minutes) and (%) of white, black and coloured rugby players per union for Vodacom Cup, 2007-2012

		2007	2008	2009	2010	2011	2012
Blue Bulls	White	8 473 (76%)	7 645 (65%)	6 693 (67%)	8 346 (69%)	9 577 (68%)	7 379 (79%)
	Black	1 936 (17%)	2 710 (23%)	2 103 (21%)	2 934 (24%)	2 401 (17%)	817 (9%)
	Coloured	731 (7%)	1 496 (13%)	1 209 (12%)	801 (7%)	2 022 (14%)	1 139 (12%)
Boland	White	5 880 (69%)	6 527 (64%)	4 166 (59%)	4 586 (45%)	5 229 (59%)	3 312 (40%)
	Black	539 (6%)	622 (6%)	480 (7%)	0 (0%)	212 (2%)	454 (5%)
	Coloured	2 086 (25%)	3 092 (30%)	2 398 (34%)	5 572 (55%)	3 460 (39%)	4 594 (55%)
Border	White	3 583 (52%)	2 679 (33%)	1 830 (25%)	1 757 (24%)	3 617 (42%)	5 098 (63%)
	Black	3 203 (46%)	3 986 (49%)	4 541 (63%)	5 076 (70%)	4 848 (57%)	2 917 (36%)
	Coloured	126 (2%)	1 470 (18%)	855 (12%)	422 (6%)	110 (1%)	48 (1%)
EP Kings	White	4 639 (65%)	4 020 (48%)	2 716 (36%)	3 948 (50%)	5 044 (63%)	7 184 (77%)
	Black	1 317 (19%)	981 (12%)	1 542 (21%)	2 283 (29%)	2 157 (27%)	1 530 (16%)
	Coloured	1 144 (16%)	3 413 (41%)	3 237 (43%)	1 719 (22%)	772 (10%)	631 (7%)
Falcons	White	6 629 (89%)	6 797 (81%)	6 193 (92%)	6 610 (74%)	7 928 (83%)	5 985 (83%)
	Black	453 (6%)	851 (10%)	0 (0%)	450 (5%)	325 (3%)	230 (3%)
	Coloured	368 (5%)	713 (9%)	575 (8%)	1 843 (21%)	1 327 (14%)	975 (14%)
Free State	White	6 507 (89%)	7 970 (77%)	6 104 (82%)	10 113 (84%)	8 918 (80%)	7 072 (84%)
	Black	110 (1%)	218 (2%)	212 (3%)	1 327 (11%)	492 (4%)	774 (9%)
	Coloured	734 (10%)	2 191 (21%)	1 121 (15%)	560 (5%)	1 680 (15%)	534 (6%)
Golden Lions	White	4 615 (68%)	7 280 (78%)	6 756 (78%)	7 873 (80%)	7 233 (72%)	6 448 (78%)
	Black	890 (13%)	336 (4%)	59 (1%)	779 (8%)	1 646 (16%)	370 (4%)
	Coloured	1 270 (19%)	1 746 (19%)	1 853 (21%)	1 238 (13%)	1 204 (12%)	1 441 (17%)
Griffons	White	5 974 (80%)	6 940 (82%)	5 189 (69%)	6 053 (72%)	7 335 (76%)	5 799 (81%)
	Black	839 (11%)	240 (3%)	689 (9%)	648 (8%)	862 (9%)	772 (11%)
	Coloured	617 (8%)	1 314 (15%)	1 609 (21%)	1 739 (21%)	1 408 (15%)	597 (8%)
Griquas	White	8 009 (72%)	7 382 (71%)	6 565 (69%)	7 416 (80%)	9 928 (85%)	9 519 (88%)
	Black	801 (7%)	249 (2%)	1 210 (13%)	0 (0%)	0 (0%)	98 (1%)
	Coloured	2 360 (21%)	2 720 (26%)	1 804 (19%)	1 814 (20%)	1 774 (15%)	1 173 (11%)
Leopards	White	7 397 (76%)	6 109 (71%)	7 525 (81%)	7 258 (76%)	8 298 (85%)	5 813 (88%)
	Black	786 (8%)	59 (1%)	0 (0%)	337 (4%)	373 (4%)	817 (12%)
	Coloured	1 530 (16%)	2 442 (28%)	1 734 (19%)	1 923 (20%)	1 044 (11%)	0 (0%)
Pumas	White	7 717 (80%)	6 662 (79%)	5 630 (79%)	6 176 (74%)	8 937 (81%)	7 318 (87%)
	Black	330 (3%)	535 (6%)	255 (4%)	436 (5%)	365 (3%)	168 (2%)
	Coloured	1 647 (17%)	1 280 (15%)	1 251 (18%)	1 690 (20%)	1 711 (16%)	894 (11%)
Sharks	White	5 601 (80%)	6 131 (71%)	8 001 (85%)	8 829 (81%)	10 090 (88%)	6 894 (72%)
	Black	1 069 (15%)	1 925 (22%)	1 358 (14%)	1 751 (16%)	902 (8%)	2 310 (24%)
	Coloured	356 (5%)	630 (7%)	26 (0%)	369 (3%)	426 (4%)	375 (4%)
SWD	White	4 980 (67%)	5 426 (66%)	5 301 (59%)	3 925 (55%)	4 352 (45%)	3 872 (47%)
	Black	0 (0%)	414 (5%)	981 (11%)	777 (11%)	835 (9%)	529 (6%)
	Coloured	2 450 (33%)	2 419 (29%)	2 642 (30%)	2 456 (34%)	4 420 (46%)	3 893 (47%)
WP	White	5 656 (63%)	4 934 (46%)	5 227 (63%)	6 654 (70%)	7 698 (70%)	7 733 (64%)
	Black	621 (7%)	1 604 (15%)	657 (8%)	834 (9%)	526 (5%)	63 (1%)
	Coloured	2 635 (30%)	4 202 (39%)	2 421 (29%)	1 995 (21%)	2 724 (25%)	4 204 (35%)

* Totals may not be 100% as a result of rounding percentages

The playing time and playing numbers are expressed as percentages and have been plotted per ethnicity for each year. The solid line represents the playing time while the dotted line represents the playing numbers. If the playing numbers are equally represented when compared to playing time, then the dotted line and solid line will be superimposed. Figure 6 represents a summary of the Springboks and Super Rugby competition from 2007 to 2012. Figure 7 represents a summary of the Currie Cup and the Vodacom Cup.

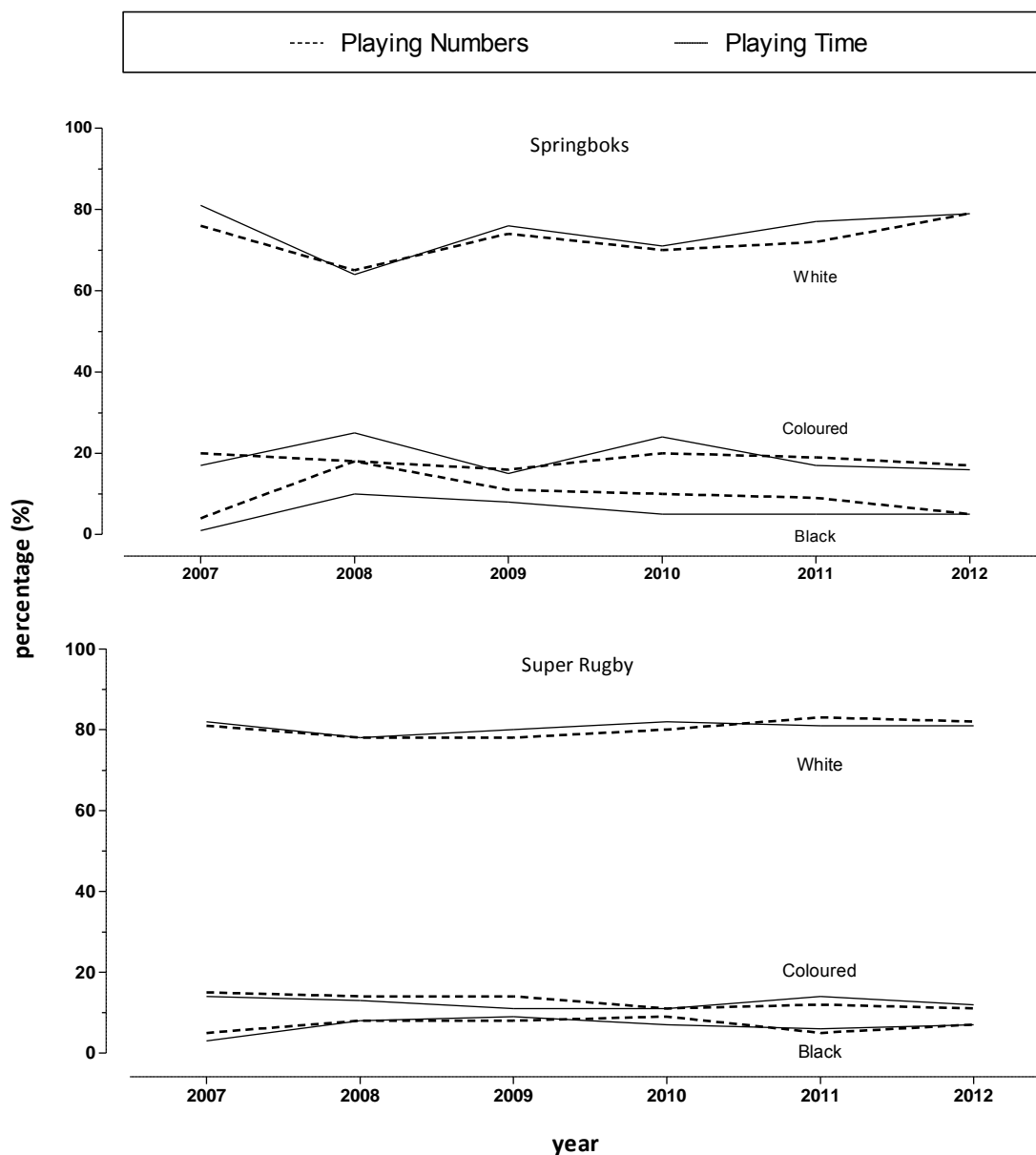


Figure 6. Playing time (%) and playing numbers (%) of Springboks and Super Rugby from 2007 - 2012 per year and ethnicity.

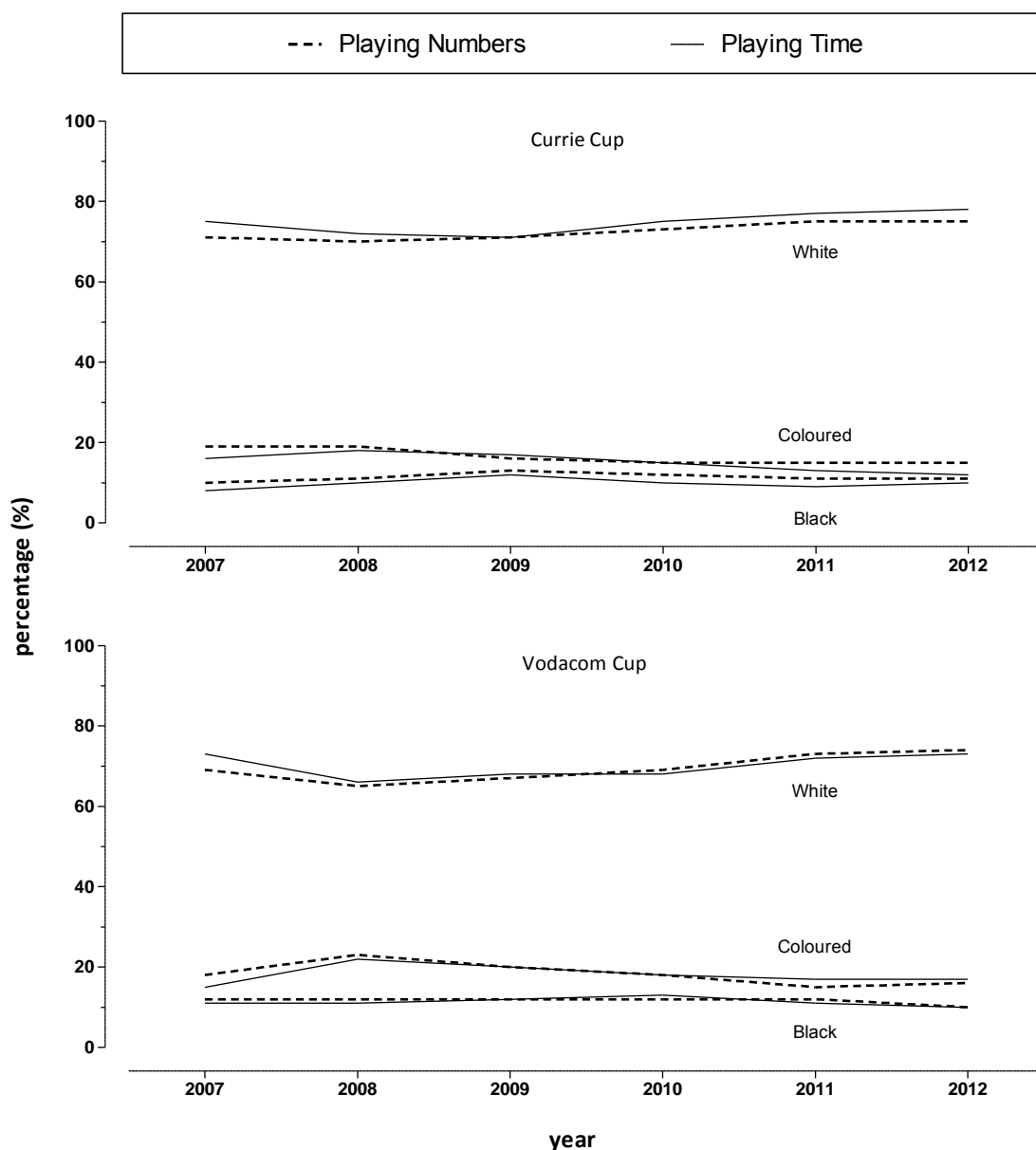


Figure 7. Playing time (%) and playing numbers (%) of Currie Cup and Vodacom Cup Rugby from 2007 - 2012 per year and ethnicity.

Super Rugby competition comprises of five franchises. The playing time and playing numbers have been plotted for each franchise. This is represented per year per ethnic group. Figure 8 represents playing time and playing numbers of Blue Bulls, Cheetahs and Golden Lions franchises. Figure 9 represents playing time and playing numbers of Sharks and Stormers franchises.

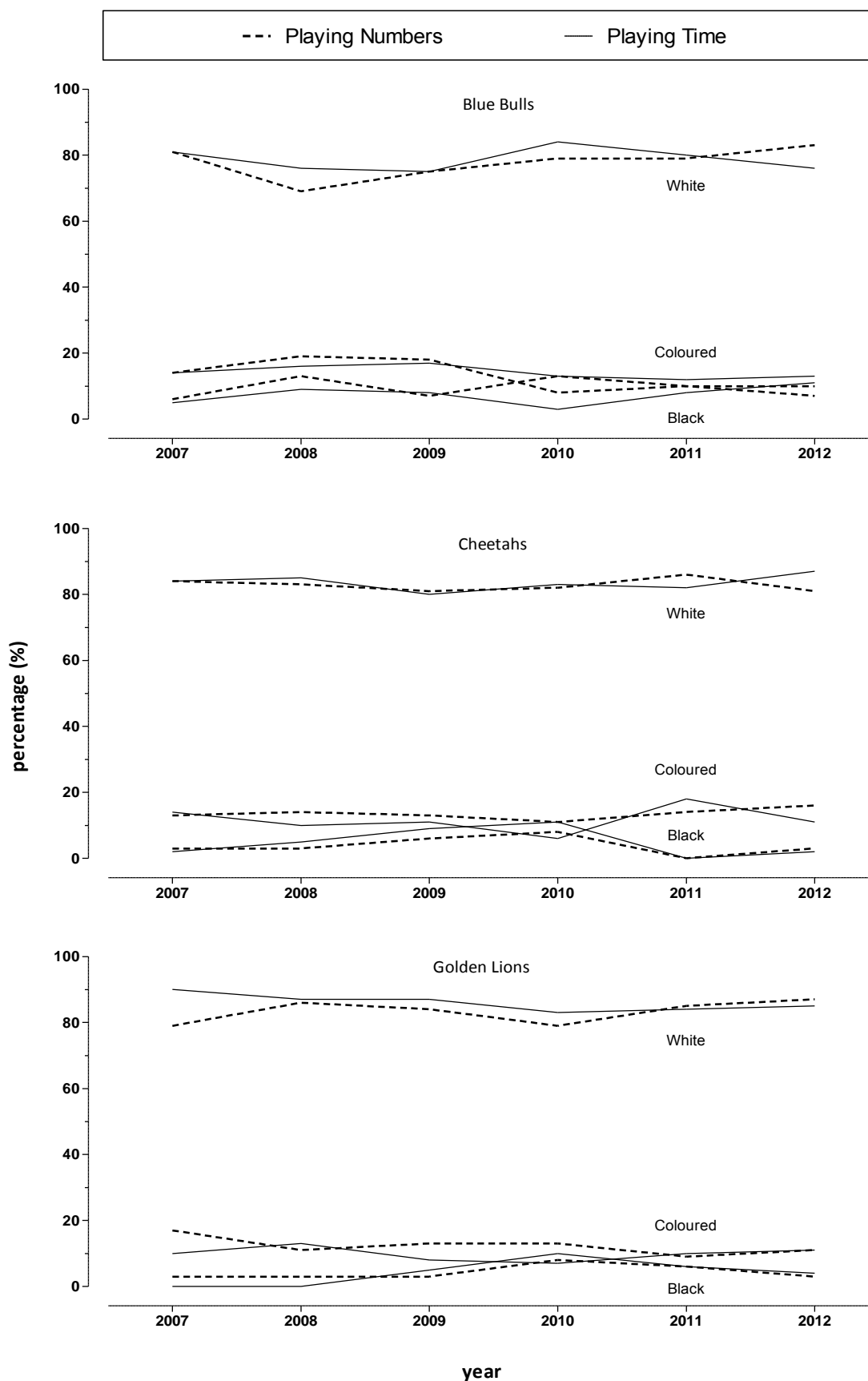


Figure 8. Playing time (%) and playing numbers (%) of Super Rugby franchise (Blue Bulls, Cheetahs and Golden Lions) from 2007 - 2012 per year and ethnicity.

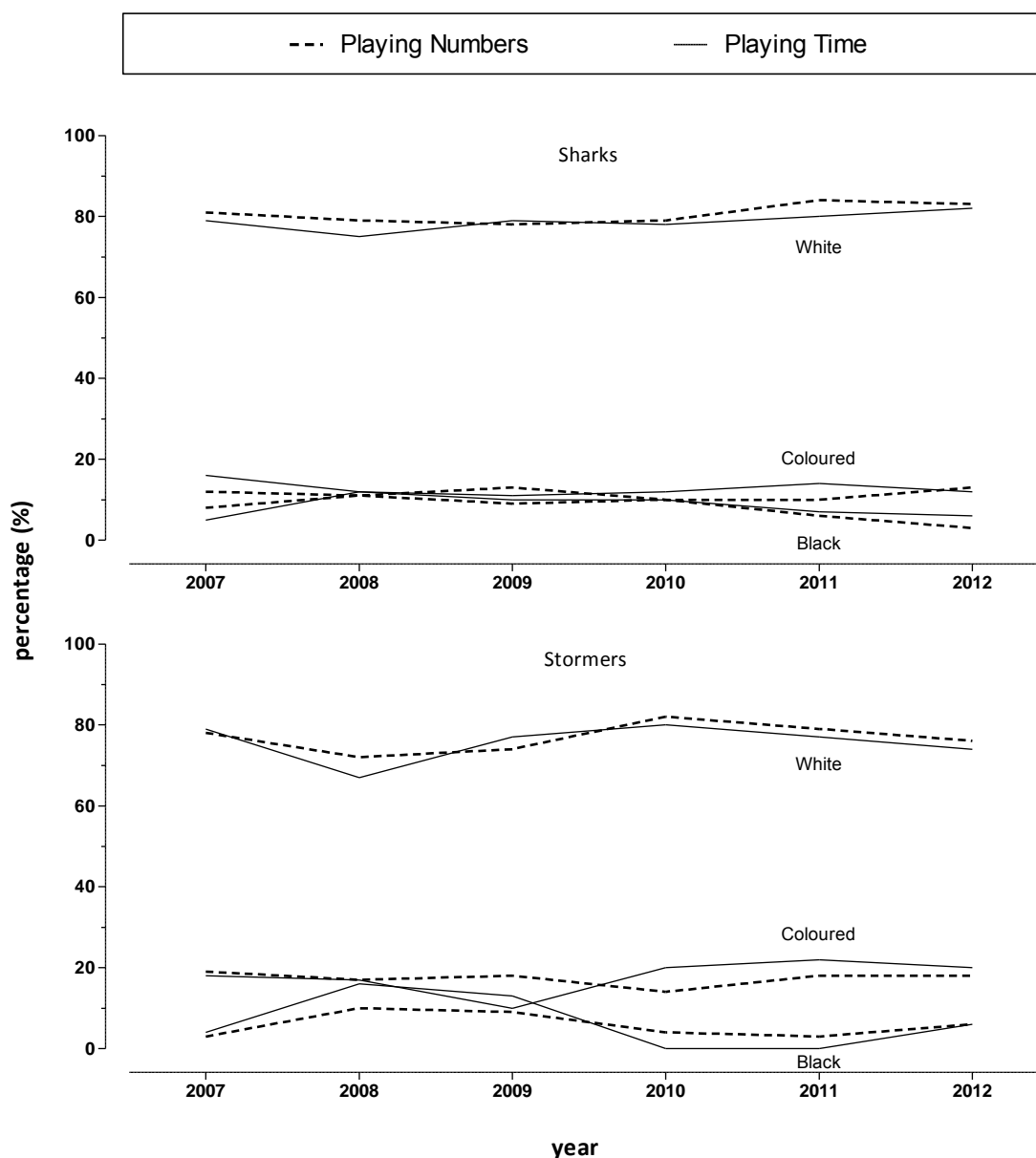


Figure 9. Playing time (%) and playing numbers (%) of Super Rugby franchise (Sharks and Stormers) from 2007 - 2012 per year and ethnicity.

The Currie Cup competition comprises of two divisions, the premier and first division. The teams in each division change each year. Therefore the data from all teams have been combined and presented as the premier and first division. The average playing time and playing numbers have been plotted for each division. Figure 10 represents the average playing time and playing numbers of both the premier and first divisions of the Currie Cup.

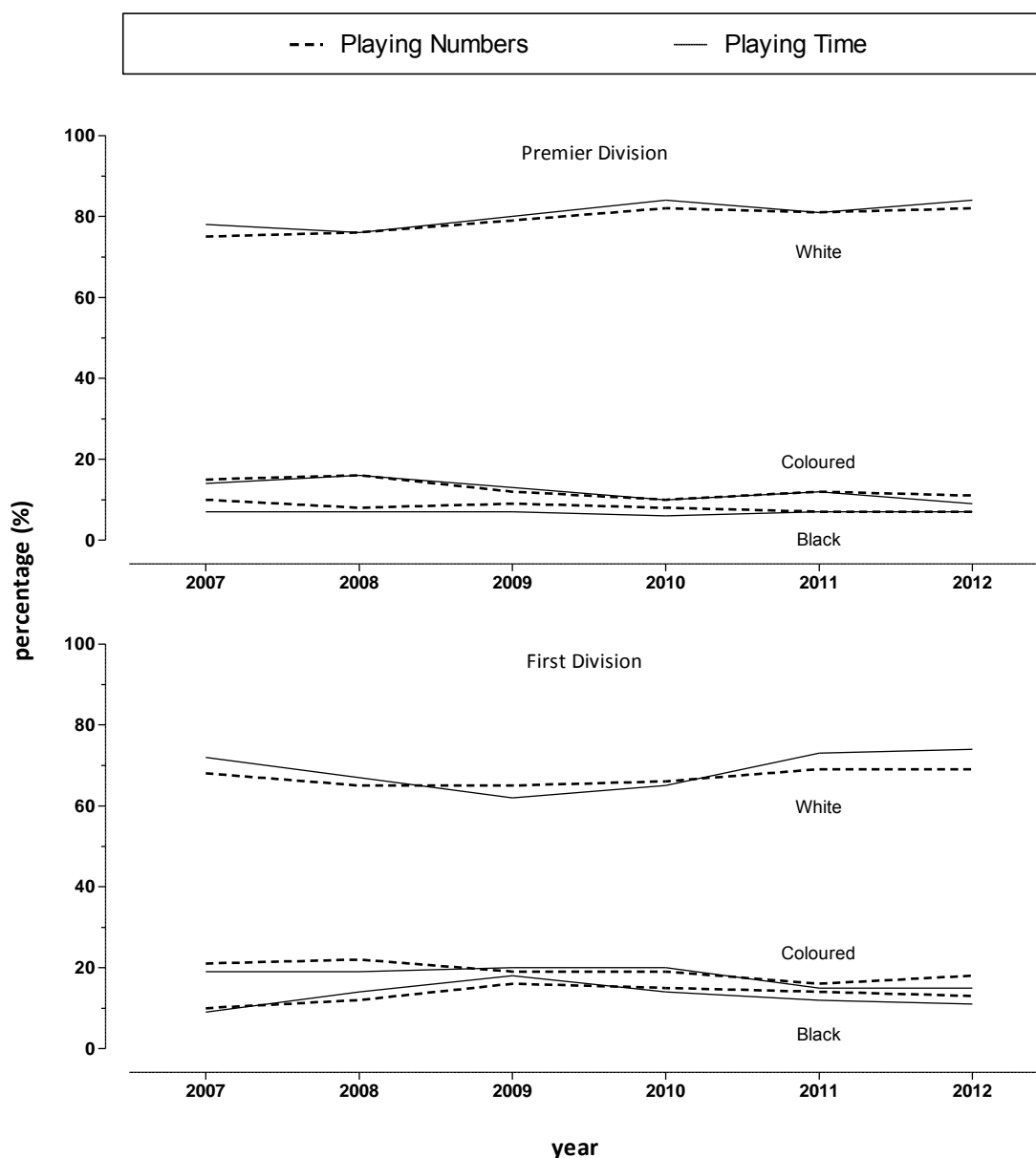


Figure 10. Playing time (%) and playing numbers (%) of premier and first division for Currie Cup from 2007 - 2012 per year and ethnicity.

The Vodacom Cup competition comprises of two divisions, the North and South division. The average playing time and playing numbers have been plotted for each division. Figure 11 represents the average playing time and playing numbers of both the North and South divisions of the Vodacom Cup.

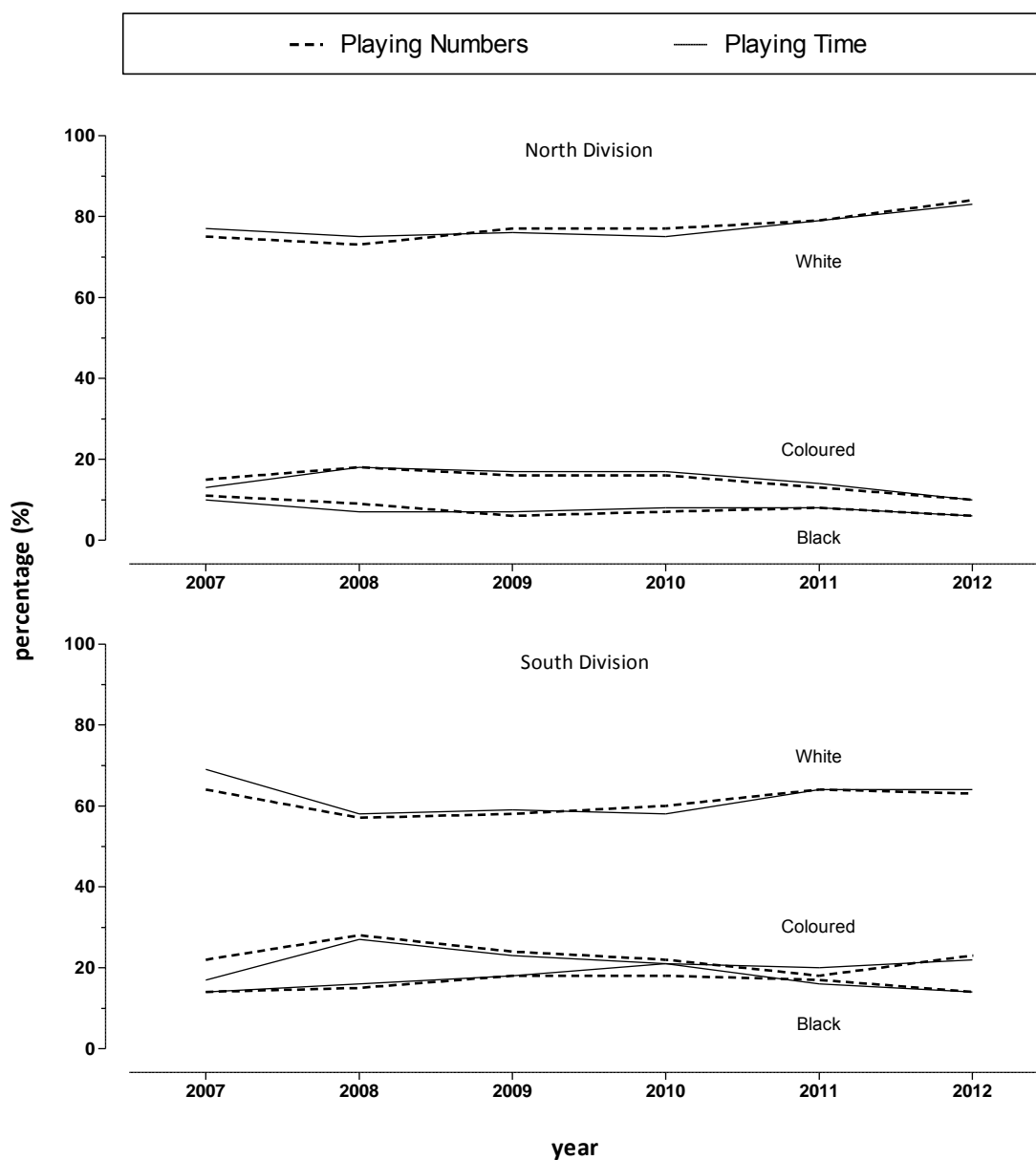


Figure 11. Playing time (%) and playing numbers (%) of North and South division for Vodacom Cup from 2007 - 2012 per year and ethnicity.

Chapter Four

DISCUSSION

4. Discussion

The exposure to playing opportunities is essential for the development of sportsmen. The majority of professional rugby players will progress systematically through different levels of play as they mature. For example, a talented South African rugby player will be expected to progress from u19 through to u21 provincial level before beginning a senior professional career. The possibility of a player moving through the different levels of play is largely dependent to their exposure, playing time and how they adapt and develop in response to that playing time.

Playing time can therefore be used as a tool to measure a player's opportunity to develop. The same measurement can be used in other sporting codes although it may need to be customized. In cricket for example, playing time cannot be used in the same way as it is used in rugby due to the individual roles performed by players. For a bowler the total number of overs bowled can represent their playing exposure. Furthermore, an increased number of bowling overs is associated with an increased risk of overuse injury. This association between exposure and risk of injury has led to the importance of player monitoring and management. As a result, a bowling workload guideline has been established for junior fast bowlers.^{47,48} The same method has been used in baseball, with pitchers being governed by total number of pitches in a given time period in order to promote player longevity.⁴⁹

A player's exposure therefore in both cricket (bowlers) and baseball (pitchers) could be determined by the number of overs bowled and pitches thrown respectively by the player. Thus, a pitcher that throws 3 innings in a game to that of a fellow team member who throws 1 innings, results in the playing exposure received by the two players to be very different. This reflects the shortcomings of determining a player's exposure to playing by simply counting the number of times he is included into either the squad or the starting lineup. This further emphasizes the importance of having a measurable outcome for playing exposure other than counting heads in a team.

The following section will discuss the trends with regards to player numbers and playing time. The discussion will be compartmentalized into the different competitions, different rugby unions and then summarized collectively.

4.1 International and Provincial Competitions

4.1.1 Springboks

Playing for the Springboks is the highest level of rugby a South African rugby player can achieve. The honor of representing the Springboks is reserved for players who have performed consistently well at a high level. Across a six season period the total number of players representing the Springboks (n=256) fluctuated between a maximum number of 50 players (2007) and minimum number of 38 players (2009). The percentage of total number of white players increased from 76% to 79% across the six year period while black players increased from 4% to 5% and coloured players decreased from 20% to 17%.

In January 2008, Peter de Villiers made history when he was appointed as the first non-white Springbok coach. Oregon Hoskins the president of the SARU at the time, confirmed that not only were his rugby credentials considered but that transformation also played a role in his selection. Peter de Villiers would be expected to transform a predominantly white Springbok squad during his tenure as coach.⁵⁰ In the first year of his appointment, the total numbers of players of colour was 36% (18% black, 18% coloured) and total playing time for players of colour was 35% (10% black, 25% coloured). At the end of his tenure in 2011, both these scores had decreased. The numbers of players of colour decreased to 28% (9% black, 19% coloured) while playing time decreased to 22% (5% black, 17% coloured).

The total playing time for Springboks decreased from 17 736 minutes in 2007 to 13 167 minutes played in 2012. Playing time for white players decreased from 81% to 79% in 2007 to 2012. Playing time for black players increased from 1% to 5% and playing time for coloured players decreased from 17% to 16% during the same period. Therefore, at the Springbok level, white players continue to dominate with regards to both playing time and playing numbers, followed by coloured and then black players.

Based on the ratio of number of players vs. playing time at Springbok level over a six year period, white players were overrepresented in 50% of the situations, underrepresented in 0% of the situations and equally represented in 50% of the situations. Black players were

underrepresented in 83% of the situations and equally represented in 17% of the situations. Coloured players were overrepresented in 33% of the situations, equally represented in 33% of the situations and underrepresented in 33% of the situations. Therefore to summarize, at Springbok level the white players played more than expected whereas the black players played less than expected based on the number of players from 2007 to 2012.

4.1.2 Super Rugby Competition

Super Rugby is a competition made up of various regional franchises from South Africa, Australia and New Zealand. This is the second highest level a South African rugby player can achieve. The competition format changed for the 2011 and 2012 season, which resulted in an increase in total playing time. For example, the total playing time increased from 81 741 minutes in 2007 to 97 828 and 97 729 minutes in 2011 and 2012 respectively.

Over the 6 years of the study the white players dominated both playing numbers and playing time in the Super Rugby competition, followed by coloured and black players. The total number of white players increased from 81% to 82%, while black players increased from 5% to 7% and coloured players decreased from 15% to 11%. Total playing time for white players decreased to 81%, black players playing time increased to 7% and coloured players playing time decreased to 12%.

Based on the ratio of number of players vs. playing time at Super Rugby level over a six year period, white players were overrepresented in 33% of the situations, underrepresented in 17% of the situations and equally represented in 50% of the situations. Black players were overrepresented in 0% of the situations, underrepresented in 33% of the situations and equally represented in 66% of the situations. Coloured players were overrepresented in 17% of the situations, underrepresented in 17% of the situations and equally represented in 67% of the situations.

4.1.3 Currie Cup Competition

The Currie Cup is the premier provincial rugby competition and is divided into two divisions, the premier and first division. The Currie Cup format has changed a number of times and most recently in 2012. The premier division changed to consist of the top 6 provincial teams while the first division comprises of the bottom 8 provincial teams. The various changes in format have however not altered the total playing time for the competition.

During the 6 years of the study white players continue to dominate selection in the Currie Cup, followed by coloured players and then black players. The total number of white players increased from 71% to 75%, while black players increased from 10% to 11% and coloured players decreased from 19% to 15%. The total playing time for white players have increased from 75% to 78%, black players playing time increased from 8% to 10% and coloured players playing time decreased from 16% to 12% from 2007 – 2012.

Based on the ratio of number of players vs. playing time at Currie Cup level over a six year period, white players were overrepresented in 83% of the situations and equally represented in 17% of the situations. Black players were underrepresented in 50% of the situations and equally represented in 50% of the situations. Coloured players were underrepresented in 50% of the situations and equally represented in 50% of the situations. Therefore in summary, white players played more than expected and black players played less than expected based on the total number of players from 2007 to 2012.

4.1.4 Vodacom Cup Competition

The Vodacom Cup is the lowest level of professional rugby in South Africa. The Vodacom Cup therefore acts as the entry point for senior professional rugby players. The competition is played at the same time of the year as Super Rugby. This provides an opportunity for players who have not been selected for a Super Rugby franchise an opportunity to play provincial rugby. The competition is divided into two divisions, namely North and South division.

The total number of players used during the Vodacom Cup has increased from 453 (2007) to 484 (2012). The Currie Cup total number of players increased from 505 (2007) to 554 (2012). Both the Currie Cup and the Vodacom Cup provide exposure to a large number of players. Therefore, the Vodacom Cup competition would be the ideal competition to promote transformation.

The percentage of total number of white players have increased from 69% to 74% across the six year period, while black players decreased from 12% to 10% and coloured players decreased from 18% to 16%. The highest representation of white players was 74% in 2012; the highest black player representation was 12% which was achieved in 2007, 2008, 2009, 2010 and 2011. The highest coloured player representation was 23% which was achieved in 2008.

The total playing time for the Vodacom Cup in 2012 was 121 773 minutes. White players played 73% of the playing time in both 2007 and 2012. The playing time of black players decreased from 11% to 10% and the playing time of coloured players increased from 15% to 17%. At the Vodacom Cup level white players continue to dominate both playing numbers and playing time, followed by coloured and then black players.

Based on the ratio of number of players vs. playing time for Vodacom Cup level over a six year period, white players were overrepresented in 17% of the situations and equally represented in 83% of the situations. Black players were equally represented in 100% of the situations. Coloured players were overrepresented in 17% of the situations, underrepresented in 17% of the situations and equally represented in 67% of the situations. Vodacom Cup had the most consistency compared to other competitions between playing numbers and playing time between 2007 and 2012. This suggests that in most cases the players were selected without bias, and that the players had similar exposure time. Thus, they were not selected as quota players and then underrepresented by the coach.

4.2 Union Representation

4.2.1 Super Rugby Unions

Five South African franchises compete in the Super Rugby competition. Each franchise comprises of different provincial rugby unions and regions. The Blue Bulls franchise comprises of Pretoria, East Rand and the Limpopo Province. The Cheetahs franchise comprises of both the Free State and Northern Cape. The Golden Lions franchise comprises of Johannesburg, North West Province and Mpumalanga. The Sharks franchise comprises of KwaZulu-Natal and the Eastern Cape while the Stormers franchise includes the Western Cape.

The regional structure of the franchise has the potential to influence the ethnic composition. Based on the 2011 National Census, the highest population of white people can be found in the Western Cape followed by Gauteng (16% in both when rounded). All other provinces have a white population of less than 10%.³² Based on the National Census one would expect the Blue Bulls, Golden Lions and Stormers to have the highest representation of white players when compared to the other South African franchises.

The highest black population can be found in Limpopo and Mpumalanga Province. Limpopo Province comprises 97% black people while Mpumalanga Province comprises 91% black people.³² The Golden Lions and Blue Bulls would therefore be expected to have the highest representation of black players when compared to other South African franchises.

The Northern Cape and Western Cape comprise the highest coloured population. The coloured population in the Northern Cape comprises 50% and the Western Cape comprises of 33%.³² The Golden Lions and Stormers would therefore be expected to have a higher contingency of coloured players when compared to other South African franchises.

However, with reference to the final year's data, the Golden Lions had the highest percentage of white players (87%), followed by the Blue Bulls (85%) and the Sharks (83%). The highest percentage of black players was achieved by the Sharks (13%), followed by the Blue Bulls (10%). The highest percentage of coloured players was achieved by the Stormers (18%), followed by the Cheetahs (16%).

The highest total playing time in 2012 for white players was achieved by the Cheetahs (87%), followed by the Golden Lions (85%). The highest playing time for black players was achieved by the Sharks (12%), followed by the Blue Bulls (11%). The highest playing time for coloured players were achieved by the Stormers (20%), followed by the Blue Bulls (13%).

The demographics of the franchises in most cases do not represent the regional demographics based on the results of the National Census.

4.2.2 Currie Cup Unions

The Currie Cup is the premier domestic South African competition. The competition comprises two divisions, premier and first division. The format of the competition has changed a number of times and most recently in 2012. Previously the top 8 unions competed in the premier division while the other 6 unions competed in the first division. Since 2012 the top 6 teams compete in the premier division. Historically in the professional era all previous winners of the Currie Cup competes in the premier division.⁵¹

The Currie Cup premier division contains Western Province Rugby Union (32 time previous winner), Blue Bulls Rugby Union (23 time previous winner), Golden Lions Rugby Union (10 time previous winner), Sharks Rugby Union (7 time previous winner), Free State Rugby Union (4 time previous winner) and Griquas Rugby Union (3 time previous winner).⁵¹

The first division contains Boland Rugby Union, Border Rugby Union, Eastern Province Kings Rugby Union, Falcons Rugby Union, Griffons Rugby Union, Leopards Rugby Union, Pumas Rugby Union and South Western Districts Rugby Union. The only team having won the Currie Cup in the first division is the Border Rugby Union, when they twice shared with Western Province in 1932 and 1934.⁵¹ A clear distinction can be seen between the unions in the premier division and unions in the first division when comparing the Currie Cup success. Therefore a comparison can be drawn between teams in the premier division (top 6 unions) and first division (bottom 8 unions).

4.2.2.1 Premier Division Unions vs. First Division Unions

A comparison can be drawn between unions in the premier and first division when comparing players of colour.

The yearly combined average for players of colour, in terms of playing numbers for premier division unions is lower than that of first division unions. Premier division unions averaged 25%, 24%, 21%, 18%, 19% and 18% in 2007-2012 respectively for playing numbers of players of colour. First division teams achieved an average all above the 30% mark, namely 32%, 34%, 35%, 34%, 31% and 31% all across the same time period. Despite the first division unions having higher playing number percentages for player of colour, both first and premier division averages have been on a steady decline for a number of years. The Blue Bulls Rugby Union in 2008 (35%), Griquas Rugby Union 2007 (30%) and Western Province Rugby Union in 2007 (33%) achieved the three highest playing numbers for players of colour from 2007-2012. Border Rugby Union in 2010 (64%), Boland Rugby Union in 2008 (70%) and South Western Districts Rugby Union in 2012 (52%) achieved the three highest playing numbers for players of colour in the first division. These large differences further highlight a difference in playing numbers for players of colour between two divisions within the same competition.

The same trend for playing numbers with regards to players of colour can also be seen when comparing playing time. Playing time of players of colour for premier division unions was lower than that of first division unions. The average playing time for premier division unions was 22%, 24%, 20%, 16%, 19% and 16% in 2007-2012 respectively. In the same time period playing time for first division unions were 28%, 33%, 38%, 35%, 27% and 26%. The same gradual decrease that is established with playing numbers can be seen in playing time. Although the playing time for players of colour in first division unions is higher than that of premier division unions, both are gradually decreasing each year.

4.2.3 Vodacom Cup Unions

The Vodacom Cup is an important competition designed to develop talent and serves as an entry point into senior professional rugby within South Africa. The Vodacom Cup started in 1998 and occurs at the same time as the Super Rugby Competition. The Vodacom Cup consists of a North and South section.

4.2.3.1 North Division vs. South Division

The Northern division geographically covers Gauteng Province, Limpopo Province, Mpumalanga Province, North West Province and Northern Cape. The rugby unions from these regions include Blue Bulls Rugby Union, Pumas Rugby Union, Griquas Rugby Union, Golden Lions Rugby Union, Leopards Rugby Union, Griffons Rugby Union and Falcons Rugby Union. According to the National Census data the Northern division has 81% black, 8% white, 9% coloured and 1% Indian people.³²

The Southern division is represented by the Western Cape, Kwazulu-Natal Province, Eastern Cape and Free State Province. The rugby unions from these regions include Western Province Rugby Union, Sharks Rugby Union, Eastern Province Kings Rugby Union, Boland Rugby Union, Border Rugby Union, Free State Rugby Union and South Western Districts Rugby Union. There are 73% black, 8% white, 15% coloured and 2% Indian people in the Southern division.³²

Based on the distribution of the population, there are a higher percentage of black people in the Northern regions of the country and a higher percentage of coloured people in the Southern regions of the country. Therefore it would be expected that the Northern division of the Vodacom Cup contains a higher percentage of black players and Southern division contains a higher percentage of coloured players.

The Northern division rugby unions averaged 25%, 27%, 23%, 23%, 21% and 16% across the six year period for playing numbers of players of colour. The Southern division rugby unions averaged 36%, 43%, 42%, 40%, 36% and 37%. The average of Northern division rugby unions

for playing numbers of players of colour was lower when compared to the Southern division rugby unions. The playing numbers for players of colour have decreased each year over the last three years for both the Northern and Southern divisions.

The same trend can be seen when comparing the playing time for players of colour between rugby unions competing in the Northern and Southern divisions. The Northern division rugby unions achieved a lower playing time for players of colour than that of the Southern division rugby unions. The average playing time for players of colour for Northern division rugby unions was 23%, 25%, 24%, 25%, 21% and 17% from 2007-2012. Southern division rugby unions averaged 31%, 42%, 43%, 43%, 36% and 36%. This shows that the playing time for players of colour over the last three years has decreased each year.

4.3 Transformation, what does the data show?

For senior players at all four levels of play (Vodacom, Currie Cup, Super Rugby and Springboks) there were major differences in playing time between the different ethnic groups. For the majority of cases, white players continue to play more than expected based on their playing numbers, compared to the coloured and black players.

A major finding of this study, was there were no clear changes in the patterns of the proportions of white, coloured and black players from 2007 - 2012, at all levels of competition. White players are continuing to be dominant in South African rugby followed by coloured and then black players. There were concerns that transformation was only occurring at the lowest level of professional rugby and not filtering through to Springbok level. However, this study has shown that this is not the case; the same ethnic profile exists irrespective of the level of competition and players of colour are not misrepresented according to the level of rugby.

The findings of the study show that the specialised programmes that the SARU have implemented have not had the desired effect in transforming the game. White players continue to dominate both playing time and playing numbers. Interpretation of these data needs to be carefully considered. High performance sport is complex in nature and many

factors influence the success of an athlete. Digel (2002) describes how world-class performance in any country is dependent on three pillars:

'The first one is society, in general, as a resource for the elite sport system. The second is the sporting system itself. The third pillar is the environment of the specific sports system as a defining factor for world class performance'.⁵²

This further emphasizes other factors that need to be overcome if specialized programmes are to be effective. Recently over 10 000 South African schoolchildren between the ages of 6 and 13 years old, performed various physiological tests.⁵³ Fitness and morphological results showed that there were significant differences between children of different ethnic origins, with the white children generally being bigger and scoring higher in the fitness tests than the coloured and black children.⁵³ These differences were largely eliminated when socio-economic status was controlled.

The talent of an athlete needs to be developed in a structured way; a long term developmental programme starts at a young age and progresses through to maturity.⁵⁴ Children being raised in a low socio-economic environment will always have a competitive disadvantage due to differences in maturity and growth.⁵⁵ The Australian Rugby Union (ARU) and New Zealand Rugby Union (NZRU) understand the importance of specific development at various ages and have implemented long term player development programmes designed specifically for rugby.² For development to occur the correct environment for children (6-12 years of age) needs to be established to ensure the development of various characteristics which are fundamental to general sporting performance and specific to the demands of rugby.⁵⁶

Community clubs and sporting facilities are needed across all socio-economic levels for the development of athletes at a young age. These facilities will assist in reducing the developmental difference between ethnic groups as they get older. The alignment and co-operation between schools, clubs, universities and provincial unions are instrumental in the development of a high performance athlete. All the efforts that the SARU has invested in transformation may be ineffective if these organisations are not aligned. Furthermore, the Departments of Sport, Education and Health also have an important contribution to ensure

that the disparities arising from differences in socio-economic status and facilities are reduced from an early age.

Chapter Five

PRACTICAL APPLICATION & CONCLUSIONS

In summary, the data from 2007-2012 for senior rugby players at four levels (Springboks, Super Rugby, Currie Cup and Vodacom Cup) suggests that the game has not transformed during this period. The specialised programmes implemented by the SARU with the goal of accelerating transformation have not had the desired effect.

The SARU anticipated this finding and have reacted by introducing a new quota system for the Vodacom Cup starting in 2014. The new quota system requires a minimum of 7 players of colour in the match day squad of 22 players, of which 2 players of colour must be forwards. Of the 7 players of colour in the match day squad, 5 players must be in the starting lineup.⁵⁷ The Vodacom Cup has been identified as the ideal competition as it provides a critical developmental pathway into professional rugby. This decision has had public resistance. Civil rights organization, AfriForum issued the SARU with a letter that raises concerns and legalities around the decision to instate a new quota system. The letter raises the concerns around a policy that allows for racial discrimination. They claim that racial discrimination contravenes the IRB regulations and Olympic charter and the SARU faces possible disciplinary steps.⁵⁸

The quota system has in the past had undesirable consequences in various sporting codes. For example, Charl Langeveldt, a coloured national cricketer withdrew from the national team after being selected to meet the demands of a quota system.⁵⁹ Inclusion of players chosen purely for demographic purposes can disrupt team spirit and potentially lead to a negative environment.

Transforming a sport which functions in the context of the broader society is complex in nature. An example of a factor that will need to be addressed to improve the effectiveness of specialised programmes for youth and young adults is the disparity in body size and fitness of young children which occurs as a consequence of low socio-economic status. The SARU has addressed this through the implementation of the MTTs and the MSTs, however development takes time and the gains of such a programme may only be seen in years to come. Furthermore, there is importance placed on the different organs of society and sports organisations to work closely to ensure mass participation and excellence. Until the fundamental inequalities in society are reduced, the specialised programmes, including

quotas, designed to accelerate transformation are unlikely to achieve their desired outcome.

Playing time remains the most accurate method in measuring transformation. The shortcoming of simply counting heads has been highlighted and allows for masking and creating a false impression of the true extent of transformation. Finally, playing time data should be collected on an on-going basis so that efficacy of the transformation projects within South African rugby can be measured. This approach is in accordance with the broader international debate regarding evidence-based policy making and practice in international sporting policies.⁶⁰

Chapter Six

REFERENCES

1. Durandt J, Du Toit S, Borresen J, et al. Fitness and body composition profiling of elite junior South African rugby players. *South African Journal of Sports Medicine*. 2006;18:38-45.
2. Lambert M, Durandt J. Long-term player development in rugby - how are we doing in South Africa? *South African Journal of Sports Medicine*. 2010;22:67-68.
3. Durandt J, Parker Z, Masimla H, Lambert M. Rugby-playing history at the national U13 level and sub-sequent participation at the national U16 and U18 rugby tournaments. *South African Journal of Sports Medicine*. 2011;23:103-105.
4. Guttman A. *Sports: The First Five Millennia*. Massachusetts: Amherst, 2004:115.
5. Bundgaard A. *Muscle and Manliness: Rise Of Sport in American Boarding Schools (Sports and Entertainment)*. New York: Syracuse, 2005:21–22.
6. Official RBS 6 Nations Rugby. <http://www.rbs6nations.com/en/history.php> (accessed 7 April 2013).
7. Hickey J. *Understanding Rugby Union*. 4th ed. England: Leeds, 2006:4.
8. McCann L. *Rugby Facts, Figures and Fun*. Surrey: Wisley, 2006:17.
9. Corson J. *For Poulton and England: The life and times of an Edwardian rugby hero*. 1st ed. England: Leicester, 2009:53.
10. Sheard K, Dunning E. *Barbarians, Gentleman and Players: A Sociological Study of the Development of Rugby Football (Sport in the Global Society)*. 2nd ed. England: Oxford, 2005:181.
11. Paul G. *Black Obsession: The All Blacks' quest for World Cup success*. 1st ed. New Zealand: Auckland, 2009:217.
12. Nauright J. *Sport, Cultures and Identities in South Africa*. 1st ed. England: London, 1998:99.
13. Fort R, Fize J. *International Sports Economics Comparisons (Studies in Sports Economics)*. 1st ed. United States of America; West Port, 2004:346.
14. International Rugby Board. *International Rugby Board 2010-2020 Strategic Plan*. Ireland, 2010. <http://www.irb.com> (accessed 7 April 2013).
15. *Host Nation Report: The Stadium of Four Million*. Rugby World Cup 2011: The New Zealand Experience, 2012. <http://www.rugbyworldcup.com/media/news/index.html> (accessed 12 April 2013).
16. International rugby board. *Laws of the game rugby union, 2013*. <http://www.irb.com/lawregulations/laws/index.html> (accessed 1 August 2013).

17. Brown M, Guthrie P, Growden G. Rugby for dummies. 3rd ed. Canada: Mississauga, 2011:30–31.
18. Oxford Dictionary.
<http://www.oxforddictionaries.com/definition/english/apartheid?q=apartheid> (accessed 17 July 2013).
19. Understanding Apartheid: Learners Book. 1st ed. South Africa: Cape Town, 2006:11-89.
20. Masters J. Basil D'Oliveria: The man who took on South Africa's apartheid regime, 2013. <http://www.edition.cnn.com/2013/03/08/sport/cricket-basil-doliveria-apartheid-south-africa> (accessed 23 April 2013).
21. Horne J, Whannell G. Understanding the Olympics. 1st ed. United States of America: Oxon, 2012:135.
22. South African Cricket Team, 2012.
<http://www.supersport.com/cricket/international/south-africa-cricket-team-info>. (accessed 25 April 2013).
23. Black D, Nauright J. Rugby and the South African Nation: Sport, Cultures, Politics, and Power in the Old and New South Africas. England: Manchester, 1998:viii.
24. Dobson P, Mackaiser A, Qunta V. The Badge: a centenary of the Springbok emblem. 1st ed. South Africa: Cape Town, 2006:116–140.
25. About the Proteas, 2012. http://www.cricket.co.za/proteas_articles.aspx?id=1. (accessed 22 June 2013).
26. Nauright J. Sports, Cultures and Identities in South Africa. 1st ed. England: Leicester, 1997:160.
27. Smit K. The complete book of Springbok rugby records. 1st ed. South Africa: Cape Town, 2007:234.
28. Cooper B. South Africa gets 9/10 for World Cup. England: Mail and Guardian, 2010. <http://www.mg.co.za/article/2010-07-12-sa-gets-910-for-world-cup> (accessed 4 June 2013).
29. Mandela N. Long Walk to Freedom: The autobiography of Nelson Mandela. 1st ed. United States of America: Boston, 2008:554.
30. Keohane M. How Mandela saved the Springbok, 2013.
<http://www.keo.co.za/2013/06/now-mandela-saved-the-springbok> (accessed 3 July 2013).

31. Philip F. Invictus, 2013. <<http://www.theguardian.com/film/2010/feb/07/invictus-review>> (accessed 20 January 2014).
32. Ngyende A. Statistical release (Revised) Census, 2011. <http://www.statssa.gov.za> (accessed 26 June 2013).
33. Transformation Charter for South African Sport, 2012:1-52. [http://www.srsa.gov.za/MediaLib/Home?DocumentLibrary/Transformation Charter - FINAL Feb 2012.pdf](http://www.srsa.gov.za/MediaLib/Home?DocumentLibrary/Transformation%20Charter%20-%20FINAL%20Feb%202012.pdf) (accessed 14 July 2013).
34. Memorandum of Understanding between The Department of Basic Education and Sport and Recreation South Africa, 2011.
35. ICC World Cup, 1999. <http://www.espn.com/cricket/story/_/id/471482> (accessed 20 January 2014)
36. Taliep M. Effectiveness of the cricket transformation process in increasing representation and performance of black cricketers at provincial level in south africa. *South African Journal of Sports Medicine*. 2009;21:156–162.
37. Taliep M, Btech R, West S. An analysis of the performance of Black African junior provincial cricket batsmen. *South African Journal of Sports Medicine*. 2011;23:90-94.
38. Durandt J. Coca-Cola Craven Week Project, 2002. Internal Report to SA Rugby.
39. SARU Capital Works projects earns IRB Award, 2012. <http://www.irb.com/history/awards/newsid=2064717.html#saru+capital+works+projects+earns+irb+award> (accessed 30 May 2013).
40. South African Schools Rugby Association. Executive Meeting of South African Schools Rugby Association, 2010.
41. Varsity Cup Competition Rules 2011, 2011. http://www.varsitycup.co.za/index.php?option=com_content&view=article&id=3258 (accessed 20 June 2013)..
42. Varsity Cup Competition Rules 2013, 2013. <http://www.varsitycup.co.za/footer-links-5/vc-competition-rules/5487-varsity-cup-competition-rules-2013> (30 May 2013).
43. Meeting minutes between SA Rugby and provincial rugby presidents, 2006.
44. A short history of South Africa. <http://www.southafrica.info/about/history/history.htm#.UpZipdKnr9M> (accessed 3 May 2013).

45. Odendaal A. The story of an African game: Black cricketers and the Unmasking of One of Crickets Greatest Myths, South Africa, 1850-2003. South Africa: Cape Town, 2003:9–55.
46. National Sport and Recreation Plan,2012:1-77.
<http://www.info.gov.za/view/DownloadFileAction?id=154620> (accessed 28 May 2013).
47. Davies B, du Randt R, Venter D, Stretch R. Cricket: Nature and incidence of fast-bowling injuries at an elite, junior level and associated risk factors. *South African Journal of Sports Medicine*. 2008;20:115-118.
48. Dennis RJ. Is bowling workload a risk factor for injury to Australian junior cricket fast bowlers? *British Journal of Sports Medicine*. 2005;39:843-847.
49. Fazarale J J, Magnussen RA, Pedroza AD, Kaeding CC. Knowledge of and Compliance With Pitch Count Recommendations: A Survey of Youth Baseball Coaches. *Sports Health*. 2012;43211:202–204.
50. Ray C. Boks get first black coach, 2008.
<http://www.timeslive.co.za/thetimes/2008/01/10/boks-get-first-black-coach> (accessed 6 October 2013).
51. Currie Cup Finals History, 2012. <http://www.supersport.com/rugby/currie-cup/finals> (accessed 1 October 2013).
52. Digel H. The context of talent identification and promotion: A comparison of nations. *New Studies in Athletics*. 2002;17:13-26.
53. Armstrong M, Lambert E, Lambert M. Physical fitness of South African primary school children, 6 to 13 years of age: Discovery Vitality Health of the Nation Study. *Perceptual and Motor Skills*. 2011;113:999–1016.
54. Vaeyens R, Lenoir M, Williams A, Philippaerts R. Talent identification and development programmes in sport: current models and future directions. *Sports Medicine*. 2008;22:67–68.
55. Figueiredo A, Goncalves C, Coelho E Silva M, Malina R. Characteristics of youth soccer players who drop out, persist or move up. *Journal of Sports Science*. 2009;27:883–891.
56. Bailey R, Collins D, Ford P, McNamara A, Pearce G, Toms M. Participant Development in Sport: An Academic Literature Review. Commissioned reports for sports coaches UK, 2010;1–134.

57. Saru confirms new quota system for domestic rugby, 2013.
<http://www.bdlive.co.za/sport/rugby/2013/08/14/saru-confirms-new-quota-system-for-domestic-rugby> (accessed 9 October 2013).
58. Sport 24. SARU's quotas a "violation", 2013. <http://www.sport24.co.za/Rugby/SARUs-quotas-a-violation-20131203> (accessed 5 December 2013).
59. Langeveldt withdraws from SA squad due to racial selection, 2008.
<http://www.thestandard.co.zw/2008/03/20/langeveldt-withdraws-from-sa-squad-due-to-racial-selection/> (accessed 3 April 2013).
60. Coalter F. A Wider Social Role for Sport: Who's Keeping the Score? Abingdon: Oxon, 2007.