

**NEXUS BETWEEN UNIVERSITY EDUCATION AND STUDENTS' ELITE
SPORTS TALENT DEVELOPMENT IN SELECTED UNIVERSITIES IN KENYA**

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**A Thesis Submitted to the Department of Education in Partial Fulfillment of the
Requirements for the Conferment of the Degree of Doctor of Philosophy (PhD) in
Leadership and Education Management of Kenya Methodist University**

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DECLARATION AND RECOMMENDATION

Declaration

This Thesis is my original work and has not been presented for a degree or any other award of a degree in any other University

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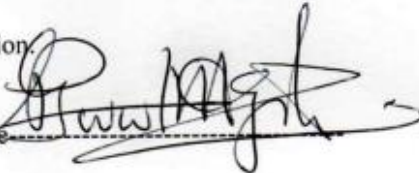
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Recommendation

We confirm that the work reported in this thesis was carried out by the candidate under our supervision

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DEDICATION

To my dear wife Beatrice Kinanu, my daughter Yvonne Nkatha, my son Victor Mugambi, my father late Joana M'imwendwa and my mother Martha Joana I dedicate this work.

ACKNOWLEDGEMENT

The assistance from various individuals at different stages during the conceptualization, field work and writing of this thesis enabled me to complete the work. I am heavily indebted to my supervisors Professor Mwangi Peter Wanderi and Dr. Beatrice Owiti for their professional and academic guidance during this exercise. This I do not take for granted and it made me feel academically inspired, enriched and encouraged. Their mentorship, professional concern and encouragement enabled me to submit this work despite many obstacles that were initially unforeseen and would have affected the completion of this document in one way or other. I am grateful for their tireless guidance and input. I am equally indebted to my previous supervisors Rev. Professor Peter Mageto and Dr. John Gikunda Mariene who saw me through during the proposal development stage. They participated in one way or other in setting the initial road map for this study. I am also grateful to my research assistant, Moses Karithi for his tireless heralds when setting grounds for data collection during the field work, Lucy Nyaga for typesetting initial proposal manuscript and to the faculty members in the Department of Education, in Kenya Methodist University (KeMU). These members of staff contributed through encouragement one time or another when the going for this work became tough. Also, to my PhD, classmates for their encouragement when found to lag behind in the process of writing the thesis. Finally to all respondents and any other person who participated in this study in one way or the other.

ABSTRACT

The study was designed to establish “Nexus between University Education and Students’ Elite Sports Talent Development in Selected Universities in Kenya”. United States of America and European countries like United Kingdom, Belgium, Germany and the former United Soviet Socialist Republic have the bulk of their national sports teams drawn from the universities. The universities in Kenya have contributed insignificantly to sports talents that represent the country in international sports competitions. This raised a concern and need for research study in the universities in Kenya. The objectives in the study sought to establish the relationship between universities’ education academic policies and students’ elite sports talent development, to analyze the relationship between elite sports management support systems and promotion of students’ talent development, to determine the management challenges in integrating university education and students’ talent development in elite sports and to establish a suitable sports management model that embraces education and elite sports in order to provide a critical link in aligning academics and students’ talent development in the university education in Kenya. The study was anchored on systems theory as the management of sports in the universities is guided and informed by structured sports management sub systems. The subsystems are joined to work together as whole within the principles of input-process-output strategy to achieve desired goals. Talented Students, Coaches, Games Tutors, Directors and Kenya Universities Sports Association (KUSA) officials are the parts or sub-systems that work together towards the desired output. The study using mixed research methods adopted stratified and purposive sampling methods to identify and define the sample. The management of student affairs and structures in the universities as they relate to elite sport management systems defined the sample. The tools for collecting data were questionnaires, interview schedules, observation, content analysis and focus group discussions (FGD). The reliability of the test instruments that were used was established through generating Crobach’s alpha coefficient of 0.714 which was used as a reliability index of the research instruments. The statistical computation was done under Cross Tabulation analysis. The study findings indicate that, there is an inverse moderately strong and significant relationship between universities’ education academic policies and students’ sports talent development. There was also a positive moderate relationship between financial support and students’ sports talent development. The study further established that, there is a small inverse relationship between the current sports training support and students’ sports talent development. On competition opportunities the study found that, there is a small positive relationship between the current competition opportunities and students’ sports talent development. 87.1% of the talented students being the principal consumers of university services indicated that the main challenge in integrating academics with students’ talent development in elite sports is lack of balancing between academics and students sports talent development in elite sports. To generate an effective model to establish a link between education and students’ talent development in elite sports, universities in Kenya should consider a flexible predictive academic and sports competition schedules to balance both elite sports and academics. The findings and recommendations are expected to lay a stronger foundation for the competency based curriculum (CBC). The study also recommended a ministry of education, youth, sports and culture be created to integrate these domains in one ministry.

TABLE OF CONTENTS

DECLARATION AND RECOMMENDATION ii

COPYRIGHT iii

DEDICATION..... iv

ACKNOWLEDGEMENT v

ABSTRACT..... vi

LIST OF ABBREVIATIONS xvi

CHAPTER ONE 1

INTRODUCTION..... 1

1.1 Background to the Study..... 1

1.2 Statement of the Problem..... 8

1.3 The Purpose of the Study 9

1.4 Objectives of the Study..... 9

1.5 Hypotheses / Research Questions 10

1.6 Justification of the Study 12

1.7 Significance of the Study 12

1.8 Limitation of the Study 13

1.9 Delimitation of the Study..... 14

1.10 Operational Definition of Terms..... 14

CHAPTER TWO 18

LITERATURE REVIEW 18

2.1 Introduction..... 18

2.2 University education academic policies and students’ talent development 23

2.3 Sports management support systems and students' talent development	29
2.4 Challenges in integrating academics and students' sports talent development	34
2.5 University education and elite sports management model	37
2.6 Summary of Reviewed Literature.....	44
2.7 Theoretical and Conceptual Framework.....	50
CHAPTER THREE	59
METHODOLOGY	59
3.1 Introduction.....	59
3.2 Research Design.....	59
3.3 Location of the Study.....	61
3.4 Study Population.....	63
3.5 Methods of Collecting Data	67
3.6 Research Instruments	67
3.7 Piloting of the Instruments.....	71
3.8 Data Collection Procedures.....	74
3.9 Data Analysis Methods.....	76
3.10 Ethical Considerations	78
3.11 Anonymity and Confidentiality	79
CHAPTER FOUR.....	80
RESULTS AND DISCUSSIONS.....	80
4.1 Introduction.....	80
4.2 Demographic information of the respondent	80
4.3 Sampled Universities	83

4.4 University Education and Students’ Talent Development in Elite Sports	84
4.5 Sports management support systems and students’ sports talent development	97
4.6 Integrating university education and students’ talents development	126
4.7 Elite sports management model and university education in Kenya	147
4.8 Merged Results and Discussions	161
CHAPTER FIVE	180
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	180
5.1 Introduction.....	180
5.1 Summary of Findings.....	182
5.2 Conclusion	195
5.3 Recommendations.....	202
5.4 Recommendations for Further Research.....	210
REFERENCES	211
APPENDIXES	218

List of Tables

Table 1.1 University Students in the United Kingdom (U.K) Olympic Teams	4
Table 3.1 List of Universities and respective Counties.....	62
Table 3.2 Study Population	64
Table 3.3 Sample Size	66
Table 4.1 Response rate	80
Table 4.2 Respondents by gender	81
Table 4.3 Talented students by sports	81
Table 4.4 Duration respondents served in the university in the position	82
Table 4.5 Respondents working experience in the university.....	83
Table 4.6 Category of sampled universities	83
Table 4.7 Students' recruitment into the universities.....	85
Table 4.8 Are there talented students in elite sports in the universities in Kenya?.....	87
Table 4.9 Stage of competition	89
Table 4.10 Age of competitiona: Primary school equivalent age in Kenya.....	.89
Table 4.10 Age of competitionb: Secondary school equivalent age in Kenya.....	90
Table 4.10 Age of competition: University equivalent age in Kenya.....	90
Table 4.11 Recruitment of talented students to be directly from high schools	91
Table 4.12 Students' Admission Criteria	93
Table 4.13 Cross Tabulation of Academic Policies and Students'Talent Development..	95

Table 4.14	Symmetric Measures for Academic Policies and Talent Development ...	96
Table 4.15	Talented students' responses on status of elite sports in the universities	99
Table 4.16	Responses from talented students on financing university education.....	100
Table 4.17	Whether universities operate students' scholarship scheme	101
Table 4.18	Effective methods of retaining talented students in the universities	102
Table 4.19	Cross Tabulation of Financial Support and Students' Sports Talent.....	104
Table 4.20	Symmetric Measures on Financial Support and Students' Talent.....	105
Table 4.21	Role played by universities in developing students sports talents.....	106
Table 4.22	Students' recommendations to improve talent development.....	108
Table 4.23	Students' training hours per week during week days.....	109
Table 4.24	Supervision of students' training regiments in elite sports	110
Table 4.25	Dean of students' responses on structural placement of games and sports...	111
Table 4.26	Directors' responses on the personnel to implement elite sports programs..	112
Table 4.27	Coaches responses university students playing for external sports clubs....	113
Table 4.28	Cross Tabulation of Sports Training and Students' Talent Development...	113
Table 4.29	Symmetric Measures: Sports Training and Students' Sports Talent.....	115
Table 4.30a)	University students abilities of winning medals in the Olympic Games...	115
Table 4.30b)	Reasons given for the "Yes" response.....	116
Table 4.30c)	Reason given for the "No" response.....	117
Table 4.31	Coaches' response whether universities are capable of nurturing talents....	118

Table 4.32	KUSA response on why “universities have not nurtured talents.....	119
Table 4.33	Games Tutors’ responses why universities have not nurtured talents	120
Table 4.34a)	Coaches’ reasons(1): universities have no players in Olympics Games...	120
Table 4.34b)	Coaches’ reasons(2):universities have no players in Olympic Games....	121
Table 4.34c)	Coaches’ reasons (3): universities have no players Olympics Games	122
Table 4.35	Cross Tabulation: Competition Opportunities and Students’ Sports Talent.	124
Table 4.36	Symmetric Measures: Competition Opportunities and Students’ Talent.....	125
Table 4.37	Academic Challenges in Combining Academics with Elite Sports	127
Table 4.38	Coaches’ responses: how talented students are assisted academics.....	128
Table 4.39	Student’s responses: strategies to address the academic challenges.....	129
Table 4.40	Flexible academic schedules for talented students	130
Table 4.41	Financial challenges faced by talented students.....	131
Table 4.42	Strategies to address financial challenges faced by talented students.....	132
Table 4.43	Challenges experienced by talented students in training and competitions..	133
Table 4.44	Strategies to address training and competition challenges.....	134
Table 4.45	Coaches ‘responses: Students playing for external clubs	135
Table 4.46	Interventions to retain students in the university teams	136
Table 4.47	Dean of students: Status of financing training and competitions	137
Table 4.48	Directors: Status of financing training and competitions in elite sports	137
Table 4.49	University academic programs responds to training and competition.....	138

Table 4.50	Sports management structures in the universities in Kenya.....	140
Table 4.51	Available qualified personnel to coach the men sports disciplines.....	141
Table 4.52	Available qualified personnel to coach the ladies sports disciplines.....	141
Table 4.53	Directors’ responses on personnel to implement elite sports programs.....	142
Table 4.54	Directors: Management challenges due to sports management structures ...	143
Table 4.55	Coaches responses on type and level of qualifications needed for coaches.	143
Table 4.56	Coaches responses on type and level of training for games tutors	144
Table 4.57	Coach’s response on the type and level of training for Directors.....	144
Table 4.58	KUSA responses on the nature of sports management structures	145
Table 4.59	Students’ responses on best approach to integrate academic and talent.....	148
Table 4.60	Games Tutors and KUSA on academic and talent integrated model.....	149
Table 4.61	Coaches responses on academics, sports training and competitions Model	150
Table 4.62	Dean of students’ responses on financing elite sports in the universities....	150
Table 4.63	Talented students’ responses on sponsoring sports in the universities.....	151
Table 4.64	Coaches’ responses on external donors towards developing elite sports....	152
Table 4.65	Coaches responses regarding talented students’ academic progression	153
Table 4.66	Coaches’ responses on other factors.....	154
Table 4.67	KUSA officials’ responses on other factors.....	155
Table 4.68	Director’s response on structural sports management model	156
Table 4.69	Elite Sports Model Embracing University Education and Talent.....	175

Table 4.70 Students' Sports Talent Development Model **179**

List of Figures

Figure 2.1 Talent Pillar in the University Education (CBC) Curriculum	41
Figure 2.2 Conceptual Framework with interrelated Variables	58
Figure 3.1 Descriptive Convergent Parallel Mixed Methods Design	61

LIST OF ABBREVIATIONS

A.C.T	American College Testing
C.B.C	Competency Based Curriculum
E.Y.E.S	European Year of Education through Sports
E.A.U.G	East African University Games
F.A.S.U	Federation for Africa Sports in Universities
F.I.S.U	Federation for International Sports in Universities
G.P.A	Grade Point Average
KCSE	Kenya Certificate of Secondary Education
K.U.C.C.P.S.	Kenya Universities and Colleges Central Placement Services
K.U.S.A	Kenya Universities Sports Association
MOE	Ministry of Education
NACOSTI	National Commission for Science, Technology and Innovation
N.C.A.A	National Collegiate Athletic Association
N.E.S.P	National Education Sector Plan
S.A.T	Scholastic Achievement Test
SDGs	Sustainable Development Goals
S.T.E.P	Study Talent Education Program
T.A.S.S	Talented Athlete Scholarship Scheme
T.T.S	Top-Sport Talent Schools
U.K	United Kingdom
U.S.A	United States of America
W.C.P.P	World Class Performance Program

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education and talent are attributes that are associated with enhanced human performing skills, abilities, capacities and potential (Aquilina, 2013). These concepts refer to different meanings but, their meanings are dependent on context under which they are used and applied (Parankmalil, 2012; Kazimeirz & Mazurkiewez, 2012; Lunnenberg & Ornstein, 2012; Thunnisen & Van Arensbeigen, 2015). The term “*education*” is derived from a “Latin” word “*educere*,” known to mean, refer to, stand for, or associate with the act of teaching, learning and training (Nsamenang & Tchombe, 2011). Lunnenburg and Ornstein (2012) associate the act of teaching, learning and training with a systematic process through which individuals acquire knowledge, specific skills, character and experiences together with other related competencies. Parankmalil (2012) is agreeable with Lunnenburg and Ornstein (2012) as they perceive education as a process through which wisdom, knowledge; skills, attitudes and other related competencies are accumulated while acting as a medium through which culture in a society is acquired, nurtured, transmitted and preserved.

Mimar (2012) perceive education as an investment by denoting and describing the attribute as both a social phenomenon and a process that play a significant role in generating and serving as a basic social catalyst in economic development. World Bank (2018) agreeing with Mimar (2012) associate and describe knowledge acquisition service industry as the best strategy of improving people’s social status and hence quality of life.

Barrett et al. (2019) however caution that, the potential of education can be only realized when education policies and practices are practical, evidence based, well aligned to the whole system of fostering quality teaching, learning and supported by a curriculum design. Like World Bank (2018); Mimar (2012) further perceive education as a bridge to better achievements and fulfilled enriched future life. The ultimate goal of education is its vital role in the application of the knowledge acquired, skills and the competences in addressing and solving problems encountered in the social world (Mimar, 2012). Education therefore, is a critical, crucial, and important tool of human empowerment considered an integral player in the development of individual's political, social and economic life (Parankmalil, 2012; Mimar, 2012; World Bank, 2018; Barrett et al., 2019).

According to Transley (2011), talent is an attribute that is also domain specific, multifaceted and like education, its meanings cannot be alienated from the context in which it is used and applied. In context to the study, the term talent in elite sports is signified by possession of highly demonstrated exceptional potential, abilities of performing and achieving outstanding results in elite sports. Elite sport is considered as the category of contested activities beyond recreational levels where performances are above average. The participation in elite sports is characterized by high level standards of managed contests and with quality of competitions (Aquilina & Henry, 2010; Abisai, 2014). All Africa Games, Commonwealth Games, Olympic Games and World Championships are examples of sporting activities categorized as elite sports (Kaves, 2017). Integrating academics in university education and students' talent development in elite sports require prudent elite sport management strategies, policies and structures that

aim and are able to balance both the elite sports and the academic sides of the talented students (Kaves, 2017; Kaimenyi & Rintaugu, 2011).

The relationship between education and development of students' sports related talents in educational institutions including universities is a phenomenon that has continued to generate research interest amongst scholars, this study included (Kaves, 2017). The study by Aquilina (2013) investigated the relationship between educational needs of elite athletes and their sporting performance in Europe. The study revealed that, European Union declared the year 2004 as the European Year of Education through Sports (EYES). According to Aquilina and Henry (2010), United Kingdom launched Talent Athletic Scholarship Scheme (TASS) as a strategy and initiative to provide scholarships and bursaries to talented students in elite sports. This was meant to enable universities contribute and act as national reservoir by nurturing talents in elite sports. Aquilina (2009) established that, twenty four (24) universities in United Kingdom offered sports scholarships to talented students scouted in a variety of Olympic Sports in 2004. The government funded Talented Athletic Scholarship Scheme (TASS) and the 2012 Olympic Games scholarship initiatives were restricted to Olympic sports only (Aquilina, 2013). According to Aquilina (2009), these scholarships catered for athlete's tuition fees per year, student's subsistence, hire of campus facilities alongside elite coaching facilities, medical support and top training and competition opportunities. The study further noted that, during the 2012 Olympic Games in London, the proportion of university students in the United Kingdom (U.K) Olympic teams were as follows, Modern Pentathlon (100.0%); Women Water Polo (100.0%); Rowing (90.0%); Field Hockey (87.5%); Swimming (54.0%); Track and Field (79.5%).

Table1.1

Proportions of University Students in some of the United Kingdom (U.K) Olympic Teams during the 2012 Olympic Games in London (Aquilina, 2009)

S/NO	OLYMPIC SPORT	UNIVERSITY STUDENTS (%)
1	Modern Pentathlon	100.0%
2	Women Water Polo	100.0%
3	Rowing	90.0%
4	Field Hockey	87.5%
5	Track and Field	79.5%
6	Swimming	54.0%

The greatest revelation from Aquilina (2009) was the observation that, the national team that represented United State of America (U.S.A.) during the 2004 Olympic Games in Athens, Greece was composed of 52% university students and that of United Kingdom (U.K) was composed of 80% university students. In the 2012 Olympic Games in London, the national team that represented United Kingdom (U.K) was composed of 56% university students and that represented Germany was composed of 53% university students (Capranica & Guidotti, 2016). Aquilina (2009) also observed that, 60% of the medals won by United Kingdom (U.K) in the 2004 Olympic Games in Athens, Greece, came from university students. The study further observed that in the 2008 Olympic Games in Beijing, China, 311 athletes represented United Kingdom (U.K) out of whom 180 (57.9%) were university students. During these Games, 77 medals won by United Kingdom (U.K) and 42 (54.5%) were won by university students. The study also established that, out of the 33 medals won by France in the same games, 16 (48.5%) of these medals were won by university students.

On embracing students' sports talent development through university education, Aquilina and Henry (2010) confirmed that, Belgium universities have established structures to

admit top level athletes to enable them achieve both academic and sporting excellence. The data from United State of America (USA), United Kingdom and other European countries on university representations provide evidence that, universities can play a crucial, significant and formidable role in nurturing and developing students' talents in elite sports. It was adapted by the study to establish that, universities in Kenya can embrace the American and European strategies for developing universities students' sports talent like their overseas counterparts through university education.

In Kenya, university education was inherited from the colonial government and perceived as a "significant critical national tool" in realigning the country's social-economic needs after independence (Mackatiani et al., 2016). Mackatiani et al. (2016) have revealed that, the Ominde Education Commission of 1964 expressed the desire for Kenyans to pursue and acquire merits in academic credentials and certification to take over jobs from the expatriates who served during the colonial government. This resulted in the desire for Kenyans to value, treasure and place high premium on knowledge based industry and economy which at that time was predominantly academic. The approach favored the privileged few who acquired credentials through formal classroom education. Talent related activities like music, arts, drama and sports were marginalized and given very little attention and consequently relegated to co-curricular activities (Jakoyo, 2016). As Kenya phases out the 8-4-4 education curriculum in favor of 2-6-3-3-3 competency based curriculum (CBC), universities are expected to develop strategic policies and structures in their education system on how to admit talented students in elite sports direct from secondary schools. Such educational reforms should be prepared to accommodate the talent based pillar (Sports 5%, Visual 5% and Performing Arts 5%) in the university

education programs (Talent 15%, Social Sciences 25% and STEM (Science, Technology, Engineering and Mathematics) Pathway (60%) that have been offered and rolled out up to grade five (5) in the year 2020 in the basic education system (MOE, 2017).

The number of universities in Kenya increased tremendously from one (1) in the 1970s to seventy four (74) in 2019. According to Ngeera (2018), there were thirty one (31) Public universities and six (6) constituent university colleges. In addition, there were private were eighteen (18) chartered universities, fourteen (14) universities were also operating under letters of interim authority and five (5) constituent university colleges (list of public and private universities in Kenya in Appendix V11). Consequently, university enrolment per year increased and university education ceased to be the preserve of the privileged few elites. The philosophy of education is to prepare an individual holistically but the 8-4-4 has been found to concentrate on academics and examinations (Jakayo 2016). That of university education is to generate knowledge through teaching, research and service to the community (Kaimenyi & Rintaugu 2011). The challenge on higher education in Kenya and of interest to the researcher is how to cease viewing university education purely on the academic dimension. University education should be linked with individual students' talents in a bid to reinforce the university competency based education curriculum that Kenya has embraced.

As Jakoyo (2016) attests, the current 8-4-4 education system in Kenya only prepared students for next academic phase than a terminal training for a future life. Jakoyo has further decried that, education in Kenya emphasizes only on Languages and Science, Technology, Engineering and Mathematics (STEM) while little attention is paid to students' talents in music, drama or sports. The talent areas are not emphasized from

early childhood education, primary schools, secondary schools and universities. In the new competency based curriculum (CBC) (introduced in the year 2017), the Basic Education Curriculum Framework (BECF) is composed of two (2) years Pre-Primary, three (3) years Lower Primary, three (3) years Upper Primary, three (3) years Lower Secondary and three (3) years Senior Secondary (2-6-3-3) which addresses talent as an area of specialization from Senior Secondary School phase before admission into the university three (3) years or other tertiary institutions (Republic of Kenya, 2017).

The Higher Education Curriculum Framework (HECF) is yet to provide clear policy guidelines to link academics with talent after secondary Schools' phase (Republic of Kenya, 2017). In the current curriculum, activities related to talent like music, theatre arts, drama and sports are treated as co-curricular activities (MOEST, 2016). The phenomenon is compounded by the fact that, recruitment of students to both public and private universities is only based on high school academic credentials. This is without any trace of consideration for talent and particularly talents in elite sports so as to maintain the academic integrity. The study was therefore designed to explore the nexus between university education and students' sports talents development. The attempt was to transform university education into an effective dual pathway that includes the development of academics and students' talents in elite sports in the universities in Kenya.

1.2 Statement of the Problem

The countries in America, Australia and Europe have adopted the nexus between university education and students' talent development as a strategy to create monopoly in international sports competitions, including Olympic Games (Aquilina, 2013; Georgakis, et al., 2014; Kaves, 2017; Rubin & Rosser, 2014). They have underscored the role played by higher education institutions, particularly the universities in nurturing and developing students' talents in elite sports. On a global perspective, United States of America (U.S.A), Jamaica and Canada (Rubin and Rosser, 2014) United Kingdom (U.K), France and Germany (Aquilina, 2013; Henry, 2010), Australia and New Zealand (Georgakis, Wilson & Ferguson, 2014; Ryan, 2012) have contextualized the link between university education and students' sports talent development in elite sports. The establishment of a university is not for academic credentials only but, holistic to include talent related development and in particular, talents in elite sports (Aquilina, 2013; Aquilina & Henry, 2010). To achieve this, the universities in their sports management model have adjusted talented students' admission criteria, considered flexible academic programs to accommodate lectures, examinations, sports training and competitions.

Universities in Kenya have placed higher premium on academic credentials and neglected talent development in elite sports. There is a major disconnect between university education and students' talent development in elite sports in Kenya. Universities have not integrated academic in education with students' sports talent, considering the needs of talented students in elite sports during their sports training and competitions. The country's education reform has embraced 2-6-3-3-3 Curriculum to replace the 8-4-4 system of education. The embraced curriculum has introduced talent

pillar including sports as an academic pathway in education including university education system. The curriculum in the university education is yet to be implemented. An Empirical data generated through a study will inform on policies and structures towards the implementation of the talent pillar in 2-6-3-3-3 curriculum. This study was designed to investigate disconnect between university education and students' talent development in elite sports in the universities in Kenya.

1.3 The Purpose of the Study

The purpose of the study was to develop a suitable model to embrace education and elite sports as a critical link in aligning academics and students' talent development in the university education in Kenya. It was anticipated that, through documentation, the study to serve as a herald to provide empirical evidence to support the competency based curriculum (CBC). The findings from the study are expected to correct the sports management gaps that need to be addressed before the talent pillar in the competence based curriculum (CBC) is designed, developed and implemented through University Education System in Kenya.

1.4 Objectives of the Study

The objectives of the study were designed to;

- a) Establish the relationship between university education academic policies and students' talent development in elite sports in the universities in Kenya

- b) Analyze the relationship between elite sports management support systems (financial, training, competitions) and promotion of students' talent development through university education in Kenya
- c) Determine the management challenges in integrating university education and students' talent development in elite sports in the universities in Kenya.
- d) Establish a suitable model that embraces education and management of elite sports as a critical link in aligning academics and students' talent development in the university education in Kenya.

1.5 Hypotheses / Research Questions

The study used mixed methods research design. The first two research objectives relied on quantitative data that addressed the designed hypotheses while qualitative methods were used to answer the research questions before merging the analyzed data from both methods. The hypotheses and research questions are presented in section 1.5.1 and 1.5.2 respectively.

1.5.1 Research Hypotheses

The research hypotheses were designed to address the first two objectives by considering and analyzing data that addressed the following two issues;

- a) Whether there is a statistically significant relationship between university education academic policies and students' talent development in elite sports in the universities in Kenya?

- b) Whether there is a statistically significant relationship between sports management support systems and promotion of students' talent development through university education in Kenya?

H₀₁: There is no significant relationship between university education academic policies and students' talent development in elite sports in the universities in Kenya

H₀₂: There is no significant relationship between the financial support system and promotion of students' talent development in elite sports in the universities in Kenya

H₀₃: There is no significant relationship between sports training support system and the promotion of students' talent development in elite sports in the universities in Kenya

H₀₄: There is no significant relationship between the sports competition programs and promotion of Students' talent development in elite sports in the universities in Kenya

1.5.2 Research Questions

The following research questions were designed to collect qualitative data that further assisted to address the research phenomena so as to establish a model considered effective in embracing academics with management of elite sports as a critical link in aligning education and students' talent development in the universities in Kenya.

- a) Is there a significant relationship between university education policies and students' talent development in elite sports in the universities in Kenya?
- b) Are there significant relationships between sports management support systems (financial, training, competition) and promotion of students' talent development in the universities in Kenya?

- c) What are the challenges in integrating academics with students' talent development in elite sports through university education in Kenya?
- d) What model is suitable in embracing academics with management of elite sports as a critical link in aligning academics and students' talent development in the universities in Kenya?

1.6 Justification of the Study

The study was set to embrace and document education and sports management practices that integrate academics and students' talent development in elite sports through university education in Kenya. It is also anticipated that, the Competency Based Curriculum (CBC) that the country has embraced will pay great focus to correct the missing links in the current curriculum so as to effectively address the talent development academic pillar to be embraced in the university education system in Kenya.

1.7 Significance of the Study

At the time of study, the Higher Education Curriculum Framework (HECF) was yet to provide clear policy guidelines to link academics with students' sports talent in the embraced Competency Based Curriculum (CBC) for university education framework. The findings from the study are expected to inform university academic policies and sports management guidelines towards integrating academics and students' talent development in elite sports. This is particularly on criteria related to access, admissions, financing and retention of talented students through university education. The study therefore, is expected to serve as herald to provide with empirical evidence, the arising weaknesses to the new Competency Based Curriculum (CBC). This is expected to

effectively inform on the implementation of the added talent pillar in the university education curriculum. It is also expected to guide the Kenya Universities and Colleges Central Placement Service (KUCCPS) in developing sensitive criteria that are inclusive of students' talents in admission into the university education system in Kenya. The study is further expected to inform parents and guardians so as to encourage students to embrace student talent development including talents in elite sports and encourage institutionalization of sports scholarships by universities and other colleges in higher education

1.8 Limitation of the Study

The study focused on the nexus between university education and students' talent development. There are several categories of talents but the study only focused on talents in elite sports. Talents in Music, Arts, Crafts and Drama were not part of the focus as the scope could have been too wide for the study. Consequently the generalization of findings can only be confined to elite sports, not other talent areas. However, the study can serve as a springboard for other scholars to address these other talent disciplines within the sectors of higher education in Kenya. Eleven (11) Universities were sampled to participate in the study, but two (2) did not facilitate the documentation process for the data to be collected. However this did not in any way affect the findings of the study since nine (9) universities that participated in the study constituted more than a third (1/3; 37.5%) of the target population.

1.9 Delimitation of the Study

The study covered both public and private universities in Kenya. The institutions were selected from the universities that participated in the 2015 national interuniversity games with participating institutions and respondents purposefully sampled from a stratified sample frame. After purposeful sampling of university institutions, the study targeted the division in charge of the management of sports and drew respondents from the students' affairs division in the sampled universities. This also included the officials in the Kenya Universities Sports Association (KUSA) and students' athletes who represent universities in the national universities championships as elite sports competitions. These categories of respondents were better placed to address the concerns in the study because they either directly provide or receive university services in academics and elite sports.

1.10 Operational Definition of Terms

The following terms are used in the study to mean as indicated below;

Academic Support:	Education practices including policies provided to nurture students elite sports talent development in an academic environment.
Athlete:	The term "Athlete" was used to refer to any university student who participates in competitive sport at elite level.
Athletics:	The term athletics signifies Track and Field events.
Co-curricular:	:Activities that complement academic activities in an education institution
Education:	The term "Education" was used to mean University Education. Education therefore, is a critical, crucial, and important tool of human empowerment considered an integral player in the development of individual'

s political, social and economic life

Elite Athlete: The term “Elite Athlete” was used to refer to those university students participating in elite sports competitions at club, national or international levels.

Elite Sport: The term “elite sport” was used to refer to the sporting activity where participation is for the purposes of high level competition beyond the purposes of recreation and where controls may be outside the university boundaries. National University Championships, East Africa University Games and Federation of Africa Games are examples of elite sports.

Elite Sports Status: Elite sport status, is characterized by high and competitive performing activities above institutional level and participants are capable of becoming members of national team in the sport.

Sports Management Model These are Academic, Financial, Training, Competition and leadership structures that are established to nurture talents in elite sports in the universities

Integrating Academics & Sports Performing a dual pathway in academic and sports careers

Institutional Sports Facilities These are physical sports facilities at the disposal of talented students to enable them improve their performances in elite sports.

Medal: The term “medal” was used to refer to either individual or team award either, gold, silver or bronze after attaining positions one, two, or three respectively in elite sports competitions.

Nexus: The term “nexus” was used to refer the central link or connection that would bind university education and students’ talent development through elite sports.

Process: The term “process” was used to relate sport management strategies that are followed to achieve elite performance as the targeted goal.

Sport(s): The term “sport(s)” was used to mean institutionalized activities that are competed for either at national or international levels. In the study “sport” and “sports” are used interchangeably.

Sports Management: A process through which sports activities in the universities are planned, coordinated and integrated to achieve high performance in elite sports competitions

Sports Management Challenges This refers to academic, Financial, training, competition and coordination challenges that are experienced by talented students in elite sports

Sports Management Structures This refers to locations, leadership, academic, financial, training and

Sports Management Support competition divisions that support the implementation of elite sports in the universities

These are academic, financial, training and competition services given to support sports in the universities.

Sports Talent: The term “sports talent” was used to mean unique attributes and abilities manifested in elite sports by university students on a measure above average.

Sports Talent Development Improving elite sports performances through financial, training, competition

and management systems in the universities.

Student Affairs: The term “student affairs’ was used to refer to, an administrative section that deals with nonacademic life of students in the universities.

Talent: The term “talent” was used to refer to, ability to displaying exceptional performance in elite sports.

Talent Development Processes of nurturing talents in elite sports to its full potential

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presented reviewed relevant literature in both university education and students' sports talent development in elite sports. Specifically, the study focused on the literature examining the relationship between university education and students' talent development. The study contextualized the terms education, university education, talents and elite sports. The review of literature focused on the relationship between university education academic practices and students' talent development in elite sports, the analysis of the relationship between elite sports management support systems and promotion of students' talent development in the universities, the challenges in integrating academics and students' talent development in elite sports through university education, university education and elite sports management structures considered as effective model in students' talent development for universities in Kenya. The chapter also presented the theoretical and conceptual framework adapted by the study coupled with the summary of literature in a bid to identify the knowledge gaps that the study addressed.

2.1.1 Education, University Education, Talent and Elite Sport

Education, University Education, Talent and Elite Sport are key concepts in this study and their general conceptual meanings and how they are used in the study need explanation and then contextualized. Education is a crucial and important tool in human empowerment and an integral player in the development of individual's political, social and economic life (Parankmalil, 2012; Mimar, 2012; World Bank, 2018; Barrett et al.

(2019). According to MOE (2017), education is a lifelong process in human socialization. Mimar (2012) has pointed out that, education plays a catalytic role in individual's social growth and development. Barrett et al. (2019) agreeing with Mimar (2012) perceive education as an instrument through which the components and elements of culture in a society are configured, nurtured and transmitted hence, a fundamental way to propagate growth and development from one generation to another. Through education, the culture of the society is transmitted and preserved. Ki-moon (2012) associated education with the greatest role of transforming individuals by developing and empowering them to contribute positively to the society. Education has also been associated with better skills, high productivity and improved human capacity and hence quality of life (World Bank, 2018). Ki-moon (2012) agreeing with World Bank (2018) attest that, Education is a basic building block for development in every society. He further reaffirmed that, education is one single best investment that enables countries to build prosperous, healthy and equitably resourceful community members. This idea about education has been adapted by the developing countries Kenya included, where education is considered a panacea to social, political and economic problems (Parankimalil, 2012; Lunenburg & Ornstein, 2012).

University education has been considered an appropriate tool in responding to national economic growth and a catalyst for individual opportunities to development (Kaves, 2017). Kaves further attests that, university education is a valuable and demanded knowledge ingredient that nearly every university institution subscribes to and provides services at a cost. Wood (2011) advocate that, talented students in elite sports are insulated from such cost through bursaries and scholarships while educational institutions

gain from the visibility, national pride and victory associated with elite international sports competitions. Targeting talented students in elite sports through university education is a recruitment strategy that needs to be informed by policies in educational institutions and also the state (Henry, 2010). This study on nexus between university education and students' talent development create educational opportunities for talented students to pursue elite sports while in the universities. The researcher in this study therefore, adopted opinions from Kaves (2017); Woods (2011); Henry (2010) to contextualize education as a concept and facilitate the strategy on students' talent development in a bid to improve the development and management of elite sports in the universities in Kenya.

The term talent has no universal meaning but the meaning it identifies with is influenced by context in which it is applied (Elferic-Gemser, 2013). Kazimeirz and Maczurkiewicz (2012); Ross (2013); Thunnisen and Van Arensbeigen (2015) confirm that, talent is domain specific and its meaning cannot be disconnected from its context. According to Kazimeirz and Mazurkiewicz (2012), lack of a single meaning to talent as a concept has a significant implication especially on understanding the processes of talent both at an individual and organizational level. This particularly applies to the Competency Based Curriculum (CBC) that Kenya has embraced as the proposed education system to replace the current 8-4-4 system of education (MOE 2017). At individual level, Transley (2011) claim that, talent is a concept associated with exceptional and unique attributes describing a person's outstanding abilities, extensive knowledge, competencies and skills within a specific domain. In this regard, a talented individual has a high potential of performing and achieving outstanding results. Manamela (2016) associates talent with an individual's

special aptitude that is above average in specific and prescribed functions. Considering talent at an organizational level assumes a business and human resource model where it refers to a type of a person with ability to motivate, create, inspire and influence quality performance in the management of an organization (Thunnisen & Van Arensbergen, 2015). Durandt (2018) and Huxley (2018) have advised that, talent is a unique and valuable potential attribute or resource that only exists in few individuals. According to the studies, such individuals have the necessary capabilities and capacities to make a difference in a given field of human endeavor, elite sport included. Durandt (2018) perceive talent as the ability to perform exceptionally well at an elite level with little consideration given to the capacity that individuals need to perform and navigate the prevailing pathway to success. This rests on the answer to whether talent is an inherited factor or environmentally engineered (Thunneisen & Van Arnsbergen, 2015; Robinson, 2016). Huxley (2018) has clarified that, talent is a combination of innate and genetic characteristics together with specific and deliberate learning and practice in an environment conducive to maximizing the potential.

In context to the study, talent in elite sport is adopted according to the definitions and meanings advanced by (Kazimierz and Mazurkiewicz, 2012; Thunnisen and Van Arnsbergen, 2015; Manamela, 2016; Durandt, 2018; Huxley, 2018) which together characterizes talent as an extraordinary and outstanding abilities, or exceptional unique attributes in an individual. Manamela (2016) has hinted that universities as education institutions recruit majority of youth after secondary education. The talented students in these institutions need to be developed and benchmarked with those none students who represent Kenya in international competitions in elite sports. Talent in sports is

characterized by exceptional potential, abilities and achieving outstanding results in elite sports (Durandt, 2018 & Huxley, 2018).

Sports and in particular elite sports strongly contribute to the individual talent development and social visibility of a nation (Capranica & Guidotti, 2016). The meaning of “elite sports” can be derived from the two terms, “elite” and “Sports”. Elite as a term denotes performing at a level above average or ordinary in status (Henry, 2010). Sports includes all forms of physical or mental activities through which either organized participation or through training, the activities aim at expressing or improving physical and mental wellbeing and results attained during competitions are above ordinary levels (Kaves, 2017 and Manamela, 2016).

Kaimenyi and Rintaugu (2011) observed that, sports participation in the universities in Kenya can be categorized into either recreational or elite sports. Kaimenyi and Rintaugu attest that, recreational sports are those physical activities where participation is voluntary in nature and individuals derive pleasure, enjoyment and the intention is to improve their general health, wellbeing and development of individual skills. It is because of the development of individual skills that led (Abisai, 2014) to link the role of sport as both a recreational as well as an elite pathway. Traditionally, sports tutors and coaches in the universities use recreational sports to identify talented students who join the universities with special attributes and master later to graduate as talented students in elite sports. Elite sport therefore, is characterized by high and competitive performing activities above institutional level and participants are capable of becoming members of national sports team(s) (Kaves, 2017). Such members represent the country in international sports competitions like All Africa Games, Commonwealth Games,

Olympic Games and World Championships. Elite sport therefore, is associated with high level standards of organized contest and quality of competitions (Aquilina & Henry, 2010; Abisai, 2014). All Africa Games, Commonwealth Games, Olympic Games and World Championships are the examples of sporting activities categorized as elite sports (Kaves, 2017). The study investigated the relationship between university education and students sports talent development in elite sports.

2.2 Relationship between university education academic policies and students' talent development in elite sports

Kenya is implementing education reform by phasing out the 8-4-4 system of education to embrace 2-6-3-3-3 competency based curriculum. The task force chaired by Professor Douglas Odhiambo in 2012 on the realignment of education sector to Kenya Vision 2030 and the constitution of Kenya 2010 recommended Competency Based Curriculum (CBC) to replace the 8-4-4 system of education (Republic of Kenya, 2017). The 8-4-4 curriculum was recommended by the presidential working party in 1981 whose mission was to address the establishment of the second university in Kenya (MOE, 2017). Consequently, the post-independence 7-4-2-3 system of education was phased out and the 8-4-4 implemented in 1985. The philosophy behind the implementation of 8-4-4 system of education and phasing out the 7-4-2-3 was "Education for Self-reliance" (MOE, 2017). Unlike the anticipated philosophy, the 8-4-4 curriculum was described too academic and examination oriented (KICD, 2016). It was argued that, the 8-4-4 curriculum made very little provision for the recognition of learners' potential, gifts and talents due to unnecessary focus on academics and examinations. It failed to provide policies, appropriate pedagogical approaches and sufficient resources to lay a foundation for the

development of these dual pathway skills (Republic of Kenya, 2017). One essential and notable component that lacked in the 8-4-4 curriculum is the inclusion of academic talent pillar based on elite sports into the academic curriculum mainstream which the Competency Based Curriculum (CBC) has introduced among the three learning pathways at senior secondary and university education levels. While the implementation of competency based curriculum has started in the basic education levels, the Higher Education Curriculum Framework (HECF) is yet to implement the curriculum in the university education system in Kenya. The researcher in this study focused on university education and management of elite sports as a link or connection aligned to promote students' talent development in a university academic environment. This is expected to diversify opportunities for talented students in the social economic environment through both education and elite sports pathways. The dual career pathway in education and elite sports can be a national and institutional strategy to win more medals in international sports competitions and also improve individuals' social economic status (Henry, 2010). This can also be a strategy to generate resources to the universities for research purposes in elite sports and create opportunities to link universities with national and international sports governing bodies for research collaborations (Capronica & Guidoti, 2016).

Aquilina and Henry (2010) carried out a study on students' talent development and university education in Europe in the attempt to review policies in higher education among the European member states. The study noted that, institutional structures pose a challenge as academic credentials limit access to those with specific types of qualifications. To address the issue of recruitment and talent development support, the study found that, European member states had different strategies of defined legal

obligations on students' talent development through university education. The policy requirements are placed on universities to provide flexible opportunities for talented students (France, Hungary, Spain, Poland and Portugal). The study observed that the states adopted legislation requirements with general university admission procedures. This required athletes who the Olympic Games medal winners to be admitted in a university of their choice without entrance examinations as qualifying criteria. According to the study, talent was allocated five (5) equivalent academic bonus points awarded to prospective students who are placed on medal brackets in the Olympic Games. Further three (3) bonus points allocated to the winners and those placed 2nd and 3rd in the National Championships held in the Olympic year. Aquilina and Henry (2010) also associated other European member states with elite sport development programs (Finland, Spain, Germany, Sweden and United Kingdom) some providing sports scholarships to talented students (Austria, Poland and Portugal). The study further noted that, there was a category where the national governing bodies also recommended two or three talented young sportsmen or sportswomen to the universities for exemption or reduction of tuition fees for example, Hungary.

In Spain, Aquilina and Henry (2010) established that, there is a government decree requiring universities to reserve 3% of the total admission spaces to talents in elite sports who have met the minimum academic requirements for admission in the universities. In addition, the study also established that, those institutions that offer degrees in Physical Education are also required by law in addition to 3% to admit 5% in their intakes talented students in elite sports. According to the study, such universities offer sports scholarships as incentives to provide access and retain the talented students in the universities' halls of

residents. Coput-Jogunica, Curkovic and Bjelic (2012) in a study that analyzed supporting strategies for talented students' in the south east European universities established that, top sport performing European union member countries and their universities have adjusted entry program requirements for talented students. They also offer flexible arrangements and support systems for talented students in elite sports who meet the set minimum university admission criteria in respect to academic integrity. The study further revealed that, following the European Council's Declaration of 2008, the European Commission emphasized the need for talented students in elite sports to be provided with opportunities for quality education parallel with their sports training and competitions. Considering the findings by Coput-Jogunica, et al. (2012) it is evident that, university education can be a vital tool and a crucial factor to influence recruitment, development, retention and as a result, eventual success in the promotion of talents in elite sports. Because universities in Kenya lack a suitable model to link academics and elite sports, this was a critical and crucial factor that informed the researcher in this study to adopt the findings in order to determine a suitable model for universities in Kenya.

Henry (2010) analyzed the ways in which European member states address the educational needs of talented students in elite sports. The focus was to accommodate special delivery strategies on education to talented students in elite sports. The study highlighted principle categories of policy initiatives within the university sector. Among them, was the development and provision of both services integrating academics and elite sports together with the post athletics career exit preparations. The findings of the study underlined the response by national education system to the set of demands placed on talented students in elite sports. According to the study, this was broadly linked to the

relationship between the general welfare of the athletes and position adopted in relation to academic commitments of the talented students. The study expressed similar opinions with Aquilina (2009) and both studies emphasized similar positions in four categories namely; the state centric provision backed by legislative policies, the state as a facilitator in fostering formal agreements between educational institutions universities included and national sporting bodies. The other categories are that, sports governing bodies negotiate with university education institutions on behalf of individuals and also individuals directly approach universities for admissions where there are no formal structures in place.

While the studies by Aquilina (2009) and Henry (2010) addressed educational needs for talented students in elite sport in the context of European member states, these studies were very relevant in assisting the researcher to inform policy formulation strategies on service delivery and other requirements for talented students in elite sports through university education. The policy considerations need to address entry requirements, type and location of education provision, examinations and time table flexibility, sports scholarships, grants and formal lifestyle support services for talented students in Kenya. Georgakis, et al. (2014) carried out a study to investigate the sports achievements of talented students and their academic performances in the Australian universities. The study compared the results with general student population in the 2012 academic year. Through both qualitative and quantitative data, Georgakis, et.al revealed that, despite heavy sporting commitments and demanding sports training timetables, talented students in elite sports performed at equal levels or superior to the general student population and with low failure rates. The researcher was informed by the study that, in elite sports and

particularly, the duration spent on training and during competitions does not interfere with talented students' general academic performances. This only needed focused and compensatory structured flexible services to be provided in the universities in Kenya.

Rubin and Rosser (2014) carried out a study that investigated the academic admission requirements and performances for talented students in elite sports in American Universities. The Phenomena investigated that were relevant to researcher in this study are the access, recruitment and retention of talented students in elite sports. According to Rubin and Rosser, the National Collegiate Athletic Association (N.C.A.A), a Sports Governing body in the American Universities created a new metric and eligibility requirements between 2004 and 2008. The study revealed that, talented students in elite sports were required to attain an admission into the universities with an entry Grade Point Average (G.P.A) of 2.0 from high school and 14 core high school courses. On mode of recruitment, the study indicated that, talented students are scouted and awarded sports scholarships. However Rubin and Rosser (2014) cautioned that, to retain such scholarship status, the students must satisfy a prescribed academic progression rate throughout the undergraduate study. The study noted that, by the end of first year, such students are expected to cover 25% of the degree program, 40% to 50% in 2nd year, 60% to 65% in 3rd year and 80% on entry to 4th year while maintaining an academic progress rate of 2.0 G.P.A. aggregate. While the study was based on context to American universities, it informed the researcher in this study on the guidelines that would be appropriate for university entry requirements and academic progression rate for talented students in elite sports in the university education in Kenya.

In European member states, Capranica and Guidotti (2016) established that France and Spain have state policies that address the status of talented students' access to higher education through state financing, flexible time table (attendance), flexible examination schedules, mentoring and sports coaching. Based on the study, the legal requirements are placed on universities to provide adapted opportunities for talented students in elite sports. While Capranica and Guidotti (2016) provided policy and structural directions in integrating academics and students talent development in elite sports, the study did not focus on promoting and developing elite sports talents in context to university education in Kenya. The researcher investigated the relationship between education academics policies and students' sports talents' development in the universities in Kenya

2.3 Elite sports management support systems and promotion of students' talent development in the universities

Capranica and Guidotti (2016) sought to establish policy actions to support the development of students' talents in elite sports through university education among European Union member states. The study advised that, developing talents in elite sports through university education requires unique competencies that are supported by structured support systems of service delivery. The study has asserted that, integrating university education with sports talent development is a policy domain defined by roles and responsibilities of the sports management support systems. Sotriadou and Bosscher (2013) characterize sports management support system as financial support, technical competences and training facilities, competition opportunities and flexible academic structures. Aquilina (2013); Henry (2010); Aquilina and Henry (2010); have described essential support systems that have been used by European member states in the

development of elite sports in the education institutions and mainly strategies employed by universities. Kenya equally requires the strategy so as to realign the development of students' talents in elite sports with university education in order to give talented students opportunities for growth in education and sports as a dual pathway. The researcher in this study adopted these principles and strategies in order to address students' talent development through university education in Kenya.

Woods (2011) explored the relationship between the maintenance of sports scholarship and academic performance of the beneficiaries. The study cautioned that, National Collegiate Athletic Association (NCAA) and sports programs should not create a universe parallel to and outside the control of universities that house them. The mission of the universities according to Woods is, teaching, learning and generation of knowledge. The study further caution that, these functions should not be seen to be undermined nor should the vital link between elite sports and academic activities be severed or compromised. According to the study, the academic activities for the talented students in elite sports should be integrated into the moral and educational culture of the university. Emphasizing on the nexus between university education and students' talent development, (Woods, 2011) advised that, talented students in elite sports should be provided with educational opportunities and within the mission for which the university exists. The study provided a link between university education and students' talent development in elite sports among universities in context to universities in the United States of America (USA) but the principles were considered and adopted in order to address the academic and sporting needs for talented students in the universities in Kenya.

On financing of university education for talented students in elite sports, Woods (2011) attested that, sports scholarships provide opportunities to students who otherwise would have little chance to proceed for university education. According to the study, sports excellence is the guiding factor but the prospective talented students must exhibit a strong academic desire. The study advised that, talented students in elite sports are guided in a structured academic environment in the university alongside the elite sports career with an emphasis of maintaining the balance between academics and excellence in sports. The study further indicated that, talented students in elite sports and those on scholarship are expected to maintain a G.P.A of 2.0 in order to remain eligible for sports scholarships. The study confirmed that, the financing of sporting activities is drawn from university budget allocated from student fees, university general fund and private or state resources.

All the above studies limited their focus on the nexus between university education and students talents in elite sports on contexts outside Kenya. The concern for the researcher in this study was how can universities in Kenya strategically address the issues on access to university education for talented students in elite sports, recruit, and retain these talented students in the university education system. The strategies are on how talented students need to combine active participation in elite sports and university education.

Sports contribute to individual physical wellbeing, and to the country's social-economic and political development (Smolianov, Zakus & Gallo, 2015; Mwisukha & Mabagala, 2011). According to Anold, et al. (2015), achieving peak performance in elite sports is a complex and multifaceted phenomenon. It involves athletes seeking performance excellence and also requires sports managers and coaches as key stakeholders. The institutional management in sports has been consistently identified as a significant

distinguishing factor in achieving success in elite sport (Sotriadou & Bosscher, 2013). Anold et al. (2015) agreeing with Sotriadou and Bosscher (2013) have also named the factors leading to successes in elite sports as financial support, technical competence, integrated approach to policy development, talent development and nurturing. Talent developing and nurturing requires a comprehensive training program and structured competition opportunities (Sotriadou & Bosscher, 2013). Fletcher and Anold (2010) advised that, the way individuals are managed is an increasingly important factor in determining their successes in elite sports competitions.

Kaves (2017) and Imbroda-Ortiz et al. (2015) describe the role of a manager as to maximize the output of an organization by organizing, planning, staffing, directing and controlling the activities and operations of an organization. The studies singled out the roles of sports managers as team selection, talent development, talent scouting, sponsorships and elite sports policy. Fletcher and Anold (2010); Kaves (2017); Imbroda-Ortiz et al. (2015) informed the researcher when the roles and functions of sports managers including competencies were analyzed. The above mentioned studies also helped the researcher to categorize financial support, training under competent coaches and competitions as structured systems of service delivery under management functions in elite sports in the universities. Deans of student, Sports Directors, Games Tutors, Coaches, National Sports Association (Kenya Universities Sports Association-KUSA) are stakeholders and key players in the supervision of such structured system of service delivery like financial support, training and competition opportunities in the universities in Kenya.

Cruickshank and Collins (2012); Vallee and Bloom (2016) emphasize that; sports managers must have the capacity to display actual leadership behaviors when responding to a combination of demands from the environment, talented students and coaches. The studies identified institutional leadership roles as, team selection and goal setting, creating a vision, and attending to administrative matters. On organizational management, the studies further stress that, one of the fundamental institutional management element relate to creating a vision on where to go and how to get there. Cruickshank and Collins (2012); Vallee and Bloom (2016) informed the researcher on the leadership and management abilities as the key vision bearing strategies in relation to the state of nexus between university education and students' talent development in elite sports and how this can be adapted by the universities in Kenya.

Kaves (2017) in a survey among the Universities in Zimbabwe revealed that, a significant number of African universities have a severe shortage of technical and administrative personnel. They also lack organizational arrangements for both generation and deployment of sport related revenue together with applied research in the field of sports. In a Kenyan context, Kaimenyi and Rintaugu (2011) agreeing with Kaves (2017) confirmed that, the challenge as experienced by other African universities is similar to the universities in Kenya. Kaimenyi and Rintaugu (2011) recommended that, African universities should be more innovative on how to strengthen their elite sports programs by borrowing from other successful models in other parts of the world to ensure that the universities remain more focused, competitive and satisfy the students' sporting needs. It was the interest of the study to investigate the adequacy of the staffing in technical and administrative personnel as informed by (Kaves, 2017). Kaimenyi and Rintaugu (2011)

concerns were African universities to be innovative on how to strengthen their sports programs and borrow from successful models from other parts of the world was addressed as one of the objectives in this study.

2.4 Challenges in integrating academics and students' sports talent development in the universities

Capranica and Guidotti (2016) carried out a study on integrating university education and students' talent development in elite sports considering European member states. The study advised that, for talent to develop, it must be nurtured in a developmental process and within favorable environmental conditions that provide the required support. The strategy from Capranica and Guidotti, was to align university education with performance in elite sports as a way of increasing universities' international competitiveness in sports and particularly the Olympic Games. The study came up with a comparative data which revealed that, university students participating in the Olympic Games are more likely to win medals compared to their non-student counterparts. On the policy domain, the study reiterated that, combining university education with elite sports requires a structured institutional sports management system and qualified personnel to monitor academics, training and elite sports performances. While Capranica and Guidotti (2016) addressed the link between university education and elite sports in the European Union member states and not Kenya, the study informed the researcher in this study when the sports management structures in the universities in Kenya were investigated. It also informed the researcher on the support systems from specialized personnel and the monitoring systems in academic and sports performances for talented students in elite sports.

The European Commission pledged that, the European Union would continue supporting the promotion of sports in its member states given the social and educational function of sports (Aquilina, 2009). The study by Aquilina was based on this pledge and focused on negotiating the dual career paths in elite sports and university education but based the analysis on only three European member states (Finland, France and United Kingdom). The great revelation from the study was the observation that, in the 2004 Olympic Games in Athens, Greece, 60% of the medals won by United Kingdom (U.K) came from university students. The study also noted that in 2008 Olympic Games in Beijing, China, United Kingdom (U.K) was represented by 311 athletes out of whom 180 (57.9%) were university students. During these Games U.K won 77 medals and out of these 42 (54.5%) came from university students. The study also established that, France in the same games won 33 medals and 16 (48.5%) out of these medals were from university students. The study further associated primary and secondary school ages with initiation and development in elite sport. The ages between 18-28 years were the mastery stages coinciding with university education before plateauing down as one discontinues from active sports competition. Reaching at the age of around 30 years, the athletes would turn to the career they trained for in education during active elite sports' competitions. Aquilina (2009) also noted that, in countries like Canada, United States of America (U.S.A) and United Kingdom (U.K), the focus on career transition exists. While Aquilina (2009) provided policy and structural directions in integrating academics and elite sports, the study did not focus on promoting and developing elite sports talents in context to universities in Kenya which was addressed by the researcher in this study.

Abisai (2014) assessed the assets and modes of talent development in selected sports disciplines in Kenyan Universities. The sports disciplines considered by the study were basketball, volleyball, track and field events in Kenyan settings. The study established that, identification of talented students was based on coaches' observations done during the intramural competitions and there is no application of scientific methods in identifying these talents. The study further revealed that, identification of talented students was hindered by limited financial support, lack of scholarships and absence of talent identification structures. However, the study indicated that, there are inadequate sports facilities, equipment, coaches and time for training. The study further revealed that, the students were motivated to participate in sports by allowances, passion for the sport, competition outlet, rewards, sports facilities, desire for improving performance, gain fitness and trips out of campus. The study recommended that, for effective identification and development of talented students to elite level, universities should create desirable programs for identifying and admitting students with potential to become elite athletes. Abisai (2014) also observed that, opportunities exist for competitions and students are motivated to participate in sports. However the study does not address the link between university education and students' talents to provide appropriate environment or model to tap and nurture talents in elite sports. Further, the recommendation from the study that, universities should create opportunities for identifying and admitting students with potential to become elite athletes in future, the researcher in this study addressed this gap. The study was designed to formulate a sports management model with structures that can address the integration of academics in

university education and students' talent development in elite sports in the universities in Kenya.

2.5 University education and elite sports management model in the universities in Kenya

This study was designed with an objective to provide an integrated sports management model that combines university education and students' talent development. Several models for identifying, nurturing and developing students' talents in elite sports have been employed by universities in many countries that have dominated Olympic Games including countries in America, Asia, Australia and Europe (Bailey et al., 2010; Ford et al., 2011; Elferic-Gemser, 2013; Beaudoin et al., 2015; De Bosscher et al., 2015; Robinson, 2016; Tsonev, 2017; Marcotte, 2018; Balyi et al. 2019).

Kaimenyi and Rintaugu (2011) advised that, African universities need to be more innovative on how to strengthen their elite sports programs by borrowing from other successful models in other parts of the world. This would make universities in Kenya remain more focused, competitive and satisfy the students' sporting needs. To determine a national model in order to address the nexus between university education and students' sports talent development in the universities in Kenya, the researcher in this study adopted principles and recommendations from the American (Weight & Huml, 2016; Rubin & Rosser, 2014; Woods, 2011) the European (Aquilina, 2009; Henry, 2010 Capranica & Guidotti 2016) and Australian (Georgakis, Wilson & Fugerson 2014) models. The Kenyan model borrowed principles from and was also guided by Sports Policies Leading to International Sports Success (SPLISS) model (De Bosscher et al.,

2015; Tsonev, 2017; Marcotte 2018). This also took cognizance of the Competent Based Curriculum (CBC) that configured and embraced talent among other pillars in the university education system in Kenya. When generating an effective sports management model, the competency based curriculum (CBC) enabled the researcher to configure and adopt chronological ages that were of significance during the analysis and graduation of the national sports championships categorized by curriculum grade levels including university education in Kenya (Figure 2.1).

Balyi et al. (2019) agreed with Kaimenyi and Rintaugu (2011) that any attempt to come up with a talent development model in elite sports, there is need to borrow from successful countries their support systems, principles and practices that have made them dominate international sports competitions. Robinson (2016) has identified such countries as Australia, China, United States of America and United Kingdom. Balyi et al. (2019) added to the list the Soviet Union Republics and the Germany Democratic Republic. The study indicated that, Canada borrowed their concepts and systems to come up with a Long Term Development of Sports and physical Activity (LTDSP) Model. Robinson (2016) emphasized that, talent identification and development programs need to have the potential to detect talents early for increased sports success. Bailey et al. (2010) named the Long Term Athletic Development (LTAD) as the best known model. According to the study, the model acknowledges need for balanced training, loading and competitions based on biological and chronological stages of participation. Elferic-Gemser (2013) advised that, top performances in elite sports are planned in a complex approaches taking ten (10) years or 10,000 hours of deliberate practice. The study characterized stages of participation as Sampling Stage (12 years and below), Specializing Stage (12- 16 years),

Investment Stage (16 years and above) before top sporting stage. The study took cognizance of the role played by physical education in schools to evaluate critical children abilities before assigning them to a particular sport.

Holl (2013) agreeing with Elferic-Gemser (2013) indicated that, the Canadian talent development model is a linear progression model in elite sport talent development with a longitudinal chronological age trajectory along which talented individuals navigate to reach top performance. The study advised that, any talented individual needs to train between three (3) hours and four (4) hours per day for a period of eight (8) to twelve (12) years in order to reach optimal development in their career. The study has further provided chronological age structures guiding the stages for specific ages with boys lagging behind by one year due to early maturation in girls. These stages according to the study are active start (0-6 years), fundamentals (6-9 years), learn to train (9-12 years), train to train (12-16 years), train to compete (16-18 years), train to win (18 years and above).

Beaudoin, Callary and Trudeau (2015) while championing Long Term Athlete Development (LTAD) model advised that, children at the age of six (6) years and below should have their activities structured to provide fun as opposed to competition results or talent development. Ford et al. (2011) while agreeing with Beaudoin et al. (2015) hinted that, the LTAD model has been adopted by many sports governing bodies as a workable approach to talent development. However, the study has cautioned that, the LTAD model while it tries to balance between training and competitions, it focuses too much on results rather than assisting optimal development process. De Bosscher et al. (2015); Tsonev (2017) and Marcotte (2018) have credited the Sports Policy Factors Leading to

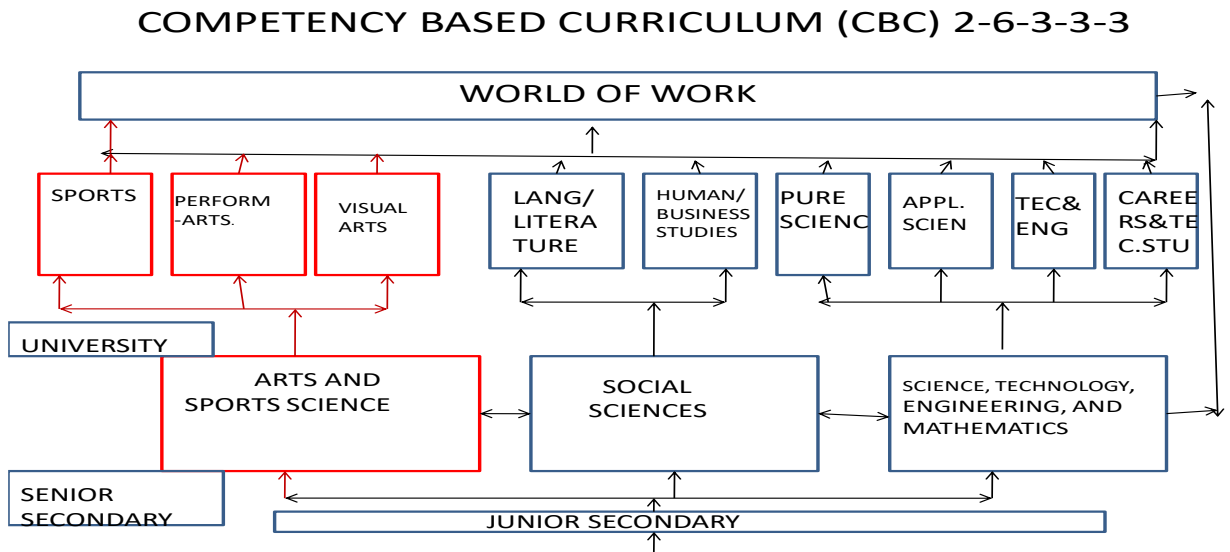
International Sports Success (SPLISS) model with international sports dominance that has been associated with Australia and European Countries. According to De Bosscher et al (2015), the SPLISS model has nine (9) pillars each with critical success factors associated to it. Pillar 1 is financial support, Pillar 2 is Governance, Organization and Structure of sports policies and Pillar 3 is initiation, which incorporates foundation and participation mainly from organized sports and physical education. Pillar 4 is performance that incorporates talent identification system and talent development. Pillar 5 is excellence that constitutes improved climate for athletic career support and post-athletic career support. Pillar 6 is training facilities, Pillar 7 is coaching provisions and coaches' development while Pillar 8 is competition opportunities, and Pillar 9 is scientific research. Tsonev (2017); has indicated that, Pillars 1, 2, 6, 7, 8, and 9 constitutes inputs while the outputs are Pillars 3, 4, and 5. The study confirmed that, financial resources, training facilities, coaching and coaches' development, athletic and post athletic career support are the most influential when it comes to an effective sports system. Manamela (2016) has advised that, schools and other education institutions as vehicles to provide sports for youth cannot be overemphasized.

Kenya is phasing out the 8-4-4 education curriculum to embrace Competency Based Curriculum (CBC) of 2 years Pre-primary School, 6 years Primary School, 3 years Junior Secondary, 3 years Senior Secondary and 3 years tertiary education including universities (MOE, 2017). The entry age for preprimary school stage is four (4) years. To develop a Kenyan model, the researcher borrowed elements from LTAD and SPLISS models guided by the Competency Based Curriculum (CBC) chronological stages of development. The European, American and Australian models were adapted to come up

with an applicable Kenyan model that considers interactions between educational institutions guided by CBC levels of academic and chronological stages of development.

Figure 2.1

Talent Pillar in the University Education (CBC) Curriculum (Adapted from Republic of Kenya, 2017).



There exists a sharp difference between the American model of connecting education with talents in elite sports (Woods, 2011; Rubin & Rosser, 2014) and that of European Union member states (Aquilina, 2009; Hesel & Perko, 2010; Henry, 2010; Capranica & Guidotti, 2016). The European model tends to direct its attention to elite sport through institutional research based actions (Aquilina, 2009; Henry, 2010; Aquilina, 2013; Capranica & Guidotti, 2016) an approach similar to that of Australia (Georgakis et al., 2014). In the American model, universities discover their direction in elite sports on the basis of reactions resulting from the conduct of intercollegiate sports programs that tend to be loosely coupled with the vision and mission of the universities as educational

institutions (Hesel & Perko, 2010). The National Collegiate Athletic Association (NCAA) is a body that is mandated to run elite sports programs in the American Colleges and Universities (Weight & Huml, 2016). This model of sports management in the universities originated from students creation, innovations and governance where scheduling, hiring of coaches, managers, talented students and all other aspects including competitions were handled through students' management systems (Hesel & Perko 2010). Today universities subscribe to the philosophy that, sports is integral to the overall educational process of the universities and should be conducted in a manner consistent with the universities' central academic mission (Miten & Ross, 2014). According to Rubin and Rosser (2014), NCAA requires prospective or potential students' athletes to join the university with a GPA of 2.0, a minimum of 700 for Scholastic Assessment Test (SAT) and 14 core courses completed from high school. Woods (2011) recommend that, while athletic scholarships provided students with an opportunity to further their education, the academic and athletic roles must complement each other so as to benefit talented students in both elite sports and educational opportunities.

Among the European model, Turnbull (2011) has singled out Soviet Union block countries and Germany Democratic Republic Sports Policy factors leading to International Sports Success (SPLISS model) as very systematic and focused model on extracting young individuals with outstanding physiological attributes. Turnbull associated this model with the dominance demonstrated by former Soviet Union block and Germany Democratic Republic in the Olympic Games between 1952 and 1980s. This model (SPLISS) has now been adapted by other European member states (Sotiriadou & Bosscher, 2013; Sotiriadou & Bosscher, 2018). The researcher took cognizant of both the

European/Australian Educational Institution model and the American NCAA sports model, which were quite useful in informing the determination of a model for universities in Kenya. The principles advocated by these models were applied in this study taking into consideration that, in the NCAA model, the individual educational institution control in sports is outside the formal structures of their governance comparable to the Kenya's national universities sports body, the Kenya Universities Sports Association (K.U.S.A.). In the European/Australian model, the individual institutional control in sports was within the formal structures of their governance and the nexus between education and development of students' talent was geared towards promoting collaboration in the general areas in education, talent environment and personal skill development competencies. To come up with an African and in particular Kenyan model of the nexus between university education and students' talent development, the researcher borrowed from the principles advanced by these foreign models in areas of access, recruiting, managing, nurturing and retaining talented students in elite sports and applied them appropriately in context to the universities education in Kenya. However, this took cognizant of changing curriculum dynamics particularly when the education system in Kenya is phasing out the 8-4-4 system of education replacing it with the Competency Based Curriculum (CBC) that has a 2-6-3-3-3 (2 years Preprimary, 6 years Primary, 3 years Junior Secondary, 3 years Senior Secondary and a minimum of 3 years in university and other tertiary education systems.

In Kenya, the Kenya Universities Sports Association (KUSA) is the national sport's governing body whose control like NCAA (American model) is outside the institutional formal structures. However, unlike NCAA, KUSA does not in any way control admission

criteria for talented students or set the Grade Point Average (GPA) that is required for talented students to continue retaining student athlete status. The researcher in this study adopted principles and considered contributions from the American (Weight & Huml, 2016; Rubin & Rosser, 2014; Woods, 2011), the European (Aquilina, 2009; Henry 2010; Capranica & Guidotti, 2016) and Australian (Georgakis et al., 2014) models to determine a national model to address the nexus between education and students' talent development in elite sports in the universities in Kenya.

2.6 Summary of Reviewed Literature

Education is perceived as a crucial and critical lifelong process in human socialization (Parankimalil, 2012; Lunnenburg & Ornstein, 2012). World Bank (2018) and Ki-moon (2012) attested that, Education is a basic building block for development in every society. Kazimierz and Mazurkiewicz (2012); Thunnisen and Van Arnsbergen (2015); Manamela (2016); Durandt (2018); Huxley (2018) have characterized talent as an extraordinary and outstanding abilities, or exceptional unique attributes in an individual.

Anold et al (2015), caution that performance in elite sports is a complex and multifaceted phenomenon to achieve. The athletes seeking performance excellence in sports and university education require competent sports managers and coaches as key stakeholders to facilitate dual pathways. Anold et al. (2015) named the factors leading to success in elite sports as financial support, integrated approach to policy development, talent development and nurturing. Agreeing with Anold et al. (2015); Fletcher and Anold (2010) advised that, the way individuals are managed is an increasingly important factor in determining their successes in elite sports including competitions. Coput-Jogunica et

al. (2012) revealed that, university education can be a vital tool and a crucial factor to influence recruitment, development, retention and as a result, eventual success in the promotion of talents in elite sports. Aquilina and Henry (2010) established that, to address the issue of recruitment and support, European Union member states (Austria, Poland and Portugal) established sports programs in universities as centers of excellence that provided sports scholarships as a strategy to recruit talented students through university education.

Aquilina (2009) and Henry (2010) noted that, following the European Council's Declaration of 2008, the European Commission emphasized the need for talented students in elite sports to be provided with opportunities for quality education parallel with their sports training and competitions. Rubin and Rosser (2014) carried out a study that investigated the academic admission requirements and performances for talented students in elite sports in American universities. While the study was based on context to American universities, it informed the researcher in this study on the guidelines that would be appropriate for university entry requirements and academic progression rate for talented students in elite sports. Capranica and Guidotti (2016) provided policy and structural directions in integrating academics and students talent development in elite sports. Henry (2010); Aquilina and Henry (2010); Aquilina (2013) have described essential support systems that have been used by European member states in the development of elite sports in the education institutions and mainly strategies employed by universities.

Woods (2011) advised that, talented students in elite sports should be provided with educational opportunities and within the mission for which the university exists. The

study provided a link between university education and students' talents development in elite sports among universities in context to universities in the United States of America (USA). These principles were considered adoptable to address the interests and situations for the universities in Kenya.

Kaves (2017) and Imbroda-Ortiz et al. (2015) describe the role of a manager as to maximize the output of an organization by organizing, planning, staffing, directing and controlling the activities and operations of an organization. The studies singled out the roles of sports managers as team selection, sports talent development, sports talent scouting and policies on sponsorships in elite sports. Fletcher and Anold (2010); Kaves (2017), Imbroda-Ortiz et al. (2015) informed the researcher when the roles and functions of sports managers including competencies were analyzed. The studies also helped the researcher to categorize financial support, training under competent coaches and competitions as structured systems of service delivery under management functions of elite sports systems in the universities.

Cruickshank and Collins (2012); Vallee and Bloom (2016) informed the researcher on the leadership and management abilities as the key vision bearing strategies in relation to the state of nexus between university education and students' talent development in elite sports. Kaves (2017) in a survey among the universities in Zimbabwe revealed that, a significant number of African universities have a severe shortage of technical and administrative personnel, lack organizational arrangements for both generation and deployment of sport related revenue and lack applied research in the sports field. Kaimenyi and Rintaugu (2013) agreeing with Kaves (2017) confirmed that, the challenge as experienced by other African universities is similar to those that are experienced by the

universities in Kenya. Kaimenyi and Rintaugu recommended that, African universities need to be more innovative on how to strengthen their elite sports programs by borrowing from other successful models in other parts of the world. This can ensure that the universities in Kenya remain more focused, competitive and satisfy the students' sporting needs.

Aquilina (2009); Henry (2010); Aquilina (2013) provided policy and structural directions in integrating academics and elite sports which the researcher focused on in view of promoting and developing elite sports talents in context to universities in Kenya. Capranica and Guidotti (2016) addressed the link between university education and elite sports in the European Union member states. This informed the researcher in this study when investigating the sports management structures and support systems. These included specialized personnel and the monitoring systems in academic and sports performances for talented students in elite sports in the universities in Kenya. Abisai (2014) observed that, opportunities exist for competitions and students are motivated to participate in sports competitions in Kenya. However the study did not address the link between university education and students' talent development particularly when Kenya was phasing out the 8-4-4 and replacing it with 2-6-3-3-3 competency based curriculum which has included academic pillar on talent, elite sports included (Republic of Kenya, 2017).

2.6.1 Research Gaps

Extensive studies on the nexus between university education and students' sports talent development have been done but the researcher noted none of these studies have given

attention to universities in Kenya. The studies have revealed that, the bulk of participants who represent American, Australian and European countries in the Olympic Games and other related international sports competitions, majority are drawn from students in the universities (Aquilina, 2009; Henry, 2010; Woods, 2011; Rubin & Rosser, 2014; Georgakis et al., 2014; Capranica & Guidotti, 2016; Weight & Huml, 2016). This is not the same in context to universities in Kenya.

African universities Kenya included need to be more innovative on how to strengthen their strategies in elite sports management programs (Kaimenyi & Rintaugu, 2013). Universities in Kenya have not played any significant role in nurturing sports talents that represent the country in international sports competitions. Kenya is phasing out the 8-4-4 education curriculum in favor of 2-6-3-3-3 competency based curriculum (CBC). The Higher Education Curriculum Framework (HECF) is yet to provide clear policy guidelines to link academics with talent after secondary schools phase (MOE, 2017).

The phenomenon is compounded by the fact that, recruitment of students to both public and private universities is only based on high school academic credentials without any trace of consideration for talent and particularly talents in elite sports so as to maintain the academic integrity. The university education system is compelled to consider talent and in this case talent in elite sports as a crucial and critical factor in the admission process. The universities should develop strategic policies and structures in their education system on how to admit talented students in elite sports direct from secondary schools (MOE, 2017). Such educational reforms that have embraced talent based pillar in the university education programs have created a knowledge gap that need to be either directly or indirectly supported by research findings. To link university education and

students' sports talent development, Kaimenyi and Rintaugu (2011) recommended that, universities in Kenya should borrow from successful models in other parts of the world to ensure that they remain focused and competitive.

Coput-Joginica et al. (2012) advised that, university education can be a vital tool and a crucial factor to influence recruitment, development, retention and as a result eventual success in the promotion of talents in elite sports in the universities. Aquilina (2009); Henry (2010); Aquilina (2013) provided policy and structural directions in integrating academics and elite sports which the researcher focused on in view of promoting and developing elite sports talents in context to universities in Kenya. Rubin and Rosser (2014) carried out a study that investigated the academic admission requirements and performances for talented students in elite sports in American universities. The study provided a link between university education and students' sports talents development among universities in context to United States of America (USA). While the study was based in context to American universities, the researcher borrowed the guidelines that were appropriate for university entry requirements and academic progression rate for talented students in elite sports. The gap was a policy issue and these policy guidelines were considered adoptable to address the interests for talented students in the university education system in Kenya.

Henry (2010); Aquilina and Henry (2010); Aquilina (2013) have described essential sports management support systems that have been used by European member states in the development of talents in elite sports in the education institutions and mainly strategies employed by universities. Capranica and Guidotti (2016) provided policy and structural directions in integrating academics and students talent development in elite

sports. Kaves (2017) and Imbroda-Ortiz et al. (2015) describe the role of a manager as to maximize the output of an organization by organizing, planning, staffing, directing and controlling the activities and operations of an organization. The studies singled out the roles of sports managers as team selection, sports talent development, sports talent scouting and policies on sponsorships in elite sports.

Fletcher and Anold (2010); Kaves (2017); Imbroda-Ortiz et al. (2015) informed the researcher when the roles and functions of sports managers in promoting sports talent development including their competencies were analyzed. Sotriadou and Bosscher (2013) and Anold et al. (2015) helped the researcher to categorize education academic policies, financial support system, training support system and competition opportunities as structured sport management support systems of service delivery under functions of elite sports management systems in the universities and were quantitatively analyzed in the study.

Kaimenyi and Rintaugu (2011) agreeing with Kaves (2017) confirmed that, the challenge as experienced by other African universities is similar to the universities in Kenya. Capranica and Guidotti (2016) addressed the link between university education and elite sports in the European Union member states. This informed the researcher in this study when investigating the sports management structures, support systems from specialized personnel and the monitoring systems in academic and sports performances for talented students in elite sports in the universities in Kenya

2.7 Theoretical and Conceptual Framework

This section describes both the theoretical and the conceptual frameworks of the study.

2.7.1 Introduction

Analytically, the study employed action research approach and it was designed to play a crucial interventional role in management by examining students' talent development strategies in elite sports through university education in Kenya. University education admits youth from secondary schools and mainly at the ages from 18 years. The talented students in elite sports navigate the sports training and academic demands by integrating both talent development practices and university education. Such talent development approach integrated with university education as a talent development strategy was founded on a theoretical framework that consider the university education and sports management support systems as entities made of subsystems. The components, including students' talent development and academics processed through university education translate into outputs.

2.7.2 Theoretical Framework

The theoretical framework adopted by the study is systems theory and the approach was based on the creation of input-process-output system applied to university education and sports management support systems to address talent development in elite sports. The systems theory, as applied in the study consider the total behavior being determined by the relationships between the elements translating into whole and greater than individual components (Yurtseven & Buchanan, 2016). Carayannis et al. (2016) asserts that, a System can be understood as composed of elements tied together by a common navigating rationale to achieve a shared goal. It is constituted by a number of elements and the relationship between these elements and their behavior translate into a whole. Ikiara (2018) is in agreement and in support that, systems theory allows a theoretical

perspective that considers the analysis of a phenomenon from a whole apart from the sum of individual parts.

Students and particularly, talented students in the universities, are considered as raw materials that are scouted through university education recruitment and admissions procedures, nurtured and developed in accordance to universities' internal educational and sports management systems, structures and policy guidelines. The adopted systems theory approach aimed to bring together the input-process-output strategies with systemic and structural management controls (Clawson, 2016; Chikere and Nwoka, 2015; Ramosaj and Berisha, 2014; Mele et al., 2010). Mele et al. (2010) argue that, Systems Theory is interdisciplinary and has been used in many studies as a framework to guide the investigations of a social phenomenon. Yurtseven and Buchanan (2016) however caution that, the system's behavior is determined by the relationship between systems' components and not only the nature of individual elements. Mele and Polese (2010) in agreement with Yurtseven and Buchanan (2016) point out that, the relationship between parts and the outcome as a result of their interaction become more important resulting to rationally connected elements.

In systems theory, elements are rationally interconnected towards a shared goal and the focus is on connections between parts in order to understand how the processes, functions and key outcomes are associated with the processed inputs to provide outputs. System Theory as a theoretical approach is also used to analyze and understand a phenomenon on the whole perspectives and not simply the sum of the individual elements (Yurtseven & Buchanan, 2016; Chikere & Nwoka, 2015). Sayin (2016); Chikere and Nwoka (2015) attempted to explain systems theory in relation to parts that constitute the whole. The

studies emphasized that, relationships between parts are important than the parts themselves and any reductionist approach conceals the emergent properties as significant features.

Access, recruitment, retaining and competitions by talented students in elite sports through structured university management academic and talent support systems provide the students with dual career opportunities in elite sports and university education. Aquilina (2013) attest that, university education can be used as a mechanism and method of selecting and socializing the dominant elites with the most explicit aim of producing highly skilled work force and intellectual output. The input-process-output are three principle factors that can be dictated and regulated by elite sports and university education management control systems. The management control systems according to Chikere and Nwoka (2015); Clawson, (2014); Ramosaj and Berisha (2014), consist of institutional structural processes and sub-systems that are designed to achieve the institutional strategic objectives at the highest level of the expected performance. Deans of students, Directors of Sports and Games, Games Tutors, Coaches, Talented students and universities' sport governing body in elite sports are the components that are connected by the management control systems in elite sports in the universities. The management controls in the universities are yet to consider students talent development through university education in Kenya. The researcher sought to identify structures for formal tasks, authority and responsibility assignments in the management and their role in the students' talent development in elite sports through university education in Kenya.

Chikere and Nwoka (2015) clarify that, processes are the activities through which control is accomplished and control itself is about achieving strategic objectives. The concept of

input-process-output connects the management systems with the environment. University education admits talented students as raw materials being input from the surrounding environment (secondary schools), processes and transform them to outputs which are dispersed back to be consumed in the environment implying an open system theory. An open system interacts with the external environment and the theory looks at the relationship between the organization and the environment in which they are involved (Mele & Polese, 2010). The finished product is an academically and intellectually endowed individual capable of representing the nation in international sports competitions and with an opportunity to adapt to another world of social life after active sports participation in the job market.

Armash et al. (2010) pointed out that, management control system is a process through which managers avail resources and control their effective and efficient use to accomplish institutional goals. In order to design a good management control system, it is imperative to have a proper understanding of where in the environment to find the right inputs (talented students), the kind of process or transformation to perform and the type of output to produce. Armash et al. (2010) has advised that, the output controls involves administrative obligations guided by rules and standard monitoring procedures to guarantee compliance. High Schools represent the identified environment where talented students are scouted, recruited and admitted into university education as inputs. These inputs are processed through academic and elite sports management systems, subsystems and structures in the university, with an opportunity to represent the institution and country during international sports competitions. The output is the processed talented

students in elite sports with a dual career which provide an education opportunity to retire to after active participation in elite sports.

Adopting the input-process-output approach helped the researcher to determine the special design parameters for analyzing the management of elite sports in the university education management systems. The nexus between university education and students' talent development in elite sports can be understood through such systems, structures and modeling techniques. In systems theory, elements (objects, events, patterns or structures) and processes (activities, relations or functions) are grouped and coordinated as systems and subsystems (Clawson, 2014). Understanding the relationship between university education and student talent development in elite sports as designed in the study is central to the application of systems theory as advanced by (Clawson, 2014). Clawson (2014) has pointed out that, many scholars are interested in understanding what goes on in an organization in order to improve their effectiveness and efficiency. The study defines system as asset of interrelated components surrounded by a boundary which absorbs or import inputs from other systems and transform or export them as out puts.

2.7.3 Variables

The interconnecting elements, components and other management functions considered critical to the theoretical model in the study were conceptually presented in figure 2.2. These components were drawn from the sports management support systems as derived from literature review. A study by Capranica and Guidotti (2016) caution that, developing talents in elite sports through university education requires unique competencies that are supported by structured sport management support systems for

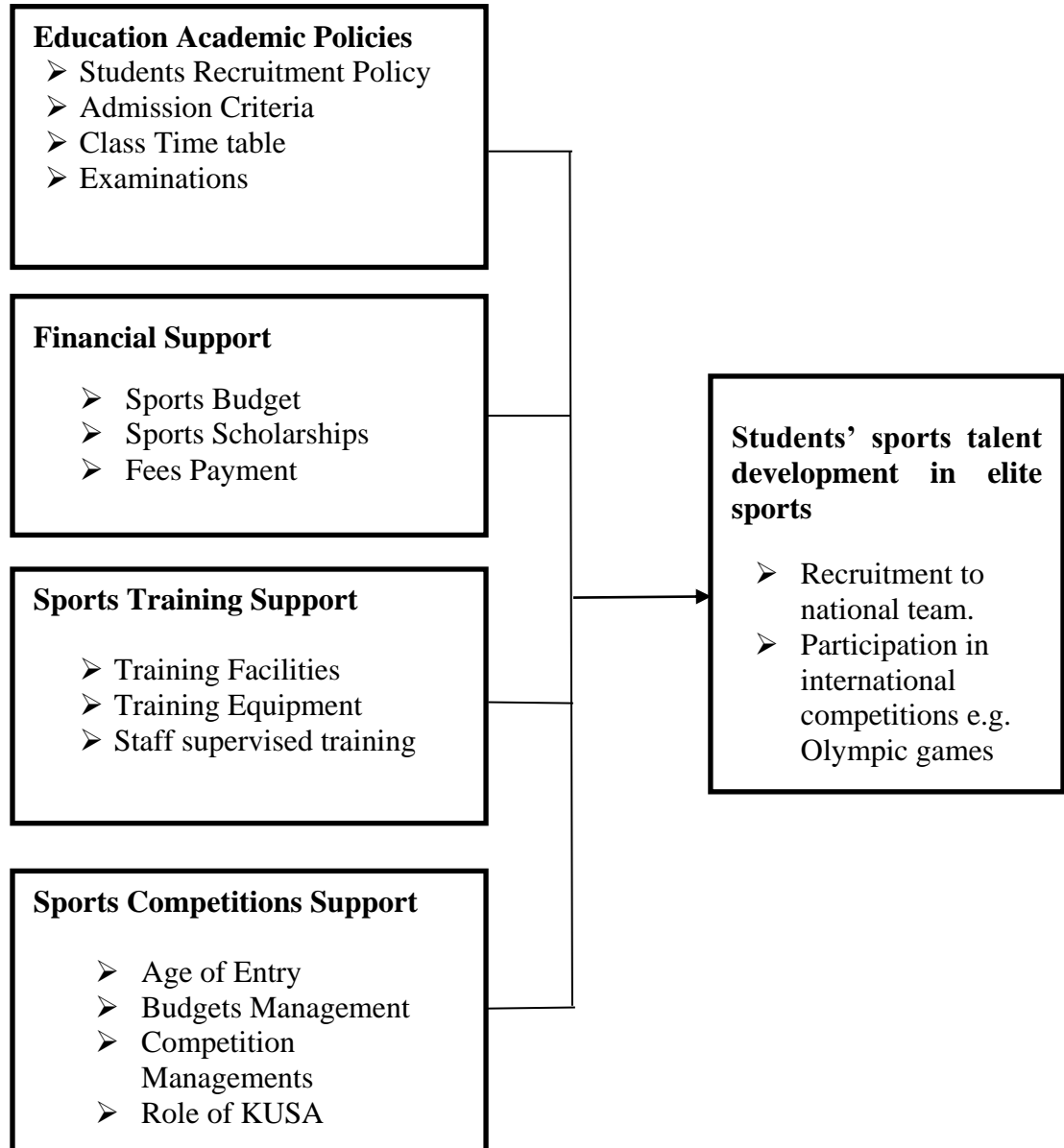
effective service delivery. The assertion from the study is that, integrating university education with students' sports talent development in elite sports is a policy domain requiring the roles and responsibilities from stakeholders to be defined.

Sotriadou and Bosscher (2013); Anold et al. (2015) identified and characterized sports management support system as financial support, technical competences and training facilities, competition opportunities and flexible academic functional structures. The education academic policies, financial support systems, sports training support systems and sports competition opportunities were the elements considered as independent variables while the dependent variable for the study was students' sports talent development in elite sports. These variables constituted the source of quantitative data analyzed under the assigned indicators. The education academic policies investigated the students' recruitment policies, student admission criteria, classroom timetable and examinations in relation to sports training and competitions. The financial support system investigated the university sports budgets, sports scholarships and fees payment support. The sports training support system investigated sports training facilities, training equipment and competent staff supervised sports training. The sports competition support system investigated the age of entry into sports competitions, sports budget management, competition managements and the role of sports management support systems including KUSA as a national sports governing body in the universities in Kenya. The dependent variable (students' sports talent development) investigated the existence of talented students in the universities and their participation in either national or international elite sports competitions being the main indicators. The task was either the attributes or the characteristics sought are there in the investigated phenomena or are not there. In this

case moderating variables are not relevant. The interest of the study model is how a change in the independent variable directly affects the dependent variable. The data from these indicators was combined with the qualitative data that investigated the challenges in integrating university education with elite sports and an effective sports management model that should be embraced in order to link universities' education and students' sports talent development in the universities in Kenya.

Figure 2.2

Conceptual Framework with related Variables



Independent Variables

Dependent Variables

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The chapter describes the methods, processes, procedures and techniques that were used during the research study. These included the research design, methods for collecting data, location of the study, population, target population, sample and sampling procedures, research instruments, piloting of the instruments and data collection leading to data presentation, analysis and interpretation. The chapter also includes the ethical considerations that were observed during the research process.

3.2 Research Design

Research design is the overall coherent, interconnected and logical pathway considered as a strategy to integrate research components in a study (Creswell, 2015; Bhattacharjee, 2012; Kumar, 2011). It is the procedural plan, or a road map adopted by a researcher on how the study processes or inquiries are carried out (Kumar, 2011). It is also perceived as a conceptualized and designed structure that constitutes the blue print for collecting, organizing, analyzing and interpreting data (Bhattacharjee, 2012; Kumar, 2011).

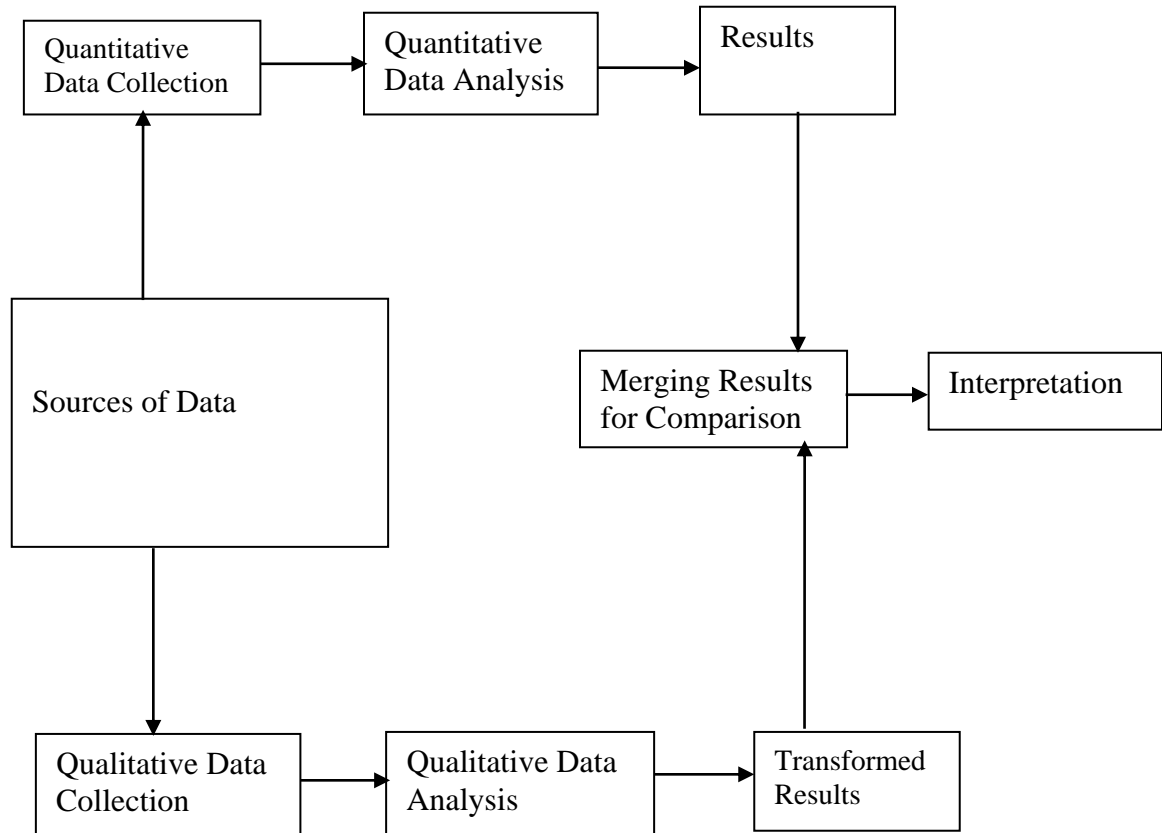
The present study adopts the mixed methods design. Mixed method is now considered a third paradigm of carrying out a research study after qualitative and quantitative research methods. Creswell (2015) advocates mixed research methods when a study employs both qualitative and quantitative methods separately and in a single study. While descriptive survey research design was considered appropriate in this study, the study design during

the research process concurrently employed both qualitative and quantitative approaches. Within the principles and practices of research in social sciences, the researcher describes the phenomena and the state of affairs as it exists (phenomenological) with no control over the variables, a factor that favored most the descriptive survey design. However, both quantitative and qualitative methods were used to collect data concurrently and the collected data analyzed separately and results compared and merged before interpretation. The ideal design for the study was that which considered a paradigm shift in establishing a range of issues including formulation of important principles of knowledge and solutions to significant problems while simultaneously adhering to the practices associated with the two research methods (Creswell, 2014). These included data collection, classification, analysis, transformation, comparison and interpretations. The range of issues was derived from different categories of respondents in a manner that, the nexus between university education and students talent development was investigated.

Creswell (2015) has associated three main designs with mixed methods approach. These are exploratory sequential design, explanatory sequential design and convergent parallel design. The application of mixed method approach enriches the procedures of parallel data collection, data analysis, transforming and merging results before interpretations. The design that was considered appropriate to the study was a convergent parallel mixed methods design being one of the designs in a study that employs descriptive model in a mixed research methods and in a single study. The study employed both qualitative and quantitative methods when collecting data. The data was analyzed separately before merging the two data sets for comparison and interpretation. The design illustration is presented in figure 3.1;

Figure 3.1

Descriptive Convergent Parallel Mixed Methods Design



3.3 Location of the Study

The study was located in Kenya and focused on both public and private universities. These institutions were drawn from four (4) regions out of the eight (8) formally known as provinces in Kenya. The distribution of these universities was based on a selection criteria defined by those universities that participated in the 2015 edition of National Inter-Universities Games. While in 2019, there were 74 universities in Kenya (Appendix VII a) a total of 24 universities participated in the National Universities Games Championships in 2015 a criteria used to select the universities (Appendix VII b). Since

the study was designed to establish the nexus between universities' education and student talent development through analysis of elite sports management in Kenya, the universities that participated in the national interuniversity games during the initiation of the study were better placed to address the central phenomena sought by the study. It is from the participating universities that, a further criterion on performance was introduced to select the universities that were better placed to address the central phenomenon and concern of the research study.

A total of 16 universities won medals and were selected to form a sampling frame (Appendix VII c) from where the study sample (Table 3.1) was drawn based on performance (top best universities) and those that attained positions one to three (1-3) in the selected games (Rugby, Soccer, Track/Field and volleyball) as criteria (Appendix VII d). This stratification helped to select the sample which finally identified with the counties that constituted the location of the study. The sampled universities fell within Central Region (Kiambu County), Eastern Region (Meru County), Nairobi Region (Nairobi County) and Rift Valley Region (Uasin Gisu County), table 3.1;

Table 3.1

List of Universities and respective Counties

Public Universities	County	Private Universities	County
Kenyatta University	Kiambu	United State University-A	Kiambu
Moi University	Uasin Gishu	Kenya Methodist University	Meru
University of Nairobi	Nairobi	Mt.Kenya University	Kiambu
Technical Uni. of Kenya	Nairobi	St. Paul's University	Kiambu
Multimedia University	Nairobi	Strathmore University	Nairobi
University of Eldoret	Uasin Gisu		

(Adapted from the list of the sample; Appendix V11d)

3.4 Study Population

According to Creswell (2012), population denotes all objects, elements, events or individuals with the embraced properties or characteristics that are sought or investigated by the researcher in a study. Bordens and Abbott (2011) add that, the term population refers to the entire group of individuals, objects, elements or events with common or shared characteristics under investigation.

According to Ngeera (2018), there were seventy four (74) universities, thirty one (31) Public universities and six (6) university colleges while private universities were Eighteen (18) Chartered institutions, Fourteen (14) institutions operating under letter of interim authority and five (5) university colleges. During the 2015 national interuniversity games championships, 24 universities participated. These 24 universities constituted the target population for the study.

3.4.1 Target Population

In the study, the target population comprised of respondents derived from the division of students' affairs from twenty four (24) universities that participated during the 2015 edition of the national interuniversity championships. There were eighteen (18) public universities and six (6) private universities which constituted the target population. The respondents targeted from the target population were members of staff from students' affairs (Dean of students, Directors of Games and Sports Departments, Games Tutors, Coaches, and Talented Students) and Kenya Universities Sports Association (KUSA) officials who were the organizers of the championships

. **Table 3.2**

Study Population

Office Titles	Public Universities	Private Universities	Population
Dean of Students	18	06	24
Sports Directors	18	06	24
Games Tutors	18	06	24
Sports Coaches	18	06	24
KUSA Officials	08	08	16
Talented Student (Rugby, Athletics, Volleyball, Football)	792	264	1056
Total	872	296	1168

3.4.2 The Sample size and Sampling Procedures

The target population constituted the 24 universities that participated during the national inter-universities sports championships in 2015 when the study was initiated and these were considered appropriate to address the central phenomena in the study. These universities were considered to be better placed in addressing the concerns of the study. Among the target population of 24 universities, 16 managed to win at least a medal in the competitions placing them in a further better position to address the problem in the study and hence constituted the sampling frame from where the sample was drawn (Table 3.2).

While there are many categories of sports in the universities in Kenya, Track and Field-athletics, Rugby, Soccer and Volleyball are the major ones that Kenya has made an impact in international competitions (including producing the first man in the world to run 42 Km marathon race under 2 hours; (Ayodi, 2019). This was a principal criterion that the study used to purposively sample both the universities and type of sport to feature in the research study. In football (Soccer), Kenya manages elite national premier league

championships, while Athletics, Volleyball and Rugby are the other sports where the country has remarkably made an impact in the world international sports competitions (Abisai, 2014).

From the sampling frame of 16 universities, a total of eleven (11) universities (6 public and 5 private) won medals (Gold, Silver and Bronze) in Track & Field, Rugby, Soccer and Volleyball a criteria used to sample the universities. These were purposively sampled to constitute the sample for this study as they constituted the category that is best placed to respond to the central phenomena and effectively address the study objectives. The respondents were purposively sampled by considering the four named sports (athletics, rugby, soccer and volleyball) and stratified as the sampled universities are those that were best ranked in the athletics, soccer, rugby and volleyball during the 2015 national universities (KUSA) games. The universities' competition structures only allows universities to compete as independent institutions during national and east Africa university games while in all other competitions, universities select a combined team to compete as a country. This study confined itself to national inter-university games championships as criteria that defined both the study population and population sample because in these games, universities compete as individual institutions.

In confirming on the sample size drawn from the specified population, the study adopted a mathematical formula derived by other previous researchers to verify the sample size. Many researchers Mora and Kloet, (2010); Kumar,(2012) have developed mathematical relations in a way of formulae to connect population and sample size, some of which are quite complex. Mora and Kloet (2010) has cited a mathematical formula developed by Taro Yamane in 1967 to determine the size of a sample.

The formula is $N = \frac{n}{1 + N(e)^2}$ where N is the sample size, n is the population and e is the level of precision that will be kept at 0.05 at a confidence level of 95%. In this study, the sample size though purposively sampled, the researcher had no control over individual students who served as participants a role played by the virtual of being a member in the individual games and sports in respective sampled universities. Examining the sample size it is within the context of using a total sample of 448 participants from a given population of 1168 subjects which results to; $n = 1164 / 1 + 1164(0.05)(0.05) = 1164 / 3.91 = 298$ as minimum of participants (see table 3.3);

Table 3.3

Sample Size

Office Titles	Public Universities	Private Universities	Sample
Dean of Students	05	04	09
Sports Directors/ HODs	05	04	09
Games Tutors	05	04	09
Sports Coaches	05	04	09
KUSA Officials	08	08	16
Students' Athletes (Rugby , Athletics, Volleyball Football)	220	176	396
Total	248	200	448

In purposively sampling, Creswell (2012) has advised that, the sampled participants and institutions are based on people and places or institutions that best help to understand the central phenomenon. The central phenomenon in the study was to establish the nexus between university education and students' sports talent development for elite sports in the universities in Kenya. The sampled universities were those best placed to provide the critical sample that best addressed the central phenomenon because they were top

performers in 2015 version of the national inter-university games championships. Creswell (2012) argued that, in such cases, the intent is not to generalize but to provide in depth exploration and understanding of cases that are noticeable and associated with successes or failures in the central phenomenon.

3.5 Methods of Collecting Data

The study used both quantitative and qualitative methods to collect data at the same time and same study. According to Creswell (2014), a combination of qualitative and quantitative research approaches, like the ones used in the study favor mixed methods. Creswell (2015) affirms that mixed methods provides a more comprehensive understanding of a research problem.

3.6 Research Instruments

The research instruments that were used to collect data during the study were questionnaires; interview schedules, observations, content analysis and group discussions. Questionnaires (with both open and closed ended items) were used to collect both quantitative and qualitative data. The other instruments like observation, interview schedules, focus group discussions, content analysis were also used to further collect qualitative data and other related materials for verifications. The principal respondents in the study were the talented students considered to be the primary consumers of university services in academics and elite sports. Content analysis targeted universities 'academic time tables, Competent Based Curriculum (CBC) design that Kenya has embraced to replace 8-4-4 curriculum (figure 2.1), other relevant individual students' sports records like invitation letters in the national teams. Observations were facilitated through site

visits and examining the state of affairs in the visited institutions including training and competition venues. Group interviews were conducted through oral methods and responses were tape recorded. The respondents filled the questionnaires or interviews as was appropriately. Interviews focused on selected respondents particularly, those considered informed and better placed to address the central phenomena in the study like the Directors of sports, KUSA executives, Games Tutors, Coaches and Talented Students. The researcher paid special focus to those university students who played for the national teams or elite clubs while pursuing education in the universities. This category of players also participated in the group interviews regardless of filling the questionnaires. Content analysis paid attention to university academic time tables, 8-4-4 curriculum in relation to 2-6-3-3-3 competency based curriculum and other available elite players' records. Observation methods applied on sampled sports facilities (including national sports facilities) where both motion and still pictures were taken to support the taped and recorded interviews during data analysis.

3.6.1 Questionnaire for Deans of students

The questionnaire as presented in Appendix V (a) is composed of both closed and open ended items designed to collect data on policy issues, admissions, education scholarships and other financing opportunities for talented students that were at disposal of the universities to link university education with students' talent development. The education support systems for elite athletes as a university strategy to develop and nurture talents in elite sports were investigated as part of the data gathered through the Dean of students' questionnaire to verify information from the students who are principal consumers of services in the universities.

3.6.2 Questionnaire for Directors of Sports

The questionnaire as presented in Appendix V (b) is composed of both closed and open ended items for this category and collected data on sport management as a support system for talented students in elite sports pursuing studies in the universities in Kenya. The data was sought to establish and verify critical issues raised by talented students that needed to be addressed if the nexus between university education and students' talent development in elite sports was to be efficiently and principally addressed and maintained in the universities in Kenya.

3.6.3 Questionnaire for Games Tutors

The closed and open ended items in the questionnaire for the Games Tutors presented in Appendix V (c) collected data on technical and management support systems for talented students in elite sports as they pursued university education. Like the questionnaire for the Deans and Directors, the data sought to verify critical management and technical issues that arose from talented students and needed corroboration or to be addressed. The data sought to investigate competition opportunities and structures that link students' in elite sports with university education. It was of interest to gather data that sought to establish the collaboration that exists between university students, national sporting bodies, whether Games Tutors are facilitated for technical training, whether they are knowledgeable, whether they have competencies to nurture and develop elite athletes in their dual career path. The data gathered from the Games Tutors being both middle managers and technicians in sports were used to determine an effective model that can integrate university education and students' talent development in elite sports in the universities in Kenya.

3.6.4 Questionnaire for Coaches

The closed and open ended items in the questionnaire for coaches as presented in Appendix V (d) gathered data to investigate or establish how students' training and competition programs are linked with educational needs for talented students in the universities.

3.6.4.1 Questionnaire for Talented Students

The students are the primary consumers of both academic and elite sports services through university education. The data collected from this category was through closed and open ended questions as presented in Appendix V (e). The information from the respondents evaluated the extent to which the talented students are mentored. The challenges that were drawn from the students' responses were cross checked from other questionnaires for clarifications and verifications. This assisted the researcher with vital information so as to come up with an integrated university education and elite sports model that address the educational needs of talented students through university education in Kenya. The data from the students was subjected to both descriptive and inferential statistics while in the other categories of the respondents, the data was at the level of descriptive statistics.

3.6.5 Questionnaire for KUSA officials

The closed and open ended items in the questionnaire for KUSA officials as presented in Appendix V (f) gathered data on the role of national universities sports association in providing opportunities for talented students to compete in elite sport championships. In addition, a few central KUSA executive officials participated in a face to face interview

to establish the link between university education and sports management support systems.

3.6.6 Interviews, Observation Schedules, Content Analysis and Focus Group Discussions

The interview schedule(Appendix V1a)and observation schedules (Appendix V1b) were used to respectively collect in-depth information to compare with those collected through questionnaires and validate the responses on the availability of facilities, equipment and other sports related management issues targeted by the questionnaires. Content analysis (Appendix V1c) paid attention to 8-4-4 curriculum, the elements to constitute embraced talent pillar in the 2-6-3-3-3 Competency Based Curriculum, university timetables and other related students records found relevant to the study including invitations to national leagues and international sports competitions. Focus group discussions (Appendix V1d) paid attention to situation analysis through experiences of talented students including challenges that they experience in the management of elite sports in the universities in Kenya. The site visits were used to assess the true situation of the phenomena as they were and both still and motion picture were taken to validate narratives from the questionnaires and particularly facilities, training and competitions.

3.7 Piloting of the Instruments

The researcher carried out a pilot survey by administering the research instruments during the Central Eastern Kenya Universities Sports Association (CEKUSA) conference sports championships before the actual study in the designated locations. A survey was carried out in institution of higher learning and in this case the universities but those that were

not among the sampled institutions. The data collected was not included as part of the actual research. The results were only analyzed and used to identify the items that required amendments, to be replaced and those that were to be eliminated from the questionnaires. The completed questionnaires were checked to ensure that the respondents had no difficulties in understanding and answering the items.

Creswell (2014) advised that, during the piloting stage, the researcher should assess the clarity of instructions, identify the questions that are clear, those that are ambiguous and whether there are omissions or items that are not relevant and need to be omitted or replaced. After the pilot study it was clear that there were omissions that required to be addressed. The facial structure of all the questionnaires needed to be presented in an aesthetical format and the ordinal data expressed in matrices that displayed a Likert scale rating between, 1-5 rather than being left in the text without context. The assurance of confidentiality was equally entrenched on the questionnaires to minimize the bulkiness of respective questionnaires. The final structures of the questionnaires were discussed with the supervisors before administering them. The interview schedule also underwent changes to align with the contents of the questionnaires.

3.7.1 Validity

Validity refers to whether the administered instruments measure what they are expected to measure (Creswell, 2014). Validity ensures the results obtained from a data accurately represent the phenomena under study (Njogu, 2019). The research instruments were pre tested before the actual study. The study aimed to achieve face validity and content validity. The appealing and appearance state of the administered instrument including the

layout in the presentations were expected to address face validity. The researcher ascertained face validity of the instruments by subjecting it to a team of experts in test and measurement and also in the area of study. The appearance of the administered questionnaires was improved by restructuring the instruments to address the clarity of the introduction, instructions and items. The content validity refers to, whether the instruments administered has a representation of the whole study items as claimed by the study domain. The content validity addressed the measure of the adequacy of the sample and the domain of the content the study intended to measure. The use of several questionnaires from a number of categories of respondents, triangulating and cross-examining crucial information was considered as the strength for the study. Since the study used both quantitative and qualitative research methods in parallel and convergence data form, these complemented one another during triangulations of the results. The use of mixed method research approach was one way to improve the validity of the study.

3.7.2 Reliability

Reliability is the extent to which research instruments are expected to yield consistent outcomes or data on repeated measurements (Taber, 2013). The Cronbach's alpha index was computed using SPSS statistical software (version 22) to aid the computations. This was computed using the quantitative data from the talented students. The computed index was 0.714 which according to (Taber, 2018) was acceptable.

The rationale for using the questionnaire for talented students was because the central research phenomena mainly relied on their data for inferential analysis. The other set of questionnaires mainly corroborated findings derived from the talented students'

questionnaires. The data collected from talented students' questionnaire contained both quantitative and qualitative questionnaires items. The study converted representative qualitative responses to quantitative through thematic coding and consequently transformed and merged the latter with the quantitative data (Figure 3.1). The reliability analysis relied on the merged data.

3.8 Data Collection Procedures

Before embarking on data collection, the researcher ensured that both ethical and policy issues related to research procedures were adhered to. The researcher started by obtaining an introductory letter from the Dean Postgraduate Studies, Kenya Methodist University (KeMU) (Appendix I) to facilitate the application for a research authorization and permit from the National Commission for Science Technology and Innovation (NACOSTI). It was after the research permit and a letter of research authorization were granted (Appendices II & III) that, the researcher embarked on the next authorization procedures from the County Commissioners, County Directors of education and Vice-Chancellors of the of the selected universities.

The researcher sought authority from the County Commissioners and subsequently the Directors of Education in the counties the universities are situated in compliance with the directions contained in the letter of research authorization by NACOSTI. It was after the authorization from the two agents that, the researcher proceeded to the offices of the Vice-Chancellors in the selected and sampled universities for further written authorization before embarking on data collection from the respondents (Appendix IV). Out of the eleven sampled universities two (one public and one private) did not oblige

with the request. After obtaining a letter of authorization from the Vice Chancellors, the researcher proceeded to the division of students' welfare and specifically either to the office of dean of students or director of games and sports departments for introduction and dissemination of research instruments.

The researcher most of the time was introduced to members of staff in the games and sports departments and explained the purpose of the study assuring them of confidentiality when handling their responses. The administration of the questionnaires was centrally coordinated by the directors or coordinators of sports and games in the selected universities. Gathering of information through interviews were through face to face with the interviewees. The interview questions (V1.a) were open- ended which provided a chance for the respondents to tell their story. The researcher captured their words and conversations as accurately as possible, recorded them exactly as told without any distortion using a tape recorder. Efforts were made to establish a rapport with respondents in order to set conducive environment. The tape recorded interviews were transcribed later as interview data, placed into themes in order to prepare such data for analysis.

The information collected through observations (Appendix V1.b) was for verifying facilities, equipment and activities in selected universities and actual competition venue sites. The universities visited for verification of facilities were selected based on rankings in national and international sports competitions or KUSA scheduled sports competitions. In such cases, both still and motion pictures were taken to reinforce analysis. Content analysis (Appendix V1.c) sought information from the 8-4-4 curriculum, the components that constitute the embraced talent pillar in the 2-6-3-3-3 Competency Based Curriculum.

Analysis of the university timetables and other related students records found relevant to the study including invitations to national leagues and international competitions were used to verify information obtained from the questionnaires on academics, training and competitions. Focus group discussion (VI.d) paid attention to information from situation analysis through experiences and challenges faced by the talented students including the management of elite sports in the universities in Kenya.

3.9 Data Analysis Methods

The study employed both qualitative and quantitative research methods culminating to mixed research methods. After collecting the data, it was processed through data cleaning, editing, coding, classification and tabulation. The data was edited to identify and correct inconsistencies, address wrong entries, errors or omissions. The coding of the data was according to themes and variables. The classification of the data was done according to groups or classes based on common characteristics. The entire data was then partitioned into groups or classes. The classification according to attributes was either numerical or descriptive. Descriptive characteristics are associated to qualitative data that could not be measured numerically and is either the attributes or characteristics are present or absent in an individual, institution or category. Unlike descriptive attributes or characteristics, the numerical categories refer to quantitative data verified statistically. In this category, the data was classified, grouped and presented into frequencies and percentages.

The researcher made use of inferential analysis to infer the significance of the relationship between the independent and the dependent variables. Cross-tabulation of

each independent variable (university education academic policies, financial support, training support, and competition opportunities) against the dependent variable (student sports talent development) was done in SPSS statistical software version 22.0. Chi square statistic, Fisher's exact test and Monte Carlo Exact testing were selected as the inferential statistics under the cross tabulation. Using these inferential statistics, the research concluded on the four hypotheses of the study. The null hypotheses were tested at alpha level of $p < 0.05$ level of significance or 95% confidence limits to facilitate generalizations and conclusions.

The hypotheses made use of quantified data from the talented students' questionnaires to test the relationships between university education academic policies, financial support, training support, and competition opportunities and students' sports talent development. The four hypotheses contributed towards addressing the concerns for the first two research objectives. Qualitative data corroborated the latter data findings through addressing the other two research objectives: challenges of integrating academics and elite sports; establishing a relevant structural model that can effectively integrate university education and elite sports in the universities in Kenya.

The merging of results approach strengthened the study as it combined qualitative and quantitative methods of research in a mixed research method. This was also a validity procedure where investigator searched for convergence among multiple and different sources of information to form themes or categories of study. Justification for this technique is that researchers are more confident with results when different methods generate the same results. According to Cresswell (2012), mixed method analysis is a powerful approach that facilitates validation of data by cross verification from two or

more sources when studying the same phenomenon in both quantitative and qualitative research methods.

3.10 Ethical Considerations

Before undertaking the field study, the researcher applied for ethical clearance from Scientific Ethical Research Council (SERC) and a letter was obtained. Together with compliance letters from KeMU post graduate studies, authorization letter and research permit from NACOSTI, County Commissioners, respective County directors of Education and letters from the Vice Chancellors from the respective universities defined the ethical issues that were adhered to by the researcher. An opening paragraph was included in the prepared research instruments which also served as introduction to the questionnaires. This included explanation for the purpose of the research, permission and participation in the research by the respondents in a bid to comply with ethical considerations. Research scholars have described ethics as consideration of fairness, openness, honest disclosure of methods, the ends for which the research is executed, respect for integrity of respondents, the obligation to guarantee unequivocally individual privacy and an informed willingness to participate in a research activity (Cresswell, 2012).

Research Ethics refers to the type of agreement the researcher entered with the respondents with regard to the uses of data, how the data is analyzed, reported and disseminated. The respondents were given the assurance that the findings of the study was only to be used for the intended purpose as supported by the ethical clearance certificate that was obtained from Scientific Ethical Research Council (SERC). The

respondents were not coerced, intimidated or bribed to participate in the study. Individual names of the universities and respective respondents were not disclosed during data entry as no comparative intentions were tested in the study.

3.11 Anonymity and Confidentiality

The study avoided using names of the respondents or locations that can identify with them in the instruments for data collection. All the research instruments and materials contained in them and the identity of the respondents were treated in strict confidence.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

The chapter presents results on demographic information of the respondents, the sampled universities, the university education academic practices, the analysis of elite sports management support systems, the challenges of integrating academics with elite sports and the elite sports management model that is effective in integrating academics and sports talent development through university education in Kenya. The data were organized into categories, results ordered and merged before they were analyzed, manipulated, summarized and finally discussed.

4.2 Demographic information of the respondent

The study considered six (6) categories of questionnaires, which were distributed to six groups. These groups are the Dean of students, Directors, Games Tutors, Coaches, Talented Students and Kenya Universities Sports Association (KUSA) officials (table 1).

Table 4.1

Response rate

Category	Sample (N)	Returned	%
Talented Students	396	381	96.2%
Coaches	18	15	83.3%
Games Tutors	12	9	75.0%
Kenya Universities Sports Association (KUSA) Officials	18	16	88.9%
Directors/Heads of games &Sports Departments	9	6	67.0%
Deans of Students	9	5	56.0%
Total	462	432	93.51%

These categories were considered crucial and knowledgeable with the information sought by the researcher. Out of 462 questionnaires that were administered, a total of 432; (93.51%) questionnaires were returned.

The profiling of respondents by gender (table 4.2) does not represent any statistical reason for comparison as the study was not designed to compare categories based on gender

Table 4.2

Respondents by gender

Respondents	Male	Female	Total
Talented Students	281	100	381
Coaches	10	5	15
Games Tutors	5	4	9
Kenya Universities Sports Association (KUSA) officials	14	2	16
Directors/Heads of Games & Sports Departments	5	1	6
Dean of students	3	2	5
Total	318	114	432

Table 4.3

Talented students by sports

Respondents	Number (N)	Percentage (%)
Rugby	103	27.0%
Track and Field (Athletics)	67	17.7%
Soccer	140	36.7%
Volley Ball	71	8.6%
Total	381	100.0%

The talented students were the main focus in the study since they are the primary consumers of university services in both academics and elite sports.

The data from other categories enabled the researcher to verify and corroborate the information and data from talented students since they are the principal actors or

facilitators of elite sports support systems in the universities in Kenya. The profiling of talented students by sports (table 4.3) was not for any comparison purposes but was as a result of purposive sampling.

Table 4.4

Duration respondents served in the university in the position

Category	0-3 years	3-5 years	5-10 years	10+ Years	Total
Dean of students	1	1	1	2	5
Directors/Heads of Games sports	-	1	1	4	6
Games Tutors	2	3	2	2	9
Coaches	3	3	5	4	15
Total	6	8	9	12	35

Among the respondents in table 4.4, 29 (35-6); 82.86% had served the universities in their respective positions for more than 3 years while in table 4.5, the results indicate that, 32 (51-19); 62.75% of the staff respondents had university working experience of over five (5) years.

These respondents were key players and principal actors and therefore well placed to provide the information and data sought by the researcher in relation to facilitating the management of elite sports and university education as practiced in the universities in Kenya

Table 4.5*Respondents working experience in the university*

Category	0-5 Years	5-10 Years	10-20 Years	20+ Years	Total
Deans of students	2	1	2	-	5
Directors/Heads of Games & Sports Departments	3	-	3	-	6
Games Tutors	4	3	2	-	9
Coaches	6	5	4	-	15
Kenya Universities Sports Association (KUSA) Officials	4	4	6	2	16
Total	19	13	17	2	51

4.3 Sampled Universities

Universities in Kenya fall under public (government sponsored), private secular or private religious categories depending on the sponsor. There were nine (9) sampled universities where five (5) are public and four (4) are private universities. The four (4) sampled private universities constituted two (2) private secular and two (2) private religious as presented in table 4.6;

Table 4.6*Category of sampled universities*

University Category	Number
Public	5
Private Secular	2
Private Religious	2
Total	9

The categorization of the universities into public or private was not for any comparison purposes but representation of these educational institutions in the study. The nine (9) universities were sampled from the 24 universities that participated in the 2015 version of the national interuniversity games championships. Probability (stratified) and non-probability (purposive) sampling techniques were mainly used to come up with the sampled institutions and the respondents. Participating in the 2015 inter-university games championships and ranked among the top performing institutions, with each of the selected university attaining any of the top three positions (gold, silver and bronze) in rugby, athletics, (track and field), soccer and volleyball was the criteria used to sample the universities. Such top performing institutions and respondents were considered informed about the nature of the phenomenon and data sought by the study to address the research objectives.

4.4 University Education and Students' Talent Development in Elite Sports

University education recruits majority of students from high schools based on Kenya Certificate of Secondary Examination (KCSE) results. These are referred to as full time students and were among the respondents who participated in the study.

Objective: a) to establish the relationship between university education academic policies and students' talent development in elite sports in the universities in Kenya

From literature review, the researcher identified academic students' admission policy, talented students, admission criteria and implementation of academic programs as the university education academic practice indicators. These helped to establish whether a

relationship exist between university education academic practices and students' talent development in elite sports in the universities in Kenya.

4.4.1 University recruitment and talented students' admission policy

The minimum admission requirement in the university education system in Kenya is a Kenya Certificate of Secondary Education (K.C.S.E.) with an academic mean grade of C+. The study investigated how students were recruited into the universities and responses obtained were that, 233 students (61.2%) were recruited through Kenya Universities and Colleges Central Placement Services (KUCCPS) previously the Joint Admission Board (JAB), 126 students (33.1%) made their applications for admission direct to the universities and 22 students (5.7%) were recruited through university initiatives based on talent (table 4.7).

Table 4.7

Students' recruitment into the universities

Responses	N	%
Kenya Universities and Colleges Central Placement Services (KUCCPS)/Joint Admission Board (JAB)	233	61.2%
Direct Application to the universities	126	33.1%
University request based on talent	22	5.7%
Total	381	100.0%

Through an interview with one of the directors of sports and games, it was established that those talented students admitted into the universities are those who met the minimum academic admission requirements without any adjustment to the entry program academic requirements.

The results implied that, while talent was considered an added advantage, it was not a policy criterion for admission into the universities. This is in contrast to what was found by Coput-Jogunica et al. (2012) where top sport performing European Union member countries and their universities adjusted entry program requirements for talented students in elite sports. They made flexible arrangements to support talented students in their academics and elite sports, a factor that resulted to university students competing favorably for their countries in international sports competitions like the Olympic Games and other related sports championships.

Capranica and Guidotti (2016) established that, among the European countries, France and Spain had state policies that address the needs of talented students' access to higher education through state financing, flexible timetable (attendance), flexible examination schedules, mentoring and sports coaching. This was also in contrast with universities in America where Rubin and Rosser (2014) confirmed that, talented students in elite sport had their entry requirement considered and adjusted. The study by Rubin and Rosser also confirmed that, the students were required to have an entry G.P.A. of 2.0 from high school and 14 core high school courses as admission criteria into the university. On scouting and recruitment, the talented students were awarded sports scholarships. However to retain such scholarship status, the study cautioned that, the students must satisfy a prescribed academic progression rate where at the end of first year, such students were expected to cover 25% of the degree program, 40% to 50% in 2nd year, 60% to 65% in 3rd year and 80% on entry to 4th year while maintaining an academic progression rate of 2.00 G.P.A. aggregate. In comparison, a G.P.A. of 2.00 is equivalent to a Diploma (C plain) admission criterion while a G.P.A. of 2.5 is equivalent to a degree

program admission criterion respectively in the universities in Kenya. However from content analysis, the admission structure from certificate (GPA of 1.5), Diploma (GPA of 2.0) and Degree (GPA of 2.5) can be innovatively used to admit talented students in the universities without compromising the academic integrity of university programs. Those with lower academic qualifications but with exceptional performance in an Olympic sport can be subjected to a pre-university entry program designed by the university at a certificate entry level after the pre-university examinations.

4.4.2 Talented students in elite sports in the universities

The study sought to establish whether university students in Kenya have the potential to win medals in Olympic Games like their counterparts in Europe or United State of America.

Table 4.8

Are there talented students in elite sports in the universities in Kenya?

Responses	Yes		No	
	N	%	N	%
Talented Students	281	73.8%	97	25.5%
Coaches	9	60.0%	6	40.0%

281; (73.75%) students indicated “yes”, 97; (25.46%) students indicated “no” while 3; (0.79%) students did not provide any response. The study also sought to establish from coaches whether university students were recruited into the national teams in Kenya and responses from 9; (60.0%) coaches indicated “yes” while 6 (40.0%) coaches indicated “no”. This implied that, there are talented students in the universities in Kenya who can be selected to participate in National and International sports competitions. This was in line with the responses obtained from 281; (73.75%) of the talented students (table 4.8).

It is evident therefore that, there are talented students in the universities who form part as members of national teams and participate in international competitions.

An interview with a director of sports and games confirmed that a rugby player, in fact a captain in the university team was in Vancouver playing for the Kenya national rugby team. It was however observed that, the university member of staff had no idea when the student left the country and only discovered this when the rugby captain was required to participate in this study as a respondent. Content analysis revealed that, six (6) soccer ladies players from one of the universities were invited into the national team to prepare for 2016 Olympic qualifying match against Botswana and this confirmed that university students play for the national teams in Kenya.

Investigating the institutional level where identification of students' talent was done, the results obtained from the study indicated that, 131 (34.4%) talented students started exploiting their talents through participation in sports competitions at primary school level while 182 (47.8%) talented students participated in sports competitions in secondary schools. Those who started sports competitions at universities level were 68 (17.8%) students implying that primary and secondary school levels accounts for talent identification in majority of talented students (313; 82.2%); (table 4.9).

The implication from these results is that, universities' role in identifying talents in elite sports is minimal unless collaborated strategic talent identification programs are done and preferably from the grass root that favors primary and secondary schools. Such programs should be in line with the Competence Based Curriculum (CBC) that, the country has

embraced alongside graduated competition programs monitored and organized by the universities for talent identification, scouting, recruitment and development

Comparable results (table 4.10a, 4.10b, 4.10c) were obtained when the study sought to determine the entry ages of sports competition

Table 4.9

Stage of competition

Institutional stage	N	%	Total (N)	Total (%)
Primary Schools	131	34.4%		
Secondary Schools	182	47.8%	313	82.2%
Universities	68	17.8%	68	17.8%
Total	381	100.0%	381	100.0%

Table 4.10

Age of competition

a) Primary school equivalent age in Kenya

Ages of competition (Years)	Number (N)	Percentage (%)
7	2	0.5%
9	4	1.0%
10	16	4.2%
11	12	3.1%
12	37	9.7%
13	27	7.1%
14	54	14.2%
Total	152	39.9%

The students' responses indicated that, 152 students (39.9%) participated in sports at the ages between 7-14 years (primary school ages),

Table 4.10

Age of competition

b) Secondary school equivalent age in Kenya

Ages of Competition (Years)	Number (N)	Percentage %
15	50	13.1%
16	54	14.2%
17	34	8.9%
18	32	8.4%
Total	170	44.6%

170 students (44.6%) participated in sports at the ages 15-18 years (secondary school ages)

Just like the level of competition, the ages of competition revealed that majority of the students (322; 84.5%) stated their participation in sports competitions at primary and secondary school going ages (7-18 years).

Table 4.10

Age of competition

c) University equivalent age in Kenya

Ages of Competitions (Years)	Number (N)	Percentage (%)
19	17	4.5%
20	16	4.2%
21	9	2.4%
22	5	1.3%
23	5	1.3%
Total	52	13.7%
No response	7	1.8%

The implication is that the identification of talents in elite sports is mainly the role of primary and secondary schools and not universities. Universities should mainly play the

role of student talent development. 52 students (13.7%) were introduced to elite sports in the universities at the ages between 19-24 years.

This justifies the responses from Dean of students, three (3); 60%, Directors of sports, 6; (100%), Games Tutors, 9; (100%) and Kenya Universities Sports Association officials 15; (93.7) who apart from confirming that, there are talented students in the universities(table 4.8), also recommended that, talented students be directly recruited from high schools (table 4.11)and then mentored through university education as a strategy to diversify student talents recruitment in the universities.

Table 4.11

Recruitment of talented students to be directly from high schools

Respondents	Number (N)	Percentage (%)
Dean of students	3	60.0%
Directors/Heads Sports and Games	6	100.0%
Games Tutors	9	100.0%
Kenya Universities Sports Association (KUSA) Officials	15	93.7%

This is also in line with competency based curriculum (figure 2.1) that has recommended a talent pillar (5% sports, 5% performing arts and 5% visual arts) that provide direct admission from secondary schools (MOE, 2017).

The results in tables 4.10.a) and b) clearly indicate that primary and secondary school going ages are crucial in talent identification and nurturing with ages 7-18 years as 322; (84.5%) talented students fall within these ages leaving 52; (13.7%)university equivalent age between ages 19-23 years. This also implies that the competency based curriculum (CBC) will strengthen the sources of talented students as it embraces a talent pillar in senior secondary education (figure 2.1) implying the ages between 15-18 years (table

4.10.b). This is in agreement with Aquilina (2009) where the study associated primary and secondary school ages with initiation and development in elite sport, while ages between 18-28 years were the mastery stage coinciding with university education before plateauing down as one discontinues from active sports competition at the age of 30 years. However, recruitment of talented students into the universities can be coordinated by staff in the department of games and sports including coaches to network with secondary schools' sports practitioners in scouting for talented students and recommend them to the universities for admission into their respective academic programs.

Content analysis have shown that sports competitions are structured for every category (primary schools, secondary schools and universities) up to East Africa Sports Championships, and universities can use them to identify and recruit talented students. An interview with the Directors recommended that, national university competitions should not be an end but should be structured to pave way for winners to earn an opportunity for international competitions. The interviewee also recommended, National Sports' Championships of under 21 years to tap potential from the universities and other tertiary institutions.

4.4.3 University Admission criteria for talented students

Admission criteria for university education in Kenya allows recruitment and allocation of students in both public and private universities based on high school academic credentials without considering talents and particularly talents in elite sports (Jakayo, 2016). The researcher sought to establish whether universities needed to revise their students' recruitment policies to accommodate students' talent as part of the admission criteria.

Nine (9) (100%) Games Tutors agreed and responses from the sixteen (16) Kenya Universities Sports Association (KUSA) officials on a Likert scale one (1); (6.2%) disagreed while (15); (93.8%) agreed. The responses from Directors on flexible admission criteria for talented students, six (6); (100%) agreed. The five (5) Dean of students responded on the same item where one (1); (20%) declined, and four (4); (80%) agreed.

Table 4.12

Students' Admission Criteria

Category	Talent as part of admission criteria in the universities
Dean of students	4 (80.0%)
Directors	6 (100.0%)
Games Tutors	9 (100.0%)
KUSA officials	15 (93.8%)

While only a few students were admitted based on the privileges related to talent (table 4.9, 4.7), the responses from Games Tutors, nine (9); (100%) and fifteen (15); (93.8%) KUSA officials were in agreement that students' recruitment policy in the universities should be revised to consider talent as part of admission criteria. Responses from six (6); (100%) Directors and four (4); (80%) Deans of students agreed and recommended flexible admission criteria for talented students into the university education program implying that the policy on admission criteria need to be revised to consider talent as part of criteria in admitting students into the university education (table 4.12).

The results established that, universities in Kenya do not have well structured and defined policies on talented students' recruitment, flexible admission criteria for talented students

and talent as part of admission criteria. However, the study revealed that few and individual universities admit talented students for their own visibility and provide them with sports scholarships to continue playing for universities and not clubs outside universities. Through interviews with Directors of sports in the universities, the ministry of sports and culture was found not to play any significant role towards the development of elite sports in the universities because Kenya Universities Sports Association (KUSA) does not involve the ministry in universities sporting activities.

Interview with one of the directors revealed that KUSA has not initiated any link between the Ministry of Education, Ministry of Sports; Culture & Heritage. Though the Ministry of Sports, Culture and Heritage has established a national sports academy, it was observed that, the universities in Kenya play no active role in providing services including research activities in sports through this noble national sports developing institution. The Ministry of sports, Culture and Heritage equally does not provide sports management programs in collaboration with the universities in Kenya (interviewee).

To address the first objective whether or not, a significant relationship exist between university education academic practices and students' sports talent development in the universities in Kenya, the quantitative data were analyzed; hypothesis tested and findings presented in section 4.4.4.

4.4.4 Testing of Hypothesis (H₀₁)

The inferential analysis was set to establish the relationship between universities' education academic practices (independent variable) and students' sports talent development (dependent variable). The statistical results included Pearson's chi-square

statistics and Fisher’s exact test. In categorical datasets, Pearson’s Chi-Square test evaluates whether an observation between two sets of data happened by chance. It tests the null hypothesis whether sample observations between two variables are independent of the levels of each variable. Alternatively, it tests the null hypothesis that two criteria of classification are independent. The following null hypothesis was tested at $p < 0.05$;

H₀₁: There is no significant relationship between university education academic practices and students’ talent development in elite sports in the universities in Kenya

The results were generated from SPSS regarding the strength and significance of the relationship between education academic policies and student sports talent development. Significance of the relationship was given by Pearson’s chi-square and Fisher’s exact test (table 13). From the results, the null hypothesis was rejected $\chi^2 (16) = 97.397, p \leq 0.05$. This revealed that, there is a strong evidence of a relationship between university education academic policies and students’ sports talent development. Since 16 cells (64.0%) had expected count less than 5 as explained in table 4.13, Monte Carlo method of exact testing gave a more accurate inference.

Table 4.13

Chi-Square and Fishers Exact Tests for the Cross Tabulation of Education Academic Policies and Students’ Sports Talent Development in the Universities in Kenya

	Value	df	P-value	Monte Carlo p-value (2-sided)		
				P-value	99% Confidence Interval	
					Lower Bound	Upper Bound
Pearson Chi-Square	97.397a	16	0.000	0.000b	0.000	0.000
Fisher's Exact Test	55.038			0.000b	0.000	0.000
N of Valid Cases	381					

The results from Monte Carlo exact testing showed that both Chi-square and Fisher's test had p values less than 0.05 (Exact p = 0.000). However, evidence given by Pearson's chi-square and Fisher's test do not suggest the strength of the relationship. The strength of association is moderately weak as indicated by the value of Cramer's V coefficient (0.253) in table 4.14.

A limitation of Cramer's V coefficient is that it does not give the direction of the relationship. However, using the Point-biserial correlation (Pearson's R) in table 4.14 it was found as -0.004; the study determined that the direction of the relationship was indicated as negative. Therefore, there is an inverse moderate relationship between university education academic policies and student talent development.

Table 4.14

Symmetric Measures for the Cross Tabulation of Education Academic Policies and Students' Sports Talent Development in the Universities in Kenya

		Value	Asymp. Std. Error ^a	Approx. Tb	Approx. p-value	Monte Carlo P- value	p-values 99% Confidence Interval	
						Lower Bound		Upper Bound
Nominal by Nominal	Phi	0.506			0.000	0.000c	0.000	0.000
	Cramer's V	0.253			0.000	0.000c	0.000	0.000
Interval by Interval	Pearson's R	-0.004	0.050	-0.080	0.936d	0.935c	0.928	0.941
N of Valid Cases		381						

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Based on 10000 sampled tables with starting seed 2000000

Nevertheless, the Pearson Chi-Square using Monte Carlo exact computation established that the latter relationship was significant. The inverse relationship observed implied that, the current university education policies consider academics as a priority with less regard for elite sports amid the greater emphasis on mass sports.

4.5 Analysis of elite sports management support systems (financial, training and competitions support systems) and students' sports talent development

Objective b): To analyze the relationship between elite sports management support systems and promotion of students' sports talent development through universities' education in Kenya

From literature review, the sports management support systems were identified as financial support, sports training support, competition opportunities and human resource management including their roles and competences. The study analyzed the status of elite sports in the universities, the role played by the elite sports management support systems and their competencies in promoting students' sports talent development in the universities in order to address the above objective.

4.5.1 Status of elite sports in the universities in Kenya

The study sought to establish the status of elite sports in the universities in Kenya and responses were drawn from talented students who are the primary consumers of both academics and elite sports related services (table 4.15).

The findings came up with multiple responses where 103; (27.0%) of the respondents indicated that, elite sports in the universities are still developing, fifteen (15); 3.9% of the respondents indicated that universities provide support and opportunities for elite sports. On the contrary, 214; (56.2%) of the respondents indicated that elite sports in the universities is poorly managed and sports managers lack dedication, four (4); 1% of the respondents indicated that elite sport in the universities lack technical and financial support, five (5); 1.3% of the respondents indicated poor because of inadequate funding, one (1); 0.3% of the respondents indicated poor management and incompetent leadership while one (1); 0.3% of the respondents indicated poor scholarship program, seven (7); 1.8% of the respondents indicated emphasis is on academics than sports, and one (1); 0.3% of the respondents indicated that there are talents in the universities but little has been done to tap it. While thirty (30); 7.9% of the respondents did not provide any answer, 118; (30.9%) of the respondents indicated that elite sports in the universities is still developing and universities provide support and opportunities. On the contrary, 233; (61.2%) respondents indicated that elite sports in the universities in Kenya encounter management challenges.

Table 4.15*Talented students' responses on status of elite sports in the universities*

Response	Number (N)	Percentage (%)
Elite sports poorly managed and lack dedication	214	56.2%
Elite sports in the universities is still developing	103	27.0%
Universities provide support and opportunities for elite sports	15	3.9%
Emphasis is on academics than sports	7	1.8%
Poor because of inadequate funding	5	1.3%
Elite sports lack technical and financial support	4	1.0%
Poor management and incompetent leadership	1	0.3%
Little has been done to tap talent in the universities	1	0.3%
Poor scholarship program	1	0.3%
No Response	30	7.9%
Total	381	100.0%

It is summative that only 15; (3.9%) students indicated that universities provide opportunities and support for elite sports while 336;(88.2%) indicated that elite sports encounter financial, technical, management challenges and over emphasis on academics than elite sports in the universities as indicated in table 4.15. The findings are in contrast with Anold et al. (2015) who found that, achieving peak performance in elite sports is a complex and multifaceted phenomenon that not only involves athletes seeking performance excellence but also requires sports managers and coaches as key stakeholders. Anold et al. (2015) named the factors leading to success in elite sports as financial support, integrated approach to policy development, talent development and nurturing. Together with Fletcher and Anold (2010) they advised that, the way individuals are managed is an increasingly important factor in determining their successes in elite sports including competitions. The sports management challenges that have been identified and results in table 4.13 need to be addressed in line with Fletcher & Anold (2010); Anold et al., 2015). The critical areas of concern are the revelation that,

elite sports in the universities is poorly managed and sports managers lack dedication, the elite sports support system in the universities lack technical and financial support, there exist poor management and incompetent leadership, the status of elite sports in the universities is poor because of inadequate funding. It is also poor because of lack of streamlined scholarship programs; there are talents in the universities but little has been done to tap (develop) it and emphasis is more on academics than sports.

4.5.2 Financial support and students' sports talent development in the universities

The study sought to establish how talented students finance their university education in Kenya. The results indicated 122 (32.0%) students are on state sponsorship through Higher Education Loans' Board (HELB), 45; (11.8%) students indicated that they are on university sponsorship, and 214; (56.2%) students indicated none implying self-financing. This implied that there are universities in Kenya that provide some scholarships to talented students. A substantial number of students 336; (88.2%) are financed through self and state sponsorships but a majority of the talented students are not sponsored at all (table 4.16);

Table 4.16

Responses from talented students on how they finance their university education

Talented students' responses	Number (N)	Percentage (%)
State sponsorship	122	32.0%
University sponsorship	45	11.8%
None	214	56.2%
Total	381	100.0%

In table 4.17, the study sought to establish whether the universities operated scholarship schemes. 146; (38.3%) students indicated “yes”, 78; (20.5%) students indicated “no”, while 157; (41.2%) students indicated not sure.

Table 4.17

Whether universities operate students’ scholarship scheme

Students’ responses	Number (N)	Percentage (%)
“Yes”	146	38.3%
“No”	78	20.5%
Not sure	157	41.2%
Total	381	100.0%

This implied that, while not all universities operate scholarships, a substantial number of students are ignorant of whether scholarship programs exist in their universities. Interviews from sports Directors have shown that the scholarships in the universities are pegged on academic qualifications with the beneficiaries meeting university admission criteria. It is therefore evident that universities offer scholarships on a general category but not a policy on sports designated scholarships.

From table 4.18; the study sought the best methods of attracting; recruiting and retaining talented students in the universities in Kenya. The information was sought from the Deans of students, Sports Directors, Games Tutors, Coaches and Kenya Universities Sports Association (KUSA) Officials. These are the key actors who interact with the university management and are either custodians or implementers of university financial policies. Five (5); 100.0% Deans of student strongly agreed that to attract, recruit and retain talented students, the universities in Kenya should provide sports scholarships.

Similarly, six (6); 100.0% Directors agreed that talented students should be recruited and retained through sports scholarships. Nine (9); 100.0% Games Tutors agreed that, to attract, recruit and retain talented students, universities should consider offering sports scholarships.

An open ended item in the coaches' questionnaire sought to establish how universities should retain talented students experiencing fees problems in the universities where five (5); 33.3% coaches indicated universities should issue bursaries and financial assistance to needy and talented students, four (4); 26.7% indicated universities should issue sports scholarships to talented students, three (3); 20.0% indicated that universities should encourage flexible fees payment plan for talented students, one (1); 6.7% indicated the ministry of sports, culture and heritage should provide scholarships to the universities while two (2); 13.3% did not provide any response.

Table 4.18

Effective methods of retaining talented students in the universities in Kenya

Category	Universities to provide Sports Scholarships to talented students	Ministry of Sports, Culture & Heritage to provide sports scholarships to universities	Universities to issue bursaries and financial assistance to needy student	Flexible fees payments plan for talented students
Dean of students	5 (100.0%)			
Directors of sports	6 (100.0%)			
Games Tutors	9 (100.0%)			
Coaches	4(26.7%)	1 (6.7%)	5 (33.3%)	3 (20.0%)
KUSA officials	16 (100.0%)			

In a closed item from the questionnaire for Kenya Universities Sports Association (KUSA) officials, the study sought how to attract, recruit and retain talented students in

the universities sports teams, where sixteen (16); 100.0% agreed that to attract, recruit and retain talented students, universities should consider offering sports scholarships.

The results implied that, offering designated sports scholarship is a crucial and critical tool for students' talent development in elite sports in the universities in Kenya. This is in agreement with Aquilina and Henry (2010) who established that, to address the issue of recruitment and support, European Union member states (Austria, Poland and Portugal) provided sports scholarships as a strategy to recruit talented students through university education.

The Interviews from directors' of sports revealed that, scholarships in the universities are pegged on academic qualifications with the beneficiaries meeting university admission criteria. It is therefore evident that universities offer scholarships on a general category but not policy sports designated scholarships. Based on these findings, designated sports scholarships are an outstanding strategy to attract; recruit and retain talented students through university education. The universities in Kenya need to establish a defined and structured policy framework on designated sports scholarship scheme to attract and retain talented students in elite sports in the universities.

4.5.2.1 Testing of Hypothesis (H_{02})

H_{02} : There is no significant relationship between the financial support system and promotion of students' talent development in elite sports in the universities in Kenya

The inferential analysis was set to establish the relationship between financial support (independent variable) and students' sports talent development (dependent variable). The

statistical results included Pearson’s chi-square statistics and Fisher’s exact test. In categorical datasets, Pearson’s Chi-Square test evaluates whether an observation between two sets of data happened by chance. It tests the null hypothesis whether sample observations between two variables are independent of the levels of each variable. Alternatively, it tests the null hypothesis that two criteria of classification are independent. The following null hypothesis was tested at $p < 0.05$;

From the results in Table 4.19, the null hypothesis was rejected, $\chi^2 (20) = 83.137$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between financial support and student talent development. Since 16 cells (53.3%) had expected count less than 5 as explained in the notes below table 4.19, Monte Carlo method of exact testing gave a more accurate inference.

Table 4.19

Chi-Square and Fishers Exact Tests for the Cross Tabulation of Financial Support and Students’ Sports Talent Development in the Universities in Kenya

	Value	df	p-value	Monte Carlo p-value (2-sided)		
				p-value	99% Confidence Interval	
					Lower Bound	Upper Bound
Pearson Chi-Square	83.137 ^a	20	0.000	0.000 ^b	0.000	0.000
Fisher's Exact Test	54.607			0.000 ^b	0.000	0.000
N of Valid Cases	381					

a. 16 cells (53.3%) have expected count less than 5. The minimum expected count is 0.27.

b. Based on 10000 sampled tables with starting seed 1660843777

The results from Monte Carlo exact testing indicated that both Chi-square and Fisher’s test had p values less than 0.05 (Exact $p = 0.000$).

Table 4.20

Symmetric Measures for the Cross Tabulation of Financial Support and Students' Sports Talent Development in the Universities in Kenya

		Value	Asymp. Std. Error ^a	Approx. T ^b	p- value	Monte Carlo p-value	99% Confidence Interval	
							Lower Bound	Upper Bound
Nominal by Nominal	Phi	0.467			0.000	0.000 ^c	0.000	0.000
	Cramer's V	0.234			0.000	0.000 ^c	0.000	0.000
Interval by Interval	Pearson's R	0.072	0.051	1.405	0.161 ^d	0.158 ^c	0.149	0.168

N of Valid Cases 381

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on 10000 sampled tables with starting seed 1660843777.

Table 4.20 shows three statistics that indicate the strength of the relationship between the cross-tabulated constructs. The reported coefficients are Phi, Cramer's V and Pearson's R. The applicable coefficient of strength was Cramer's V because the cross-tabulation of financial support and student talent development was larger than 2 by 2 tables. Cramer's V coefficient was 0.234, which indicates moderate strength of relationship between financial support and student talent development. The Point-biserial correlation (Pearson's R) in Table 4.20 was found as +0.072 indicating a positive relationship between financial support and student talent development. In conclusion, there is a positive moderate relationship between financial support and student talent development, which the study found to be significant using Pearson Chi-Square from Monte Carlo exact computation. Hence the null hypothesis was rejected.

4.5.3 Training support systems and students' sports talent development in the universities in Kenya

Table 4.21

Role played by universities in assisting students to develop their sports talents

Students' Responses	Number (N)	Percentage (%)
Universities provide resources to facilitate competitions and training	93	24.4%
Universities provide training facilities and coaching	79	20.7%
Universities provide competition opportunities	67	17.6%
Universities offers training facilities	49	12.9%
Universities provide partial support	44	11.5%
Universities have played no role	25	6.3%
Total	357	93.7%

The study sought from talented students the role played by the universities in assisting them to develop their talents in elite sports (table 4.21). Multiple responses were obtained where 25; (6.3%) of the students' respondents indicated that the universities have played no role, 44; (11.5%) indicated that universities provide inadequate (partial) support, 49; (12.9%) indicated that the universities offers training facilities, 67; (17.6%) indicated that universities provide competition opportunities, 79; (20.7%) indicated that universities provide training facilities and coaching, 93; (24.4%) indicated that universities provide resources to facilitate competitions and training while 25; (6.3%) did not provide any answer.

This implied 75.6% of talented students admitted that, the universities play a role in assisting them to develop their sports talents. 24.4% of the talented students have revealed that universities provide inadequate (partial) support or no role in elite students' talent development. 48.3% of the talented students indicated that universities provide

training support in elite sports. 27.0% of the talented students have indicated that universities provide competition opportunities in elite sports. From above students' results, there are mixed responses that, universities play partial or no role to support training in elite sports, universities provide training support to talented students while others indicated that universities provide competition opportunities for talented students in elite sports.

On a follow up open ended item seeking how talented students would wish sports talent development to be improved in the universities. In table 4.22 talented students have recommended provision of competent training personnel for elite sports in the universities in Kenya. The results implied that, the problems facing sports in the universities in Kenya are from sports managers themselves (Directors and KUSA)

From the table, 95; (24.9%) recommended more sports funding opportunities from universities, 84; (22.0%) recommended provision of equipment and facilities, 38; (10.0%) recommended provision of competition opportunities, 36; (9.4%) recommended universities to provide competent training personnel, 31; (8.1%) recommended universities to support student participation in elite sports, 20; (5.2%) recommended universities to embrace talent nurturing programs, 14; (3.7%) recommended provision of scholarship without bias, nine (9); 2.4% recommended medical insurance, six (6); 1.6% indicated that funds allocated for sports should be monitored and accounted for, two (2); 0.6% recommended exchange programs, one (1); 0.3% recommended that universities to use activity fees towards sports development

Table 4.22

Students' recommendations on how sports talent development should be improved in the universities in Kenya

Students' Recommendations	Number (N)	Percentage (%)
More sports funding opportunities from universities	95	24.9%
Provision of sports equipment and facilities	84	22.0%
Provision of competition opportunities	38	10.0%
Provision of competent training personnel	36	9.4%
Universities to support student participation in elite sports	31	8.1%
Universities to embrace talent nurturing programs	20	5.2%
Provision of scholarship without bias	14	3.7%
Medical insurance	9	2.4%
Funds allocated for sports should be monitored and accounted for,	6	1.6%
Exchange programs	2	0.6%
Universities to use activity fees towards sports development	1	0.3%
Total	336	88.2%

To improve sports talent development in elite sports in the universities, the critical management areas that were indicated are funding of sports programs and activities, exchange programs for benchmarking, sports talent nurturing programs, sports competition opportunities, provision of competent sports training personnel and medical insurance to take care of sports injuries during training and competitions.

Discussion with talented students (focus group discussions) indicated that, directors are out of touch with activities in the sports fields. A KUSA official in an interview confirmed this when describing some sports directors in the universities as “theorist and desk managers but lack hands on competencies“

On weekly training, (table 4.23), the talented students were asked to indicate their training hours per week during the week days.

Table 4.23

Students' training hours per week during week days

Training hours per week	Number (N)	Percentage (%)
5 hours per week	70	18.4%
10 hours per week	135	35.4%
15 hours per week	112	29.4%
20 hours per week	35	9.2%
25 hours per week	14	3.7%
30 hours per week	3	0.8%
Total	369	96.9%

The results indicate that, 369; (96.9%) students responded while 12; (3.1%) declined. Among those who responded, 70; (18.4%) trained 5 hours per week (one hour per day), 135; (35.4%) trained for 10 hours per week (two hours per day) during the week days, 112; (29.4%) trained 15 hours per week (three hours per day), 35; (9.2%) trained 20 hours per week (four hours per day), 14; (3.7%) trained 25 hours per week (five hours per day), while 3; (0.8%) trained for 30 hours per week (6 hours per day) during the week days. The results in table 4.23 implied that, 329; (86.3%) of the talented students train between an average of one (1) hour and three (3) hours per day while only 63; (13.6%) train between four (4) hours and 6 hours per week day.

The implication is that for talented students to raise their training to six (6) hours per day, the schedule for training require a well-structured academic timetable to balance both academic and sports. This challenge needs also to address students' lectures and their remedial classes, examinations while out of the university on national assignments during national training and international sports competitions.

On the mode of training and supervision during the week days (table 4.24) 369; (96.9%) of talented students responded while 12; (3.1%) did not provide any answer.

Table 4.24

Supervision of students' training regiments in elite sports

Students' responses	Number (N)	Percentage (%)
Training under the supervision and guidance of a coach or trainer	195	51.2%
Training under the supervision and guidance of the captain	99	26.0%
Trained on their own without supervision	75	19.7%
Total	369	96.9%

Among those who responded, 195; (51.2%) students trained under the supervision and guidance of a coach, 99; (26%) of the talented students trained under the supervision of the captains (other students) and 75; (19.7%) trained on their own without supervision. A total of 174; (45.7%) students trained without any supervision from Games and Sports Departments in the universities while the universities have employed staff to coordinate sports (table 4.24). This implied that, a management problem exists because apart from directors, universities employ games tutors and coaches to train and mentor players. It is evident and a pointer that, sports departments need or require serious supervision from university management supervisors.

The study investigated the structural placement of games and sports departments in the universities in Kenya. From the Dean of students (table 4.25), the study sought to establish where Games and Sports Departments are structurally placed for supervision purposes in the university.

Table 4.25

Dean of students' responses on the structural placement of games and sports in the universities

Responses from Dean of Students	Number (N)	Percentage (%)
Under Deputy Vice Chancellor Academic & Student Affairs	2	40.0%
Under the Dean of Students	1	20.0%
Under the Director Sports & games	2	40.0%

Out of the five (5) deans who participated in the study, two (2); 40% indicated that Games and Sports Departments in the universities are structurally under the Deputy Vice Chancellor, Academic and Students Affairs, two (2); 40% indicated under the Director Games and Sports and one (1); 20% indicated under the Dean of students. The results implied that, the management structures of sports and games departments in the universities is not uniform and should be streamlined; placed under competent supervisors who understand the requirements of elite sports. These preferably should be under the Deputy Vice Chancellor, Students Affairs or equivalent through Deans of students where sports are managed as an administrative department or through directors where games are managed as directorates. Managing sports as a unit under a games coordinator in the universities should be revised and discouraged.

An open ended item in the questionnaire for Directors and Heads of Games and Sports Departments (table 4.26) on the personnel to implement elite sports programs in the universities, three (3); 50% of the respondents indicated that the current personnel in the universities is not sufficient, two (2); 33.3% indicated that professional sports managers are needed and one (1); 16.7% indicated lack of qualified coaches. These findings are in line with those in table 4.24 where 45.7% of talented students were found to train without

any staff supervision in the universities. However, lack of professional sports managers and lack of qualified coaches as indicated by directors of sports put the leadership competencies of these directors in undesirable state.

Table 4.26

Directors' responses on the personnel to implement elite sports programs in the universities

Directors' Responses	Number (N)	Percentage %
Current Personnel in the universities is not sufficient	3	50.0%
Professional sports managers are needed	2	33.3%
Lack of qualified coaches	1	16.7%
Total	6	100.0%

The results indicate that, 100.0% of the directors who are in charge of sports management in the universities have indicated deficiency of personnel, deficiency of professional sports managers and lack of qualified coaches in universities. This inadequacy requires redress for elite sports to be effectively supported in the universities in Kenya. Results from table 4.15 on the status of sports in the universities indicated that, elite sports in the universities is poorly managed and sports managers lack dedication. The directors of sports or heads of sports departments need to take full responsibility over lack of sports commitments and dedications in the individual universities in Kenya.

The study sought to establish from coaches (table 4.27), whether there are talented students recruited by external elite sports clubs while in the universities as students. According to the results, nine (9); 60.0% responded “yes”, five (5); 33.3% responded “no” while one (1); 6.7% indicated “not sure”. The results from of the coaches confirm that, there are talented students who play for external clubs and not the university teams while undertaking studies in the universities.

Table 4.27

Coaches responses whether there are university students playing for external sports clubs while in the universities

Coaches responses	Number (N)	Percentage (%)
“Yes”	9	60.0%
“No”	5	33.3%
“Not sure”	1	6.7%
Total	15	100.0%

The results implied that, there exists weak structures and lack of management policies in place on assisting talented students to transit from university clubs to external club engagements while in or after university education. There are no connections between university sports management policies and control systems of elite sports talents in the universities in Kenya.

4.5.3.1 Testing of Hypothesis (H₀₃)

H₀₃: There is no significant relationship between sports training support system and the promotion of students’ talent development in elite sports in the universities in Kenya. The following null hypothesis was tested at $p < 0.05$;

Table 4.28

Chi-Square and Fishers Exact Tests for the Cross Tabulation of Sports Training and Students’ Sports Talent Development in the Universities in Kenya

	Value	df	p-value	Monte Carlo Sig. (2-sided)		
				p-value	99% Confidence Interval	
					Lower Bound	Upper Bound
Pearson Chi-Square	45.557 ^a	12	0.000	0.000 ^b	0.000	0.000
Fisher's Exact Test	37.588			0.000 ^b	0.000	0.001
N of Valid Cases	381					

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is 0.60.

b. Based on 10000 sampled tables with starting seed 1644650155.

c. The standardized statistic is -0.981.

From the results in Table 4.28, the null hypothesis was rejected, $\chi^2 (12) = 45.557$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between sports training and student talent development. Since eight cells (40.0%) had expected count less than 5 as explained in the notes below table 4.65, Monte Carlo method of exact testing gave a more accurate inference. The results from Monte Carlo exact testing showed that both Chi-square and Fisher's test had p values less than 0.05 (Exact p = 0.000).

Table 4.29 shows the three statistics that indicate the strength of the relationship between cross-tabulated constructs. The reported coefficients were Phi, Cramer's V and Pearson's R. The applicable coefficient of strength was Cramer's V because the cross-tabulation of sports training and student talent development was larger than 2 by 2 tables. Cramer's V coefficient was 0.200, which indicated a small effect size in the relationship between sports training and student talent development. The Point-biserial correlation (Pearson's R) in was found as -0.05 indicating negative relationship between sports training and students' sports talent development. In conclusion, there is a small negative relationship between the current sports training support and student sports talent development, which the study found to be significant using Pearson Chi-Square from Monte Carlo exact computation. Hence the relationship that is reported is inversely related and the null hypothesis was rejected.

Table 4.29

Symmetric Measures for the Cross Tabulation of Sports Training and Students' Sports Talent Development in the universities in Kenya

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. p-value.	Monte Carlo p-value	99% Confidence Interval	
							Lower Bound	Upper Bound
Nominal by Nominal	Phi	0.346			0.000	0.000 ^c	0.000	0.000
	Cramer's V	0.200			0.000	0.000 ^c	0.000	0.000
Interval by Interval	Pearson's R	-0.050	0.046	-0.981	0.327 ^d	0.335 ^c	0.323	0.347
N of Valid Cases		381						

- a. a. Not assuming the null hypothesis.
- b. b. Using the asymptotic standard error assuming the null hypothesis.
- c. c. Based on 10000 sampled tables with starting seed 1644650155.
- d. d. Based on normal approximation.

4.5.4 Competitions opportunities and sports management competencies in the promotion of students' sports talent development in the universities in Kenya

Investigating the potential of talented students in the universities (table 4.30a), the study sought with reasons whether university students in Kenya are capable of winning Olympic medals like their American and European counterparts.

Table 4.30 a)

Student responses whether university students in Kenya are capable of winning medals in the Olympic Games like their counterparts in America and Europe

Responses	Number (N)	Percentage (%)
"Yes"	281	73.8%
"No"	97	25.5%
"No Response"	3	0.7%
Total	381	100.0%

281; (73.8%) students indicated “yes” while 97; (25.5%) indicated “no” while three (3); 0.8% did not indicate either “yes” or “no”.

Table 4.30 b)

Reasons given for the “Yes” response

Reasons	Number (N)	Percentage (%)
If students are given the right equipment, resources and coaching	100	26.25%
With training opportunities and competent coaching	62	16.27%
With good training and competition support systems,	60	15.75%
If adequate recourses are allocated to sports in the universities	53	13.8%
Total	275	72.07%

The reasons given by the respondents who responded “yes”, 100; (26.2%) indicated that, it was on condition that, the talented students are given the right equipment, resources and coaching, 53; (13.8%) if adequate resources are allocated to sports in the universities, 60; (15.7%) with good training and competition support systems, 62; (16.2%) with training opportunities and competent coaching making a total of 281; (72.07%) qualifying “yes” (table 4.30 b),with conditions of availability of equipment, resources, training opportunities, competition opportunities and competent coaching. The implications are that, talented students are not given the right equipment, resources and coaching. It is also implied that adequate resources are not allocated to sports in the universities, the training and competition support systems are not competent while training opportunities and competent coaching lacks in the universities in Kenya.

Table 4.30 c)*Reason given for the “No” response*

Reasons	Number (N)	Percentage (%)
Lack of facilities and technical competences,	31	8.14%
Limited or inadequate time for training due to academics	28	7.35%
Sports not taken seriously in the universities	13	3.41%
No clear talent support systems	9	2.36%
Lack of mentorship from coaches	5	1.31%
Sports in the universities are for recreation	5	1.31%
poor attention with inadequate funding	1	0.26%
No response	14	3.7%
Total	92	24.15%

Among the respondents who responded “no”(table 4.30 c), 31; (8.1%) of the student respondents attributed the challenges to lack of facilities and technical competences,28; (7.3%) of the respondents attributed the challenges to limited or inadequate time for training due to academics,13; (3.4%) sports not taken seriously in the universities, nine (9); 2,4% of them indicated no clear talent support systems, five (5); 1.3% of the respondents to lack of mentorship from coaches, five (5); 1.3% pointed out that, sports in the universities are for recreation. From the results it is agreeable that, if adequate support systems are provided, university students in Kenya are capable of winning medals like their American and British counterparts. From the table 4.30 b, the results implied that, universities in Kenya have failed to produce Olympic Games medal winners like their American and European counterparts because of lack of right equipment, lack of right resources, lack of right coaching, lack of competition opportunities, lack of good training, lack of competition support systems and lack of adequate resources allocated to sports in the universities.

This is corroborated with results in Table 4.30 c which indicated that, universities in Kenya have failed to emulate their American and European counterparts in producing

Olympic Games medal winners because they lack technical competences, lack of adequate time for training due to academics, lack of taking sports seriously in the universities, lack of clear talent support systems, lack of mentorship, poor attention and lack of adequate funding of elite sports in the universities. This is in agreement with Abisai (2014) who confirmed that inadequate sports facilities, equipment, coaches and time for training should be addressed to enable university students to compete favorably in elite sports

From the findings, 278; (99.2%) students indicated lack of facilities, equipment, resources, training opportunities, technical competences, mentorship, balance between training and academics, lack of funding opportunities and competition opportunities as well as the fact that, sports not taken seriously are some of the impeding factors that if addressed, talented students in the universities in Kenya can win Olympic medals like their American and European counterparts (table 4.30 a, 4.30 b, 4.30 c). In table 4.31 the study sought from coaches through a closed ended question whether universities in Kenya are capable of nurturing Olympic medal winning talents in elite sports.

Table 4.31

Coaches' response whether universities in Kenya are capable of nurturing talents in elite sports to compete and win medals in Olympic Games

Coaches response	Number (N)	Percentage (%)
Agree	13	86.7%
Disagree	2	13.3%

From the coaches who are key technical implementers in training and coaching talented student in the universities, 13; (86.7%) of them agreed that, the universities in Kenya are capable of nurturing talents in elite sports to compete and win medals in Olympic Games.

Kenya Universities Sports Association (KUSA) officials through a closed ended item on a Likert scale on a statement that stated, “Universities in Kenya have not managed to nurture talents in elite sports like universities in America and Europe”. Two (2); 12.6% disagreed while, fourteen (14); 87.4% agreed that universities in Kenya have not managed to nurture talents in elite sports like their American and European counterparts (table, 4.32). Both coaches and Kenya University Sports Association (KUSA) officials agree that universities in Kenya have failed to nurture talents in elite sports unlike their American and European counterparts.

Table 4.32

KUSA officials’ response on “universities in Kenya have not managed to nurture talents in elite sports like their American and British counterparts”

KUSA Officials Response	Number (N)	Percentage (%)
Agree	14	87.4%
Disagree	2	12.6%

In table 4.33, the study sought from Games Tutors the reasons why universities in Kenya have not managed to nurture talents in elite sports like their counterparts in America and Europe where multiple responses were given. One (1) 11.1% attributed this to inadequate funding to sports programs, two (2); 22.2% indicated that Kenya Universities Sports Association (KUSA) management has failed in their duties to improve sports, one (1); 11.1% has associated this to lack of facilities, one (1); 11.1% to lack of qualified sports managers, one (1); 11.1% indicated over emphasis on academics than talent development in elite sports while one (1); 11.1% associated this with poor structures in talent development and nurturing

Table 4.33

Games Tutors' responses why universities in Kenya have not managed to nurture talents in elite sports like their counterpart in America and Europe

Games Tutors' Responses	Number (N)	Percentage (%)
KUSA has failed to improve sports	2	22.2%
Inadequate funding of sports programs	1	11.1%
Lack of qualified sports managers	1	11.1%
Lack of facilities	1	11.1%
Over emphasis on academics than talent development	1	11.1%
Poor Talent nurturing and development structures	1	11.1%
Total	7	77.7%

In the coaches' questionnaire, an open-ended question (table 4.32a, b & c) sought reasons why universities in Kenya have failed to contribute players in the national teams, a factor considered a gateway to Olympic and other international elite competitions. In their responses (coaches), one (1) 6.7% pointed out inadequate facilities, six (6) 40% on inadequate support from university sports managers, one (1) 6.7% indicated that KUSA has failed to develop elite sports in the universities, three (3) 20% indicated lack of national exposure in elite competitions, one (1) 6.7% skill level of university students being too low, three (3) 20% on unstructured time table and fixed examination schedules (table 4.34 a).

Table 4.34 a)

Coaches' reasons why universities in Kenya fail to contribute players in Olympics and other International elite competitions (reason 1)

Coaches' Reasons	Number (N)	Percentage (%)
Inadequate support from the universities sports managers	6	40.0%
Lack of national exposure in elite competitions	3	20.0%
Unstructured time table and fixed examinations	3	20.0%
KUSA has failed to develop elite sports in the universities	1	6.67%
Inadequate facilities	1	6.67%
Skill level of university students being too low	1	6.67%
Total	15	100.0%

In the second reason(table 4.34 b), five (5); 33.3% coaches associated this to conflict between academics and elite sports schedules, two (2); 13.3% on lack of commitment from KUSA leadership, two (2); 13.3% on lack of external competitions, one (1); 6.7% on lack of sports facilities and equipment, two (2); 13.3% on lack of scholarships, three (3); 20% on lack of qualified coaches to handle and nurture talents at university level.

Table 4.34 b)

Coaches' reasons "why universities in Kenya fail to contribute players in Olympics and other international elite competitions"?(Reason2)

Coaches' Reasons	Number (N)	Percentage (%)
Conflict between academics and sports needs	5	33.33%
Lack of qualified coaches to handle and nurture talents at university level	3	20.0%
Lack of commitment from KUSA leadership	2	13.33%
Lack of external competitions	2	13.33%
Lack of sports scholarships	2	13.33%
Lack of Sports facilities and equipment	1	6.67%
Total	15	100.0%

In the third reason(Table 4.34 c), one (1); 6.7% associated this with few universities offering sports scholarships, one (1); 6.7% focusing most on academics and not sports, three (3); 20% on inadequate facilities and equipment, two (2); 13.3 on KUSA not responsive to the new trend of managing sports in the universities, one (1); 6.7% on lack of sports scholarships in the universities, one (1); 6.7% low skill level among university students, two (2); 13.3% lack of involvement of ministry of sports, culture and heritage in the universities, one (1); 6.7% on parental pressure to students to concentrate on academics, one (1); 6.7% on lack of proper guidelines for students to join clubs and other elite sports teams

Based on responses provided by the coaches, universities in Kenya have failed to contribute players to the Olympic Games and other international competitions in elite sports (Table 4.34a, b, c). There are reasons that have been associated with the failure. According to the coaches, the academic reasons are, conflict between academics and sport's needs, focusing most in academics and not sports, parental pressure to students to concentrate on academics, unstructured time table and fixed examinations.

Table 4.34c)

Coaches' reasons "why universities in Kenya fail to contribute players to Olympics Games and other international elite competitions"? (Reason3)

Coaches' Reasons	Number (N)	Percentage (%)
Inadequate facilities and equipment	3	20.0%
Lack of involvement of ministry of sports	2	13.3%
KUSA not responsive to the new trends of managing sports in the universities	2	13.3%
Lack of sports scholarships in the universities	1	6.7%
Few universities offering sports scholarships	1	6.7%
Focusing most in academics and not sports	1	6.7%
Parental pressure to students to concentrate on academics	1	6.7%
Lack of proper guidelines for students to join the clubs and other elite sports teams	1	6.7%
Low elite sports skill level among university students	1	6.7%
Total	13	86.8%

The financial reasons are associated with lack of sports scholarships in the universities and only very few universities offering sports Scholarships. Training reasons have been associated with lack of sports facilities and equipment, inadequate facilities and equipment, lack of qualified coaches to handle and nurture talents at university level. Competition reasons have been associated with, lack of national exposure in elite competitions, lack of external competitions, skill level of university students being too low, lack of proper guidelines for students when to join the senior clubs and other elite

sports teams. The management reasons are lack of involvement of ministry of sports, culture and heritage; inadequate support from the universities sports managers, KUSA has failed to develop elite sports in the universities, lack of commitment from KUSA leadership and KUSA not responsive to the new trends of managing sports in the Universities.

The findings implied that universities play a role of assisting talented students to develop their sports talents. To improve elite sports in the universities in Kenya, the critical management areas that need to be addressed are funding of sports programs and activities, talent nurturing programs, competition opportunities and provision of competent sports training personnel. Those students who trained for six hours per day implied that only a few met the training threshold. However, raising six (6) hours per day from talented students for training require a well-structured academic timetable to balance both academic and elite sports. The other critical areas that also need to be addressed include students' lectures and their remedial classes, examinations while out of the university on a national assignments during national training and international competitions. Lack of professional sports managers and lack of qualified coaches as revealed by directors of sports implied that, the leadership competencies of these directors should be improved. The findings revealed that, there exist weak structures and lack of management policies in place on how talented students are expected to transit from university clubs to external club engagements while in or after the universities studies. There are no defined connections between university sports management policies and academic control systems of talented students in the universities in Kenya

4.5.4.1 Testing of Hypothesis H₀₄

H₀₄: There is no significant relationship between the sports competition support and promotion of Students' talent development in elite sports in the universities in Kenya.

From the results in table 4.35, the null hypothesis was rejected, $\chi^2 (20) = 73.295$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between competition opportunities and student talent development. Since seventeen cells (56.7%) had expected count less than 5 as explained in the notes below table 4.35, Monte Carlo method of exact testing gave a more accurate inference.

Table 4.35

Chi-Square and Fishers Exact Tests for the Cross Tabulation of Competition Opportunities and Students' Sports Talent Development in the Universities in Kenya

	Value	df	p-value	Monte Carlo Sig. (2-sided)		
				p-value	99% Confidence Interval	
					Lower Bound	Upper Bound
Pearson Chi-Square	73.295 ^a	20	0.000	0.001 ^b	0.000	0.002
Fisher's Exact Test	58.792			0.000 ^b	0.000	0.000
N of Valid Cases	381					

b. 17 cells (56.7%) have expected count less than 5. The minimum expected count is 0.06.

c. Based on 10000 sampled tables with starting seed 726961337.

Table 4.36

Symmetric Measures for the Cross Tabulation of Competition Opportunities and Students' Sports Talent Development in the Universities in Kenya

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. p-value	Monte Carlo p- value	99% Confidence Interval	Sig.
						Lower Bound	Upper Bound	
Nominal by Nominal	Phi	0.439			0.000	0.001 ^c	0.000	0.002
	Cramer's V	0.219			0.000	0.001 ^c	0.000	0.002
Interval by Interval	Pearson's R	0.148	0.049	2.915	0.004 ^d	0.003 ^c	0.002	0.005
N of Valid Cases		381						

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

d. Based on 10000 sampled tables with starting seed 726961337.

Table 4.36 shows three statistics that indicate the strength of the relationship between cross-tabulated constructs. The reported coefficients are Phi, Cramer's V and Pearson's R. The applicable coefficient of strength was Cramer's V because the cross-tabulation of competition opportunities and student talent development was larger than 2 by 2 tables. Cramer's V coefficient was 0.219, which indicates small effect size in the relationship between competition opportunities and student talent development. The Point-biserial correlation (Pearson's R) in table 4.36 was found as +0.148 indicating positive relationship between competition opportunities and student sports talent development. In conclusion, there is a small positive relationship between the current competition opportunities and student talent development, albeit significant as determined by Pearson Chi-Square using Monte Carlo exact computation.

The results revealed that, universities in Kenya have failed to emulate their American and European counterparts in producing Olympic Games medal winners because they lack

technical competences, lack of adequate time for training due to academics, lack of taking sports seriously in the universities, lack of clear talent support systems, lack of mentorship, poor attention and lack of adequate funding of elite sports in the universities. While some issues can be addressed the critical areas are that, KUSA management has failed in their management duties to improve sports, lack of qualified sports managers, over emphasis on academic than talent in elite sports and poor structures in talent nurturing and development. Site visits have established that Kenya has two modern stadia (Moi International Sports Center, Nyayo Stadium, Multipurpose Gymnasium and Swimming Pools) which are national facilities and equipment that can be hired. This implied that, sports managers lack alternative ideas and innovativeness regarding facilities and equipment.

4.6 Challenges in integrating university education and students' talents development in elite sports in the universities in Kenya

Objective c): To determine the challenges in integrating university education and Students' Talent Development in elite sports in the universities in Kenya.

The study was set to establish the challenges that face talented students in integrating university education and talents development in elite sports in the universities in Kenya. Arising from literature review, challenges were categorized and grouped as academic, financial, training, competition and sports management challenges.

4.6.1 Academic Challenges and elite sports in the universities in Kenya

The study sought to determine the academic challenges that are experienced by talented students as they combined education with elite sports in the universities.

Table 4.37

Academic Challenges in Combining Academics with Elite Sports

Students' Response	Number (N)	Percentage (%)
Lack of balancing between academic and elite sports	124	32.5%
Tight academic schedules with little time for sports training and competitions,	126	33.1%
Unfavorable timetable with inconsiderable lectures.	74	19.4%
Limited or lack of sports scholarships (as students are out of class due fees demands),	16	4.2%
Lack of motivation and engagement in sports due to academic pressures,	8	2.1%
Lack of flexible admission criteria,	2	0.5%
Rigid academic requirements in the universities	2	0.5%
No response	29	7.6%
Total	352	92.3%

The results in table 4.37; 124, (32.5%) students indicated lack of balancing between academic and elite sports, 126; (33.1%) indicated tight academic schedules with little time for sports training and competitions, 74; (19.4%) indicated unfavorable time table with inconsiderable lectures. 16; (4.2%) indicated limited or lack of sports scholarships (as students are out of class due fees demands), eight (8); 2.1% indicated that, there was lack of motivation and engagement in sports due to academic pressures, two (2); 0.5% indicated that there was lack of flexible admission criteria while two (2); 0.5% indicated rigid academic requirements not flexible to admit talented students in the universities. A total of 324; (85.04%) students indicated the main challenge of integrating academics with students' talent developments in elite sports is lack of balancing academics and elite

sports. 16; (4.2%) indicated lack of sports scholarships and four (4); 1.0% rigid admission criteria.

The major challenge identified from the students who are the primary consumers of university services is lack of balancing academics and elite sports. Examinations being one of these academic services, the study sought from sports coaches how students are assisted in order to participate in their sports assignments that require them to be out of the universities and particularly during university examinations (table 4.38).

Table 4.38

Coaches' responses on how talented students are assisted to sit for examinations during sports assignments

Coaches Responses	Number (N)	Percentage (%)
Students choose either national sports assignments or university examinations	4	26.7%
Not sure of the option preferred	4	26.7%
Examinations are administered alongside sports assignments	3	20.0%
Students participate in sports and sit for examinations later	1	6.7%
No response	3	20.0%
Total	15	100.0%

Out of the fifteen (15) coaches who participated in the study, three (3); 20.0% declined to respond, four (4);26.7% coaches indicated that they were not sure of the option preferred, four (4); 26.7% indicated that students called to participate in national elite sports' assignments choose either national sports assignments or university examinations, three (3); 20.0% indicated that examinations are administered alongside sports assignments, while one (1); 6.7% indicated students participate in sports and sit for examinations later.

The responses reveal that, there are no clear established structures to address the balancing of academic activities with elite sports activities. The implications from the

results are that, there are no policy framework and statutory structures on how examinations for talented students are administered in the universities in Kenya.

To correct this imbalance between academics and elite sports in the universities in Kenya, the study sought from talented students the strategies they consider effective to address the academic related challenges faced by talented students (table 4.39).

Table 4.39

Student's responses on strategies to address the academic related challenges

Students responses	Number (N)	Percentage (%)
Flexible time table that accommodates elite sports and academics obligations of talented students in the universities	158	41.5%
Need to balance sports and academics	80	21.0%
Need to develop academic sports curriculum in the universities	31	8.1%
Need to develop academic sports curriculum in the universities	27	7.1%
Addressing sports and academic support systems	14	3.7%
Creating awareness about sports in the universities	12	3.2%
Focus for missed classes and examinations, during competitions	8	2.1%
Identifying and developing talents from grass root	8	2.1%
Address lack of technical competence in sports	2	0.5%
Lowering university admission criteria for talented students	1	0.3%
Total	341	89.5%

158;(41.5%) of the respondents indicated flexible timetable that can accommodate elite sports and academics obligations for the talented students in the universities, 80; (21.0%) indicated need to balance sports and academics, 31; (8.1%) indicated the need to develop academic sports curriculum in the universities, 27; (7.1%) indicated a clear provisions of elite sports programs in the universities, 14; (3.7%) addressing sports and academic support systems, 11; (2.9%) indicated creating awareness about sports in the universities, eight (8); 2.1% indicated focus on missed classes and examinations during competitions, eight (8); 2.1% indicated the need to identify and develop talents in elite sports from the

grass roots, two (2); 0.5% indicated lack of technical competence in elite sports to be addressed, one (1); 0.3% recommended the lowering of university admission criteria for talented students and one (1); 0.3% indicated the need to create awareness about elite sports in the universities while 40; (10.5%) students did not respond. The university management therefore needs to establish flexible academic structures to accommodate both the academic commitments of the talented students and their needs in elite sports.

To confirm and address the academic challenges, the study sought from directors and KUSA officials who are key sports implementers in the universities, whether universities should adopt flexible academic schedules for talented students to accommodate sports assignments (table 4.40).

Table 4.40

Universities to adopt flexible academic schedules for talented students to balance between academics and elite sports in order to accommodate sport assignments

Respondents	Number (N)	Percentage %
Talented Students	324	85.04%
Coaches	8	54.4%
Directors/Heads of Games & Sports Depts.	6	100.0%
Kenya Universities Sports Association (KUSA)	14	87.5%

Six (6);100% of the directors agreed that, universities should adopt a flexible academic program to facilitate sports participation. The Kenya Universities Sports Association (KUSA) officials, out of sixteen (16) who participated in the study, fourteen (14); 87.6% agreed that universities should adopt a flexible academic program to facilitate sports participation with one (1); 6.3% disagreeing and one (1); 6.3% undecided.

The responses from talented students, coaches, directors, Kenya Universities Sports Association (KUSA) officials provided the evidence that, there are academic challenges in integrating academic and elite sports in the universities in Kenya(table 4.40).To address such challenge, the sports management structures in the universities should champion the universities’ need to adopt flexible academic schedules so as to accommodate students’ talent development alongside academic needs for the talented students.

4.6.2 Financial challenges and students’ talent development in elite sports in the Universities in Kenya

Table 4.41

Financial challenges faced by talented students

Students’ Responses	Number(N)	Percentage (%)
Lack of sports scholarship opportunities for talented students	158	41.0%
Poor allocation of funds for sports development in the universities	145	38.1%
Purchasing sports equipment	27	7.1%
Universities do not invest in sports as in academics	7	1.8%
Mismanagement of sports funds	5	1.3%
Parents invest more in academics and not sports	4	1.0%
Medical bills arising from sports injuries	2	0.5%
Total	348	90.8%
No response	33	8.7%

The study sought types of financial challenges that face talented students in elite sports in the universities in Kenya. 158; (41.5%) students indicated lack of sports scholarship opportunities for talented students, 145; (38.1%) students indicated poor allocation of funds for sports development in the universities, 27; (7.1%) students indicated the challenge of purchasing sports equipment, seven (7); 1.8% indicated that universities do not invest in sports as in academics, five (5); 1.3% indicated mismanagement of sports funds, four (4); 1% indicated that parents invest more in academics and not sports, two

(2); 0.5% indicated medical bills arising from sports injuries while 33; (8.7%) of the talented students did not provide any answer (table 4.41).

Table 4.42

Strategies to address financial challenges faced by talented students

Students Responses	Number (N)	Percentage (%)
Provision of sports scholarships for talented students	133	34.9%
Provision of funds to support sports in the universities	109	28.6%
Relevant use of sports funds	32	8.4%
Ministry of Sports to finance elite sports in the universities	31	8.1%
Link with external agents to support sports in the universities	16	4.2%
Universities should invest more in sports	12	3.1%
Need to eradicate corrupt and poor sports management in the universities	7	1.8%
Total	340	89.1%

The study further sought strategies to address the financial challenges (table 4.42) where 133; (34.9%) students indicated provision of sports scholarships for talented students, 109; (28.6%) indicated provision of funds to support sports in the universities, 32; (8.4%) indicated relevant use of sports funds, 31; (8.1%) indicated that the Ministry of Sports to finance elite sports in the universities, 16; (4.2%) indicated the link with external agents to support sports in the universities, 12; (3.1%) indicated that universities should invest more in sports, seven (7); 1.8% indicated need to eradicate corrupt and poor sports management in the universities while 41; (10.8%) of the talented students declined to respond to this item of the questionnaire.

The results (table 4.41) have associated financial challenges with lack of sports scholarship opportunities, poor allocation of funds for sports development in the universities, Lack of investing in sports like in academics, mismanagement of sports funds and sports injuries. The strategies (table 4.42) to address these challenges have

been indicated as provision of sports scholarships to talented students, provision of funds to support sports in the universities, ministry of sports, culture and heritage to finance elite sports in the universities, universities to invest more in sports, establishing links with external agents to support sports in the universities, need to eradicate corrupt and poor sports managers in the universities.

4.6.3 Training and Competition Challenges and elite sports in the universities in

Kenya

The training and competitions were linked together because performance in sports is as a result of intensity of training and this is manifested during competitions (Sotiriadou & Bosscher, 2018). The study sought challenges faced by talented students during training and competitions in elite sports in the universities in Kenya (table 4.43).

Table 4.43

Challenges experienced by talented students in training and competitions

Students' responses	Number (N)	Percentage (%)
Lack of training facilities	100	26.2%
Lack of training and competitions due to academics	97	25.5%
Lack of technical competence in sports	91	23.9%
Lack of elite competition opportunities	46	12.6%
Corruption during team training and competitions	11	2.9%
Irregular competitions	4	1.0%
Universities do not invest in sports as in academics	2	0.5%
Total	351	96.2%

Responding to an open ended item in the questionnaire for talented students 100; (26.2%) indicated lack of training facilities, 97; (25.5%) indicated lack of training and competitions due to academics, 91; (23.9%) indicated lack of technical competence in sports, 46; (12.6%) indicated lack of elite competition opportunities, 11; (2.9%) indicated

corruption during team training and competitions, four (4); 1.0% indicated irregular competitions, two (2); 0.5% indicated that universities do not invest in sports as in academics. .

In table 4.44 the study through an open ended question for talented students sought for strategies to address identified challenges in training and competitions.

Table 4.44

Strategies to address training and competition challenges

Students' responses	Number (N)	Percentage (%)
Provision of adequate facilities and equipment	113	29.7%
Provision of qualified trained personnel in elite sports	96	25.2%
Provision of competition opportunities in elite sports	61	16.0%
Flexible time tables to accommodate training and competitions	40	10.5%
Incentives for players	15	3.9%
Supervision of technical personnel during training and competition	12	3.1%
Total	337	88.4%
No response	44	11.5%

Responses from 113; (29.7%) talented students indicated provision of adequate facilities and equipment, 96; (25.2%) indicated provision of qualified trained personnel in elite sports, 61; (16.0%) indicated provision of competition opportunities in elite sports, 40; (10.5%) indicated flexible time tables to accommodate training and competitions, 15; (3.9%) indicated incentives for players, 12; (3.1%) indicated supervision of technical personnel during training and competition while 44; (11.5%) declined to respond on the item.

In a closed ended item in the questionnaire for coaches, the study sought to establish whether there are talented students who play for external clubs rather than university teams while in the universities.

Table 4.45

Coaches' responses whether there are students playing for external clubs while in the universities

Coaches responses	Number (N)	Percentage (%)
“Yes”	9	60.0%
“No”	5	33.3%
“Not sure”	1	6.7%
Total	15	100.0%

Responses from nine (9); 60.0% coaches indicated “yes”, five (5); 33.3% indicated “no” while one (1); 6.7% indicated “not sure”. The responses provide evidence that some university students play for external clubs while still in the university programs.

An open ended item in the coaches' questionnaire sought interventions (table 4.46) so as to retain players in the university teams, nine (9); 60.0% recommended that, the universities should provide sports scholarships to talented students for the period they are in the universities, two (2); 13.3% indicated that, the universities to provide insurance cover for players to cover them from losses and injuries, one (1); 6.7% indicated to enroll talented students in elite sports for national sports leagues and also expose them to international competitions, one (1); 6.7% recommended for better training facilities and equipment while two (2); 13.6% declined to respond on the item.

Table 4.46*Interventions to retain students in the university teams*

Coaches responses	Number (N)	Percentage (%)
The universities should provide sports scholarships to talented students for the period they are in the universities	9	60.0%
The universities to insure players to cover them from losses and injuries	2	13.3%
To enroll talented students in elite sports for national sports leagues and also expose them to international competitions	1	6.7%
Better training facilities and equipment	1	6.7%
Total	13	86.7%
No response	2	13.3%

The interventions to ensure students play only for university teams recommend that, universities to embrace provision of sports scholarships for the period students are in the university programs, universities to insure players to cover them from losses and injuries, universities to enroll players in the national sports leagues and expose them to international competitions, universities to provide training facilities and equipment.

Through a closed ended item (table 4.47) in the Deans' questionnaire and that of Directors' (table 4.48) both sought the status of financing training and competitions in the universities in Kenya. From the Dean of students responses, two (2); 40.0% indicated inadequate funding, one (1); 20.0% indicated acute shortage of funds for the development of facilities and equipment, while two (2); 40.0% declined to respond on this item.

Table 4.47

Dean of students' response on status of financing training and competitions for elite sports in the universities in Kenya

Deans' Responses	Number (N)	Percentage (%)
Inadequate funding	2	40%
Acute shortage of funds	1	20%
No response	2	40%

Table 4.48

Directors' responses on the status of financing training and competitions in elite sports in the universities in Kenya

Directors' Responses	Number (N)	Percentage (%)
Inadequate funds are allocated to sports in the universities	4	66.67%
Poor budgetary allocation to elite sports in the universities	1	16.67%
Lack of qualified coaches	1	16.67%
Total	6	100.0%

From the Directors responses (table 4.48) on the status of financing training and competitions in elite sports in the universities four (4); 66.7% indicated that, inadequate funds are allocated to sports in the universities, one (1); 16.7% indicated lack of qualified coaches and one (1); 16.7% indicated poor budgetary allocation to elite sports in the universities. The findings from both the Deans and Directors have implied that inadequate funds are allocated to sports in the universities and are among the factors that should be addressed.

From the Directors questionnaire(table 4.49), which sought how university academic programs should be implemented in order to responds to students training and competition needs in elite sports, six (6);100% agreed that universities should adopt a

flexible academic schedule for talented students to accommodate their participation in international training and competitions.

On the implementation of academic programs, a closed ended item from the questionnaire for Kenya Universities Sports Association (KUSA) officials sought to establish how academic programs in the universities should be implemented in order to respond to students' training and competitions in elite sports.

Table 4.49

Implementation of university academic programs in order to responds to students training and competition needs in elite sports

Respondents	Universities should consider a flexible academic program implementation that responds to students training and international sports competitions	Percentage %
Directors	6	100.0%
Games Tutors	9	100.0%
KUSA officials	14	87.6%

Based on the results, 14;(87.6%) KUSA officials agreed that, universities should consider a flexible academic program implementation that responds to students training and international competitions, one (1); 6.3% was undecided while one (1); 6.3% disagreed. On the same item in the questionnaire for games tutors, nine (9);100% agreed that, to develop talented students in elite sports, universities should consider implementing flexible academic programs to accommodate students' training and competitions in elite sports.

Training challenges have been associated with lack of training facilities, lack of training due to academics and lack of technical competence in elite sports. The interventions for training challenges are provision of adequate training facilities and equipment, provision

of qualified trained personnel in elite sports, supervision of technical personnel during training, and flexible time tables to accommodate training. KUSA officials have recommended that universities should consider a flexible academic program implementation that responds to students training.

Competition challenges have been associated with lack of competitions due to academics, lack of elite competition opportunities, irregular competitions, corruption during team selection for competition. The interventions for competition challenges are, provision of competition opportunities in elite sports, flexible time tables to accommodate competitions, universities to enroll talented students in elite sports for national sports leagues and also expose them to international competitions, incentives for players during competitions, universities should consider implementing flexible academic programs to accommodate students' training and competitions in elite sports, The Directors, Games Tutors and KUSA officials have recommended that, universities should adopt a flexible academic schedule for talented students to accommodate their participation in regional, national and international competitions.

4.6.4 Management challenges and elite sports in the universities in Kenya

The study through a closed ended item in the Dean of students' questionnaire (table 4.50) sought to establish the sports department management alignment structures in the universities. Two (2); 40.0% indicated that, the departments were structurally under the Deputy Vice chancellor, Academic and Student Affairs, two (2); 40.0% indicated that the departments were under the Director, Games and Sports, one (1); 20.0% indicated that, the department was structurally under the Dean of students. In another closed ended item

in the questionnaire for Dean of students, the study sought to establish the office that is charged with preparing budgets for sports in the universities and five (5); 100.0% indicated that such budgets are prepared by the Director or Head of Games and Sports in the universities.

Table 4.50

Sports management structures in the universities in Kenya

Respondents	Sports Department under Deputy Vice Chancellor, Academic Affairs	Sports department under Director Games and sports	Sports Department under Dean of students	Current structures are wanting and do not support elite sport at all but mass sport
Dean of students	2 (40.0%)	2 (40.0%)	1 (20.0%)	
Directors	2 (33.3%)	2 (33.3%)	1 (16.7%)	1 (16.7%)

A follow up interview with Directors of sports revealed that, while such budgets for sports are drawn, the allocations are diverted to non-sporting activities in the universities.

With regard to management challenges, five (5);100.0% of the Dean of students agreed that, the elite sports management challenges experienced in the universities is due to inconsistent and different sports management structures in the universities. In an open ended item in the questionnaire for Directors or Heads of games and sports departments in the universities (table 4.50), the study sought from the respondents how they describe the current management structures for the sports departments in the universities. Two (2); 33.3% indicated that, the Departments of Games and Sports in the universities were structurally under the supervision of Deputy Vice Chancellor, Academic Affairs, two (2); 33.3% indicated that Games and Sports Departments were under the supervision of the

Directors of Sports and one (1); 16.7% indicated that in the current structure, the department of games and Sports is under the Dean of students. Both responses from the Dean of students and Directors of sports and games were in full agreement on the different and inconsistent management structural alignment in games and sports departments in the universities. However one (1); 16.7% of the directors cautioned that the current structures are wanting and do not support elite sport at all but mass sport.

In another closed item in the Directors questionnaire (table 4.51 and 4.52), the study sought to establish whether there are qualified technical personnel to coach the four sampled disciplines.

Table 4.51

Available qualified technical personnel to coach the men sports disciplines

Response Discipline (Men)	Yes		No	
	Number (N)	Percentage %	Number (N)	Percentage %
Rugby	4	66.7%	2	33.3%
Soccer	5	83.3%	1	16.7%
Track and Field (Athletics)	1	16.7%	5	83.3%
Volley Ball	3	50.0%	3	50.0%

Table 4.52

Available qualified technical personnel to coach the ladies sports disciplines

Response Discipline (Ladies)	Yes		No	
	Number (N)	Percentage %	Number (N)	Percentage %
Rugby	N/A	N/A	N/A	N/A
Soccer	2	33.3%	4	66.7%
Track and Field (Athletics)	1	16.7%	5	83.3%
Volley Ball	4	66.7%	2	33.3%

The most poorly supported disciplines technically were track and field athletics both ladies and men, and soccer ladies. The disciplines that are given high technical attention in the universities are soccer men (83.3%), followed by rugby (66.7%), Volleyball women (66.7%) and Volleyball men (50%).

An open ended item in the questionnaire for directors (table 4.53) sought to find out whether there were personnel challenges experienced during the implementation of elite sports programs in the universities.

Table 4.53

Directors' responses on personnel to implement elite sports programs

Directors' Responses	Number (N)	Percentage (%)
Current personnel is not sufficient	3	50.0%
Lack of employing qualified coaches	1	16.7%
Professional Sports Managers are needed	2	33.3%
Total	6	100.0%

Three (3); 50.0% indicated that, the current sports personnel in the universities is not sufficient, two (2); 33.3% indicated that professional sports managers are needed and one (1); 16.7% indicated lack of employing qualified coaches.

One further open ended item in the Directors' questionnaire sought the management challenges experienced due to elite sports management structures in the universities (table 4.54).

Two (2); 33.3% indicated that, the policies on sports scholarships are not streamlined, two (2); 33.3% indicated sports management structures in the universities are not well defined, one (1); 16.7% indicated lack of adequate funding in elite sports programs

Table 4.54

Director's responses on management challenges experienced due to elite sports management structures in the universities

Directors' Responses	Number (N)	Percentage (%)
The policies on sports scholarships are not streamlined	2	33.3%
Sports management structures in the universities are not well defined	2	33.3%
Lack of adequate funding in elite sports programs	1	16.7%
Total	5	83.3%

In the coaches' questionnaire, an open ended item sought the type and level of qualifications for coaches (table 4.55)

Table 4.55

Coaches responses on type and level of qualifications needed for coaches in universities' elite sports in Kenya

Responses	Number (N)	Percentage (%)
Need for coaches to align themselves with universal international coaching standards in sports disciplines	7	46.7%
Coaches to attend clinics or trainings to march trends of training	3	20.0%
International level 2 qualifications for coaches	2	13.3%
Universities should employ qualified coaches	1	6.7%
Total	13	86.7%
No response	2	13.3%

Seven (7); 46.7% indicated need for coaches to align themselves with universal international coaching standards in sports disciplines, three (3); 20.0% indicated that coaches to attend clinics or trainings to march trends of training, two (2); 13.3% indicated international level 2 qualifications for coaches, one (1) 6.7% indicated that, universities should employ qualified coaches while two (2); 13.3% declined to respond on the item.

On the type and level of training for Games Tutors (table 4.56), seven (7); 46.7% of the coaches indicated need for further training in sports management, five (5); 33.3% indicated Games Tutors should learn modern training and coaching techniques, while three (3); 20.0% did not respond.

Table 4.56

Coaches responses on type and level of training for games tutors in the universities in Kenya

Responses	Number (N)	Percentage (%)
Need for further training in sports management	7	46.7%
Games Tutors to learn modern training and coaching techniques	5	33.3%
Total	12	80.0%
No response	3	20.0%

Table 4.57

Coach's response on the type and level of training for Directors/Heads of games and sports departments in the universities in Kenya

Response	Number (N)	Percentage (%)
Directors to attend seminars on modern ways to manage sports in the universities	6	40.0%
Training on general and financial management	5	33.3%
Total	11	73.3%

On the type and level of training for Directors (table 4.57); six (6); 40.0% of the coaches indicated that, Directors should attend seminars on modern ways to manage sports in the universities, five, (5); 33.3 % indicated training on general and financial management while four (4); 26.7% coaches did not provide any response to the item. 73.3% of the coaches recommended that Directors of sports and games needed further training on management trends so as to support talented students in the universities.

A closed ended item from the questionnaire for the Kenya Universities Sports Association (KUSA) officials that sought to establish the nature of elite sports management structures to be established in the universities in Kenya (table 4.58).

Table 4.58

KUSA responses on the nature of sports management structures to be established in the universities

KUSA Responses	Number (N)	Percentage (%)
Universities to establish sports management structures that are responsive to elite sports	15	93.7%
To support talent management structures, universities should rely on an established budget to finance training and competition opportunities for talented students.	15	93.7%
The university talent management structures should consider recruiting qualified and competent technical human capital	16	100.0%

Fifteen (15);93.7% agreed that, universities to establish sports management structures that are responsive to elite sports while one (1); 6.3% disagreed. On financing students' activities, fifteen (15); 93.7% agreed that, to support talent management structures, universities should rely on an established budget to finance training and competition opportunities for talented students. An interview with one of the directors indicated that even the little allocation given to sports is diverted to other uses outside sports by university management. On the human capital, sixteen (16); 100% of the KUSA officials agreed that, the university talent management structures should consider recruiting qualified and competent technical human capital.

4.6.5 Research question on integrating academics and students' sports talent development in elite sports

“What are the challenges in integrating academics with students' talent development in elite sports through university education in Kenya”?

The findings from the study revealed that, the main challenge in integrating academics with students' talent developments in elite sports is lack of balancing academics and elite sports. The study established that, there are no defined policy framework and statutory structures that exists to address the balancing of academic activities with student's talent development in elite sports in the universities in Kenya.

Further the findings from the study revealed that, the main financial challenges during integrating university education with students' talent developments are poor allocation of funds for sports development in the universities including sports scholarship opportunities for talented students. The policies on sports scholarships are not streamlined, sports management structures in the universities are not well defined and there is lack of adequate funding in elite sports programs.

The training challenges have been associated with lack of training facilities, lack of training opportunities due to academics, lack of technical competence in sports; inadequate funds are allocated to sports in the universities, acute shortage of funds for the development of facilities, equipment and financing elite sports training. The challenges associated with competitions are lack of competition opportunities due to academics, lack of technical competences in sports, irregular competitions and universities not investing

in sports as in academics. Talented students were found to be playing for external clubs rather than university teams while in the universities.

The elite sports management challenges experienced in the universities are due to inconsistent and different sports management structures in the universities. The current structures are wanting and do not support elite sport at all but mass sport. The current sports personnel in the universities are not sufficient. Professional sports managers and qualified coaches are lacking in the universities. The policies on sports scholarships are not streamlined, sports management structures in the universities are not well defined and there is lack of adequate funding in elite sports programs.

4.7 Elite sports management model that is effective in integrating academics and sports through university education in Kenya

Objective (d): To develop a suitable model that embraces education and management of elite sports as critical link in aligning academics and students' talent development in the university education in Kenya.

An open ended item in the questionnaire for talented students (table 4.59) sought to establish the best approach to integrate university education and students' sports talent in elite sports while upholding academic integrity. Out of 381 respondents, 147; (37.0%) of talented students indicated flexible time table that allows student participation in both sports and academics, 46; (12.1%) students indicated equal considerations between sports and academics, 38; (10.0%) students indicated the establishment of appropriate university elite sports competition systems, 35; (9.2%) indicated provision of sports scholarship after scouting for talents, 19; (5.0%) indicated competency based approach for both elite

sports and academics, 12; (3.1%) indicated talent scouting, admission and scholarships, 12; (3.1%) recommended integrating sports and academics, nine 9; (2.4%) indicated provision of remedial classes for students in elite sports to cover time spent during national training and international competitions while 69; (18.1%) respondents did not respond to the item

Table 4.59

Talented students' responses on the best approach to integrate university education and students' talents not compromising academic integrity

Responses	Number (N)	Percentage (%)
Flexible time table that allows student participation in both sports and academics	147	37.0%
Equal considerations between sports and academics	46	12.1%
Establishment of appropriate university elite sports competition systems.	38	10.0%
Provision of sports scholarship after scouting for talents	35	9.2%
Competency based approach for both elite sports and academics	19	5.0%
Talent scouting, admission and scholarships	12	3.1%
Integrating sports and academics	12	3.1%
Provision of remedial classes for students in elite sports to cover time spent during national training and international competitions	9	2.4%
Total	318	81.9%
No response	69	18.1%

In a closed item in the questionnaire for Games Tutors and KUSA officials, the study sought to establish an integrated academic and students' talent development model for university education in Kenya (table 4.60). Eight (8); 88.9% Games Tutors agreed that, an effective integrated model must take keen interest on students' academic progression and the career in elite sports. One (1); 11.1% remained undecided. In that for Kenya Universities Sports Association (KUSA) officials, sixteen (16); 100% agreed that, in

order to develop an effective integrated model, universities should provide opportunities for elite sports training and competitions.

Table 4.60

Games Tutors and KUSA officials' response on effective academic and talent integrated model

Responses	Games Tutors	KUSA officials
An effective integrated model must take keen interest on students' academic progression and the career in elite sports	8 (88.9%)	
In order to develop an effective integrated model, universities should provide opportunities for elite sports training and competitions		16 (100.0%)
Undecided	1(11.1%)	

In an openended item in the questionnaire for coaches, the respondents were asked to indicate a model they recommend for the universities in order to address academics, elite sports, opportunities for training and competitions. Four (4);26.7% recommended training and competitions at different levels to improve standards, three (3); 20.0% recommended talented students to be sponsored for competitions, two (2); 13.3% recommended universities to provide adequate facilities and equipment, two (2); 13.3% recommended a commission to be formed to control technical personnel in the universities, one (1); 6.7% recommended a clear cut demarcation between examinations and competitions, one (1); 6.7% recommended universities to seek sports funding from external sources while two (2); 13.3% did not respond to the item (table 4.61).

Table 4.61

Coaches responses on model to address academics, elite sports and opportunities for training and competitions

Responses	Number (N)	Percentage (%)
Training and competitions at different levels to improve standards	4	26.7%
Talented students to be sponsored for competitions	3	20.0%
Universities to provide adequate facilities and equipment	2	13.3%
A commission to be formed to control technical personnel in the universities	2	13.3%
A clear cut demarcation between examinations and competitions	1	6.7%
Universities to seek sports funding from external sources	1	6.7%
Total	13	86.7%
No response	2	13.7%

Table 4.62

Dean of students' responses on financing elite sports in the universities in Kenya

Responses	Number (N)	Percentage (%)
Universities to partner with national sports governing bodies and other external donors to finance and support elite sporting activities	5	100.0%
Universities to solicit for sponsorships or donations for elite sports programs together with acquiring ideal sports training facilities and equipment.	5	100.0%

In a closed item from the questionnaire for Deans of students (table 4.62), five (5); 100% of the respondents agreed that, universities should partner with national sports governing

bodies and other external donors to finance and support elite sporting activities. To achieve this, five (5); 100% of the Deans of students agreed, universities to solicit for sponsorships or donations for elite sports programs together with acquiring ideal sports training facilities and equipment

Table 4.63

Talented students' responses on the best approach of sponsoring elite sports in the universities while monitoring talented students' academic progress

Responses for talented students	Number (N)	Percentage (%)
Sports scholarships opportunities for talented students	136	35.7%
Monitoring of academic performances for talented students in their study programs	89	23.4%
Equal considerations between sports and academics	32	8.4%
Linking up with external donors for sports development in the universities	14	3.7%
Talent management and monitoring talented students in and off the pitch	13	3.4%
Provision of adequate facilities, equipment and allowances	13	3.4%
KUSA to take a functional role of sponsoring sports in the universities through external donors	5	1.3%
Provision of external competitions in elite sports.	4	1.0%
Insurance policies	2	0.5%
Talented students to pursue sports as a source of income	1	0.3%
Total	309	81.1%

Through an open ended item in the questionnaire for talented students (table 4.63), the respondents were asked to suggest the best approach of sponsoring elite sports in the universities while monitoring academic progress of talented students. 136; (35.7%) indicated sports scholarships opportunities for talented students, 89; (23.4%) indicated monitoring of academic performances for talented students in their study programs, 32; (8.4%) suggested equal considerations between sports and academics, 14; (3.7%) indicated linking up with external donors for sports development in the universities, 13; (3.4%) indicated talent management and monitoring talented students in and off the pitch,

13; (3.4%) indicated provision of adequate facilities, equipment and allowances, five (5); 1.3% indicated KUSA to take a functional role of sponsoring sports in the universities through external donors, four (4); 1.0% indicated provision of external competitions in elite sports, two (2); 0.5% recommended insurance policies, one (1); 0.3% indicated talented students to pursue sports as a source of income while 72; (18.9%) did not respond.

Table 4.64

Coaches' responses on effective way of harnessing contributions from external donors towards the development of elite sports in the universities

Coaches' Responses	Number (N)	Percentage (%)
Universities should partner with external donors to fund sports activities	5	33.3%
Networking with stakeholders to support sports in the universities	4	26.7%
Link with external donors to fund sports activities	3	20.0%
Total	12	80.0%

An open-ended item in the questionnaire for coaches sought to establish the effective way of harnessing contributions from external donors towards the development of elite sports in the universities (table 4.64). Five (5);33.3% coaches advised that universities should partner with external donors to fund sports activities, four (4); 26.7% respondents recommended networking with stakeholders to support sports in the universities, three (3); 20.0% recommended link with external donors to fund sports activities.

The results in table 4.64 implied that, 80% of the coaches recommend that, sports managers in the universities should solicit for resources from external donors to finance elite sports in the universities.

Table 4.65*Coaches responses regarding talented students' academic progression*

Coaches responses	Number (N)	Percentage (%)
The universities management to ensure that sports scholarships are awarded on merit	4	26.7%
Universities to put in place structures to monitor academic progress of the talented students	3	20.0%
A need to have a professional body to monitor coaches and trainers in the universities	2	13.3%
A flexible time table to allow training and competitions	1	6.7%
A clear policy on when talented students in the universities are allowed to join senior clubs after university competitions	1	6.7%
Total	11	73.4%
No response	4	26.7%

In an open ended item in the questionnaire for coaches regarding talented students academic progression (table 4.65), four (4);26.7% recommended that, the universities' management to ensure that sports scholarships are awarded on merit, three (3); 20.0% recommended that, universities to put in place structures to monitor academic progress of the talented students, two (2); 13.3% indicated a need to have a professional body to monitor coaches and trainers in the universities, one (1); 6.7% recommended a flexible time table to allow training and competitions and one (1); 6.7% recommended a clear policy on when talented students in the universities are allowed to join senior clubs after university competitions. Four (4); 26.7% did not respond on the item.

Table 4.66

Coaches' responses on other factors considered necessary in establishing an effective students' talent development model

Coaches' Responses	Number (N)	Percentage %
The establishment of talent identification structures in the universities	4	26.7%
Hiring of qualified coaches, trainers and sports managers	2	13.3%
Better sports facilities and equipment	2	13.3%
Universities to provide adequate funds for elite sports	1	6.7%
The monitoring of academics and students' training schedules	1	6.7%
Benchmarking with overseas universities	1	6.7%
Total	11	73.4%
No Response	4	26.7%

In the same questionnaire, the coaches were asked to indicate other factor considered necessary in establishing an effective students' talent development model (table 4.66) where, four (4); 26.7% recommended the establishment of talent identification (development) structures in the universities, two (2); 13.3% recommended hiring of qualified coaches, trainers and sports managers, two (2); 13.3% recommended better sports facilities and equipment, one (1); 6.7% recommended universities to provide adequate funds for elite sports, one (1); 6.7% recommended the monitoring of academics and students' training schedules, one (1); 6.7% recommended benchmarking with overseas universities while four (4); 26.7% did not respond to the item.

On other factors to consider when developing a model that embraces academics and students' talent development in elite sports, one (1); 11.1% Games Tutors indicated

flexibility between academics and sports participation, one (1); 11.1% indicated scholarships for talented students and while seven did not provide any other factor.

Table 4.67

KUSA officials' responses on other factors considered necessary in establishing an effective students' talent development model

KUSA Responses	Number(N)	Percentage (%)
Provision of good sports facilities	3	18.8%
The recruitment of focused, qualified, committed and devoted sports managers	2	12.5%
Universities to establish centers of sports excellence	2	12.5%
Well-managed tournaments to provide competition opportunities	1	6.3%
Recruitment of talented students and awarding sport scholarships	1	6.3%
Predictive academic and sports calendars	1	6.3%
Balancing of elite sports and academics	1	6.3%
Development of sports mentorship programs	1	6.3%
Total	14	87.8%

The Kenya Universities Sports Association (KUSA) officials provided other factors (table 4.67) where, three (3); 18.8% indicated provision of good sports facilities, two (2); 12.5% recommended the recruitment of focused, qualified, committed and devoted sports managers, two (2); 12.5% structured student recruitment policies, two (2); 12.5% recommended universities to establish centers of sports excellence, one (1); 6.3% recommended well managed tournaments to provide competition opportunities, one (1); 6.3% recommended the recruitment of talented students and awarding sport scholarships, one (1); 6.3% recommended predictive academic and sports calendars, one (1); 6.3% recommended balancing of elite sports and academics, one (1); 6.3% recommended the development of sports mentorship programs while two (2); 12.5% did not respond on the item asking for other factors.

In an open ended item on the questionnaire for Directors of sports and games who are key to the management of sports in the universities sought to establish the structural sports management model that would be recommended for elite sports in the universities (table 4.68).

Table 4.68

Director's response on structural sports management model that would be recommended for elite sports in the universities

Directors' Responses	Number (N)	Percentage (%)
Games and sports Departments to be under the management of Directors of sports	4	66.8%
Universities should set up structures to allow growth of students' talents with examples of setting sport academies as centers of excellence.	2	33.2%
Total	6	100.0%

Four (4); 66.8% advised that Games and sports Departments to be under the management of Directors of sports, the same agreed that qualified coaches and trainers need to handle technical aspects of sports. Two (2); 33.2% indicated that universities should set up structures to allow growth of students talents with examples of establishing sport academies as centers of excellence.

To establish the best approach to integrate university education and developing students' talents in elite sports while upholding academic integrity, the students indicated flexible time table that allows student participation in both sports and academics, equal considerations between sports and academics, integrating sports and academics, competency based approach for both elite sports and academics, provision of remedial classes for students in elite sports to cover time spent during national training and

international competitions and establishment of appropriate university elite sports competition systems.

Describing an effective academic and talent integrated model, the Games Tutors indicated that, the model must take keen interest on students' academic progression and the career in elite sports while KUSA officials pointed out, in order to develop an effective integrated model, universities should provide opportunities for elite sports training and competitions. To recommend a model that would address academics, elite sports, opportunities for training and competitions, the coaches indicated a clear cut demarcation between examinations and competitions, universities to seek sports funding from external sources, universities to provide adequate facilities and equipment, training and graduated competitions at different levels (under 19, 21 and above years) to improve standards and talented students to be sponsored for competitions

On financing elite sports in the universities, the Dean of students have recommended that, universities to partner with national sports governing bodies and other external donors to finance and support elite sporting activities, universities to solicit for sponsorships or donations for elite sports programs together with acquiring ideal sports training facilities and equipment. On the best approach in sponsoring elite sports in the universities while monitoring academic progress, the talented students indicated that, equal considerations between sports and academics, monitoring of academic performances for talented students in their study programs, talent management and monitoring talented students in and off the pitch, sports scholarships opportunities for talented students, linking up with external donors for sports development in the universities, KUSA to take a functional role of sponsoring sports in the universities through external donors, provision of adequate

facilities, equipment and allowances, provision of external competitions in elite sports, insurance policies and talented students to pursue sports as a source of income.

On the effective way of harnessing contributions from external donors towards the development of elite sports in the universities, the coaches have advised that universities should partner with external donors to fund sports activities, they recommended networking with stakeholders to support sports in the universities, and they further recommended a link with external donors to fund sports activities. Regarding talented students' academic progression, the coaches indicated that, universities should put in place structures to monitor academic progress of the talented students, universities should embrace a flexible time table to allow training and competitions, the universities' management to ensure that sports scholarships are awarded on merit, a clear policy on when talented students in the universities are allowed to join senior clubs after university competitions. The universities should establish a professional body (commission) to monitor coaches and trainers in the universities.

Other factors considered necessary in establishing an effective students' talent development model, the KUSA officials indicated structured student recruitment policies, balancing of elite sports and academics, predictive academic and sports calendars, development of sports mentorship programs, universities to establish centers of sports excellence, recruitment of talented students and awarding sport scholarships, provision of good sports facilities, well managed tournaments to provide competition opportunities, the recruitment of focused, qualified, committed and devoted sports managers. On structural sports management model recommended for elite sports in the universities, the Directors of Games and Sports recommended that, universities should set up structures to

allow growth of students talents with examples of setting sports academies as centers of excellence, qualified coaches and trainers need to handle technical aspects of sports, Games and sports Departments to run as institute for sports and be under the management of Directors of sports institutes.

4.7.1 Research question on model to align academics and students' talent development in elite sports in the universities in Kenya

Which Model is suitable in embracing academics with management of elite sports as a critical link in aligning academics and students' talent development in the universities in Kenya?

When determining the model, the researcher took cognizance that Kenya is phasing out the 8-4-4 education system to embrace the 2-6-3-3-3 competency based curriculum. To generate an effective link between education and students' talent development in elite sports, the study considered the connection between five critical factors based on the quantitative data. These critical factors are academic dimension, financial dimension, sports training dimension, sports competition dimensions and sports management dimension. From the study findings, the academic dimension of the model must embrace a flexible schedule to render equal participation between elite sports and academics. The academic model should also provide remedial classes for students in elite sports to cover time spent during national training and international competitions. Universities should put in place structures to use talent and in particular talent in elite sports as part of admission criteria and monitoring academic progress of the talented students. Universities also should consider a predictive academic and sports calendars to balance elite sports and academics with a flexible time table to allow training and competitions

alongside a clear cut demarcation between lectures, examinations, training and competitions for talented students.

On the financial dimension, universities in Kenya should set aside an elite sports budget without diverting such resources to other university activities and also seek further sports funding to finance elite sporting activities including training facilities, training equipment, sports competitions and research. KUSA as a sport's governing body in the universities should take a functional role of sponsoring sports in the universities. There is need for the universities to partner with other national sports governing bodies and external donors to finance and support elite sporting activities.

The training dimension of the model should consider the need to recruit qualified coaches, trainers and sports managers who are competent in handling technical issues in elite sports. The sports management and training personnel should consider embracing the training practices for various levels to improve the standards of sports performances in the universities. There is need for a clear policy framework to accommodate integration of academic and training activities in elite sports. Sports managers should monitor academics and students' training schedules for talented students as they provide opportunities for training in elite sports. The universities should also provide adequate training facilities and equipment and KUSA should embrace the formation of a commission to control technical and qualifications of sports management personnel in the universities.

The competition dimension of the model should embrace flexible academic time tables to embrace talented students' competition opportunities. The sport's governing body in the

universities should provide a predictive sports calendar responsive to academic needs in order to accommodate lectures, examinations and elite sports competitions for talented students. There should be a clear demarcation between examinations and competitions in elite sports. There is need for a clear policy framework on when talented students in the universities are allowed to join senior clubs after university competitions. The talent development structures should embrace competitions at different levels to improve standards and talented students to be sponsored for external and international sports competitions. There is need for well managed universities sports tournaments and national under 21 year's games championships to provide appropriate university elite sports competition systems including Olympic Trials.

The sports management dimension of the model requires flexible and structured student recruitment policies considering talents to be part of university admission criteria. The staff recruitment policy should consider recruiting focused, qualified, committed and devoted sports managers under competent sports management and supervision. The sports management strategy should network with stakeholders to support sports in the universities in establishing institutes for sports as centers of excellence. The universities link with both primary and secondary schools sports talents identification programs should be encouraged. There is need to embrace a professional body to monitor coaches and trainers in the management of elite sports in the universities.

4.8 Merged Results and Discussions

The study was designed to investigate the “Nexus between university education and students’ sports talent development in the universities in Kenya”. The study used mixed

research methods designed to address four objectives where two objectives were analyzed quantitatively and the other two objectives were analyzed qualitatively. The research hypotheses were designed to address the first two objectives by considering and analyzing data that addressed the following two issues;

- c) Whether there was a significant relationship between university education academic policies and students' talent development in elite sports in the universities in Kenya?
- d) Whether there was a significant relationship between sports management support systems and promotion of students' talent development through university education in Kenya?

The four hypotheses were designed where the first hypothesis addressed the first objective and the other three hypotheses addressed the second objective. The two other objectives were analyzed qualitatively to answer the two research questions. The following research questions were designed to address qualitative data that together further assisted to generate a model considered effective in embracing academics with management of elite sports as a critical link in aligning university education and students' talent development in the universities in Kenya.

- e) What are the challenges in integrating academics with students' talent development in elite sports through university education in Kenya?
- f) What model is suitable in embracing academics with management of elite sports as a critical link in aligning academics and students' talent development in the universities in Kenya?

The two sets of data were then merged to address the research phenomena; that is, the quantitative and qualitative data analysis.

4.8.1 Quantitative Analysis

To address the first objective, the inferential analysis was set to establish the relationship between universities' education academic policies (independent variable) and students' sports talent development (dependent variable). The statistical results included Pearson's chi-square statistics and Fisher's exact test. The research hypothesis that was tested is;

H₀₁: There is no significant relationship between university education academic policies and students' talent development in elite sports in the universities in Kenya

The results were generated from SPSS regarding the strength and significance of the relationship between education academic policies and student sports talent development. Significance of the relationship was given by Pearson's chi-square and Fisher's exact test (table 4.13). The strength and direction of the relationship was given by Cramer's V and Point- biserial correlation (Pearson's R, table 4.14). From the results in table 4.13, the null hypothesis was rejected, $\chi^2 (16) = 97.397, p \leq 0.05$. This revealed that, there is a strong evidence of a relationship between university education academic policies and students' sports talent development. Since 16 cells (64.0%) had expected count less than 5 as explained in table 4.13, Monte Carlo method of exact testing gave a more accurate inference. The results from Monte Carlo exact testing showed that both Chi-square and Fisher's test had p values less than 0.05 (Exact p = 0.000). In table 4.14, Cramer's V was 0.253 (approximately 0.3) which indicated moderate strength of relationship between university education academic policies and students' sports talent development.

.However, using the Point-biserial correlation (Pearson's R) in table 4.14it was found to be -0.004; the study determined that the direction of the relationship was negative.

To address the second objective on the analysis of the relationship between sports management support systems and promotion of students' sports talent development in elite sports in the universities in Kenya. Both quantitative and qualitative data were drawn from the financial support, training support and competition support systems respectively in relation to student talent development. The inferential analysis of the quantitative data tested the relationship between universities' financial support, training support and competition support systems (independent variables) and students' sports talent development (dependent variable). The hypothesis that was tested on financial support was; **H₀₂**: There is no significant relationship between the financial support system and promotion of students' talent development in elite sports in the universities in Kenya. The inferential results included Pearson's chi-square statistics and Fisher's exact test. The null hypotheses was tested at $p < 0.05$. From the results in Table 4.19, the null hypothesis was rejected, $\chi^2 (20) = 83.137, p \leq 0.05$. This revealed that there is a strong evidence of a relationship between financial support and student talent development. Since 16 cells (53.3%) had expected count less than 5 as explained in the notes below table 4.19, Monte Carlo method of exact testing gave a more accurate inference. The results from Monte Carlo exact testing indicated that both Chi-square and Fisher's test had p values less than 0.05 (Exact p = 0.000). The applicable coefficient of strength was Cramer's V because the cross-tabulation of financial support and student talent development was larger than 2 by 2 tables. Cramer's V coefficient was 0.234, which indicates moderate strength of relationship between financial support and student talent

development. The Point-biserial correlation (Pearson's R) in Table 4.20 was found as +0.072 indicating a positive relationship between financial support and student talent development. In conclusion, there is a positive moderate relationship between financial support and student talent development, which the study found to be significant using Pearson Chi-Square from Monte Carlo exact computation. Hence the null hypothesis was rejected.

The hypothesis between training support and students' sports talent development was tested i.e., **H₀₃**: There is no significant relationship between sports training support system and the promotion of students' talent development in elite sports in the universities in Kenya. From the results in Table 4.28, the null hypothesis was rejected, $\chi^2(12) = 45.557$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between sports training and student talent development. Since eight cells (40.0%) had expected count less than 5 as explained in the notes below table 4.28, Monte Carlo method of exact testing gave a more accurate inference. The results from Monte Carlo exact testing showed that both Chi-square and Fisher's test had p values less than 0.05 (Exact p = 0.000).

The applicable coefficient of strength was Cramer's V because the cross-tabulation of sports training and student talent development was larger than 2 by 2 tables. Cramer's V coefficient was 0.200, which indicated a small effect size in the relationship between sports training and student talent development. The Point-biserial correlation (Pearson's R) in Table 4.29 was found as -0.05 indicating negative relationship between sports training and students' sports talent development. In conclusion, there is a small negative relationship between the current sports training support and student sports talent

development, which the study found to be significant using Pearson Chi-Square from Monte Carlo exact computation. Hence the relationship that is reported is inversely related and the null hypothesis was rejected.

The hypothesis between competition support and students' sports talent development was tested i.e., **H₀₄**: There is no significant relationship between the sports competition programs and promotion of Students' talent development in elite sports in the universities in Kenya. From the results in table 4.35, the null hypothesis was rejected, $\chi^2(20) = 73.295$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between competition opportunities and student talent development. Since seventeen cells (56.7%) had expected count less than 5 as explained in the notes below table 4.35, Monte Carlo method of exact testing gave a more accurate inference. The results from Monte Carlo exact testing shows that both Chi-square and Fisher's test had p values less than 0.05 (Exact $p = 0.001$).

The applicable coefficient of strength was Cramer's V because the cross-tabulation of competition opportunities and student talent development was larger than 2 by 2 tables. Cramer's V coefficient was 0.219, which indicates small effect size in the relationship between competition opportunities and student talent development. The Point-biserial correlation (Pearson's R) in table 4.36 was found as +0.148 indicating positive relationship between competition opportunities and student sports talent development. In conclusion, there is a small positive relationship between the current competition opportunities and student talent development, albeit significant as determined by Pearson Chi-Square using Monte Carlo exact computation.

Based on results from the quantitative data analysis, there is an inverse relationship between university education academic policies; Training support systems while a direct moderate relationship has been found to exist between financial support systems; competition opportunities and students sports talent development. The inverse relationship observed implied that, the current university education academic policies consider academics as a priority with less regard for elite sports. The inverse relationship observed between training support system and students' sports talent development implied that the current academic schedule is not flexible to allow adequate training sessions to improve on talent development. The moderate direct relationship between financial; competition support system and students' sports talent development implied that the threshold between the relationship between the variables should be increased to meet the needs of elite sports and not mass sports. Therefore there exist challenges in combining academic and activities in students' sports talent development.

4.8.2 Qualitative Analysis

The first objective investigated the relationship between university education academic policies and students' talent development in the universities in Kenya. The study established that, students were admitted into the university education purely on academic criteria but, while it was not a general national university policy, few universities admitted students considering talents. Such universities used these admissions for marketing and visibility but students needed to meet minimum university admission requirements. Admission into university education in Kenya is predominantly on academic qualification while talent was a favorable attribute in few institutions but this was not based on talent as a policy consideration. The study therefore revealed that, in the

current university recruitment structures, the relationship between academic policies in university education and students' sports talent development did not really exist. However the universities had general policy on scholarship scheme that embraced the development of academics though some universities and talented students took advantage of this occurrence but based on academics. In this case, the emphasis was academics and not students' sports talent development in the current university admission policies.

The second objective was on the relationship between sports management support systems and the promotion of students' sports talent development in the university in Kenya. The study identified financial support, training support and competition support as the sports support systems. The study sought to establish the role played by the universities through these systems in assisting the students to develop their talents in elite sports through university education in Kenya. The study revealed that universities play the role of providing competition opportunities, training facilities, resources and coaching. On how the students would wish to see the development of sports talents improved, the results indicated more sports funding opportunities from universities, provision of competition opportunities, universities to provide competent training personnel, provision of equipment and facilities. An area of concern was that, a very significant proportion of talented students in the universities train without any staff supervision implying weak sports leadership and management roles that need to be given attention so as to ensure proper supervision during sports training. While the findings indicate that the universities provide competition opportunities, training facilities, resources and coaching, the study revealed that funding opportunities, competition opportunities and provision of equipment and facilities is a role the universities needed to

give further attention. These needed to be addressed through capacity building to improve the management competencies including KUSA officials and technical personnel to drive funding, training and competition opportunities for talented students in the universities in Kenya.

The analysis of the four hypotheses revealed very interesting findings that were not obvious from the qualitative data. The relationship between university education academic policies and students' sports talent development was found to be moderately significant but negatively related. The results revealed that there was an inverse relationship between the university education academic policies and students' sports talent development. This was supported by the findings from the qualitative data that, the university education academic policies overemphasizes academics and not students' sports talent development. The relationship between financial support system and students' sports talent development was found to be moderately low but positive. This is supported by the findings from the qualitative data that, inadequate funds are allocated to elite sports and even with such allocations; some are diverted to other university activities and not sports. The relationship between training support system and students' talent development was found to be inversely related. This was supported by the finding from the qualitative data that, there is overemphasis on academics than sports implying lack of balancing between academics and students' sports talent development in elite sports. The relationship between competition support system and students' sports talent development was found to be directly and moderately related. This supported the finding from the qualitative data that, there is overemphasis of mass sports and not elite sports in the universities in Kenya.

Based on results from the quantitative data analysis, there is an inverse relationship between university education academic policies; Training support systems while a direct moderate relationship has been found to exist between financial support systems; competition opportunities and students sports talent development. The inverse relationship observed implied that, the current university education academic policies consider academics as a priority with less regard for students' sport talent development in elite sports. The inverse relationship observed between training support system and students' sports talent development implied that the current academic schedule is not flexible to allow adequate training sessions to improve on students' sports talent development. The moderate direct relationship between financial; competition support system and students' sports talent development implied that the threshold for the relationship between the variables should be increased to meet the needs of elite sports in the universities in Kenya. Therefore there exist challenges in combining academic and students' sports talent development activities in elite sports. To competently address the development of students' sports talent through university education, the education academic policies and particularly the students' admission criterion and academic delivery schedule should be revised to accommodate training and competitions. The policy on financing elite sports through university education, including international competitions need to be revised to consider talent development in elite sports.

The third objective investigated the challenges in integrating university education and student talents' development in elite sports in the universities in Kenya. The results from the study revealed that, the main challenge of integrating academics with students' talent developments in elite sports was lack of balancing between academics and students'

talent development in elite sports. The study established that, there are no defined policy framework and statutory structures that exists to address the balancing of academic activities with student's talent development in elite sports in the universities in Kenya. The Inferential analysis on the Quantitative data established that, an inverse relationship exist between university education academic policies and students' sports talent development in elite sports. This was due to the over emphasis on academics at the expenses of the students' talent development in elite sports. To address such challenges, the sports management structures in the universities should champion the universities' need to adopt flexible academic schedules so as to accommodate the intention to promote students' sports talent development alongside academic needs of the talented students.

On the financial challenges the findings from the study revealed that, the main financial challenge in integrating university education with students' talent developments is poor allocation of funds for sports development in the universities. This included sports scholarship opportunities for talented students. To address this financial challenge, the study recommended the provision of sports scholarships to talented students for the period they are in the universities and adequate budgetary allocations for facilities, equipment and financing sports training. The Inferential analysis on the Quantitative data established that, a moderate relationship exist between financial support and students sports talent development in elite sports. The strength of this relationship can be improved by providing sports scholarships and adequate budgetary allocations for facilities, equipment and financing sports training.

The training challenges have been associated with lack of training facilities, lack of training opportunities due to academics, lack of technical competence in sports,

inadequate funds are allocated to sports in the universities, acute shortage of funds for the development of facilities, equipment and financing elite sports training. To address these training challenges the study recommended better training facilities and equipment, provision of qualified trained personnel in elite sports, flexible time tables to accommodate training, supervision of technical personnel during training and provision of equipment, universities should consider implementing flexible academic programs to accommodate students' training. The Inferential analysis on the Quantitative data established that, an inverse relationship exist between training support and students talent development in elite sports. This corroborates the findings from qualitative data that a conflict exists between sports training and academic schedule which consequently affects students' sports talent development.

The results associated with competition challenges are lack of competition opportunities due to academics, lack of technical competences in sports, irregular competitions and universities not investing in sports as in academics. Talented students were found to be playing for external clubs rather than university teams while in the universities. The strategies identified that would address competition challenges are provision of elite competition opportunities, supervision of technical sports personnel during competitions, flexible schedules to accommodate academics and competitions, universities to embrace provision of sports scholarships for the period students are in the university programs, universities to enroll players in the national sports leagues and expose them to international competitions, universities should adopt a flexible academic schedule for talented students to accommodate their participation in international competitions, incentives for players during competitions. The Inferential analysis on the Quantitative

data established that, a moderate positive relationship exist between competition opportunities and students talent development in elite sports. The strategies identified through qualitative data analysis when addressed will increase the strength of the relationship.

The elite sports management challenges experienced in the universities are due to inconsistent and different sports management structures in the universities. The current structures are wanting and do not support elite sport at all but mass sport. The current sports personnel in the universities are not sufficient. Professional sports managers and qualified coaches are lacking in the universities. The policies on sports scholarships are not streamlined, sports management structures in the universities are not well defined and there is lack of adequate funding in elite sports programs. To address the management challenges, universities should establish sports management structures that are responsive to the educational needs of their talented students. Within talent management structures, universities should consider recruiting qualified technical personnel to mentor talented students and there is need for coaches to align themselves with universal international coaching standards in sports disciplines. The coaches should attend clinics or trainings to match international trends with a minimum of international level two(2) qualifications. Universities should employ qualified coaches and further train sports management personnel. Games Tutors should learn modern training and coaching techniques while Directors should attend seminars and workshops on modern ways to manage sports in the universities and also train on general management trends.

The fourth objective was designed to come up with a suitable model that embraces education and management of elite sports as a critical link in aligning academics and

students' talent development in the university education in Kenya. The established model should integrate university education and students' talent development in elite sports while upholding academic integrity and in line with the embraced Competent Based Curriculum (CBC) that was embraced to replace the 8.4.4 system of education in Kenya. The modeling factors derived from the study and considered were, chronological ages of participants and their levels of education, flexible time table that allows student participation in both sports and academics, equal considerations between sports and academics, integrating sports and academics, competency based approach for both elite sports and academics, provision of remedial classes for students in elite sports to cover time spent during national training and international competitions and establishment of appropriate university elite sports competition systems.

The study recommended that, there is need for clear demarcation between lectures, examinations, training and competitions. The universities should seek sports funding from external sources, provide adequate facilities and equipment, and encourage training and competitions at different levels to improve standards and talented students to be sponsored for competitions. Universities should partner with national sports governing bodies and other external donors to finance and support elite sporting activities and universities to solicit for sponsorships or donations for elite sports programs together with acquiring ideal sports training facilities and equipment. Regarding talented students' academic progression, the universities to put in place structures to monitor academic progress of the talented students, a flexible time table to allow training and competitions, the universities' management to ensure that sports scholarships are awarded on merit, a clear policy on when talented students in the universities are allowed to join senior clubs

after university competitions, to have a professional body to monitor coaches and trainers in the universities. Table 4.69 presents the adapted model that is sensitive to competency based curriculum (CBC) in the 2-6-3-3-3 education system in Kenya and table 4.70 (Appendix IX) summarizes the sports modeling indicators that were used to come up with the model.

Table 4.69

Elite Sports Model Embracing University Education and Student’s Talent Development:

a) Education Academic Practices

Age	CBC Category	LTTD stages	Talented students in Elite Sports
18+ years	Universities	<p>-Train to Win (Mastery stage) (Beaudoin, Callary and Trudeau, 2015)</p> <p>-Train for Active Life(Beaudoin, Callary and Trudeau, 2015)</p>	<p>Recruitment Policy -Talent as part of student admission criteria - Flexible university admission based on talent scouting and recruitment -Structured recruitment policies for talented students into university programs to retain academic integrity i) Degree Programs Admission (GPA-2.50) ii) Diploma Program Admission (GPA-2.00) iii) Certificate Program Admission (GPA-1.50) Lectures -Flexible Time Table to accommodate Sports Training Sessions -Provision of remedial classes for students in elite sports to cover time for training and competitions -Students’ academic progression and career in elite sports -Flexible mode of learning e.g Open &Distance Learning Mode (ODLM), Virtual Learning with face to face tutorials and examinations. University Examinations -Flexible Examination Schedule to accommodate Training and National/International Competitions Predictive Sports and Academic calendars -To facilitate flexibility between sports and academics Recreation -Activities for health living to be provided in the institution</p>

b) *Financial Support*

Age	CBC Category	LTTD stages	Talented students in Elite Sports
18+ years	Universities	<p>Train to Win</p> <p>(Beaudoin, Callary and Trudeau, 2015)</p> <p>Train for Active Life</p>	<p>Sports Scholarship</p> <ul style="list-style-type: none"> -Scholarship opportunities for talented students -Monitoring of academic performances for talented students in their study programs to retain scholarship opportunities -Recruitment of talented students and awarding scholarships - universities to issue bursaries and financial assistance to needy and talented students -Flexible fee payment arrangements for talented students <p>Funding from external sources</p> <ul style="list-style-type: none"> -To partner with the National Sporting bodies and other external donors to finance elite sports in the universities -Universities to solicit for sponsorships or donations to finance elite sports programs -Linking up with the ministry of Youth, Sports and Culture to finance elite sports development programs in the universities -Universities to provide adequate funds for elite sports <p>Recreation</p> <ul style="list-style-type: none"> -Activities for health living to be provided in the institution

c) *Training*

Age	CBC Category	LTTD stages	Talented students in Elite Sports
18+ years	Universities	<p>Train to Win</p> <p>Train for Active Life</p>	<p>Training</p> <ul style="list-style-type: none"> -Universities to provide opportunities for elite sports training <p>Facilities</p> <ul style="list-style-type: none"> -Universities to provide better and adequate training facilities <p>Equipment</p> <ul style="list-style-type: none"> -Universities to provide better and adequate training equipment <p>Recreation</p> <ul style="list-style-type: none"> Recreation activities for health living are provided by the institution

d) Competition Opportunities

Age	CBC Category	LTTD stages	Talented students in Elite Sports
18+ years	Universities	Train to Win (Beaudoin, Callary and Trudeau, 2015)	<p>National and regional sports Competition opportunities</p> <ul style="list-style-type: none"> -Universities to provide talented students with competition opportunities in elite sports -Universities to establish appropriate university elite sports competition systems -Talented students to be sponsored for competitions in elite sports <p>International Competitions</p> <ul style="list-style-type: none"> -Universities to provide opportunities for external competitions in elite sports -Flexible academic timetable to embrace competitions <p>Tournaments and Leagues</p> <ul style="list-style-type: none"> -KUSA to provide well managed tournaments and leagues to provide competition opportunities -KUSA to facilitate the organization of < 20 years competitions -KUSA to facilitate >23 years Sports Competitions

e) Talent Management in Elite Sports

Age	CBC Category	LTTD stages	Talented students in Elite Sports
18+ years	Universities	Train to Win (Beaudoin, Callary and Trudeau, 2015)	<p>Management Factors</p> <ul style="list-style-type: none"> -Monitoring talented students in and out of Pitch -Networking with stakeholders to support elite sports in the universities -University management to ensure sports scholarships are awarded on merit <p>Personnel</p> <ul style="list-style-type: none"> -Recruitment of focused, qualified, committed and devoted sports managers -Qualified trainers and coaches to handle technical aspects of elite sports <p>Structures and Centers of Excellence</p> <ul style="list-style-type: none"> -Universities to establish and coordinate centers of excellence -Universities to set up sports academies to provide talent development from the grass root

Age	CBC Category	LTTD stages	Factors of Influence	Talented students in Elite Sports
15-18 years	Senior Secondary G9-G12	-Train to Compete -Train for Active Life (Recreation) (Beaudoin, Callary and Trudeau, 2015)	a) Education policies b) Financial support c) Training competencies, Facilities and Equipment d) Competition opportunities e) Sports Management Factors	-Investment Years (Elferic-Gemser 2013) -Talent Development (Beaudoin, Callary and Trudeau, 2015) -Competition opportunity (Under 19 years National Sports Championships) -County Sports Academy to talents at county level.
12-15 years	Junior Secondary G7-G9	-Train to Train -Train for Active Life (Beaudoin, Callary and Trudeau, 2015)	a) Education policies b) Financial support c) Training, Facilities and Equipment d) Competition opportunities e) Sports Management Factors	-Co- Curricular activities, sports specialization -Training, facilities and equipment -Competition opportunities (Under 16 years Sports Championships) -County Sports Academies during school holidays
CBC Primary Schools				
9-12 years	Upper Primary G4-G6	Learn to train (Beaudoin, Callary and Trudeau, 2015)	Physical Education (P.E)	-Sampling Years -Talent detection and Talent identification Elferic-Gemser (2013) -Under 13 Years Sports Championships
6-9 years	Lower Primary G1-G3	-Fundamentals -Participation for Fun (Beaudoin, et.al, 2015)	Physical Education (P.E)	-Talent Detection and Talent Identification -Under 10 Years Sports Championships
CBC Pre-Primary Schools				
4-6 years	Pre-Primary PP1-PP2	-Active start (Beaudoin et.al, 2015) -Non Contact Play / Creativity	Physical Activities	Physical literacy with movement orientations for non contact plays activities.
2-4 years	Baby Care Center	Formal Social Activities	Formal Socialization	Active Start
0-2 years	Home Care	Informal Social Activities	Informal Socialization	Child Identity and Discovery of Physical Environment

Table 4.70

Adapted Kenya Competency Based Curriculum Students' Sports Talent Development Model

CBC Level	AGE	DURATION	ACTIVITY
University level	18+ Years	3+ Years	Tertiary Education and Training: 3+ years: Physical Education and sports talent development; Skills Mastery Stage “ Training and Competing to win ”. Flexible academic schedule to accommodate training and external participation in national and International sports competitions. Structured and organized Under 20 and 23 years national universities sports championships. Goal oriented sports championships; FISU Games and Olympic trials. Sports research and development.
Upper Secondary level	15-18 Years	3 years	Arts and Sports Sciences; Talent Development: Training to compete; Students’ Under 19 years National Sports Championships to identify entry talent levels in the universities. Sports Scholarships for talented students. Nurtured in centers of excellence or sports academies. Competency based sports & academic programs.
Lower Secondary level	12-15 Years	3 years	Sports specialization; Train to train; Under 16 year’s national sports championships; Nurtured in centers of sports excellence or sports academies.
Upper Primary level	9-12 Years	3 Years	Physical Education and Sports as an instrument of Talent Identification. Under 13 years National Sports Championships. Learning to train.
Lower Primary level	6-9 Years	3 years	Creative activities. Active start. Physical Education and Sports. Early sports talent identification.
Pre-Primary level	4-6 Years	2 years	Formal sports socialization. None contact play and mainly creative activities.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings, the conclusions that were drawn and recommendations made based on the study. The study was designed to investigate the nexus between university education and students' elite sports talent development in selected universities in Kenya. The country is adapting 2-6-3-3-3 Competency Based Curriculum (CBC) to replace the 8-4-4 system of education. The new curriculum has embraced a sports talent pillar in the university education to be taught and examined as arts and sports sciences from senior secondary schools. The current admissions to the university education are directly made based on academics qualifications and not talent. While the implementation of competency based curriculum (CBC) was at the basic education levels (Grade 5) at the time of completion of the study, the study purposed to provide the challenges that were likely to be encountered during the implementation of the sports talent pillar in the university education system in Kenya(figure 2.1).

The literature focused on studies done in America, Europe, Australia, Asia and Africa that investigated the nexus between university education and students' talent development in elite sports in the university education. The relationship between university education and students' sports talent development was found to be phenomenon generating research interest amongst scholars. Integrating university education and students' talent development in elite sports is a policy issue which required prudent elite sport management structures that aimed to and are able to balance students' sports talent development and academics. The study adopted systems theory on input;

process and output theoretical framework approach which in-cooperated academic, sports management and their management support systems through university education.

The study used both qualitative and quantitative in a mixed methods research design. The location of the study was constituted of the four out of the eight regions formerly considered as eight provinces of Kenya. These regions were; Meru county (Eastern province), Kiambu County (Central Province), Nairobi County (Nairobi Province) and Uasin Gisu County (Rift Valley Province). Nine (9) out of twenty four (24) universities were sampled and participated in the study. 381 students, five (5) Deans of students, six (6) Directors of Games and Sports, nine (9) Games Tutors, fifteen (15) Sports Coaches and sixteen (16) Kenya Universities Sports Association (KUSA) officials participated as respondents in the study. Descriptive and inferential statistics were used to analyze quantitative data while thematic analyses were used to analyze qualitative data. Cross tabulation was the main method of analysis that came up with Pearson's Chi square, Cramer's V coefficient and Pearson's correlation coefficient as statistical units for analysis.

Both policy and ethical issues related to research procedures were adhered. A letter from Kenya Methodist University (KeMU) was obtained to facilitate the acquisition of research permit from the National Commission for Science Technology and Innovation (NACOSTI). After the research permit the researcher sought authority from the County Commissioners and subsequently the County Directors of Education in the counties where the sampled universities were located. It was after the authorization from the county commissioners and county directors of education that, the researcher proceeded to the office of the vice chancellors in the sampled universities. The researcher obtained

permission from the vice chancellors of the respective universities before collecting the data. The Directors and Coordinators of Sports and Games in the sampled universities coordinated the administrations of research instruments including the questionnaires, availing relevant records for content analysis and respondents for interviews.

The study found that, universities in Kenya do not have well structured and defined policies on talented students' recruitment, flexible admission criteria for talented students and talent as part of admission criteria. The findings also revealed that, there exist weak structures and lack of management policies in place on how talented students are expected to transit from university clubs to external club engagements while in or after the university studies. There are no defined connections between university sports management policies and academic control systems of talented students in the universities in Kenya. On sports management support systems, the universities in Kenya have no established and defined structural policy framework on designated sports scholarship schemes to attract and retain talented students in elite sports in the universities.

5.1 Summary of Findings

The summary of the findings was based on the four study objectives investigated and such findings were presented in sections 5.4.1, 5.4.2, 5.4.3 and 5.4.4 respectively.

5.1.1 Findings from the first objective on the relationship between university education academic practices and students' talent development in the Universities in Kenya

The study found that, admission into university education in Kenya was on academic qualifications while talent was a favorable attribute in few universities but this was not based on talent as a policy consideration. The study advised that policy on admission criteria be revised to accommodate talent in the university education in Kenya. The study also observed that, universities do not have a streamlined policy on provision of sports scholarships as a recruitment strategy for talented students. The results from the study further indicated that, primary and secondary school levels including ages of participation are critical and crucial in talent identification and nurturing. The universities role is associated with the mastery and development of skills for the talented students and not identification. The study therefore revealed that, in the current university recruitment structures, the relationship between academic policies in the university education and students' sports talent development did not really exist. However the universities had a general policy on scholarship scheme that embraced the development of academics which some universities and talented students took advantage of but based on academics. In this case, the emphasis was on academics and not students' sports talent in the current university admission policies.

The first objective sought to establish whether, a significant relationship exist between university education academic policies and students' sports talent development in the universities in Kenya. Inferential statistical data analyses were incorporated together with qualitative data to enable the researcher make informed decisions from both the collected

qualitative and quantitative data. The inferential statistical analysis on the quantitative data investigated the relationship between universities' education academic policies (independent variable) and students' sports talent development (dependent variable). The following null hypothesis was tested at $p < 0.05$;

H₀₁: There is no significant relationship between university education academic practices and students' talent development in elite sports in the universities in Kenya

From the results, the null hypothesis was rejected, $\chi^2 (16) = 97.397$, $p \leq 0.05$. This revealed that, there was a strong evidence of a relationship between university education academic practices and students' sports talent development.

Cramer's V, was 0.253 which implied weak but near moderate strength of relationship between university educations academic polices and students' sports talent development. However using the Point-biserial correlation (Pearson's R) the direction was found as -0.004. The study determined that the direction of the relationship was indicated as inverse. Therefore, there was an inverse moderate relationship between university education academic practices and students' sports talent development. The inverse relationship confirmed that, the education academic policies in the universities over emphasize on academics rather than students' sports talent development and hence there is need to balance both academics and student's talent development through university education in Kenya. For competency based curriculum (CBC) to make a significant impact on the talent related pillar, the inverse relationship that has been established by the findings in this study must be addressed with an intention of changing the direction of association between the variables to achieve a relationship that is directly proportional

between the independent variable (University Education Academic Policies) and the dependent variable (Students' Sports Talent Development). The sports management support systems should also be improved to increase the strength of association between the two variables and also increase the direction of the relationship.

5.1.2 Findings from the second objective on the relationship between sports management support systems and the promotion of students' sports talent development in the universities in Kenya

The study sought to establish the role played by the universities in assisting the students to develop their talents in elite sports through university education in Kenya. The findings revealed that universities play the role of providing competition opportunities, training facilities, resources and coaching. On how the students would wish to see the development of sports talents improved, the results indicated more sports funding opportunities from universities, provision of competition opportunities, universities to provide competent training personnel, provision of equipment and facilities. When the talented students were asked to indicate their sports training hours per week during the week days it was established that 86.3% trained less than training threshold hours due to conflicts between academics and elite sports training schedules. An area of concern is that, a very significant proportion (45.7%) in the universities trained without any staff supervision implying weak sports leadership and management roles that needed to be given attention so as to ensure adequate supervision during sports training. While the findings indicated that the universities provided competition opportunities, training facilities, resources and coaching, the study revealed that funding opportunities,

competition opportunities and provision of equipment and facilities is a role the universities needed to give further attention.

To address the second objective whether or not, a significant relationship exist between university sports management support systems and students' sports talent development in the universities, the quantitative data was drawn from the financial support, training support and competition support systems respectively in relation to student sports talent development. The inferential analysis of the quantitative data tested the relationship between universities' financial support, training support and competition support systems (independent variables) and students' sports talent development (dependent variable). The inferential results included Pearson's chi-square statistics and Fisher's exact test. In categorical datasets, Pearson's Chi-Square test evaluated whether an observation between the two sets of data happened by chance. The following null hypotheses were tested at $p < 0.05$;

H₀₂: There is no significant relationship between the financial support system and promotion of students' talent development in elite sports in the universities in Kenya

The null hypothesis was rejected, $\chi^2(20) = 83.137, p \leq 0.05$. Cramer's V coefficient was 0.234, which indicated moderately weak strength of relationship between financial support and student talent development. The Point-biserial correlation (Pearson's R) was found to be +0.072 indicating a positive relationship between financial support and student talent development. In conclusion, there is a positive moderately weak relationship between financial support and student sports talent development, which the

study found to be significant as determined by Pearson Chi-Square using Monte Carlo exact computation.

H03: There is no significant relationship between sports training support system and the promotion of students' talent development in elite sports in the universities in Kenya

The null hypothesis was rejected, $\chi^2 (12) = 45.557$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between training support and student talent development. There were three reported statistics that indicate the strength of the relationship between the cross-tabulated constructs. The reported coefficients are Phi, Cramer's V and Pearson's R. Cramer's V coefficient was 0.200, which implied small effect size in the relationship between sports training and student talent development. The Point-biserial correlation (Pearson's R) found the direction of the relationship as -0.05 indicating negative relationship between sports training and student sports talent development. In conclusion, there is a small negative relationship between the current sports training and student talent development, which the study found to be significant using Pearson Chi-Square and Monte Carlo exact computation.

H04: There is no significant relationship between the sports competition programs and promotion of Students' talent development in elite sports in the universities in Kenya

From the results, the null hypothesis was rejected, $\chi^2 (20) = 73.295$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between competition opportunities and student sports talent development. The results from Monte Carlo exact testing showed that both Chi-square and Fisher's test had p values were less than 0.05 (Exact $p = 0.001$).

The three statistics that indicate the strength of the relationship between cross-tabulated constructs are Phi, Cramer's V and Pearson's R . The applicable coefficient of strength was Cramer's V . The Cramer's V coefficient was 0.219, which indicated small effect size in the relationship between competition opportunities and student talent development. The Point-biserial correlation (Pearson's R) was found to be +0.148 indicating positive relationship between competition opportunities and student sports talent development. In conclusion, there was a small positive relationship between the competition opportunities and students' sports talent development, albeit significant as determined by Pearson Chi-Square using Monte Carlo exact computations. The analysis of the three hypotheses revealed very interesting findings that were not obvious from the qualitative data. The relationship between financial support system and students' sports talent development was found to be moderately low but positive. This was supported by the findings from the qualitative data that, inadequate funds are allocated to elite sports and even with such allocations; some are diverted to other university activities and not sports. The relationship between training support system and students' sports talent development was found to be inversely related. This supported the finding from the qualitative data that, there is overemphasis on academics than sports implying lack of balancing between academics and students' sports talent development in elite sports. The relationship between competition support system and students' sports talent development was directly and moderately related. This supported the finding from the qualitative data that, there is overemphasis of mass sports and not elite sports in the universities in Kenya.

Based on the findings from quantitative data analysis, university education academic policies and training support systems are inversely related to students' sports talent

development in the universities in Kenya. The financial support system and competition opportunities are directly but moderately related to students' sports talent development in the universities in Kenya. To competently address the development of students' sports talent through university education, the education academic policies and particularly the students' admission criterion and academic schedule should be revised to accommodate training and competitions in elite sports. The practices on financing elite sports through university education including international competition need also to be revised. The corroborating findings based on qualitative data are summarized in section 5.1.3 and 5.1.4 below;

5.1.3 Findings from the objective on the challenges in integrating academics in university education and student talents' development in elite sports in the universities in Kenya

The findings from the study revealed that, the main challenge in integrating academics and students' talent developments in elite sports was lack of balancing between academics and students' talent development in elite sports. The study established that, there were no defined policy framework and statutory structures that exists to address the balancing of academic activities with student's talent development in elite sports in the universities in Kenya. The Inferential analysis on the quantitative data established that, an inverse relationship exist between university education academic policies and students' sports talent development in elite sports. This was due to the over emphasis on academics at the expenses of the students' talent development in elite sports. To address such challenge, the study recommended that, the sports management structures in the universities should champion the universities' need to adopt flexible academic schedules

so as to accommodate the intention to promote students' sports talent development alongside academic needs of the talented students.

On the financial challenges, the findings from the study revealed that, the main financial challenge in integrating university education with students' talent developments is poor allocation of funds for sports development in the universities. This includes sports scholarship opportunities for talented students. To address this financial challenge, the study has recommended the provision of sports scholarships to talented students for the period they are in the universities and adequate budgetary allocations for facilities, equipment and financing sports training and competitions. The Inferential analysis on the Quantitative data established that, a moderate relationship exist between financial support and students sports talent development in elite sports. The strength of this relationship can be improved by providing sports scholarships and adequate budgetary allocations for facilities, equipment and financing sports training and competitions.

The training challenges have been associated with lack of training facilities, lack of training opportunities due to academics, lack of technical competence in sports, inadequate funds allocated to sports in the universities, acute shortage of funds for the development of facilities, equipment and financing elite sports training. To address these training challenges the study has recommended better training facilities and equipment, provision of qualified trained personnel in elite sports, flexible time tables to accommodate training, supervision of technical personnel during training and provision of equipment, universities should consider implementing flexible academic programs to accommodate students' training. The Inferential analysis on the quantitative data established that, an inverse relationship exist between training support and students talent

development in elite sports. This corroborates the findings from qualitative data that a conflict exists between training and academic schedule which consequently affects students' sports talent development. A flexible time tables to accommodate both sports training and academic activities will address this conflict between academics and students sports talent development through training as a support system.

The findings associated with competition challenges are lack of competition opportunities due to academics, lack of technical competences in sports, irregular competitions and universities not investing in sports as in academics. Talented students were found to be playing for external clubs rather than university teams while in the universities. The strategies identified that would address competition challenges are provision of elite competition opportunities, supervision of technical sports personnel during competitions, universities to embrace provision of sports scholarships for the period students are in the university programs, universities to enroll players in the national sports leagues and expose them to international competitions, universities should adopt a flexible academic schedule for talented students to accommodate their participation in international competitions, incentives for players during competitions. The Inferential analysis on the quantitative data established that, a moderately weak positive relationship exist between competition opportunities and students talent development in elite sports. The strategies identified through qualitative data analysis when addressed will increase the strength of the relationship.

The elite sports management challenges experienced in the universities are due to inconsistent and different sports management structures in the universities. Professional sports managers and qualified coaches are lacking in the universities. The policies on

sports scholarships are not streamlined, sports management structures in the universities are not well defined and there is lack of adequate funding in elite sports programs. To address the management challenges, universities should establish sports management structures that are responsive to the educational needs of their talented students. Universities should consider recruiting qualified technical personnel to mentor talented students and there is need for coaches to align themselves with universal international coaching standards in sports disciplines. The coaches should attend clinics or trainings to match international trends with a minimum of international level 2 qualifications. Universities should employ qualified coaches and further train sports management personnel. Games Tutors should learn modern training and coaching techniques while directors should attend seminars on modern ways to manage sports in the universities and also train on general management procedures.

5.1.4 Findings from the objective on establishing a model to embrace academics and management of elite sports as a critical link in aligning academics and students' talent development in the universities in Kenya

Establishing the best sports management model to integrate university education and students' talents in elite sports while upholding academic integrity, the study findings have indicated flexible time table that allows student participation in both sports (training/competitions) and academics (lectures/examinations), equal considerations between sports and academics (financial allocation), provision of sports scholarship after scouting for talents, competency based approach for both elite sports and academics, talent scouting, admission and scholarships, integrating sports and academics, provision

of remedial classes for students in elite sports to cover time spent during national training and international competitions.

An effective integrated model must take keen interest in students' academic progression and their career in elite sports. It must also take keen interest in monitoring academic performance for talented students in their study programs with equal consideration between sports and academics. Universities should put in place structures to monitor academic progress of the talented students, a flexible time table to allow training and competitions. Universities should establish predictive academic and sports calendars to consider balancing of elite sports and academics, a flexible time table to allow training and competitions alongside a clear cut demarcation between lectures, examinations, training and competitions. The universities should set up structures to allow growth of students' talent with examples of setting sport academies as centers of excellence. The universities should also embrace remedial classes for students in elite sports to cover time spent during national training and international competitions

On financing elite sports in the universities, the universities should provide sports scholarship opportunities for talented students and link up with external donors for sports development in the universities. KUSA as a sport's governing body in the universities should take a functional role of sponsoring sports in the universities through external donors, provision of adequate facilities, equipment and students' allowances. The university management should ensure that, there are designated scholarships on sports and such scholarships are awarded on merit. Universities should seek sports funding from external sources where talented students are sponsored for competitions.

Universities should partner with national sports governing bodies and other external donors to finance elite sporting activities including research.

The training dimension of the model from the findings in the study requires sports managers to monitor academics and students' training schedules for talented students. The universities should also provide adequate training facilities and equipment. The findings have identified the need to recruit qualified coaches, trainers and sports managers who are competent in handling academic and technical issues in elite sports. There is need for a clear policy framework to accommodate the integration of academic and training activities in elite sports. KUSA should embrace the formation of a commission to control the qualifications of technical and sports management personnel in the universities.

The competition model from the findings in the study requires flexible academic time tables to allow talented students' competition opportunities. The sport's governing body in the universities should embrace predictive academic and sports calendars to address the talented students' lectures, examinations and elite sports competitions. There must be a clear demarcation between lectures, examinations, training and competitions in elite sports. There is need for well managed universities sports tournaments and national under 21 year's games championships to provide opportunities for appropriate university elite sports competition systems including Olympic Games Trials.

There is need for a clear policy framework on when talented students in the universities are allowed to join senior clubs after university competitions. Talent development structures to embrace competitions opportunities at different levels in order to improve

standards and talented students to be sponsored for external and international sports competitions.

The sports management dimension of the model from the findings in the study requires flexible and structured student recruitment policies considering talent to be part of university admission criteria. The sports management strategy should network with stakeholders to support sports in the universities. The staff recruitment policy should consider recruiting focused, qualified, committed and devoted sports managers. There is need to embrace a professional body to monitor coaches and trainers in the technical management of elite sports in the universities. The universities should establish institutes for sports or sports academies as centers of excellence managed under the supervision of knowledgeable and competent university sports leadership.

5.2 Conclusion

The first study objective was to investigate the relationship between university education academic policies and students' sports talent development in the universities in Kenya. The study findings revealed that, the admission into university education in Kenya was predominantly on academic criteria. The policies on admission criteria need to be revised to accommodate talent as also part of admission criteria in the university education in Kenya. The study also observed that, universities do not have a streamlined policy on provision of sports scholarships as a recruitment strategy for talented students. The findings of the study therefore revealed that, in the current university recruitment structures, the relationship between academic policies in university education and students' sports talent development did not really exist.

The inferential statistical analysis of the quantitative data tested the null hypothesis that, H_{01} : “there is no significant relationship between universities’ education academic policies (independent variable) and students’ sports talent development (dependent variable)”. The null hypothesis was rejected, $\chi^2(16) = 97.397$, $p \leq 0.05$. This implied that, there was a significant relationship between the two variables. However, the relationship was established to be negative implying that, there was an inverse moderately significant relationship between university education academic policies and students’ sports talent development. Considering both the descriptive and inferential results, the inverse relationship confirmed that, the education academic policies in the universities over emphasize on academics rather than students’ sports talent development. The negative indicator implies that, the Higher Education Curriculum Framework will significantly encounter challenges on the embraced sports talent pillar in the competency based curriculum (CBC) for university education system. The inverse relationship that has been established by the findings in this study must be addressed with intentions of changing the direction of the relationships between the variables to achieve relationship that is directly proportional between the independent variable (university education academic policies and the dependent variable (Students’ Sports Talent Development). The strength of association between the two variables must also be increased by revising education academic policies so as to strongly relate with students’ talent development in elite sports.

The second objective analyzed the relationship between sports management support systems and students’ sports talent development in elite sports in the universities in Kenya.

Based on the financial support as an independent variable, the null hypothesis was rejected, $\chi^2 (20) = 83.137$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between financial support and students' sports talent development that was significant. The Cramer's V was 0.234 which implied moderately weak strength of relationship between financial support and students' sports talent development. The Pearson's correlation coefficient R found the direction to be +0.072 implying that the direction of the relationship was positive meaning a direct but weak relationship.

Considering the training support variable, the null hypothesis was rejected, $\chi^2 (12) = 45.557$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between training support and student talent development. The Cramer's V was 0.200 which implied moderately weak strength of relationship between training support and students' sports talent development. The Pearson's correlation coefficient R found the direction to be negative (-0.05) revealing that the direction of the relationship was inversely related. The findings therefore established that, there is a small inverse relationship between training support and students' sports talent development that was significant.

Investigating the competition support variable, the null hypothesis was rejected, $\chi^2 (20) = 73.295$, $p \leq 0.05$. This revealed that there is a strong evidence of a relationship between competition opportunities and student talent development that was significant. Cramer's V coefficient was 0.219, which indicated small effect size in the relationship between competition opportunities and student talent development. Pearson's correlation coefficient R was found to be +0.148. This indicated a positive relationship between competition opportunities and student sports talent development.

The three hypotheses revealed very interesting results not obvious from the qualitative data. The relationship between financial support system and students' sports talent development was found to be moderately low but positive. This is supported by the findings from the qualitative data that, inadequate funds are allocated to elite sports and even with such allocations; some are diverted to other university activities and not sports. The relationship between training support system and students' talent development was found to be inversely related. This supported the finding from the qualitative data that, there is overemphasis on academics than sports implying lack of balance between academics and students' sports talent development in elite sports. The relationship between competition support system and students' sports talent development was directly and moderately related.

Considering the third objective based on qualitative data, the findings from the study revealed that, the main challenge of integrating academics with students' talent developments in elite sports is lack of balancing between academics and students' talent development in elite sports. The study established that, there are no defined policy framework and statutory structures that exists to address the balancing of academic activities with student's talent development in elite sports in the universities in Kenya. Corroborating this with the quantitative data established through inferential analysis revealed that, inverse relationship exists between university education academic policies and students talent development in elite sports. This is due to the over emphasis on academics at the expenses of the students talent development in elite sports. To address such challenges, the sports management structures in the universities should champion the universities' need to adopt flexible academic schedules so as to accommodate the

intention to promote students' sports talent development alongside academic needs of the talented students.

On the Financial Challenges the findings from the study revealed that, the main financial challenge in integrating university education with students' talent developments is poor allocation of funds for sports development in the universities including sports scholarship opportunities for talented students. The Inferential analysis on the Quantitative data established that, a moderate direct relationship exist between financial support and students sports talent development in elite sports that was positive. To address this financial challenge, the study recommended the provision of sports scholarships to talented students for the period they are in the universities and adequate budgetary allocations for facilities, equipment and financing sports training.

The training challenges have been associated with lack of training facilities, lack of training opportunities due to academics, lack of technical competence in sports, inadequate funds are allocated to sports in the universities, acute shortage of funds for the development of facilities, equipment and financing elite sports training. The Inferential analysis on the quantitative data established that, an inverse relationship exist between training support and students talent development in elite sports. To address these training challenges the study recommended better training facilities and equipment, provision of qualified trained personnel in elite sports, flexible time tables to accommodate training, supervision of technical personnel during training and provision of equipment, universities should consider implementing flexible academic programs to accommodate students' training.

The findings associated with competitions challenges are lack of competition opportunities due to academics, lack of technical competences in sports, irregular competitions and universities not investing in sports as in academics. The Inferential analysis on the quantitative data established that, a moderate direct relationship exist between competition opportunities and students talent development in elite sports. The strategies identified that would address competition challenges are provision of elite competition opportunities, supervision of technical sports personnel during competitions, flexible schedules to accommodate academics and competitions, universities to embrace provision of sports scholarships for the period students are in the university programs, universities to enroll players in the national sports leagues and expose them to international sports competitions, universities should adopt a flexible academic schedule for talented students to accommodate their participation in international sports competitions, incentives for players during sports competitions.

The elite sports management challenges experienced in the universities were due to inconsistent and different sports management structures in the universities. The current sports management structures do not support elite sport at all but mass sport. The current sports personnel in the universities are not sufficient. To address the management challenges, universities should establish sports management structures that are responsive to the educational needs of talented students.

The fourth objective sought to establish the model in integrating university education and students' talents in elite sports while upholding academic integrity. The study findings have indicated flexible time table that allows students participation in both sports and academics (lectures/examinations), equal considerations between sports and academics,

provision of sports scholarship after scouting for talents, competency based approach for both elite sports and academics, talent scouting, admission and scholarships, integrating sports and academics, provision of remedial classes for students in elite sports to cover time spent during national training and international competitions.

Universities should put in place structures to monitor academic progress of the talented students, a flexible time table to allow training and competitions. The implications are that, for universities to embrace an effective model they should put in place structures to monitor academic progress of the talented students, provide predictive academic and sports calendars to consider balancing of elite sports and academics, a flexible time table to allow training and competitions alongside a clear cut demarcation between lectures, examinations, training and competitions. The universities should set up structures to allow growth of students' talent with examples of setting sport academies as centers of excellence. The universities should also embrace remedial classes for students in elite sports to cover time spent during national training and international sports competitions

On financing model for elite sports in the universities, these education institutions should partner with national sports governing bodies and other external donors to finance and support elite sports. The universities' management should ensure that, there are designated scholarships on sports and such scholarships are awarded on merit.

The training model from the findings in the study requires sports managers to monitor academics and students' training schedules for talented students. This will enable universities to provide opportunities for training in elite sports.

The competition model from the findings in the study requires flexible academic time tables to allow talented students' competition opportunities. There must be a clear demarcation between examinations and competitions in elite sports. There is need for well managed universities sports tournaments and national under 21 year's games championships to provide appropriate university elite sports competition systems including Olympic Trials. There is need for a clear policy framework on when talented students in the universities are allowed to join senior clubs after university competitions.

The sports management model from the findings in the study requires flexible and structured student recruitment policies considering talent to be part of university admission criteria. The staff recruitment policy should consider recruiting focused, qualified, committed and devoted sports managers. There is need to embrace a professional body to monitor coaches and trainers in the management of elite sports in the universities. The universities should establish institutes for sports as sports academies or centers of excellence managed under the supervision of knowledgeable and competent university sports leadership.

5.3 Recommendations

The study findings have revealed that, sports talent development in the education institutions is not in tandem with the ministry of sports, culture and heritage. The ministry of education houses majority of the youth at their prime ages of 3 years (preprimary) to 25 years (universities) while the ministry of sports is run autonomously without educational considerations. Graduated national sports competition opportunities (under 13 years, under 17 years, under 21 years and under 23 years) need to be supported by

both the Ministry of Education and Ministry of Sports taking cognizant that the proposed competency based education system in Kenya has embraced talent in the education programs including universities. A radical recommendation to amalgamate the ministry of education and that of sports is addressed in recommendation 5.7.1;

5.3.1 Recommendations based on education sector and students' talent development in elite sports

The dual career pathway in education and elite sports can be a national and institutional strategy to develop individuals with a definite career path after retiring from active sports participation. However, the findings have established that, ministry of education has embraced a Competency Based Curriculum (CBC) with talent as a pillar addressed and developed from Junior Primary School to University Education, (12-25 years). The entire active youth life of talented students is spent in the ministry of education docket while elite sports are controlled by a different ministry. While the ministry of education retains majority of youth in their docket, the national sports calendar in the ministry of sports at times is found to be in conflict with talented students' educational programs. The study therefore recommended that, the government of Kenya and specifically the legislative arm of the government to consider a bill through an act of parliament in integrating education, youth, sports and culture as domains in one ministry, the Ministry of Education, Youth, Sports and Culture. This will address the related broad areas of talent, education, youth affairs and culture in one ministry. This will harmonize talent identification, talent development programs and other domains coordinated from grass root to the universities and by extension youth affairs after university education. Equally

the National Academy for Sports will be better utilized as a sports education institution under the recommended Ministry of Education, Youth, Sports and Culture.

5.3.2 Recommendations based on university education academic policies and Students' talent development in elite sports in the universities in Kenya

From the findings, there exist a dichotomy between the management of sports in the universities with students' academic and recruitment policies. There is no formal link between students' recruitment policies and students' talent development. However, there exist informal attempts where talented students in elite sports are selectively admitted in some universities. The inputs of such students in the national sports competitions are witnessed and manifested. Well designed, focused and structured policy support systems can make universities in Kenya emulate their foreign counterparts in dominating international elite sports competitions. Flexible admission criteria for talented students can be innovatively structured from certificate (GPA of 1.5), Diploma (GPA of 2.0) and Degree (GPA of 2.5) to admit talented students in the universities without compromising the academic integrity of university programs. Those with exceptional performances in Olympic Sports but lower academic qualifications can be subjected to a pre-university entry program designed by the university at a certificate entry level after the pre-university examinations.

It is therefore recommended that, the universities in Kenya should establish defined and structured academic policy framework on entry requirements, admission criteria and sports scholarship scheme for talented students in elite sports. The agency to facilitate

this is the Kenya Universities and Colleges Placement Services on behalf of the ministry of education.

5.3.3 Recommendations based on roles of elite sports management support systems in promoting students' talent development through university education

The study identified the elite sports management support systems as composed of academic support system, financial support system, sports training support system, competition opportunities support system and human resource management support system. In analyzing the roles of these elite sport support systems in the promotion of students' sports talent in the universities, it was observed that, elite sports in the universities encounter management challenges. Other related challenges encountered as observed are financial, technical, and over emphasis on academics than elite sports in the universities. These findings implied that, sports managers themselves, mainly the Directors and KUSA officials have failed in their management, supervisory and sports facilitating roles. There is need for capacity building to supervise sports management activities where the Dean of students and Deputy vice Chancellors, students' affairs are advised by personnel with competencies in sports management at the level of Assistant Registrars and Senior Assistant Registrars respectively so as to keep these offices informed on the status of sports in the universities. Such assistant registrars and senior assistant registrars must be active participants in sports management practices.

It is also recommended that, the Sports Directors and KUSA officials should occupy the central role in informing university policies on the need to link university education and

students talent development with other elite sports development agencies particularly the Kenya Academy for Sports patronized by the ministry of sports.

5.3.4 Recommendations based on competencies of elite sports management support systems in promoting students' talent development through university education in Kenya.

The study findings revealed that, universities in Kenya have failed to emulate their American and European counterparts in producing Olympic Games medal winners. Such talented students lack support from competent technical practitioners including, lack of right coaching, lack of good training, lack of competition support systems and lack of adequate resources allocated to sports in the universities. Other factors that have also prevailed are, lack of clear talent support systems, lack of student mentorship for talented students, lack of qualified coaches to handle and nurture talents at university level, skill level of university students being too low, lack of proper guidelines for students to join the clubs and other elite sports teams.

The managerial reasons are lack of involvement of ministry of sports, inadequate support from the universities sports managers, KUSA having failed to develop elite sports in the universities, lack of proper guidelines for students to join the clubs and other elite sports teams. It is therefore recommended that, universities apart from employing qualified human resource practitioners, there is need to establish ways and means of further developing their sports personnel through seminars, workshops, conferences and sports management research programs. Sports managers in the universities have been found to

be desk managers, theorist and lack touch with what happens with students both in and out of the sports training fields.

5.3.5 Recommendations based on challenges in integrating academics and students' talent development in elite sports through university education

The study findings confirmed that, there are challenges affecting the integration of academics and students' talent development in elite sports in the universities in Kenya. The main academic challenge was lack of balancing between academics and elite sports. The financial challenges were associated with lack of sports scholarship opportunities and poor allocation of funds for sports development in the universities. Based on the findings, sport scholarships are an outstanding strategy to attract, recruit and retain talented students through university education. It is therefore recommended that, the universities in Kenya should establish defined and structured policy framework on designated sports scholarship scheme to attract and retain talented students in elite sports in the universities.

The challenges associated with training were lack of training opportunities due to academic schedules and lack of technical competence in elite sports. Competition challenges were associated with lack of competitions opportunities due to academics. The management challenges were lack of established structures to address the balancing of academic and students' talent development. The implications from the results are that, there are no policy frameworks and statutory structures on how to administer academic activities for talented students in the universities in Kenya.

It is therefore recommended that, the university management needs to establish flexible academic structures to accommodate both the academic commitments of the talented students and their needs in elite sports. In order to address the financial challenges, it is recommended that, the universities should provide designated sports scholarships to talented students, funds to support sports in the universities and the ministry of sports to finance elite sports in the universities like in other sports governing bodies.

To address the sports training challenges in the universities in Kenya, it is recommended that, the universities should strive to provide adequate training facilities and equipment, qualified trained personnel in elite sports, supervision of technical personnel during training, and flexible time tables to accommodate training. It is further recommended that, to address the challenges associated with competition in elite sports, the universities in Kenya should provide competition opportunities in elite sports, flexible time tables to accommodate competition schedules, to enroll talented students in elite sports for national sports leagues and also expose them to international competitions. Finally, the sports management structures in the universities should champion the universities' need to adopt flexible academic schedules so as to accommodate the intention to promote students' talent development alongside academic needs of the talented students.

5.3.6 Recommendations based on establishing a suitable model to embrace education and management of elite sports as a critical link in aligning academics and students' talent development in the university education.

In establishing a suitable model, the best approach is to integrate university education and students' talents in elite sports while upholding academic integrity and in line with the

embraced Competent Based Curriculum (CBC). The embraced curriculum is meant to replace the 8.4.4 system of education in Kenya. The modeling factors considered were, chronological ages of participants and their levels of education, flexible time table that allows student participation in both sports and academics, equal considerations between sports and academics, integrating sports and academics, competency based approach for both elite sports and academics, provision of remedial classes for students in elite sports to cover time spent during national training and international competitions and establishment of appropriate university elite sports competition systems.

It was therefore recommended that, there is need for clear demarcation between lectures, examinations, training and competitions. The universities should endeavor to seek sports funding from external sources, provide adequate facilities and equipment, and encourage training and competitions at different levels to improve standards and talented students to be sponsored for competitions. Universities should partner with national sports governing bodies and other external donors to finance and support elite sporting activities. The universities should also solicit for sponsorships or donations for elite sports programs together with acquiring ideal sports training facilities and equipment. Regarding talented students' academic progression, the universities should put in place structures to monitor academic progress of the talented students, a flexible time table to allow training and competitions, the universities' management should also ensure that, sports scholarships are awarded on merit, a clear policy on when talented students in the universities are allowed to join senior clubs after university competitions and to establish a professional body to monitor coaches and trainers in the universities.

5.4 Recommendations for Further Research

1. The study only served as a herald to the newly embraced Competency Based Curriculum (CBC). There is need for a study to address directly the Competency Based Curriculum and University Education System in Kenya.
2. The study addressed talent education in relation to elite sports. There is need for research in other talent related areas.
3. There is need for a study to investigate how universities can influence grass root sports academies in integrating education and students' talents development in schools.
4. The research findings have pointed out lack of management and technical competencies in elite sports. The training structure for Physical Education and Sports Programs in the universities are implied to be inefficient. There is need for a study on the effectiveness of Physical Education and Sports in training sports managers and technical personnel in elite sports in the universities in Kenya.

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APPENDIXES

Appendix I: Cover Letters



KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya
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Fax: 254-64-30162
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6th February, 2017
Commission Secretary,
National Commission for Science, Technology and Innovations,
P.O. Box 30623-00100,
NAIROBI.

Dear Sir/ Madam,

RE: JAMES TAITUMU KUBAI (EDU-4-0083-1/2014)

This is to confirm that the above named is a bona fide Faculty of Kenya Methodist University, Department of Education, undertaking Ph.D. in Leadership & Education Management. He is conducting a research study titled "The Nexus between University Education and Students' Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya."

We confirm that his thesis proposal has been defended and approved by the university.

In this regard, we are requesting your office to issue a permit to enable him to collect data for his research.

Any assistance accorded to him will be appreciated.

Thank you.

Dr. John Muchiri, Ph.D.
Dean, Research, Development & Postgraduate Studies
Encl.





KENYA METHODIST UNIVERSITY

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20th March 2018

Commission Secretary,
National Commission for Science, Technology and Innovations,
P.O. Box 30623-00100,
NAIROBI.

Dear sir/ Madam,

RE: JAMES TAITUMU KUBAI – (EDU-4-0083-1/2014) PROGRESS REPORT

This is to confirm that the above named is a bona fide student of Kenya Methodist University, Department of Education undertaking a Doctor of Philosophy in Leadership and Education Management. He is conducting a research on, "The Nexus between University Education and Students' Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya."

Reference is made to your letter ref no. NACOSTI/P/17/33283/16328 where Mr. Kubai had been issued with a Research Clearance Permit on 28th March 2017 and it expires on 27th March 2018. Due to challenges beyond his control, he has not completed the data collection process that involves several universities in Kenya.

In this regard, we are requesting your office to issue an extension permit to enable Mr. Kubai to continue collecting data for his research in the selected universities.

Any assistance accorded to him will be appreciated.

Thank you.


DR. JOHN MUCHIRI, **20 MAR 2018**
DIRECTOR, POSTGRADUATE STUDIES





KENYA METHODIST UNIVERSITY

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23RD JUNE, 2017

James Taitumu Kubai
EDU-4-0083-1/2014

Dear James,

SUBJECT: ETHICAL CLEARANCE OF A Ph.D. RESEARCH THESIS

Your request for ethical clearance for your Ph.D. Research Thesis titled "The Nexus between University Education and Students' Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya" has been granted to you in accordance with the content of your Thesis proposal.

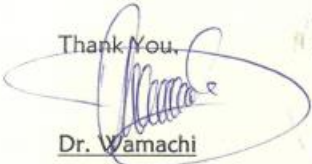
As Principal Investigator, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the Thesis.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the SERC for re-review and approval prior to the activation of the changes. The Proposal number assigned to the Thesis should be cited in any correspondence.
3. Adverse events should be reported to the SERC. New information that becomes available which could change the risk: benefit ratio must be submitted promptly for SERC review. The SERC and outside agencies must review the information to determine if the protocol should be modified, discontinued, or continued as originally approved.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by subjects and/or witnesses should be retained on file. The SERC may conduct audits of all study records, and consent documentation may be part of such audits.

5. SERC regulations require review of an approved study not less than once per 12-month period. Therefore, a continuing review application must be submitted to the SERC in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion will result in termination of the study, at which point new participants may not be enrolled and currently enrolled participants must be taken off the study.

Please note that any substantial changes on the scope of your research will require an approval.

Thank You,


Dr. Wamachi

Chair, SERC

Cc: Dean, RD&PGS



Appendix II: Letter from NACOSTI



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
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NAIROBI-KENYA

Ref. No. **NACOSTI/P/17/33283/16328**

Date: **28th March, 2017**

James Taitumu Kubai
Kenya Methodist University
P.O. Box 267- 60200
MERU.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*The Nexus between university education and students talent development: A critical analysis of elite sports management in selected Universities in Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **selected Counties** for the period ending **27th March, 2018.**

You are advised to report to **the Vice Chancellors of the selected Universities, the County Commissioners and the County Directors of Education, selected Counties** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Vice Chancellors
Selected Universities.

The County Commissioners
Selected Counties.



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/33283/22061**

Date: **12th April, 2018**

James Taitumu Kubai
Kenya Methodist University
P.O. Box 267- 60200
MERU.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“The nexus between university education and students talent development: A critical analysis of elite sports management in Selected Universities in Kenya,”* I am pleased to inform you that you have been authorized to undertake research in **Kiambu, Kisii, Kisumu, Meru, Nairobi and Uasin Gishu Counties** for the period ending **9th April, 2019.**

You are advised to report to **the Vice Chancellors of selected Universities, the County Commissioners and the County Directors of Education of the selected Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Vice Chancellors
Selected Universities.



***Extended Research Authorization letter when the first letter expired after 27th March
2018***

Appendix III: NACOSTI Permits

THIS IS TO CERTIFY THAT: **Permit No : NACOSTI/P/17/33283/16328**
MR. JAMES TAITUMU KUBAI **Date Of Issue : 28th March,2017**
of KENYA METHODIST UNIVERSITY, **Fee Received :Ksh 2000**
0-60200 Meru,has been permitted to
conduct research in Kiambu , Kisii ,
Kisumu , Meru , Nairobi, Uasin-Gishu
Counties

on the topic: THE NEXUS BETWEEN
UNIVERSITY EDUCATION AND STUDENTS
TALENT DEVELOPMENT: A CRITICAL
ANALYSIS OF ELITE SPORTS
MANAGEMENT IN SELECTED
UNIVERSITIES IN KENYA

for the period ending:
27th March,2018

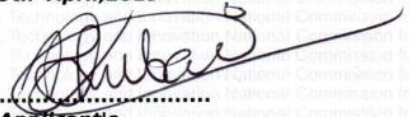




Applicant's Signature **Director General**
National Commission for Science, Technology & Innovation

THIS IS TO CERTIFY THAT: **Permit No : NACOSTI/P/18/33283/22061**
MR. JAMES TAITUMU KUBAI **Date Of Issue : 12th April,2018**
of KENYA METHODIST UNIVERSITY, **Fee Received :Ksh 2000**
0-60200 Meru,has been permitted to
conduct research in Kiambu , Kisii ,
Kisumu , Meru , Nairobi, Uasin-Gishu
Counties

on the topic: THE NEXUS BETWEEN
UNIVERSITY EDUCATION AND STUDENTS
TALENT DEVELOPMENT: A CRITICAL
ANALYSIS OF ELITE SPORTS
MANAGEMENT IN SELECTED
UNIVERSITIES IN KENYA

for the period ending:
9th April,2019

Applicant's Signature **Director General**
National Commission for Science, Technology & Innovation

Appendix IV: Research Authorization Letters from County and Universities
Authorities



OFFICE OF THE PRESIDENT

MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT
COUNTY COMMISSIONER, KIAMBU

Telephone: 066-2022709
Fax: 066-2022644
E-mail: countycommkiambu@yahoo.com
When replying please quote

County Commissioner
Kiambu County
P.O. Box 32-00900
KIAMBU

Ref.No: ED.12 (A) /1/VOL.II/27

Date: 9th November ,2018

James Taitumu Kubai
Kenya Methodist University
P. O. Box 267-60200
Meru

RE: RESEARCH AUTHORIZATION

Reference is made to National Commission for Science, Technology and Innovation letter Ref No. NACOSTI/P/18/33283/22061 dated. 12th APRIL, 2018

You have been authorized to conduct research on "*The nexus between university education and students talent development: A critical analysis of elite sports management in selected Universities in Kenya .*" The research will be carried out in *Kiambu County for a period ending 19th April, 2019*

You are requested to share your findings with the County Education Office upon completion of your research.

TOM O. LIECH
FOR: COUNTY COMMISSIONER
KIAMBU COUNTY

Cc County Director of Education
KIAMBU COUNTY

National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

All Deputy County Commissioner *(For information and record purposes)*
KIAMBU COUNTY

✓ The Vice Chancellors
Selected Universities



**THE PRESIDENCY
MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL
GOVERNMENT**

Telegrams:
Telephone:
Email: ccmeru@yahoo.com
Fax:

COUNTY COMMISSIONER
MERU COUNTY
P.O. BOX 703-60200
MERU.

When replying please quote
Ref: ED.12/3 VOL.III/68

12th November 2018

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION – JAMES TAITUMU KUBAI

This is to inform you that **James Taitumu Kubai** of **Kenya Methodist University** has reported to this office as directed by Commission for Science, Technology and Innovation and will be carrying out Research on “**The nexus between university education and students talent development: A critical analysis of elite sports management in selected Universities in Kenya**”.

Since authority has been granted by the said Commission, and the above named student has reported to this office, he can embark on his research project for the period ending **9th April, 2019.**

Kindly accord him any necessary assistance he may require.

W. K. Katonon
For: County Commissioner
MERU



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471.
2241349,3310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/33283/22061**

Date: **12th April, 2018**

James Taitumu Kubai
Kenya Methodist University
P.O. Box 267- 60200
MERU.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*The nexus between university education and students talent development: A critical analysis of elite sports management in Selected Universities in Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Kiambu, Kisii, Kisumu, Meru, Nairobi and Uasin Gishu Counties** for the period ending **9th April, 2019.**


You are advised to report to **the Vice Chancellors of selected Universities, the County Commissioners and the County Directors of Education of the selected Counties** before embarking on the research project.


Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Vice Chancellors
Selected Universities.


COUNTY COMMISSIONER
UASIN GISHU COUNTY
3/12/2018


DIRECTOR OF EDUCATION
UASIN GISHU COUNTY
3/12/2018



Republic of Kenya
MINISTRY OF EDUCATION
STATE DEPARTMENT OF BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
Telephone: Nairobi 020 2453699
Email: rcenairobi@gmail.com
cdenairobi@gmail.com

REGIONAL COORDINATOR OF EDUCATION
NAIROBI REGION
NYAYO HOUSE
P.O. Box 74629 - 00200
NAIROBI

When replying please quote

Ref: RCE/NRB/GEN/VOL.1

DATE: 8th November, 2018

James Taitumu Kubai
Kenya Methodist University
P O Box 1267-60200
MERU

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on "**The nexus between university education and students talent development: A critical analysis of Elite sports management in Selected Universities in Kenya**"

This office has no objection and authority is hereby granted for a period ending 9th April, 2018 as indicated in the request letter.

Kindly inform the Sub-County Director of Education of the Sub County you intend to visit.

DAISY IRERI
FOR: REGIONAL COORDINATOR OF EDUCATION
NAIROBI

C.C.

Director General/CEO
National Commission for Science, Technology and Innovation
NAIROBI



REPUBLIC OF KENYA
MINISTRY OF EDUCATION
State Department of Early Learning and Basic Education

Telegrams: "ELIMU" Meru
EMAIL: cdemerucounty@gmail.com
When Replying please quote

County Director Of Education
Meru County
P.O. Box 61
MERU

Ref: MRU/C/EDU/11/1/220

12th November, 2018

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION – JAMES TAITUMU KUBAI

Reference is made to letter Ref: NACOSTI/P/18/33283/22061 dated
12th April, 2018,

Authority is hereby granted to **James Taitumu Kubai** to carry out research on
*"The nexus between university education and students talent development: A
critical analysis of elite sports management in Selected universities in Kenya.
You are therefore authorized to undertake the same in Meru County for the
period ending 9th April, 2019.*

Kindly accord him the necessary assistance.


Sarafino Samuel

For: County Director of Education
MERU

COUNTY DIRECTOR OF EDUCATION
MERU COUNTY
P. O. Box 61-60200
TEL: 064-32372 MERU



UNIVERSITY OF NAIROBI
OFFICE OF THE DEPUTY VICE - CHANCELLOR
(Research, Production & Extension)

P.O. Box 30197- 00100
Nairobi, Kenya
Telephone: +254-20-3318262 Ext 28711
+254-20-4913164 (DL)
UON/RPE/3/6/Vol.XVIII/

Fax: +254-20-2317251
Email: dvrpe@uonbi.ac.ke
Website: www.uonbi.ac.ke

November 19, 2018

Mr. James Taitumu Kubai
P.O. Box 1417 – 60200
Meru

PERMISSION TO CONDUCT RESEARCH AT THE UNIVERSITY OF NAIROBI

I refer to your request to conduct research at the University of Nairobi for your PhD in Leadership and Education Management at the Kenya Methodist University on, '*The Nexus between University Education and Students' Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya*'.

I write to inform you that your request has been approved. You are required to share the findings of your study with the University of Nairobi by depositing a copy of your research findings/thesis with the University of Nairobi Librarian on completion of your study.

Yours Sincerely,

PROF. MADARA OGOT
AG. DEPUTY VICE-CHANCELLOR
(RESEARCH, PRODUCTION AND EXTENSION)

RAC/..



KENYATTA UNIVERSITY

OFFICE OF DEPUTY VICE-CHANCELLOR, RESEARCH, INNOVATION AND OUTREACH

Ref: KU/DVCR/RCR/VOL.3/254

James Kubai,
Kenya Methodist University

P. O. Box 43844 - 00100
Nairobi, Kenya
Tel. 254-20-810901 Ext. 026
E-mail: dvc-rio@ku.ac.ke

27th November, 2018

Dear Mr. Kubai,

RE: REQUEST TO COLLECT RESEARCH DATA AT KENYATTA UNIVERSITY

This is in reference to your letter dated 14th November, 2018 requesting for authorization to collect research data at Kenyatta University on the topic "*The Nexus between University Education and Students' Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya*" towards a Ph.D degree of Kenya Methodist University.

I am happy to inform you that the Vice-Chancellor has approved your request to collect data. It has been noted that your data will be collected mainly from officers connected to Games & Sports in the University.

The University requires that, upon completion of your research, you submit a hard copy of your project report to the Deputy Vice-Chancellor, Research who shall forward it to the University Library. Kindly therefore complete Form RIO3 and return it to my office prior to the commencement of collection of data.

Yours Sincerely,

Prof. F. Q. Gravenir
Deputy Vice-Chancellor
Research, Innovation & Outreach
cc. Vice-Chancellor

ST. PAUL'S UNIVERSITY

Private Bag 00217 LIMURU, KENYA
Email: dvcaa@spu.ac.ke
Website: www.spu.ac.ke



Tel Office: + 254(0) 20-2020505/10
Mobile: + 254(0) 728 -669000
(0) 736 - 424440

OFFICE OF THE DEPUTY VICE CHANCELLOR - ACADEMICS

21st November, 2018

Mr. James Taitumu Kubai,
P. O. Box 1417-60200,
0727570144
MERU

Dear Mr. Kubai,

RE: PERMISSION TO CONDUCT RESEARCH

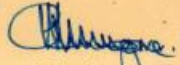
Greetings.

We acknowledge receipt of your letter 15th November, 2018 requesting for permission to conduct research from our institution.

I have noted that you have secured a research permit from NACOSTI and the other relevant offices. Permission is therefore granted but you are required to ensure that the data collected will be used anonymously and for Academic purposes only. You are requested to get in touch with the Dean of Students who will be your liaison person for this purpose. Further, you are required to share your findings with the University upon the conclusion of your study.

We wish you all the best in your studies.

Yours sincerely,


Prof. Charity Irangu

Deputy Vice Chancellor Academic Affairs



Copy to: The Vice Chancellor
 The Dean of Students



THE TECHNICAL UNIVERSITY OF KENYA

Haile Selassie Avenue, P. O. Box 52428, Nairobi, 00200, Tel: +254 (020) 3343672, 2219929, 0732388765.
E-mail: vc@tukukenya.ac.ke, Website: www.tukukenya.ac.ke

Office of the Vice-Chancellor
Prof. Dr.-Ing. Francis W. O. Aduol

12th April, 2019

Our Ref: TUK/UNISEC-VC/RESEARCH/VOL. II

James Taitumu Kubai,
P. O. Box 1417-60200,
NAIROBI.

"BY HAND DELIVERY"

Cell phone: 0727170144

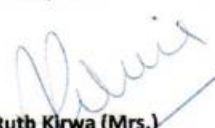
RE: RESEARCH DATA

We are in receipt of your letter dated 4th March, 2019 on the above-captioned matter and note the contents thereof.

Consequently, we are pleased to inform you that your request to conduct research in our University in the area of **"The nexus between University Education and Students' Talent Development: A critical Analysis of Elite Sports Management in Selected Universities in Kenya"** has been granted, accordingly.

We look forward to according you any assistance that you may need to make the said research a success.

Please get in touch with our Director, Research and Knowledge Exchange, Prof. Fiona Mbai, for any further clarification for the matter hereof.


Ruth Kirwa (Mrs.)
University Secretary
FOR: VICE-CHANCELLOR

Copy to: **Deputy Vice-Chancellor, Academic, Research and Students (ARS)**
Director, Research and Knowledge Exchange

RKK/vnm

Education and training for the real world



ISO 9001:2015 Certified

James Taitumu Kubai,
P.O Box 1417 -60200,
Email: jamestkubai@gmail.com
Tel. 0727570144
Meru.

12th December, 2018

Dear Mr. Kubai,

REF: PERMISSION TO CONDUCT RESEARCH AT USIU - AFRICA

Following your request to conduct a research study in USIU-Africa on the topic ““The Nexus between University Education and Students’ Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya” the University’s Research Office has authorized you to collect data from respondents in our university.

However the university imposes the following conditions:

1. No personal information will be asked of the respondents.
2. You will share the preliminary report findings with us prior to completion.
3. You will provide a copy of the completed research to us.
4. Under no circumstances will the information obtained from USIU-Africa be re-used or disclosed for other purposes.

Your research period expires on 14th March, 2019. Kindly contact the undersigned to confirm your acceptance to the conditions stated above.

Sincerely,



Prof. Amos Njuguna,
Dean – School of Graduate Studies, Research and Extension
Tel: 730 116 442
Email: amnjuguna@usiu.ac.ke

Mount Kenya University



OFFICE OF THE VICE-CHANCELLOR

OUR REF: MKU/GEN/11-18/456

15th December, 2018

James Taitumu Kubai
P O Box 1417 - 60200
MERU

Dear Mr. Kubai,

RE: RESEARCH DATA


.....

I acknowledge with thanks receipt of your letter dated 14th November, 2018 on the above subject.

Following consultation, I am pleased to grant you permission to collect data for your doctoral research entitled "*The Nexus between University Education and Students' Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya*".

By a copy of this letter, the Director, Research and Innovation is kindly requested to accord you the necessary assistance.

Yours faithfully


Prof. Stanley W. Waudu, Ph.D
VICE-CHANCELLOR



Copy: Deputy Vice-Chancellor, Academic and Research Affairs
Director, Research and Innovation

...SWW/mcn



MULTIMEDIA UNIVERSITY OF KENYA

P .O. BOX 15653 - 00503, NAIROBI, KENYA.

(MMU is ISO 9001:2008 Certified)

OFFICE OF THE DEPUTY VICE CHANCELLOR (AA, R&I)

REF: MMU/DVC AA R&I/RESEARCH/VOL.1

18th March, 2019

Mr. James Taitumu Kubai
P O Box 1417 - 60200
MERU

Dear Mr. Kubai

RE: REQUEST FOR COLLECTION OF DATA IN THE UNIVERSITY


Reference is made to the above subject matter pursuant to your letter dated 4th March, 2019 and in which you sought permission for data collection from the University.

We note that you are a registered PhD. student at Kenya Methodist University and we are pleased to inform you that your request has been granted and permission approved for collection of data within Multimedia University of Kenya, Main Campus.

You are required to report to the Registrar Administration before you commence your data collection. You will be required to observe the University Rules and Regulations. Upon completion of your study, ensure that you submit a copy of your Project Report/Dissertation/Thesis to Multimedia University of Kenya.

We hope that our support will contribute to the success of your career development.

Yours faithfully,


PROF. PAUL N. MBATIA PhD.
Deputy Vice-Chancellor (AA, R&I)

C.c. Vice Chancellor
Deputy Vice Chancellor – AF&P
Reg. Administration
Ag. Registrar, (R&I)
Ag. Librarian
Chief Security Officer



MOI UNIVERSITY

OFFICE OF THE DEPUTY VICE CHANCELLOR
ACADEMICS, RESEARCH AND EXTENSION

Tel: (053) 43355
(053) 43620
Fax: (053) 43412
Email: dvc_are@mu.ac.ke or dvcresearchmu@gmail.com

P.O. Box 3900
Eldoret - 30100
Kenya

MU/DVC/REP/27B

4TH DECEMBER, 2018

TO WHOM IT MAY CONCERN

RE: AUTHORITY TO COLLECT DATA – JAMES TAITIMU KUBAI

Mr. James Taitimu Kubai is a student at Kenya Methodist University undertaking a Doctor of Philosophy in Leadership and Education Management. He has applied for authority to collect data within Moi University.

The purpose of this letter is to request you to accord him all the support as he collects his data on research titled: *"The Nexus between University Education and Student's talent development: A critical analysis of Elite Sports Management in selected Universities in Kenya"*.

By copy of this letter, authority is hereby granted to him to conduct the said research.

After the completion of the research, a complete report in both hard and soft copy shall be submitted to the office of Deputy Vice-Chancellor, Academics, Research & Extension.

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

PROF. I.N. KIMENGI, Ph. D
DEPUTY VICE-CHANCELLOR
ACADEMICS, RESEARCH & EXTENSION

SKM/sm



Kenya Methodist University

P. O Box 267 - 60200, Meru, Kenya. Tel: (+254-020) 2118423-7, 064-30301/31229 Email: info@kemu.ac.ke , Website: www.kemu.ac.ke

OFFICE OF THE VICE-CHANCELLOR

Ref: KeMU/A/VC/BPGS/2019

7th February 2019

James Taitumu Kubai
P O Box 1417 - 60200
MERU

Mobile No: 0727 570 144
Email: jamestkuai@gmail.com

Dear Mr. Kubai,

RE: **AUTHORIZATION TO CONDUCT RESEARCH AT KeMU**

Reference is made to the above subject matter.

Your request seeking authorization to collect data for your research titled, "*The Nexus between University Education and Students' Talent Development: A Critical Analysis of Elite Sports management in Selected Universities in Kenya.*" at Kenya Methodist University has been approved.

Please note that only approved data forms are to be used in the enrollment of participants with their individual consent. All consent forms signed by subjects and/or witnesses should be retained on file. Further, any substantial changes in the scope of your research from what is presently provided will require an approval from the University.

Please proceed as you have outlined in your proposal and share your findings with the University by sending a copy to the Director, Postgraduate Studies.

If the terms are acceptable to you please sign a copy of this letter and return it to the office of Postgraduate Studies as soon as possible.

Yours sincerely


PROF. MAURICE O. OKOTH, Ph.D
VICE-CHANCELLOR

I, the undersigned hereby confirm acceptance of this offer and the conditions stated herein.

Signed.......... Date...11/02/2019

Appendix V: Questionnaires

Appendix V (a): Deans of Students in the Universities

This questionnaire is designed to gather information on;
“The Nexus between University Education and Students’ Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya”.
All the information in this questionnaire will be strictly **confidential**. **Please do not write your name or the name of the University.**
Respond to each item by;
a) **Tick** (√) against the **appropriate** alternative for the objective items
Or,
b) **Writing** a precise and brief response for the open ended questions/statements in the provided spaces.

SECTION A: Demographic Information of the Respondents

Please tick (√) as appropriate

1. Gender Male Female
2. Indicate duration you have served as a Dean of Students in the University
 Under 3 years Over 3 years to 5 years Over 5 years to 10 years
 Over 10 years
3. Please indicate your working experience in the universities
 Under 5 years Over 5 years and less than 10 years Over 10 to 20 years +20years

SECTION B: University Education and Students’ Talent in Elite Sports

4. Please indicate the category of the University
 Public Private Secular Private Religious
5. Did your university participate during the National Inter-Universities Games in 2015
 Yes No Not sure
6. If yes above, indicate the medal(s) won in
Athletics Gold Silver Bronze none not sure
Rugby Gold Silver Bronze none not sure
Soccer Gold Silver Bronze none not sure
Volleyball Gold Silver Bronze none not sure
7. Indicate category in 6 (above)
Athletics Men women
Soccer Men) Women
Volleyball Men Women
Rugby Men

8. Games and sports Department in your university is structurally;

- Under supervision of Deputy Vice Chancellor, Academic Affairs and Student Welfare
- Under the supervision of the Dean of Students
- Under the supervision of Director of Games and Sports
- A Unit but under the Head of a Department
- None of the above

9. Who prepares the Annual Budget for Games and Sports in the University?

- Dean of Students
- Director/Games and Sports
- Others

10. Does the University have a developed favorable structure to admit talented students in sport using talent as part of Admission Criteria?

- Yes, Always
- Yes, at times
- none

If yes, please explain briefly how this is done

11. If none in 10 (above) what do you recommend for talented students recruitment policy in the universities?

	Indicator	Response Item	5	4	3	2	1
a)	Recruitment Policy	The University to establish structures to attract and recruit talented students' in sports directly from High Schools.					
b)	Talented Students	Universities to attract and recruit talents in elite sports through talent scouting and recruitment					
c)	Admission Criteria	Universities to attract and recruit talents in elite sports through Universities flexible admission criteria					

SECTION C: Promotion of Students’ Talent Development for elite sports in the Universities

12. What is your opinion on the following?

	Indicator	Response Item	5	4	3	2	1
a)	Sports Scholarships	Universities to attract and recruit talents in elite sports through Sports’ Scholarships					
b)	Flexible Academic Implementation Schedules	Universities to adopt flexible academic schedules for talents in elite sports to accommodate their sports training schedules in the national camps and representing the country international competitions					

SECTION D: Management of Elite Sports in the Universities

13. a) Briefly, describe the education support systems that the Office of the Dean of Students should invoke in order to develop and nurture talents in elite sports in the Universities in Kenya

b) Comment on the challenges experienced in the management of elite sports with regard to the following;

i) Elite sports management structures in the university

ii) Financing of elite sports training and competitions

iii) Personnel to implement elite sports programs

SECTION E: University Education and Talent Management model in Elite Sports

14. Universities to partner with National Sports Governing Bodies and other external donors to;

	Indicator	Response Item	5	4	3	2	1
a)	Financing Students Activities	Finance and Support Talents in Elite Sport and their activities in the Universities					
b)		Solicits for Sponsorships/ Donations for elite sports programs in the universities					
c)	Training and Competitions	Acquire ideal sports training facilities and equipment for elite sports in the Universities					

Thank you for participating in filling the questionnaire

Appendix V (b): Sports Directors/Heads of Games and Sports Departments in the Universities in Kenya

This questionnaire is designed to gather information on;
 “The Nexus between University Education and Students’ Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya”
 All the information in this questionnaire will be strictly **confidential**. **Please do not write your name or the name of the University**
 Respond to each item by
 a) **Ticking** () against the **appropriate** alternative for the objective items
Or
 b) **Writing** a precise brief response for the open ended questions/statements in the provided spaces

SECTION A: The Demographic Information of the Respondents

Please **tick** (√) as appropriate
 1. Gender () Male () Female
 2. Indicate the duration you have served as a Director/ Head of Games and Sports in the University.
 () Under 3 years () Over 3 years to 5 years () Over 5 years to 10 years () Over 10 years
 3. Please indicate your overall working experience in the universities
 () Under 5 years () Over 5 years and less than 10 years () Over 10 years to 20 years () + 20 years

SECTION B: University Education and Students’ Talents in Elite Sports

4. Indicate the category of Universities
 () Public () Private Secular () Private Religious
 5. How do talented students in elite sports finance their education in the universities?
 () Self Sponsorship () Sports Scholarships () others

	Indicator	Response Item	5	4	3	2	1
6.	Student Recruitment Policy	Should Universities establish structures to attract and recruit talented students in sports directly from high schools in order to play a significant role of nurturing and developing talents in elite sports through University education?					

7.	Talented Students	Should Universities attract and recruit talents in elite sports by scouting and then recruiting the talents?					
8.	Flexible Admissions	Should Universities attract and recruit talents in elite sports through flexible admission criteria?					

SECTION C: Promoting Student talent development in the Universities

	Indicator	Response Item	5	4	3	2	1
9.	Sports Scholarships	Universities to attract and recruit talents in elite sports by offering Sports Scholarships?					
10.	Flexible Academic Implementation Schedules	Universities to adopt a flexible academic schedule for talents in elite sports to accommodate their training schedules in the national camp?					
11.	Training and Competitions	Universities to adopt a flexible academic schedule for talents in elite sports to accommodate their participation in international sports Competitions?					

SECTION D: Management of Elite Sports in the Universities

<p>12. Comment on the challenges experienced during the management of Elite Sports in the universities and specifically on the following:</p> <p>a) Elite Sports Management Structures in the Universities</p> <p>_____</p> <p>b) Financing of Elite Sports, training and competitions</p> <p>_____</p> <p>c) Personnel to implement Elite Sports Programs</p> <p>_____</p>

SECTION E: University Education and Talent Management Model

13) Universities to Partner with National Sports Governing Bodies and other external donors

	Indicator	Response Item	5	4	3	2	1
a)	Financing Students Activities	To finance and support talents in Elite Sports and their activities in the Universities?					
b)		To Solicit for Sponsorships/ Donations for Elite Sports Programs in the Universities					
c)	Training Facilities & Equipment	Acquire Ideal Sports Training Facilities and Equipment for Elite Sports in the Universities					

14) Describe the current administrative structure for the Games Department in the University

15) Do you have qualified technical personnel to coach the following sports disciplines at elite levels in the universities?

- a) Rugby () Yes () No
- b) Soccer Ladies () Yes () No
- c) Soccer Men () Yes () No
- d) Volleyball Ladies () Yes () No
- e) Volleyball Men () Yes () No
- f) Track and field Ladies () Yes () No
- g) Track and Field Men () Yes () No

16) What Structural model would you recommend the universities to embrace in the Management of elite sports in Kenya?

Thank you for participating in filling the question

Appendix V (c): Games Tutors in the Universities in Kenya

This questionnaire is designed to gather information on
“The Nexus between University Education and Students’ Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya”

All the information in this questionnaire will be strictly **confidential**. **Please do not write your name or the name of the University.**

Please respond to each item by;

a) **Ticking** (✓) against the **appropriate** alternative for the objective items

Or

b) **Writing** a precise brief response for the open ended questions/statements in the spaces provided.

SECTION A: The Demographic information of the respondents

Please **Tick** (✓) as appropriate

1. Gender () Male () Female
2. Indicate duration served as a Games Tutor in the University,
() Under 3 years () Over 3years to 5 years () Over 5 years to 10 years () Over 10 years
3. Please indicate your working experience in the universities,
() Under 5 years () Over 5 years to less than 10 years () Over 10 years to 20 years, ()
Over 20 years

SECTION B: University Education and Students’ Sports Talents

. Indicate the Category of Universities

() public () Private Secular () Private Religious

5. Why have Universities in Kenya not managed to nurture talents in elite sports like their American and European counterparts

	Indicator	Response Item	5	4	3	2	1
6	Student Recruitment Policy	To nurture talents in elite sports, the Universities in Kenya need to revise their Students' Recruitment Policy to consider talent as part of University Admission Criteria					
7.	Talented Students	The talented students should be admitted directly from high school and mentored to balance their education and elite sports programs in the universities					
8.	Flexible Admission Criteria	To attract talented students, the university admission criteria should be flexible to accommodate talented students at the minimum University admission requirements,					

SECTION C: Promotion of Students' Talent Development in the Universities

	Indicator	Response Item	5	4	3	2	1
9.	Flexible Academic Implementation Schedules	For Universities in Kenya to develop talented students in elite sports, they should consider an implementation of a flexible academic program that is sensitive to student training camps and international competitions,					
10.	Sports Scholarships	To attract, recruit and retain talented students in elite sports, universities to consider offering Sports Scholarships					

SECTION D: Management of Elite Sports in the Universities

	Indicator	Response Item	5	4	3	2	1
11.	Sports Management Structures	In order to effectively manage talents in elite sports, the universities should establish sports management structures that are responsive to the educational needs and selective to talents in elite sports					
12.	Financing Students Activities	Under the realm of talent management structures, the university should establish a budget to finance training and competition opportunities for talented students in elite sports					
13	Human Capital	Within talent management structures, the University should consider recruiting qualified technical personnel to mentor talented students' in balancing both elite sports and educational commitments					

SECTION E: University Education and Talent Management Model

14. In order to develop an effective integrated model that embraces university education and talent management in elite sports in the universities

	Indicator	Response Item	5	4	3	2	1
a)	Sports Training & Competitions	Should facilitate talented students with opportunities for training and participation in International sports Competitions					
b)	Sponsorships & Donors	Should consider collaborations with sports governing bodies and other external agencies					

	Indicator	Response Item	5	4	3	2	1
15.	Talent Management Model	An effective integrated model must take keen interest on student academic progression to avoid a conflict between students' educational needs and career in elite sports in the universities.					

16) Briefly indicate other factors to consider when developing a model that embraces academics and talents in elite sports in the Universities in Kenya

Thank you for participating in filling the questionnaire

Appendix V (d): Coaches in Elite Sports in the Universities

This Questionnaire is designed to gather information on,
“The Nexus between University Education and Students’ Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya”
All the Information in this questionnaire will be **strictly confidential**. **Please do not write your name or the name of the university.**
Please respond to each item by,
a) **Tick**ing (✓) against the **appropriate** alternative for the objective items
Or
b) **Writing** a precise brief response for the open ended questions/ statements in the spaces provided

SECTION A: The Demographic Information of the respondents

Please Tick (✓) as Appropriate
1) Gender () Male () Female
2) Indicate the duration served as a coach
 () Under 3 years () Over 3 years to 5 years () Over 5 years to 10 years () Over 10 years
3) Please indicate your coaching experience in the universities
 () Under 5 years () Over 5 years and less than 10 years () Over 10 to 20 years () Over 20 years

SECTION B: University education and students’ sports talents

1. Indicate the category of Universities
 () Public () Private Secular () Private Religious
2. Indicate your Special area in coaching among the following
 () Rugby () Soccer () Soccer () Track & Field () volleyball
3) The team currently assigned to in the university
 () Men team () Ladies team () Both Men and Ladies teams
4) Indicate competitions regularly participated by the team in a calendar year
 () National External Tournaments () National External Leagues () University Tournaments () University Leagues () Both External and University Tournaments () Both External and Internal University Leagues
5) Are there players who turns up for national assignment from your team(s)
 () Yes () None () Not sure

- 6) If yes, how do they and those others in your team balance their commitments between sports and academics particularly during university examinations
 Players are allowed to participate in competitions and take their examinations later.
 Special arrangements are made to administer examinations alongside sports assignments.
 Players involved in national sports assignment are left to choose between either the national.
 Sports assignments or university examinations as an individual choice
 Not sure what option is preferred.
- 7) Are there players who miss from your team because of playing for external clubs while they are students in the university?
 Yes No Not sure
- 8) If yes, how do they and those others in your team balance their commitments between sports and academics particularly during university examinations
 Players are allowed to participate in competitions and take their examinations later.
 Special arrangements are made to administer examinations alongside sports assignments.
 Players involved in national sports assignment are left to choose between either the national.
 Sports assignments or university examinations as an individual choice
 Not sure what option is preferred.
- 9) Are there players who miss from your team because of playing for external clubs while they are students in the university?
 Yes No Not sure
- 10) Are there students' players you find talented but their services are not regular because of being away due to none payment of fees?
 Yes no not sure
- 11) What would you advise the university policy makers in an attempt,
- a) To increase the quality and number of players who can make the university visible by participating in the national team like those players from armed forces or elite clubs?

- b) To retain talented players in the university teams instead of playing for external clubs while undertaking academic programs in the universities?

- c) To retain those talented players in the university team and who find themselves out of the university due to nonpayment of fees?

SECTION C: Management of Elite Sports in the Universities

	Indicator	Response Item	5	4	3	2	1
10.	Talented Students' Sports Management Structures	Through effective management structures, universities in Kenya are capable of nurturing elite sports talents to compete and win medals in Olympic Games like those in the armed forces, elite sports clubs and universities in America and Europe					

11) What type and level of training do you recommend for the following in order for universities to dominate sports participation in Kenya

a) Coaches

b) Games Tutors

c) Directors/Heads of Games and Sports

12) Which areas do you recommend further financing in order to improve the quality of sports in the universities in Kenya

13) What do you recommend the universities to embrace so as to come up with a model that together addresses both the needs in academics and elite sports in the universities?

a) Opportunities for training and competitions

b) Contributions from external donors

c) Talented Students' Academic Progression

d) List other elements that you consider necessary in order to establish Talent/Academic Model in elite sports in the Universities in Kenya.

SECTION D: University Education and Talent Management Sports Model

14) What do you recommend the universities to embrace so as to come up with a model that together addresses both the needs in academics and elite sports in the universities?

a) Opportunities for training and competitions

b) Contributions from external donors

c) Talented Students' Academic Progression

d) List other elements that you consider necessary in order to establish Talent/Academic Model in elite sports in the Universities in Kenya.

Thank you for participating in filling the question

Appendix V (e): Talented Students in Elite Sports in the Universities

This questionnaire is designed to gather information on;

“The Nexus between University Education and Students’ Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya”

All the information in this questionnaire will be strictly **confidential**. **Please do not write your name or the name of the University.**

Please respond to each item by,

- a) **Ticking** () against the **appropriate** alternative for the objective items
Or
- b) **Writing** a precise brief response for the open ended questions/statements in the spaces provided

SECTION A: The Demographic Information of the Respondents.

Please **tick** () as appropriate;

- 1) Gender () Male () Female
- 2) Sport () Rugby () Soccer () Track and Field () Volleyball
- 3) At what stage did you start serious competitions in the sport
() Primary School () Secondary School () University
- 4) Indicate the year and age for (3) above
Year of first serious competition () Age of first serious competition (____ years)
- 5) Indicate your stage level in the university () 1st year () 2nd year () 3rd year () 4th year ()
5th year () 6th year () 7th year

SECTION B: University Education and Students Sports’ Talents

- 6) How were you recruited to the university as a student?
() Through University Joint Admission Board;/ K.U.C.C.P.S
() Through direct application to the University
() Through a University request based on Talent
() Others, Please Specify

- 7) How do you finance your education in the University?
() Through State sponsorship
() Through University Sponsorship
() None of the above

8) Does the University have a scholarship scheme system?

() Yes () No () Not sure about this

SECTION C: Students' Sports Talent Development in the Universities

9) Can students in the universities perform equally well in sports just like those who win medals in Olympic Games?

() Yes () No

Give reason for your answer

10) Describe the current status of elite sports in the universities in Kenya

11) What would you describe as the challenges facing students' talent development in elite sports in the universities in Kenya?

a) Academic

b) Financial

c) Training and Competition

12) Suggest Strategies that can be used to address the above challenges

a) Academic

b) Financial

c) Training/Competitions

SECTION D: Management of Elite Sports in the Universities

<p>13) How many hours do you commit on training per week during week days? () 5 hours () 10 hours () 15 hours () 20 hour () 25 hours () 30 hours</p> <p>14) Describe the mode of training during the week days () Coach Supervised () Captain Supervised () Self Supervised</p> <p>15) Describe your weekend schedule in either sports training or competitions _____</p> <p>16) Describe the role played by the university in assisting you to develop your sports talents _____</p> <p>17) Indicate how you would wish this to be improved _____</p>

SECTION E: University Education and Talent Management Model in Elite Sports in the Universities

18) Recommend the best approach of integrating university education and Talents in elite sport without compromising the academic integrity in the university

19) Recommend the best approach of sponsoring elite sports in the universities but monitoring the academic progress of talented students

20) Describe the best method that can be adopted to enable talented students in elite sports to access university education while actively competing in international competition

Thank you for participating in filling the questionnaire

6.	Flexible Admission Criteria	To attract talented students, the university admission criteria should be flexible to accommodate talented students at minimum university admission requirements					
----	------------------------------------	--	--	--	--	--	--

SECTION C: Students' Sports Talent Development in the Universities

	Indicator	Response Item	5	4	3	2	1
7.	Flexible Academic Implementation Schedule	For Universities in Kenya to develop talented students in elite sports, they should consider a flexible academic program implementation that responds to students training and international competitions					
8.	Sports Scholarships	To attract, recruit and retain talented students in elite sports the Universities should consider offering sports scholarships					

SECTION D: Management of Elite Sports in the Universities

	Indicator	Response Item	5	4	3	2	1
9.	Elite Sports Management Structures	To manage talents in elite sports, the universities should establish sports management structures that are responsive to elite sport					
10.	Financing Students Activities	To support Talent Management Structures, the University should rely on an established budget to finance training and competition opportunities for elite sports					
11.	Human Capital	The University Talent Management Structures should consider recruiting qualified and competent technical human capital to mentor talented students' in both elite sports and educational commitments					

SECTION E: Education and Talent Management Model in Elite Sports in the Universities

12. In order to develop an effective integrated model that embraces education and management of talents in elite sport in the universities in Kenya;

	Indicator	Response Item	5	4	3	2	1
a)	Training and Competitions	The Universities should provide talented students with opportunities for elite training and competitions					
b)	Sponsorships and Donations	The Universities to seek collaborations with related external bodies					
c)	Talent and Education Model	An effective model must take keen interest on both the students' academic progression and career in elite sports					

13. Briefly indicate other factors you consider necessary in order to develop a model that embraces education and talents in elite sports

Thank you for participating in filling the questionnaire

Appendix VI a: Interview Schedules

This Interview Schedule is designed to gather information on,

“The Nexus between University Education and Students’ Talent Development: A Critical Analysis of Elite Sports Management in Selected Universities in Kenya”

All the Information related to this Interview will be strictly **confidential**. **Neither the name of the respondent nor that of the university will appear in context during the research study report.**

1. Universities in Kenya have not significantly contributed to the development of talents in elite sports like their counterparts in America, Europe and Australia.
 - a) What are the challenges?
 - b) What interventions that can address these challenges?
2. Can universities in Kenya effectively nurture talents in elite sports through University Education? Give four reasons for your answer.
3. How has sport management in the universities contributed to the poor state of sports talent development in the universities in Kenya?
4. Suggest a model that could integrate university education and students’ talents in elite sports in Kenya.

Thank you for participating in the interview

Appendix V1b: Observation schedule

Tick as appropriate

1. University Category () Public () Private Secular () Private Religious
2. Available (Playing) Fields () Track & Field () Rugby () Soccer () Volley Ball
3. State of Playing Fields: Track & Field () Maintained () Not maintained
Rugby () Maintained () Not maintained
Soccer () Maintained () Not maintained
Volley Ball () Maintained () Not maintained
4. Are there national /club sports facilities available?
All weather Track and Field () Yes () No
Rugby Pitch () Yes () No
Soccer Pitch () Yes () No
Volley Ball Pitch () Yes () No
5. Are universities equipped with Isometric and Iso-kinetic training facilities?
6. Opinions based on the observations;
() The training facilities are adequate for International Sports Competitions
() The training facilities are not adequate for International Sports Competitions

Appendix V1c: Content Analysis Guide

1. University Records
 - a. Admission Requirements

Certificate Programs

Diploma Programs

Degree Programs

- b. Academic Time Tables
 - c. Letters
 2. Media Reports
 - a. News Papers
 - b. Magazines
 - c. Bulletins
 3. Based on the analysis
 - a. Are there elite players in the universities who play for National Teams
 - b. Do university Timetables accommodate students' training needs
 - c. Can flexible admission criteria be innovatively adapted in the universities
 4. Competency Based Curriculum in educational institutions
 - a. Chronological Ages
 - b. Education levels
 - c. Long Term Athletic Talent Development (LTATD) Programs

Some of the university students representing the country as members of national team



[When KeMU girls helped Harambee Starlets make history](#)

Kenya made history when it qualified for the 2016 Africa Women Cup of Nations (AWCON) in Cameroon. Photo/KeMU[Nation]

KeMU's Cherise Avilia scored the golden goal against Algeria at the Safaricom stadium Kasarani. Avilia was also part of the KeMU team who were runners- up in the continent in the Africa University Games in Kenya, winners of the East Africa University gold medal in Uganda, winners of the National University Championship (KUSA) in JOOUST December, 2015.

In addition, she was the captain of the Harambee Starlets in 2015 when they played against Egypt's Pharaohs. Other KeMU students who featured in the qualifiers were Erneez Mango, goalkeeper Samantha Akeyo, Essey Akida and Neddy Atieno.

Adapted from University Times June 2017, Nairobi

<http://www.universitytimesafrica.com/index.php/sports/451>

Appendix V1d: Focus Group Discussions

1. Do university students in Kenya engage in serious guided training and competitions in elite sports?
2. What are the Challenges that are faced by university students during training and competitions?
3. What role do directors of sports play during training and competitions in the universities?
4. Are there talented students in elite sports in the universities?
5. If there are, are they capable of participating in the Olympic Games?
6. If there are not, how can they be nurtured and developed in the universities?



Focus Group participants

Appendix VII a): Universities and their status in Kenya (2019)

Public Universities

S/NO	Name of University	Year Formed	Year Accredited
1	University of Nairobi	1970	2013
2	Moi University	1984	2013
3	Kenyatta University	1985	2013
4	Egerton University	1987	2013
5	Jomo Kenyatta University of Agriculture and Technology	1994	2013
6	Maseno University	2001	2013
7	Chuka University	2007	2013
8	Dedan Kimathi University	2007	2013
9	Kisii University	2007	2013
10	Masinde Muliro University of Science and Technology	2007	2013
11	Pwani University	2007	2013
12	Technical University of Kenya	2007	2013
13	Technical University of Mombasa	2007	2013
14	Masai Mara University	2008	2013
15	Meru University of Science & Technology	2008	2013
16	Multimedia University (MMU) of Kenya	2008	2013
17	South Eastern Kenya University	2008	2013
18	Laikipia University	2008	2013
19	Jaramogi Oginga Odinga University of Science & Technology	2008	2013
20	University of Kabianga	2009	2013
21	Karatina University	2010	2013
22	University of Eldoret	2010	2013
23	Kibabii University	2011	2013
24	Kirinyaga University	2011	2016
25	Machakos University	2011	2016
26	Muranga University of Science & Technology	2011	2016
27	Rongo University	2011	2016
28	Taita Taveta University	2011	2016
29	Cooperative University	2011	2016
30	University of Embu	2011	2016
31	Garissa University	2011	2017

Public Universities Constituent Colleges

S/NO	Name of University Constituent Colleges	Year Formed
32	Alupe University College (Moi)	2015
33	Kaimosi U. College (MMUST)	2015
34	Tom Mboya U. College (Maseno)	2016
35	Turkana U. College (MMUST)	2016
36	Bomet University College (Moi)	2017
37	Tharaka University College (Chuka)	2017

Private Universities (Accredited)

S/NO	Name of University	Year Formed	Year Accredited
38	University of E.A (Baraton)	1989	1991
39	Daystar University	1989	1994
40	Scott Christian University	1989	1997
41	United State International University-Africa (U.S.I.U-Africa)	1989	1999
42	Africa Nazarene University	1993	2002
43	Catholic University of East Africa	1989	2003
44	Kenya Methodist University	1997	2006
45	St. Paul's University	1989	2007
46	Pan African Christian University	1889	2007
47	Kabarak University	2002	2008
48	Africa International University	1989	2011
49	Kenya Highlands Evangelical University	1989	2011
50	Mount Kenya University	2008	2011
51	Great Lakes University of Kisumu	2005	2012
52	Strathmore University	2007	2013
53	Adventist University of Africa	2005	2013
54	KCA University	2007	2013
55	KAG East University	1989	2016

Private Universities (Letters of Interim Authority)

S/NO	Name of University Constituent Colleges	Year Formed
56	Aga Khan University	2002
57	Kiriri Womens' University of Science & Technology	2002
58	Gretsa University	2006
59	Presbyterian University of East Africa	2007
60	The East Africa University	2010
61	Management University of Africa	2011
62	Pioneer International University	2012
63	Riara University	2013
64	Umma University	2013
65	International Leadership University	2014
66	Zetech University	2014
67	Lukenya University	2015
68	RAF International University	2016
69	AMREF International University	2016

Private Universities Constituent University College

S/NO	Name of University Constituent Colleges	Year Formed
70	Hekima University College (CUEA)	1993
71	Tangaza University College (CUEA)	1993
72	Marist International University College (CUEA)	2002
73	Regina Pacis University College (CUEA)	2010
74	Uzima University College (CUEA)	2012

Source: Ngeera (2018 pp. 228-231)

Appendix VII b) Universities that participated in the 2015 National Universities Games

Private Universities

1. Kenyatta University
2. Moi University
3. University of Eldoret
4. University of Nairobi
5. Technical University of Kenya
6. Kibabii University
7. Maseo University
8. Kisii University
9. Jaramogi Oginga Odinga University
10. South Eastern Kenya University
11. Jomo Kenyatta University of Agriculture & Technology
12. Egerton University
13. Masinde Muliro University of Science & Technology
14. Muranga University
15. Rongo University
16. Kirinyaga University
17. Multimedia University
18. Pwani University

Private Universities

1. United State International University
2. Kenya Methodist University
3. Mount Kenya University
4. Strathmore University
5. St. Paul's University
6. Kabarak University

Appendix VII c) Selected Universities

Public Universities

1. Kenyatta University
2. Moi University
3. University of Eldoret
4. University of Nairobi
5. Technical University of Kenya
6. Maseno University
7. Multimedia University
8. Kisii University
9. Kibabii University
10. Jomo Kenyatta University of Agriculture & Technology
11. Jaramogi Oginga Odinga University of Science & Technology

Private Universities

1. United State International University-Africa
2. Kenya Methodist University
3. Mount Kenya University
4. Strathmore University
5. St. Paul's University

Appendix VII d) Research Sample

1. Kenyatta University
2. Moi University
3. Mt, Kenya University
4. United State International University-Africa
5. St. Paul's University
6. Kenya Methodist University
7. Technical University of Kenya
8. Multi Media University of Kenya
9. University of Nairobi

Appendix VIII: SPSS Results

Appendix VIII (a): Student Talent Development against Academic Policies

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Student Talent Development * Education Policy	381	100.0%	0	0.0%	381	100.0%

Student Talent Development * Education Policy Cross tabulation

			Education Policy					Total
			1.00	2.00	2.23	3.00	4.00	
Student Talent Development	1.00	Count	0	9	0	2	0	11
		Expected Count	.1	7.7	1.0	1.9	.2	11.0
	2.00	Count	1	4	0	1	0	6
		Expected Count	.1	4.2	.5	1.1	.1	6.0
	3.00	Count	1	155	11	44	5	216
		Expected Count	2.3	151.9	19.3	38.0	4.5	216.0
	3.26	Count	0	13	16	1	0	30
		Expected Count	.3	21.1	2.7	5.3	.6	30.0
	4.00	Count	2	87	7	19	3	118
		Expected Count	1.2	83.0	10.5	20.8	2.5	118.0
Total	Count	4	268	34	67	8	381	
	Expected Count	4.0	268.0	34.0	67.0	8.0	381.0	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Monte Carlo Sig. (2-sided)		Monte Carlo Sig. (1-sided)			
				Sig.	99% Confidence Interval		Sig.	99% Confidence Interval	
					Lower Bound	Upper Bound		Lower Bound	Upper Bound
Pearson Chi-Square	97.397 ^a	16	.000	.000 ^b	.000	.000			
Likelihood Ratio	57.440	16	.000	.000 ^b	.000	.000			
Fisher's Exact Test	55.038			.000 ^b	.000	.000			
Linear-by-Linear Association	.006 ^c	1	.936	.940 ^b	.934	.946	.464 ^b	.451	.477
N of Valid Cases	381								

a. 16 cells (64.0%) have expected count less than 5. The minimum expected count is .06.

b. Based on 10000 sampled tables with starting seed 1451419960.

c. The standardized statistic is -.080.

Symmetric Measures

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.	Monte Carlo Sig.		
						Sig.	99% Confidence Interval	
							Lower Bound	Upper Bound
Nominal by Nominal	Phi	.506			.000	.000 ^c	.000	.000
	Cramer's V	.253			.000	.000 ^c	.000	.000
Interval by Interval	Pearson's R	-.004	.050	-.080	.936 ^d	.940 ^c	.934	.946
Ordinal by Ordinal	Spearman Correlation	.002	.051	.038	.969 ^d	.970 ^c	.965	.974
N of Valid Cases		381						

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Based on 10000 sampled tables with starting seed 1451419960.
- d. Based on normal approximation.

Appendix VIII (b): Student Talented Development against Financial Support

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Student Talent Development * Financial Support	381	100.0%	0	0.0%	381	100.0%

Student Talent Development * Financial Support Cross tabulation

			Financial Support						Total
			1.00	2.00	2.45	3.00	4.00	5.00	
Student Talent Development	1.00	Count	0	6	1	3	0	1	11
		Expected Count	1.8	4.0	1.0	2.7	1.1	.5	11.0
	2.00	Count	0	4	1	0	1	0	6
		Expected Count	1.0	2.2	.6	1.4	.6	.3	6.0
	3.00	Count	43	80	10	56	20	7	216
		Expected Count	34.6	78.8	19.8	52.2	21.0	9.6	216.0
	3.26	Count	2	8	15	4	1	0	30
		Expected Count	4.8	10.9	2.8	7.2	2.9	1.3	30.0
	4.00	Count	16	41	8	29	15	9	118
		Expected Count	18.9	43.0	10.8	28.5	11.5	5.3	118.0
	Total	Count	61	139	35	92	37	17	381
		Expected Count	61.0	139.0	35.0	92.0	37.0	17.0	381.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
				Sig.	99% Confidence Interval		Sig.	99% Confidence Interval	
					Lower Bound	Upper Bound		Lower Bound	Upper Bound
Pearson Chi-Square	83.137 ^a	20	.000	.000 ^b	.000	.000			
Likelihood Ratio	63.064	20	.000	.000 ^b	.000	.000			
Fisher's Exact Test	54.607			.000 ^b	.000	.000			
Linear-by-Linear Association	1.968 ^c	1	.161	.158 ^b	.149	.168	.075 ^b	.069	.082
N of Valid Cases	381								

a. 16 cells (53.3%) have expected count less than 5. The minimum expected count is .27.

b. Based on 10000 sampled tables with starting seed 1660843777.

d. The standardized statistic is 1.403.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.	Monte Carlo Sig.			
					Sig.	99% Confidence Interval		
						Lower Bound	Upper Bound	
Nominal by Nominal	Phi	.467			.000 ^c	.000	.000	
Interval by Interval	Cramer's V	.234			.000 ^c	.000	.000	
Ordinal by Ordinal	Pearson's R	.072	.051	1.405	.161 ^d	.158 ^c	.149	.168
N of Valid Cases	Spearman Correlation	.091	.051	1.775	.077 ^d	.076 ^c	.069	.083

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on 10000 sampled tables with starting seed 1660843777.

d. Based on normal approximation.

Appendix VIII (c): Student Talented Development against Sports Training

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Student Talent Development * Sports Training	381	100.0%	0	0.0%	381	100.0%

Student Talent Development * Sports Training Cross tabulation

			Sports Training				Total
			1.00	1.87	2.00	3.00	
Student Talent Development	1.00	Count	3	1	7	0	11
		Expected Count	2.3	2.4	5.2	1.1	11.0
	2.00	Count	0	0	6	0	6
		Expected Count	1.2	1.3	2.9	.6	6.0
	3.00	Count	44	34	110	28	216
		Expected Count	44.2	47.6	102.6	21.5	216.0
	3.26	Count	3	18	6	3	30
		Expected Count	6.1	6.6	14.3	3.0	30.0
	4.00	Count	28	31	52	7	118
		Expected Count	24.2	26.0	56.1	11.8	118.0
	Total	Count	78	84	181	38	381
		Expected Count	78.0	84.0	181.0	38.0	381.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Monte Carlo Sig. (2-sided)		Monte Carlo Sig. (1-sided)			
				Sig.	99% Confidence Interval		Sig.	99% Confidence Interval	
					Lower Bound	Upper Bound		Lower Bound	Upper Bound
Pearson Chi-Square	45.557 ^a	12	.000	.000 ^b	.000	.000			
Likelihood Ratio	45.015	12	.000	.000 ^b	.000	.000			
Fisher's Exact Test	37.588			.000 ^b	.000	.001			
Linear-by-Linear Association	.962 ^c	1	.327	.335 ^b	.323	.347	.169 ^b	.159	.179
N of Valid Cases	381								

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is .60.

b. Based on 10000 sampled tables with starting seed 1644650155.

c. The standardized statistic is -.981.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.	Monte Carlo Sig.			
					Sig.	99% Confidence Interval		
						Lower Bound	Upper Bound	
Nominal by Nominal	Phi	.346			.000	.000 ^c	.000	.000
Nominal by Nominal	Cramer's V	.200			.000	.000 ^c	.000	.000
Interval by Interval	Pearson's R	-.050	.046	-.981	.327 ^d	.335 ^c	.323	.347
Ordinal by Ordinal	Spearman Correlation	-.138	.049	-2.716	.007 ^d	.007 ^c	.005	.009
N of Valid Cases		381						

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Based on 10000 sampled tables with starting seed 1644650155.
- d. Based on normal approximation.

Appendix VIII (d): Student Talented Development against Competition Opportunities

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Student Talent Development * Competition Opportunities	381	100.0%	0	0.0%	381	100.0%

Student Talent Development * Competition Opportunities Cross tabulation

			Competition Opportunities						Total
			1.00	2.00	2.71	3.00	4.00	5.00	
Student Talent Development	1.00	Count	0	3	1	4	3	0	11
		Expected Count	1.2	2.7	.7	4.4	1.9	.1	11.0
	2.00	Count	3	1	1	1	0	0	6
		Expected Count	.7	1.5	.4	2.4	1.0	.1	6.0
	3.00	Count	33	56	6	86	34	1	216
		Expected Count	23.8	52.7	14.2	85.6	37.4	2.3	216.0
	3.26	Count	3	8	10	6	3	0	30
		Expected Count	3.3	7.3	2.0	11.9	5.2	.3	30.0
	4.00	Count	3	25	7	54	26	3	118
		Expected Count	13.0	28.8	7.7	46.8	20.4	1.2	118.0
	Total	Count	42	93	25	151	66	4	381
		Expected Count	42.0	93.0	25.0	151.0	66.0	4.0	381.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
				Sig.	99% Confidence Interval		Sig.	99% Confidence Interval	
					Lower Bound	Upper Bound		Lower Bound	Upper Bound
Pearson Chi-Square	73.295 ^a	20	.000	.001 ^b	.000	.002			
Likelihood Ratio	60.294	20	.000	.000 ^b	.000	.000			
Fisher's Exact Test	58.792			.000 ^b	.000	.000			
Linear-by-Linear Association	8.331 ^c	1	.004	.003 ^b	.002	.005	.002 ^b	.001	.003
N of Valid Cases	381								

a. 17 cells (56.7%) have expected count less than 5. The minimum expected count is .06.

b. Based on 10000 sampled tables with starting seed 726961337.

c. The standardized statistic is 2.886.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.	Monte Carlo Sig.			
					Sig.	99% Confidence Interval		
						Lower Bound	Upper Bound	
Nominal by Nominal	Phi	.439			.000	.001 ^c	.000	.002
Nominal by Nominal	Cramer's V	.219			.000	.001 ^c	.000	.002
Interval by Interval	Pearson's R	.148	.049	2.915	.004 ^d	.003 ^c	.002	.005
Ordinal by Ordinal	Spearman Correlation	.159	.049	3.129	.002 ^d	.002 ^c	.001	.003
N of Valid Cases	381							

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on 10000 sampled tables with starting seed 726961337.

d. Based on normal approximation.