

**ASSETS AND MODES OF IDENTIFICATION AND DEVELOPMENT OF
TALENTED STUDENT-ATHLETES IN SELECTED SPORT DISCIPLINES
IN KENYAN UNIVERSITIES**

BY

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Declaration

This thesis is my original work and has not been presented for award of a degree in any university

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Dedication

I dedicate this thesis to my parents Joseph Mavinda and Margaret Anene and My sister Beatrice Atemo for their constant support and availability throughout my educational career.

Acknowledgement

Trying to visualize the sacrifice and many hours that I spent to meet deadlines for this project, I see the images of all people who supported me to ensure that the work is done within the set deadlines. I give special thanks to my parents, and my sister for their constant advice that kept me walking on this thesis path whenever I felt I should not make further steps.

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List of Abbreviation and Acronyms

ITF- International Tennis Federation

NACDA - National Association of Collegiate Directors of Athletics

NGBs- U.S. National Governing Bodies for Sport

USOC- The U.S. Olympic Committee

SPSS- Statistical Package for Social Sciences

CET- Coaching Effectiveness Training

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Abstract

A major factor that influences all performers in their sporting careers is the quality and appropriateness of the sport talent identification and development environment. The purpose of this study was to assess assets and modes of talent identification and development in selected sport disciplines in Kenyan universities. The research design used in this study was descriptive survey. The target populations for the study were student-athletes and games tutors in the seven public universities established by Acts of Parliament and fourteen chartered private universities in Kenya. The target respondents included; 210 basketball players, 252 volleyball players and 504 track and field athletes, comprising of both male and female student-athletes. Therefore, the total target population was 966 student-athletes and 42 games tutors. Simple random sampling technique was used to select a sample of 4 (57%) public and 7 (50%) private universities. Talent identification and development questionnaires examining assets and modes of talent identification and development in universities in Kenya were used to collect data. Validity of the questionnaire was determined by a field test and review of the instrument. Internal consistency was used to determine the reliability. A value of correlation of 0.923 was considered satisfactory. The data derived from the subjects was analyzed using descriptive and inferential statistics. Percentages and frequency of responses to the survey were compiled and presented in frequency tables. The null hypotheses were tested using chi-square. The results of this study indicated that identification of talented student-athletes was based on the observation of the coaches, done during intramural competitions and there was no application of scientific methods in identification process. Additionally, the results revealed that talent identification was hindered by limited financial support, lack of scholarships, absence of talent identification structures and modalities, equipment to facilitate talent identification and knowledgeable coaches on talent identification. In addition to that, the results revealed that there were opportunities for student-athletes to participate in competitions. Furthermore, the results indicated that there were inadequate sport facilities that were not well maintained, equipment, coaches and time for training. Finally, the results of this study indicated that student-athletes were motivated to participate in sport by allowances, passion for the sport, competitive outlets, rewards, sport facilities, desire to improve their performance, gain fitness and trips. These results show that current Kenyan universities environment is inappropriate for talent identification and development of talented student-athletes. For effective identification and development of talented student-athletes to elite level, universities should create programs for identifying and admitting students with potential to become elite athletes in future and provide appropriate environment to nurture them to elite level.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Regnier et al. (as cited in Williams and Reilly, 2000), sport talent identification is the process of recognizing current participants with the potential to become elite players. It entails predicting performance over time by measuring physical, physiological, psychological and social attributes as well as technical abilities, either in isolation or in combination (Williams & Reilly, 2000).

The process of talent identification should detect factors affecting performance in competitive sport and predict the potential of future performance (Crespo & McInerney, 2006). Additionally, Crespo and McInerney (2006) observe that although talent identification is widely practiced by coaches, managers and parents, it is based on instinct and experience but little support comes from science. Similarly, Williams and Reilly (2000) observe that clubs rely on the subjective assessment of the scout or coaches supported by a shopping list of key criteria (technique, attitude, balance, speed, understanding, personality, skills, talent and intelligence). Crespo and McInerney (2006) recommend the use of expert method which is a mixture of natural whereby an athlete is selected due to competitive performance or subjective identification by coach and scientific method where by the athlete is selected because they possess the inherent physical and mental capabilities for a given sport when identifying sport talent.

Talent identification should be followed concomitantly with the talent development in order to direct those potential performers towards elite performance. Sport talent development is the provision of athletes with a suitable learning environment so that

talent potential can be realized (Williams & Reilly, 2000). According to Ilam (as cited by Thanos, 2009), effective sports talent development in universities should aim at encouraging and supporting sports participation by students and staff, establishing the university as a center of excellence in sports, managing the university's sports facilities, programs and events. According to National Association of Collegiate Directors of Athletics (NACDA) (2011), United States universities' athletics programs are integral part of the athletes' developmental pipeline to the national team and play a critical role in continued Olympics success. Similarly, NACDA (2011) notes collegiate sports are vital to the United States of America Olympic movement and represent the pinnacle of achievement of Olympic success. Stacey (2008) also observes that British higher education system also plays a key role in creating sport talent development environment that supports students in becoming top athletes.

Creating an appropriate environment in which to nurture talent may play a more significant role in the development of expertise (Salmela as cited by Williams & Reilly, 2000). According to Reilly and Dust (2005), players should be provided with a suitable learning and training environment so that they have the opportunity to realize their potential. Williams and Reilly (2000) advocate for provision of adequate facilities and equipment, competent coaches, time for training, training and practice that are directed towards enhancing athletes' development.

The most essential requirement in developing top athletes is the availability of world class coaches (Rogers, 2005). Further, the author notes that the quality of coaching determines the quality of training environment. Rogers (2005), emphasizes that highly knowledgeable coach creates a training environment that generates success for athletes, but if the coach has poor technical or theoretical knowledge and lacks

experience, is unable to direct a comprehensive program and therefore, the athlete will not reach his or her potential. Additionally, McClymont (as cited in Russell, 2005) emphasizes that there must be a strong commitment to high quality coaching and quality education so as to attain high level performance.

Quality and accessible training facilities and equipment create a positive environment that encourages proper training, but lack of facilities or access to facilities and equipment is a limiting factor to sports development (Rogers, 2005). Exposure to competition not only plays a very vital role in the development of an athlete (Sotiriadou, 2005), but also provides a focal point for training and important motivation for daily training if provided at the right level and frequency (Rodgers, 2005). On the other hand, lack of exposure to quality competition will dull the most talented group of athletes (Sotiriadou, 2005).

Creating an effective motivational environment is crucial if talented athletes are to develop their full potential (Abbott, Collins, Martindale & Sowerby, 2002). Extremely high levels of motivation may be necessary to produce repeatedly the kind of high quality sessions that are required for elite performance (Hardy & Parfitt, 1994). Additionally, McClymont (as cited in Russell, 2005) notes that enhanced motivation promote learning, performance, enjoyment and persistence. Student-athletes' initial motivation, whether intrinsic or extrinsic, usually predicts the athlete's attendance and adherence to a particular sport (Ryan, Frederick, Lipes, Rubio and Sheldon, 1997).

Despite the existence of a collection of literature on essential requirements for developing top athletes (Wilson, 2006; Rogers, 2005; Russell, 2005; Sotiriadou, 2005;

Abbott et al. 2002; Williams & Reilly, 2000), most universities in Africa are yet to embrace the sporting practice that would enable them produce world class athletes (Mwisukha, Wahome & Wanderi, 2011). Additionally, Mwisukha et al. (2011) noted that in order to be able to produce excellent athletes, Kenyan universities should address issues pertinent to sport excellence. The purpose of this study therefore was to assess assets and modes of sports talent identification and development of student-athletes in Kenyan universities.

1.2 Statement of the Problem

Elite Performance of Kenyan universities' student-athletes in national and international competitions can be achieved if the institutions are committed to support talent identification and development of student-athletes to elite level. Although there exists sport programs in Kenyan universities, the question is whether there is talent identification program and appropriate sport talent development environment that can facilitate development of student-athletes to the elite level.

Review of literature indicates that limited studies have investigated sports issues at the Kenyan universities (Kaimenyi, 2011). Majority of studies have centered on sports clubs, national teams and athletes at different levels of education except universities (Mwisukha et al., 2004). This study was therefore designed to assess assets and modes of sports talent identification and development in Kenyan universities.

In spite of having sports and games departments, the local universities have made minimal impact in presenting athletes in major international competitions (Mwisukha et al., 2011). To better find out factors leading to minimal presentation of student-

athletes in these competitions, a study is needed to assess sport talent identification and development environment in Kenyan universities.

1.3 Purpose of the Study

The purpose of this study was to assess assets and modes of talent identification and development in selected sport disciplines in universities in Kenya.

1.4 Objectives of the Study

The study was guided by the following objectives:

- i. To identify the methods used in identifying talent in sport in universities in Kenya.
- ii. To find out factors influencing sport talent identification in universities in Kenya.
- iii. To determine adequacy of facilities and equipment for sport talent identification and development in universities in Kenya.
- iv. To determine adequacy of coaches in universities in Kenya.
- v. To determine availability of opportunities for student-athletes to compete at different levels both inside and outside a university settings.
- vi. To determine adequacy of time available for training and practice for athletes in universities in Kenya.
- vii. To determine motivators to continuous participation in sports by student-athletes in universities in Kenya.

1.5 Research Questions

- i. a. What are the methods used by the universities to identify talented student-athletes?
- b. What are the factors that influence sport talent identification in universities in Kenya?
- ii. Do universities in Kenya offer sufficient opportunities for students to compete at different levels both inside and outside university settings?

1.6 Hypotheses

H₀₁: There would be no significant difference in the rating of adequacy of sports facilities and equipment between public and private universities.

H₀₂: There would be no significant difference in the rating of adequacy of coaches between male and female student-athletes in universities in Kenya.

H₀₃: There would be no significant difference on the adequacy of available time for student-athletes' practice and training between public and private universities in Kenya.

H₀₄: There would be no significant difference in the factors that motivate student-athletes to join university teams between public and private universities in Kenya.

1.7 Significance of the Study

This study provides guidance to coaches, sports tutors, sports managers, policy makers, practitioners on creation of appropriate sports talents identification and development environment. Additionally, this study will make contribution to

enriching literature in the area of sports talent identification and development by providing information on sport talent identification and development environment in the universities. Furthermore, factors influencing identification and development of sport talent in universities have been exposed. This will enable those charged with the responsibility of managing sports in the universities to improve the sporting environment in order to ensure talent is identified and developed to full potential.

1.8 Delimitation of the Study

The study focused on collecting data from student-athletes in the seven public universities established by Acts of Parliament and fourteen chartered private universities in the year 2012. The participants were selected from first teams in athletics, basketball and volleyball since they are unisex sports; this ensured gender representation in the study population

1.9 Limitations of the Study

Some respondents felt insecure responding to questionnaire due to fear of being victimized by their institutions. To prevent this, the respondents were assured that no individual would be named.

Respondents who participated in this study were from basketball, volleyball, track and field teams in Kenyan university settings. This limits generalization of these results to athletes involved in other sports.

1.10 Assumption of the Study

The study was carried out under the assumption that the information given by the respondents was a true reflection of the status of sport talent identification and development environment in universities in Kenya.

1.11 Theoretical Framework

Sport talent identification and development environment in this study was based on three models: Ericsson's Notion of Deliberate Practice, Bloom's Stages of Talent Development and Cote's Stages of Sport Participation (Ericsson, Krampe and Tesch-Romer, 1993); Bloom, 1985; Cote, 1999).

1.11.1 Ericsson's Notion of Deliberate Practice

High levels of performance are acquired through sustained investment in practice and deliberate efforts to improve (Ericsson et al., 1993). According to Ericsson et al. (1993), development of sport talent occurs when activities are well defined, are pitched at an appropriate level of difficulty, when useful feedback is presented and the opportunity for repetition, error detection and correction are provided.

Ericsson et al. (2003) emphasize that constraints that prevent athletes from engaging in maximum amount of deliberate practice include: resources, motivation and effort. Resources include adequate time, energy, access to competent teachers, training material and facilities. Individual level of performance will be severely constrained if sufficient time is not invested in high quality training, coaches are not knowledgeable on the process involved in developing sports talents and if facilities and equipment are inadequate or not available (Durand & Salmela, 2001). Second, they advocate for high degree of effort necessary for participation in these activities to determine the amount to which an individual can sustain engagement and adapt to increased task demands over time.

Finally, the motivation to sustain participation is largely determined by one's intent to improve (Salmela & Durand, 2001). Without the goal of improving performance, the motivation to engage in such practice is likely to diminish (Ericsson et al., 1993).

Ericsson has argued that a high quantity and quality of deliberate practice is sufficient to account for sporting excellence.

1.11.2 Bloom's Stages of Talent Development

Bloom, (as cited in Russell, 2005) indicates that to attain extreme levels of capability in their respective fields, individuals should undergo intensive process of encouragement, nurturance, education and training. Bloom observes that talent development requires years of commitment to learning and that the amount and quality of support and instruction received from parents, teachers or coaches in this process is vital. Bloom innovatively identifies three stages of talent development as follows; stage of initiation, middle stage of development and late stage of perfection. According to Bloom as (cited in Russell, 2005), these stages provide guidelines for talented individuals who go through the process of talent development as well as instructor and tacticians who take them through that process. He emphasizes that teachers or coaches should be more technically skilled than those at previous level and they should emphasize on development of proper technique, provide opportunities for performance evaluation and expect results through discipline and hard work ethics. In other words participants become achievement-oriented and competition becomes the yardstick for measuring progress.

1.11.3 Cote's Stages of Sport Participation

Cote (1999) suggests three distinct stages of participation in sports: sampling, specialization and investment years. At each level, the athletes have potential to move to another level, drop out or enter recreational years. This study will focus on

specialization and investment years because specialization and investment years emphasize on investing considerable time and money in development of sport-specific skills through more structured practice using resources that should be availed. According to Cote (1999), participant dedicates more time and effort in training during investments years. They focus on development of skills and strategies for competitions. Provision of both emotional and financial support is also necessary to facilitate participation. Cote also recommends the need to help participants cope with setbacks such as injuries, failures and lack of motivation.

In summary, these theories emphasize on the need to create a sport talent development environment by provision of sufficient qualified coaches, sufficient time for deliberate training and practice, sufficient and accessible sport facilities and equipment, quality training programs, sufficient opportunities for competitions, motivation and individual effort. In absence of sport talent development environment, there will be dropouts making it difficult for talented student-athletes to realize their potential. These theoretical bases are illustrated in the Figure 1.

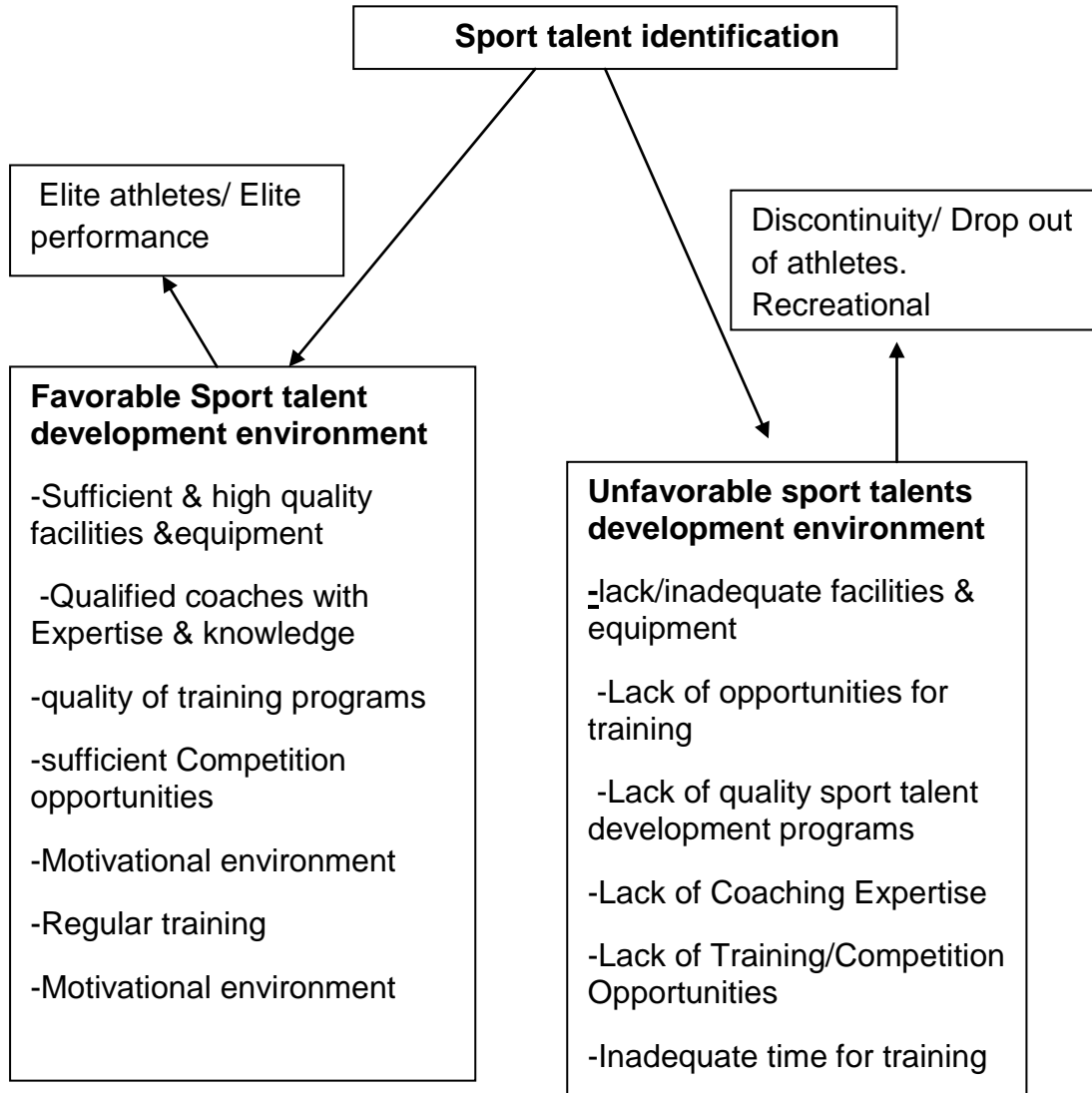


Figure 1: Ericson's Notion of Deliberate Practice, Bloom's Stages of Talent Development and Cote's Stages of Sport Participation (Ericsson et al. 1993); Bloom (as cited in Russell, 2005) and Cote (1999).

1.12 Operational Definition of Terms

Assets- Facilities and equipment.

Coach- One who gives sports instruction in Kenyan universities.

Facilities- Open grounds and other developed areas used for sports including running tracks, volleyball, Basketball courts and gymnasium.

Games Tutor- Sports manager and administrator in Kenyan universities

Practice- Repeated exposure to sporting activities for the purpose of improving performance.

Sport Talent Development- Providing players with a suitable learning environment so that they have the opportunity to realize their potential. The environment includes: sufficient accessible facilities and equipment of high quality, sufficient qualified coaches, sufficient opportunities to compete at the right level and frequency, sufficient time for training and motivational environment.

Talent- An exceptional natural ability to competitively play a sport of one's choice especially that which can be developed by training

Talent Identification- The process of recognizing current participants in sports with the potential to become elite players.

Time- A moment or period chosen or set aside or allocated as appropriate for sport training/ practice in Kenyan universities.

Training/Practice Program- A structured plan for repeatedly teaching/learning sport skills.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Introduction

Many studies have been conducted in the area of talent identification and development. Although literature review covers wide variety of such studies, this review will focus on seven major themes. These themes are: talent identification in sports, talent development in sports, coaching knowledge of sport talent development, facilities and equipment for sport talent development, motivation environment for sport talent development, competitions environment for sport talent development, time for practice and training for sport talent development.

2.2 Talent Identification in Sports

Talent identification refers to the process of recognizing current participants with the potential to become elite players. It entails predicting performance over time by measuring physical, physiological, psychological and sociological attributes as well as technical abilities, either in isolation or in combination (Regnier et al., 1993; Williams & Reilly, 2000). Similarly, other studies support this definition by defining talent identification in sport as a process in which individuals who are more likely to prosper in a given sport are identified according to the test of specific factors (Hadavi, 2000) and Burns (as cited in Nigam A. K. 2010) define talent identification as a means of harnessing sporting talent to bring about future success in international arena.

Several studies have had varying findings on the methods to be used when identifying talented athletes. Some studies support the use of natural methods while others recommend application of scientific methods (Ziemainz & Gulbin 2002; Lyle 1997).

According to Balyi and Hamilton (as cited in Nigam, 2010), application of scientific methods in talent identification involves application of a series of tests that are thought to measure key factors for success in a specific sport

Talent has several properties which are genetically transmitted and partly innate (Howe, Davidson & Sloboda, 1998). These properties include players' anthropometric characteristics (e.g., stature, mass, body composition, bone diameter, limb girth) are related to performance in important and sometimes complex ways (Borms, 1996). These properties serve as basis for predicting those individuals who are more or less likely to succeed at some later stage (William & Reilly, 2000).

A study conducted by Jankovic et al. (1997) to compare successful and less successful 15- to 17-year olds using measures of maximal oxygen uptake, anaerobic power, grip and trunk strength measures, and heart volume (absolute and relative), found out that successful players had superior physiological fitness compared to the others. Another study by Janssens et al. (1997) showed that performance in short (30 m) and prolonged 'shuttle' running discriminated between successful and less successful 11- to 12-year old soccer players. Similarly, in a study by Panfil et al. (1997) found out that elite 16-year olds recorded better performance in running and jumping than their less elite counterparts. It is on the basis of these findings that made Jankovic, Matkovic and Matkovic (1997) to conclude that physiological measures could be useful in predicting later successful performance. These conclusions are supported by Abbott and Collins (2004) who note that tests examining physical, motor and psychological factors are vital when identifying current performance ability or future performance.

Utilization of scientific methods to identify athletes with potential reduces time required to reach high performance, enhances the coach training effectiveness, increases competitiveness and number of athletes aiming to attain high level and increases confidence (Bompa, 1999). Review of literature indicates that talent identification programs across the globe are not firmly grounded on scientific rationale (Williams & Franks, 1998) and rely heavily on the intuition or ‘eye’ of expert coaches and talent scouts in identifying talented sports performers (Williams & Reilly, 2000). Similarly coaches and scouts most often rely on subjective assessment based on their experience (Williams & Reilly, 2000) and their “eye for talent” (Christensen, 2009).

Some studies suggest that talent identification should be done by experienced coaches (Abbott & Collins, 2004; Helen et al., 2000). This is supported by a study carried out by Hadavi et al.(2009) whose purpose was to design a model for talent identification and development in Iranian athletes that found out that coaches apply the coach-made methods which are based on their personal experience as well as the standard criteria. Another study carried out by Harati et al. (2011) to determine the important indices in talent identification for swimming was a survey among elite women swimming coaches. Regarding the method for identification and selection of talented individuals, the study found out that coaches advocated the use of experimental method, observation method, and scientific method as their priority. Identification and selection was done based on coaches’ views on anthropometric, psychomotor, skill, and psychological characteristics.

Although there is lack of empirical studies that have been undertaken to explore the most advantageous method to be used in identifying talented athlete in any sport (Falk et al., 2004), some studies recommend that effective identification of athletes requires a combination of the coaches' experience and the use of sport science testing (Moreno as cited by Rivas, 2009). A study by Fernandez-Rio and Mendez-Gimenez (2012) found out that despite the enormous amount of youngsters that are enrolled in physical activity classes from an early age, many talented athletes are being ignored due to a deficient structure for talent identification. The process of talent identification requires coaches' sufficient knowledge that will not only enable them define more relevant talent indicators (Vaeyens et al., 2008), but also enable them to apply both objective and subjective assessment in identification of athletes with potential to become elite. Omitting any of these components might lead to wrong assessments and interpretations of athletes' potential (Trninić et. al. 2008).

Talent identification in sports plays a very important role in eliminating the frustrations of participating in a sport that one is not suited to (Ghita, 1994). Through exposure of different individuals, particular sports talent identification system acts as a filter to remove people who have relatively few perceived important characteristics, leaving people who should have a relatively strong chance of success in that sport (Nigam, 2010).

2.3. Talent Development in Sports

Talent development in sports is the most important stage in the process of achieving sporting success (Ebrahim & Halaji, 2007). It is aimed at providing the most optimal learning environment to help promising youth athletes realize their potential (Williams & Reilly, 2000). Optimum environment involves provision of adequate

number of competent coaches, experts and managers, adequate and availability of quality facilities and equipment for training and testing as well as time for training, actual training and practice that are directed towards enhancing athletes' development (Williams & Reilly, 2000; Martin et al., 2004). Availability of these essential resources can significantly influence the ability to engage in the required amount of high quality training (David & Baker, 2007). It is recommended that these resources be allocated to help identify and develop talent to enable athletes to reach the top in their sport (Abbott & Collins, 2004; Reilly et al., 2000).

2.3.1 Coaching Knowledge of Sport Talent Development

Abraham and Collins (1998) define a coach as someone who orchestrates learning activities and mediates social climate while diagnosing and remediating performance. The basic task is to develop and improve the performance of teams and individuals (Lyle, 1996). In order to do this effectively, the coach must utilize many different types of knowledge to solve problems and ultimately make decisions (Gilbert & Jackson, 2004). This suggestion is supported by Gilbert and Trudel (2005) who emphasize that coaches, like teachers, require knowledge from a number of different domains. Additionally, a study by Trninić et al. (2009) found out that coaches' expert knowledge and experience, as well as scientific acquisitions enables them to stimulate the development of athlete's personality and his/her understanding of a particular sport, skill development, upgrading the level and the number of motor programmes, as well as encouraging the development of selective decision making and decreasing the reaction period.

The ability of the coach to devise an environment that fosters optimal learning is the most significant key to athlete's development (Baker, Horton, Robertson & Michael, 2003). Congruently, Kirk (2005) notes that quality of coaches and teachers are key factors in the success of any program oriented to improve physical activity. Additionally, Trninić et al. (2009) state that top-level coaches encourage continuity in learning and in perfection of technical-tactical knowledge and skills, development of competitive experience and psychosocial development of athlete's personality.

A study carried out by Pavlovic (2007) found out that the most important characteristic of a successful coach is the ability to ensure provision of high quality practice. Additionally, the likelihood of talented athletes to become elite is based on provision of best coaches and training (Williams & Reilly, 2000; Morris, 2000). Furthermore, studies indicate that having experienced coach with knowledge about latest training techniques is valuable to the development of a talented player (Roetert & Harmon, 2006)

Access to essential resources such as knowledgeable coaches during the learning process also influences skill development (Baker & Horton, 2004). Baker and Horton (2004) emphasize that the ability of the coach to devise an environment that fosters optimal learning becomes a significant key to athletes' development. Additionally, Baker and Horton (2004) point out that access to high quality coaching would appear to be an important component in maximizing athlete's development. Furthermore, Cobley (2001) observes that the expert volleyball coach plays a critical role in structuring an optimal practice environment that exemplifies the tenets of practice.

Bloom et al. (as cited in Russell (2005) point out that coaches at the elite level spend most of their time on the cognitive or tactical elements while coaches of beginners

and intermediates focus more on the fundamentals of the sport. They also suggest that non-expert coaches might not be able to impart a large amount of tactical knowledge because of their own limitations in this regard. Ned (2004) observes that a head coach has a critical role in assisting freshmen student-athletes in their program with the transition from high school to college. Ned (2004) further recommends that a head coach should know the components of the transition programs offered by both the university and athletic department, and develop his or her own transition model to increase the chances of a well adjusted freshman student-athlete.

Corrinne (1998) points out that coaches and teachers play a crucial role in teaching skills, providing opportunities and nurturing talent. Additionally, effective coaches have been found to frequently provide feedback and incorporate numerous prompts and hustles, provide high levels of correction and reinstruction, use high levels of questioning and clarifying, predominantly engage in instruction and manage the training environment to achieve considerable order (Dodge & Hastie, 1993). According to Samela (as cited in Durand et al. 2001), expert coaches' goal is to create conducive environment that will improve performance by investing considerable amount of time into planning and structuring practices so that the highest quality of training could occur.

US researchers Ronald Smith and Frank Smoll (1997) have undertaken a large amount of work looking at programmes to improve coaching effectiveness through their Coaching Effectiveness Training (CET). The results of their research suggest that trained coaches are more supportive, provide more reinforcement and encouragement and are less punitive than non-trained coaches. Participants who played for trained coaches exhibited a significant increase in self-esteem and a decrease in anxiety

through the season, compared to participants from a control group. The results of the study are converse to a review by Brustad et al. (2001) who suggest that coaches have a significant impact on participants' enjoyment, satisfaction, self-esteem and perceived competence.

A coach's lack of experience and understanding of the sport, as well as an inability to handle pressure and distractions all undermine the athlete's trust in him or her (Giacobbi, Whitney, Roper & Butryn, 2002). Coaches can be seen as performers and their performance directly affects their athletes (Gould et al., 1999). Elite athletes desire a coach who will implement a clear performance plan, develop an atmosphere that will cultivate optimal learning, and is committed to helping them succeed (Baker et al., 2003; Gould et al., 2002). Athletes seek a coach who can adjust to their specific individual needs (Giacobbi et al., 2002). Over-coaching and unrealistic expectations by a coach can negatively affect an athlete (Gould et al., 2002).

2.3.2 Facilities and Equipment for Sport Talent Development

Creating an appropriate environment in which to nurture talent may play a more significant role in the development of expertise than does heredity (Salmela as cited in Williams and Reilly, 2000). According to Abbott et al. (2002), the university should support and develop sports by providing the funding to purchase sports equipment, supporting student-athletes to participate in national university sports and supporting organization of university games. For instance, Sotiriadou (2005) report that Tennis Australia supports the importance of having different types of facilities in order to meet player development needs.

Helsen et al. (2000), note that talent plays a limited role in the development of elite athletes. They emphasize that factors such as facilities are necessary for athlete with potential to become an expert in sport. These views are supported by Gore (2004) who carried out a study which sought to reach a better understanding of how outside commitments, access to particular services/facilities and teammate roles affect athletic talent development. The findings of the study indicated that access to facilities and services was important to all the athletes, regardless of elite level.

2.3.3 Motivation Environment for Sport Talent Development

According to McCullough (as cited in Wilson, 2006), motivation can be defined as the intensity and direction of effort. There are two forms of motivation: Intrinsic motivation that is the need to feel competency and pride in something (McCullough as cited in Wilson, 2006) and extrinsic motivation that is performance of an activity in order to attain some separate outcome (Ryan & Deci, 2000). Ryan (1997) emphasizes that intrinsic motives are most common for continuation in a particular sport and athletes must have intrinsic motivation to continue participating in sports.

Fauzee, Daud, Kamarudin, Yusof, Soh, Nazaruddin, Aman and Salikon (2009) noted that coaches play an important role in sport motivation during training and competition. Fauzee et al. (2009) emphasize that motivational words enhance player's confidence, allay stress and also keep player's spirit high. In their study, Fauzee et al. (2009) also observed that friends give encouragement to continue being in sports, rewards motivate players to keep participating, role model of famous players and environmental influences such as facilities and equipment facilitate participation in sports. Additionally, a study by Holt and Dunn's (2004) also noted that elite youth

football players were motivated to play football by the love of the game and the desire to succeed. Furthermore, opportunity to play professionally is also a motive to play sports at college level (Gaston-Gayles, 2004).

Another study carried out by Gibbon et al. (2003) aimed at finding out the success factors and obstacles that most influenced U.S Olympian development. The study found out that the most significant influences among success factors and obstacles were dedication and persistence of the athlete, effective coaching, support from family and friend, love of sport, excellent training and competition opportunities and strong financial support. On the other hand, Olympians reported lack of financial support, conflict with roles in life, lack of training/competition opportunities, and lack of expertise support, poor quality competition, lack of and low quality facilities for training as obstacles to their development.

A 25-year case study carried out by Enoksen in 1975, 1983, 1989, 2000 and 2011 to identify the total dropout rate and drop out reasons for a group of promising track and field athletes found out that among the most common reasons for drop out included education demands and lack of motivation.

Ryan et al. (1997) conducted research on athletic motivation and whether initial motivation predicted adherence to that particular sport. The purpose of their study was to explore how athlete's initial motives for initial activity in a particular sport related to his or her continuation and participation in sport. The study found out that extrinsic motives were generally the athlete's reason for beginning participation in a particular sport, while intrinsic motivation were most common for continuation in a particular sport.

A study by Medic et al. 2007 compared male and female non-scholarship athletes from Canada and United States using sport motivation scale. The findings of this study suggest that differences in motivation were dependent on scholarship status.

In a study by Riewald and Peterson, (2004), US Olympic Committee contacted past Olympians and asked them to complete a survey about numerous aspects of their development. The Olympians were asked to list up to five factors that contributed most to their success and five obstacles that had to be overcome in their quest for success. Identified factors influencing their success included; dedication and persistence, family and friends, coaches, love of sport, training programs and facilities, natural talent, competitiveness, focus, work ethic and financial support. The Olympians listed the following as obstacles to their success lack of financial support, conflict with roles in life, lack of coaching expertise or support, lack of support, mental, lack of training/competition opportunities, medical problems, lack of social support, physical limitations and failure.

2.3.4 Competitions Environment for Sport Talent Development

Gaining experience with high level competitions is seen as an important part of the talent development process (Henriksen, Stambulova & Roessler, 2010). Competition provides ultimate test where all the factors such as skill, physical conditioning, knowledge, motivation and strategy are tested together (Rodgers, 2005). For instance, Sotiriadou (2005) observes that Croquet Australia events provide its athletes top-level competition that helps improve the general standard of play. In order to produce elite sport 'stars', competitions should be held on a regular basis (Houlihan & Green, 2008).

2.3.5 Time for Practice and Training for Sport Talent Development

It has been confirmed that training is essential to developing an athlete (Ericsson et al., 1993), but it should be provided in the correct doses for the particular stage of the athlete (Stotlar & Wonders, 2006) and conversely, they must provide adequate recovery for the athlete (Ericsson, 1996). Training for world competitions requires at least 25- 35 hours per week for several years; therefore, time and commitment are both absolutely essential (Rodgers, 2005). However, Ericsson et al. (1993) argued that it was not simply the accumulation of training hours that lead to superior levels of performance but also the training quality was also important (Ericsson (1996).

Given the need to invest considerable time and effort into one's activity to achieve excellence, (Thomas & Thomas, 1999) and Rodgers (2005) emphasizes that athletes require adequate time away from school to train; the athletes may spend three hours a day in a serious training in seven days. Expert athletes accumulated more hours of training than non-experts (Helsen et al., 1998; Starkes et al., 1996; Hodge & Deakin, 1998). These findings were supported by Baker et al. (2003) who found that expert athletes from basketball, netball, and field hockey accumulated significantly more hours in video training, competition, organized team practices, and one-on-one coach instruction than non-expert athletes. Additionally, lack of time and coordination of time is a typical reason for dropout within competitive sport (Enoksen, 2002).

2.4 Summary of Reviewed Literature

Most universities in Africa are yet to embrace the sporting practice that would enable them produce world class athletes (Mwisukha, Wahome & Wanderi, 2011). Additionally, review of literature indicates that majority of studies have centered on

sports clubs, national teams and athletes at different levels of education except universities (Mwisukha et al., 2004). These findings are in agreement with a study by Kaimenyi (2011) who points out that limited studies have investigated sports issues in Kenyan universities. In spite of having sports and games departments, the local universities have made minimal impact in presenting athletes in major international competitions (Mwisukha et al., 2011). It is on the basis of these gaps in the review of literature that this study is designed to assess talent identification and development in Kenyan universities.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

The research design adopted for this study was descriptive survey. The study aimed at collecting information from student-athletes in basketball, volleyball and athletics first teams and games tutors from public and private universities in Kenya. The three sports were selected to ensure gender representation because they are unisex. Since, the descriptive survey design involves collection of data from members of a population so as to test hypothesis or to answer questions concerning the status of a phenomenon with respect to one or more variables (Mugenda & Mugenda, 2003), it was the most appropriate for this study that aimed at assessing assets and modes of talent identification and development in selected sports in Kenyan universities from the perceptions of games tutors and student-athletes. Factors under investigation were mode of talent identification, factors influencing identification of sport talent, adequacy of facilities, coaches, training time, competitions and motivation as independent variables while talent identification and development were dependent variables.

3.2 Location of the Study

The study was carried out in seven (7) public universities that had been established by Acts of Parliament and fourteen (14) private universities that had been awarded charter by the beginning of the year 2012.

3.3 Target Population

The target population for this study was student-athletes in the seven public and fourteen private universities in Kenya. Five basketball, six volleyball and twelve

athletes of the first teams in each university for both men and women teams, as well as 42 games tutors in the universities were targeted as respondents. This translates to a target population of 210 basketball players, 252 volleyball players, 504 track and field athletes and 42 games tutors being both male and female. Therefore, the total target population was 966 student-athletes and 42 games tutors.

3.4 Sample Size and Sampling Procedure

Stratified random sampling technique was used to select male and female basketball, volleyball, track and field teams from each of the universities. The universities were also stratified on the basis of being public and private institutions. Simple random sampling technique was used to select a sample of 4 (57%) public and 7 (50%) private Kenyan universities. Scientifically, a sample of 50% and above can be representative of the whole population according to Fisher et al. (as cited by Mugenda & Mugenda, 2003). Additionally, this technique was used to select team members of basketball, volleyball, track and field equivalent to the number of first team members in each discipline from each of the selected universities. For track and field, one athlete was randomly selected from each event. This therefore, constituted a total sample of 507 (53%) student-athletes from a target population of 966 students-athletes and 42(100%) games tutors.

3.5 Research Instruments

A questionnaire used consisted of two sections. Section A of the questionnaire gathered background information on the participant with respect to gender; public and private universities while section B included 38 items which were used to identify modes of talent identification applied by the universities in identifying talented athletes and examine the suitability of the universities' environment in development

of talent in sport. The questionnaire was developed by the researcher and validated by selected academic staff members in the Department of Recreation Management and Exercise Sciences of Kenyatta University.

3.6 Pre-testing of Research Instrument

3.6.1 Validity of the Study

A pre-test was carried out to ensure the instrument elicited the required information. Additionally, the questionnaire was reviewed by experts in this field from the Department of Recreation Management and Exercise Sciences of Kenyatta University to ensure it was comprehensive enough and measured what it intended to measure.

3.6.2 Reliability of the Study

Internal consistency technique was used to measure reliability level of the instrument. The score obtained from one item in the talent identification and development questionnaire was correlated with scores obtained from other items. Cronbach's Coefficient Alpha was then computed to determine the correlation. The coefficient of 0.923 values indicated that there was consistency among the items assessing assets and modes of talent identification and development.

3.7 Data Collection Procedures

Sport directors from each of the targeted universities were contacted either in person or by phone to seek permission to access their student-athletes and make appointments for data collection visits. The researcher and the research assistants administered questionnaires to the games tutors and student-athletes during training sessions and universities' leagues.

3.8 Data Analysis and Presentation

The data obtained from the study was analyzed using SPSS (Statistical Package for the Social Sciences) then summarized using descriptive statistics; percentages and frequency of responses. Chi-square test was used to determine if there were any significant differences in rating of adequacy of sports equipment and facilities, time available for practice and motives for joining universities teams between public and private universities and if there were any significant differences in rating of adequacy of coaches between male and female student-athletes. The data was then presented in tables.

3.9 Logistical and Ethical Considerations

An introduction letter was obtained from the Graduate School of Kenyatta University. Sports directors from each of the targeted universities were contacted for permission to collect data (Appendix C). Additionally, the researcher sought informed consent from the respondents (Appendix D). Apart from that, the researcher obtained research permit from National Commission for Science, Technology and Innovation (Appendix E) and the information obtained from respondents was treated with confidentiality.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1. Introduction

The purpose of this study was to assess assets and modes of talent identification and development in selected sport disciplines in universities in Kenya. The study also explored gender differences in rating of adequacy of coaches in universities in Kenya. Five hundred and forty nine questionnaires that were administered were collected and analyzed to assess assets and modes of talent identification and development in relation to methods used to identify talented athletes, adequacy of facilities and equipment, as well as motives of participation in sports. The chapter presents findings and discussions in relation to the research questions and the null hypotheses.

4. 2. Findings

4.2.1. Participants' Demographic Information

The study sought responses from both male and female student-athletes and games tutors in both public and private universities. The details on gender and category of the universities are shown in table 4.1.

Table 4.1: Gender Representation and University Category of Student-athletes and Games Tutors

Baseline	Student-athletes		Games Tutors		Total	
Characteristics	Freq.	%	Freq.	%	Freq.	%
Gender						
Male	251	49.5	33	78.6	284	51.7
Female	256	50.5	9	21.4	265	48.3
Total	507	100	42	100	549	100
University Category						
Public	185	36.5	32	76.2	217	39.5
Private	322	63.5	10	23.8	332	60.5
Total	507	100	42	100	549	100

The analysis in table 4.1 above shows that out of 507 student-athletes who participated in this study, 49.5% were male while 50.5% were female. Additionally, 36.5% were from public universities while 63.5% were from private universities. Furthermore, these results indicated that out of 42 games tutors who took part in this study, 78.6% were male while 21.4% were female. Additionally, 76.2 % were from public universities while 23.8% were from private universities. The games tutors' proportion of responses suggested that there was gender imbalance in the administration of sports at university level. These findings are in agreement with those of Njororai et al. (2003) and Mwisukha (2004) who found out that majority of games tutors in universities were male.

4. 2.2. Mode of Talent Identification

Table 4.2 below shows findings on methods used to identify talented student-athletes in universities in Kenya.

Table 4.2: Mode of Talent Identification in Kenyan Universities

Modes of Talent identification	Response	Student-Athletes		Games Tutors		Totals	
		Freq.	%	Freq.	%	Freq.	%
During inter departments competitions	Disagree	65	12.8	19	45.2	84	15.3
	Agree	441	87.2	23	54.8	464	84.7
Externally during high school competitions	Disagree	449	88.7	23	54.8	472	86.1
	Agree	57	11.3	19	45.2	76	13.9
Observation by coaches during competitions	Disagree	114	22.5	15	35.7	129	23.5
	Agree	392	77.5	27	64.3	419	76.5
Through scientific measurement and testing	Disagree	444	87.7	28	66.7	472	86.1
	Agree	62	12.3	14	33.3	76	13.9

The results shown in table 4.2 indicate that observations by coaches were the most used mode of talent identification (76.5%) and it was done during inter departmental

sport competitions (84.7%). Contrary to identification during intramural competitions, most of the respondents were of the view that identification was not done during extramural sport competitions (86.1%). Additionally, the most un-used mode of sport talent identification was through scientific methods of measuring and testing of physical, physiological, psychological and social attributes as well as technical abilities of the athletes (86.1%).

This study was designed to explore methods used in talent identification. The results indicate that identification of talented student-athletes in Kenyan universities is based on observations by the coach. This finding is in agreement with that of Williams and Reilly (2000) who found out that identifying talented sports performers rely heavily on the intuition or 'eye' of expert coaches and talent scouts. Additionally, the results of this study indicate that coach observation as a mode of talent identification was applied during inter- departmental competitions and not during external competitions. These results suggest that identification of talented student-athletes is limited to registered students, but not to scouting and recruiting potentially talented students from outside the university settings.

The results of this study also suggest that universities are yet to embrace use of scientific methods which involve testing of attributes associated with success in identifying talented student-athletes. This finding is similar to that of Williams and Franks (1998) who found that talent identification programs across the globe are not firmly grounded on scientific rationale.

4.2.3 Factors Hindering Talent Identification in Sport

Table 4.3 shows the findings on factors hindering identification of talented student-athletes in universities in Kenya.

Table 4.3: Factors Hindering Identification of Most Talented Student-athletes

Hindrances To Sports Talent Responses	Games Tutors	Freq.	%
Absence of sport talent identification structures and modalities at the university	Disagree	13	31
	Agree	28	69
Financial support by the university	Disagree	16	38.1
	Agree	26	61.9
Lack/little knowledge on talent identification	Disagree	17	40.5
	Agree	25	59.5
Absence/inadequate equipment to facilitate identification process	Disagree	13	31
	Agree	29	69
Lack of sport scholarship for potential talented student-athletes	Disagree	5	11.9
	Agree	37	88.1

To find out factors that likely hindered identification of talented student-athletes, games tutors were asked questions on availability of talent identification structures and modalities, university financial support, equipment, coaches' knowledge on talent

identification and sport scholarship. From the results shown in table 4.3, most of respondents indicated that identification of talented student-athletes was inhibited by lack of scholarships for talented potential student-athletes (88.1%). The second most hindering factor was absence of talent identification structures and modalities at the university level (69%). Another large proportion of the respondents also indicated that lack of necessary equipment to facilitate talent identification was a hindrance to talent identification (69%). Similarly, most respondents also identified limited financial support by the university (61.1%) and unavailability of knowledgeable coaches on talent identification (59.5%) as other factors that hinder identification of most talented student-athletes.

The study found that identification of talented student-athletes was hindered by unavailability of scholarships. Without finance, sports departments cannot provide scholarships, purchase equipment and employ knowledgeable coaches. This implies that identification of talented student-athletes will be limited to registered students who are able to pay university fees whether they have potential to excel or not. Provision of scholarships will not only motivate talented students to join the institutions but also enable the coaches to identify talent from outside the university. Lack of equipment for carrying out scientific tests leaves sport departments with no choice other than the use of the observations by the coach in identifying talented student-athletes. These results are in agreement with the findings of Gibbon et al. (2003) who note that lack of financial support is an obstacle to development of Olympians.

4.2.4 Opportunities for Student-Athletes to Compete

Table 4.4 below shows results on competition experience and opportunities for talent development.

Table 4.4: Opportunities for Competition

Competitions	Response	Student-Athletes		Games Tutor		Totals	
		Freq.	%	Freq.	%	Freq.	%
There are opportunities for me to compete in structured competitions within the university	Disagree	198	39.1	13	31	211	38.5
	Agree	308	60.9	29	69	337	61.5
My university provides opportunities for me to compete in national and international competitions	Disagree	239	47.2	18	42.9	257	46.9
	Agree	267	52.8	24	57.1	291	53.1
Competitions provided are of good quality competitions	Disagree	227	44.9	13	31	240	43.8
	Agree	279	55.1	29	69	308	56.2

The highest percentage of respondents indicated that their universities provide opportunities for them to participate in structured competitions within the university (61.5%), followed by the respondents in this study who indicated that they get good

quality competition experience (56.2%). Furthermore, respondents were of the view that university provides opportunities for them to participate in structured competitions outside the university settings (53.1%). The findings of this study suggest that universities' student-athletes are provided with opportunities to compete both within and outside their universities' settings. Previous research acknowledges that exposure to competitions is an important factor in sport talent development and evaluation of progress (Rodgers, 2005; Sotiriadou, 2005; Henriksen, Stambulova & Roessler, 2010). Additionally, results of previous studies discussed in the literature review indicate that gaining experience with high level competitions is seen as an important part of the talent development process (Henriksen, Stambulova, and Roessler, 2010) but lack of exposure to quality competition has been observed to dull the most talented group of athletes (Sotiriadou, 2005).

4.2.5 Sports Equipment and Facilities for Talent Identification and Development

Table 4.5 shows the findings on issues relating to sports equipment and facilities for talent identification and development.

Table 4.5: Facilities and Equipment for Talent Identification and Development

	Responses	Student-athletes		Games Tutors		Total	
		Freq.	%	Freq.	%	Freq.	%
My university has adequate sport facilities	disagree	273	54.0	26	61.9	298	54.4
	Agree	233	46.0	16	38.1	250	45.6
Available sports facilities are easily accessible	disagree	179	35.3	18	42.8	190	34.7
	Agree	328	64.7	24	57.1	358	65.3
Available sport facilities are of the required standards	disagree	366	72.2	35	83.3	399	72.8
	Agree	141	27.8	7	16.7	149	27.2
Sports facilities are suitable for quality training	disagree	407	80.4	33	78.6	440	80.3
	Agree	99	19.6	9	21.4	108	19.7
My university provides adequate sport equipment	disagree	394	77.9	28	66.7	422	77.0
	Agree	112	22.1	14	33.3	126	23.0
My university has equipment for carrying out scientific test of athlete ability	Disagree	312	61.9	31	73.8	349	63.7
	Agree	192	38.1	11	26.2	199	36.3

It is evident from the results shown in table 4.5 that most of the participants in this study were of the view that the universities' sports facilities were not suitable for quality training (80.3%). The next proportion of the respondents indicated that the universities do not provide sufficient sport equipment (77%). This was followed by proportions of respondents who indicated that the available facilities were not of the required standards (72.8%), those who indicated that the universities did not have equipment for carrying out talent identification tests (63.7%) and another proportion of (54.4%) who indicated that there were inadequate sport facilities in their universities. However, majority of the respondents indicated that the available facilities were easily accessible (65.3%).

These results imply that facilities and equipment provided by universities in Kenya are accessible but inadequate, below the required standards and are not suitable for quality training. Studies show that poor training facilities may influence the athletes' decision to drop out from sport (Bussmann, 1995). Additionally, other sources cited in this study indicate that lack of facilities or access to facilities and equipment is a limiting factor to sports development (Rogers, 2005). Previous studies discussed in the literature review indicate that provision of adequate and availability of quality facilities and equipment for training enhance athletes' development (Williams & Reilly, 2000; Martin et al., 2004)

4.2.5.1. Testing of Null Hypothesis One

Chi-square test was used to determine if there were any significant differences in the view of student-athletes on adequacy of sports facilities and equipment between public and private universities. The results of this test are shown in table 4.6.

Table 4.6: Results of Chi-square Test for Adequacy of Sport Facilities and Equipment in Public and Private Universities

	Responses	University category				χ^2	df	P value
		Public		private				
		Freq	%	Freq	%			
My university	Disagree	102	55.4	171	53.1	0.256	1	0.34
adequate facilities	Agree	82	44.6	151	46.9			
My university has	Disagree	141	76.2	253	78.7	0.376	1	0.58
adequate	Agree	44	23.8	69	21.4			
equipment								

A chi-square test was conducted to determine whether there was any significant difference in the view of student-athletes on adequacy of sports facilities and equipment between public and private universities. The results revealed that there was no significant difference on the rating adequacy of sports facilities ($\chi^2 = 0.256$, $df = 1$, $p = 0.34$) and equipment ($\chi^2 = 0.376$, $df = 1$, $p = 0.58$) between public and private universities. Therefore there was no sufficient evidence to reject the null hypothesis. These results imply that both public and private universities student-athletes were of the view that their universities had inadequate sports facilities and equipment.

4.2.6 Knowledgeable Coaches for Talent Identification and Development

Table 4.7 shows findings on issues relating to knowledgeable coaches for talent identification and development in universities in Kenya.

Table 4.7: Adequacy of Knowledgeable Coaches for Talent Identification and Development in Sport

	Responses	Student-athletes		Games Tutors		Total	
		Freq.	%	Freq.	%	Freq.	%
My university has employed adequate numbers of coaches	Disagree	280	55.2	42	100	263	58.1
	Agree	227	44.8	0	0	190	41.9
My coach is knowledgeable of programming for training and competitions	Disagree	212	61.9	28	66.7	277	61.1
	Agree	192	38.1	14	33.3	176	38.9
My coach has fundamental skills required for talent identification and development in sports	Disagree	261	55.5	26	61.9	269	59.4
	Agree	246	48.5	16	38.1	184	40.6
My coach has technical and tactical knowledge of the sport he/she coach	Disagree	463	91.3	22	54.8	399	88.3
	Agree	44	8.7	19	45.2	53	11.7
My coach has knowledge for carrying out scientific tests of student-athlete ability	Disagree	459	90.7	36	85.7	409	90.3
	Agree	47	9.3	6	14.3	44	9.7
My coach plans training to incorporate wide variety of skills and attributes	Disagree	330	65.1	30	71.4	294	64.9
	Agree	177	34.9	12	28.6	159	35.1

From the results in table 4.7, it is evident in terms of proportion that most of the respondents indicated that their coaches did not have knowledge of measuring physical, physiological, psychological, social as well as technical abilities (90.3%). Additionally, the respondents indicated that their coaches had limited technical and

tactical knowledge of the sport that they coach (88.3%). In addition to that, the respondents pointed out that their coaches did not plan training to incorporate a wide variety of useful skills and attributes (64.9%). Apart from that, the respondents pointed out that their coaches were not knowledgeable on programming for training and competition (61.1%). Furthermore, they indicated that their coaches did not have fundamental skills required for sport talent identification and development (59.4%) and that their universities had not employed adequate number of coaches (58.1%).

These results suggest that most of universities' coaches have limited knowledge of carrying out scientific test of the student-athletes abilities, technical and tactical knowledge of the sport that they coach and do not plan training to incorporate a wide variety of useful skills and attributes. Additionally, these findings suggest that most of the available coaches are not knowledgeable on programming for training and competition do not have fundamental skills required for sport talent identification and development and that the universities do not have adequate number of coaches. Without adequate number of qualified coaches, universities sport programs will not provide quality instructions that are required to guide talented student-athletes to elite level. Rogers (2005) emphasizes that a highly knowledgeable coach creates a training environment that generates success for athletes, but a coach who has poor technical or theoretical knowledge, lacks experience and is unable to direct a comprehensive training program cannot assist his/her athletes to reach his or her potential.

4.2.6.3 Testing of Null Hypothesis Two

In order to determine if there were any gender differences in the rating of adequacy of coaches by male and female student-athletes, a chi-square test was conducted to

analyze data with $p = 0.05$ as criterion for significance. The results of the test are shown in table 4.8 below.

Table 4.8: Results of Chi-square Test for Female and Male Student-athletes Rating of Adequacy of Knowledgeable Coaches

Responses		Gender				χ^2	df	P value
		Female		Male				
		freq	%	freq	%			
My university has employed adequate number of coaches	Disagree	140	54.7	140	55.8	0.61	1	0.805
	Agree	116	45.3	111	44.2			

A chi-square test was conducted to determine whether there was any significant difference on the student-athletes' views of adequacy of coaches between female and male student-athletes. The results revealed that there was no significant difference on the student-athletes' views of adequacy of coaches between male and female student-athletes ($\chi^2 = 0.61$, $df = 1$, $p = 0.805$). Therefore there was no sufficient evidence to reject the null hypothesis. These results imply that both female and male student-athletes were of the view that universities had employed inadequate number of coaches.

4.2.7 Time Available for Practice and Training

Table 4.9 shows findings on time available for practice and training in universities in Kenya.

Table 4.9: Time Available for Training and Practice

	Responses	Student-athletes		Games Tutors		Total	
		Freq.	%	Freq.	%	Freq.	%
		There is adequate time for training and practice	Disagree	463	91.3	24	57.1
	Agree	44	8.7	18	42.9	62	11.3

The results shown in table 4.9 above indicate that universities academic programs did not allow adequate time for regular and frequent practice (88.7%). The results of this study suggest that there was inadequate provision of time for training and practice in universities in Kenya. Despite the need to invest considerable time and effort into one's activity to achieve excellence (Thomas & Thomas, 1999), the results of this study reveal that student-athletes do not get adequate time to train and practice. This might lead to drop out and even poor performance of student-athletes and universities teams in competitions. Rodgers (2005) emphasizes that athletes require adequate time away from school to train; the athletes may spend three hours a day in a serious training in seven days for individual level of performance will be severely constrained if sufficient time is not invested in high quality training (Durand & Salmela, 2001).

4.2.7.1. Testing of Null Hypothesis Three

Table 4.10 shows the results of chi-square test of whether there were significant differences on the adequacy of available time for student-athletes' practice and training between public and private universities.

Table 4.10: Results of Chi-square Test for Adequate Time for Training and Practice between Public and Private Universities

	Responses	University category				χ^2	df	P value
		Public		Private				
		freq	%	freq	%			
Adequate time for training	Disagree	163	88.1	300	93.2	3.795	1	0.051
	Agree	22	11.9	22	6.8			

A chi-square test was conducted to determine whether there was any significant difference on the rating of adequacy of available time for student-athletes' practice and training between public and private universities. The results revealed that there was significant difference on the rating of adequacy of available time for student-athletes' practice and training between public and private universities ($\chi^2 = 3.795$, $df = 1$, $p = 0.051$). Therefore the null hypothesis (H_0) was rejected. Private university student-athletes (93.2%) were significantly likely to indicate that they had inadequate time for training than public universities student-athletes (88.1%).

4.2.8. Motives for Student-athletes Participation

Table 4.11 shows the findings on factors that motivate student-athletes to participate in sports in universities in Kenya.

Table 4.11: Motives for Continuous Participation

Motives for participation in sports	Responses	Student-athletes	
		Freq.	%
Passion for sports	Disagree	90	17.8
	Agree	417	82.2
Motivation from coaches and others	Disagree	208	41.0
	Agree	299	59.0
For fitness	Disagree	140	27.6
	Agree	367	72.4
Availability of sports equipment and facilities	Disagree	123	24.3
	Agree	383	75.7
Trips	Disagree	216	42.6
	Agree	291	57.4
Allowances from the university	Disagree	62	12.3
	Agree	444	87.7
Competitive outlets	Disagree	111	21.9
	Agree	396	78.1
Rewards	Disagree	114	22.5
	Agree	393	77.5
My university provides sport scholarships	Disagree	419	82.6
	Agree	88	17.4
Desire to improve skills	Disagree	231	45.6
	Agree	276	54.4

According to the data illustrated in table 4.11 on the motives of student-athletes' participation in sport, the largest proportion of respondents indicated that they were

motivated by allowances provided by the university (87.6%). The second most cited motive was passion for the sport (82.2%). The third highest proportion of respondents indicated that they were motivated by competitive outlets provided by the university (78.1%). Next in proportion were those who indicated that they were motivated by rewards (77.5%), availability of sports equipment and facilities (75.7%), motivation from coaches and their friends (59.0%) and motivation by trips to different places (57.4%). Others in terms of frequency of responses indicated that they were motivated by desire to gain fitness (72.4%) and to improve their skills (54.4%). On the contrary, the highest proportion of respondents (82.6%) indicated that awarding of sport scholarship was not a motivating factor, a pointer to the fact that probably most of the universities did not have the sport scholarship schemes.

The results of this study reveal that student-athletes in Kenyan universities are motivated to join the universities teams by allowances, passion for sports, availability of competitive outlets, sport facilities and equipment, encouragement from coaches and friends, trips to different places, desire to gain fitness and improve their skills. These findings are consistent with those of Fauzee et al. (2009) who noted that coaches, friends, rewards and environmental influence such as facilities and equipment play important role in motivation during training and competitions. These findings further support those of Holt and Dunn's (2004) which indicated that elite youth football players were motivated to play football by the love of the game and the desire to succeed and the findings of Gibbon et al. (2003) who found that competitive opportunities were significant motives for participation in sports. The results of this study showed that motives such as allowances, competitive outlets and passion were the highest motivators to joining the university teams. Highest proportion of respondents indicated that awarding of sport scholarship was not a motivating factor,

a pointer to the fact that probably most of the universities did not have the sport scholarship schemes.

4.1.7.2. Testing of Null Hypothesis Four

Table 4.12 shows the results of chi-square test of motives of participation in sports between public and private universities.

Table 4.12: Results of Chi-square Test for Motives of Participating in Sports between Public and Private Universities

Motives of participation	Responses	University category				χ^2	df	P value
		Public		Private				
		Freq	%	Freq	%			
Passion	Disagree	34	18.4	56	17.4	0.078	1	0.779
	Agree	151	81.6	266	82.6			
Motivation by coaches/others	Disagree	93	50.3	115	35.7	10.289	1	0.001
	Agree	92	49.7	207	64.3			
For fitness	Disagree	67	36.2	73	22.7	10.785	1	0.001
	Agree	118	63.8	249	77.3			
Availability of equipment/facilities	Disagree	49	26.5	74	23.1	.0746	1	0.386
	Agree	136	73.5	247	76.9			
Trips	Disagree	88	47.6	128	39.8	2.935	1	0.087
	Agree	97	52.4	194	60.2			
Allowances	Disagree	25	13.5	37	11.5	0.431	1	0.51
	Agree	160	86.5	284	88.5			
Competitive outlets	Disagree	37	20.0	74	23.0	0.611	1	0.435
	Agree	148	80.0	248	77.0			
Rewards	Disagree	44	23.8	70	21.7	0.282	1	0.596
	Agree	141	76.2	252	78.3			
Scholarship	Disagree	160	86.5	259	80.4	3.00	1	0.083
	Agree	25	13.5	63	19.6			
Desire to improve skills	Disagree	87	47.0	144	44.7	0.252	1	0.616
	Agree	98	53.0	178	55.3			

Chi-square test was conducted to determine whether there were any significant differences on the factors that motivate student-athletes to join university teams between public and private universities. The results revealed that there were no significant differences on the motives of student-athletes participation in sports between public and private universities in relation to passion ($\chi^2 = 0.078$, $df = 1$, $p = 0.779$), availability of equipment/ facilities ($\chi^2 = 0.0746$, $df = 1$, $p = 0.0386$), trips ($\chi^2 = 2.935$, $df = 1$, $p = 0.087$), allowances ($\chi^2 = 0.431$, $df = 1$, $p = 0.51$), competitive outlets ($\chi^2 = 0.611$, $df = 1$, $p = 0.435$), rewards ($\chi^2 = 0.282$, $df = 1$, $p = 0.596$), scholarship ($\chi^2 = 3.00$, $df = 1$, $p = 0.083$) and desire to improve skills ($\chi^2 = 0.252$, $df = 1$, $p = 0.616$). Therefore there was no sufficient evidence to reject the null hypothesis in relation to these motives.

On the other hand, the results revealed that there were significant differences on the motives of student-athletes participation in sports between public and private universities in relation to fitness ($\chi^2 = 10.785$, $df = 1$, $p = 0.001$) and motivation by coaches and others ($\chi^2 = 10.289$, $df = 1$, $p = 0.001$). Therefore the null hypothesis (H04) was rejected in relation to fitness and motivation from coaches and others. A significantly larger proportion of private universities' student-athletes (64.3%) reported that they were motivated by encouragement from coaches compared with only 49.7 percent of public universities' student-athletes. Additionally, significantly larger proportion of private universities' student-athletes (77.3%) reported that they were motivated by desire for fitness compared with only 63.8 percent of public universities' student-athletes.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

The purpose of this study was to explore assets and modes of sport talent identification and development in universities in Kenya. This section presents the summary of the results from which conclusions and recommendations are made.

5.2. Summary of Findings

- i. Majority of respondents indicate that talent identification in universities in Kenya is mostly based on the observation of the coaches' during intramural competitions and little on application of scientific tests which involve measuring physical, physiological, psychological and social attributes of athletes.
- ii. Large proportion of games tutors indicated that identification of talented student-athletes was challenged by limited financial support, lack of scholarships for talented potential student- athletes, talent identification structures and modalities and necessary equipment to facilitate talent identification.
- iii. Most of the respondents reported that universities had inadequate sport equipment and facilities for training and the available sport facilities were not suitable for quality training and below the required standards. There was no significant difference on the rating of adequacy of sports facilities and equipment between public and private universities. Therefore there was no sufficient evidence to reject the null hypothesis.

- iv. The largest proportion of respondents indicated that universities have inadequate number of coaches, coaches do not plan and structure practice, have limited technical and tactical knowledge of the sport that they instruct. There was no significant difference on the student-athletes' rating of adequacy of coaches between male and female student-athletes. Therefore there was no sufficient evidence to reject the null hypothesis.
- v. Majority of respondents indicated that universities provide opportunity for student-athletes to participate in competitions and the competitive outlet opportunities are of good quality to give them the experience required to develop talent.
- vi. Most of respondents reported that the universities academics programs do not allow adequate time for regular and frequent practice. There was significant difference on the rating of adequacy of available time for student-athletes' practice and training between public and private universities. Therefore the null hypothesis was rejected. Private university student-athletes were significantly likely to indicate that they had inadequate time for training than public universities student-athletes.
- vii. Majority of student-athletes indicated that they were motivated to participate in sport by allowances, passion for the sport played, availability of competitive outlets, rewards, availability of sport facilities, desire to improve their skills, to gain fitness and trips to different places.
- viii. There were no significant differences on the motives of student-athletes participation in sports between public and private universities in relation to passion, equipment/ facilities, trips, allowances, competitive outlets, rewards,

scholarship and desire to improve skills. Therefore there was no sufficient evidence to reject the null hypothesis. However, there were significant differences on the motives of student-athletes participation in sports between public and private universities in relation to fitness and motivation by coaches and others. Therefore the null hypothesis was rejected.

5.3. Conclusions

This study was designed to assess assets and mode of sport talent identification and development in universities in Kenya. Based on the findings of this study, the following conclusions were made:

- i. Identification of talented student-athletes in universities in Kenya is based on the observation of the coaches and this is done during intramural competitions.
- ii. Universities in Kenya do not apply scientific tests in measuring physiological, psychological, social and technical abilities when identifying talented student-athletes.
- iii. Identification of talented student-athletes in universities in Kenya was challenged by limited financial support, lack of scholarships for talented potential student-athletes, absence of talent identification programs, lack of necessary equipment to facilitate the process and unavailability of knowledgeable coaches on talent identification.
- iv. Universities in Kenya provide opportunity for student-athletes to participate in competitions.

- v. Universities in Kenya have not provided adequate sport equipment for student-athletes' practice and training.
- vi. Universities in Kenya have inadequate sport facilities that are not well maintained.
- vii. Universities in Kenya have inadequate number of coaches and the available coaches have limited technical and tactical knowledge of the sport discipline that they instruct.
- viii. Student-athletes in universities in Kenya have inadequate time for regular and frequent sports training.
- ix. Private universities student-athletes are more likely to have inadequate time for training compared to public universities student-athletes.
- x. Student-athletes in universities in Kenya are motivated to participate in sport by allowances, passion for the sport played, availability of competitive outlets, rewards, availability of sport facilities, desire to improve their performance, gain fitness and trips to different places.
- xi. Private universities student-athletes are more likely to be motivated by desire for fitness than public universities student-athletes.

5.4. Recommendations for Policy and Practice

From the findings of this study, the following recommendations are made for policy and practice:

- i. To improve Kenyan universities performance in both national and international sporting competitions, the universities should formulate programs for identifying athletes with potential to become elite.

- ii. Universities in Kenya should supplement their internal talent identification mechanisms with identification of talented athletes from external institutions. This can be achieved by creating a talent identification program which involves scouting for talent during secondary school competitions and facilitate them to join the universities by providing them with scholarships.
- iii. Universities in Kenya should include scientific methods of measuring physical, physiological, psychological and social attributes of athletes in identifying athletes with potential of becoming elite. This will help avoid poor judgment of student-athletes' potential.
- iv. Universities in Kenya should support exposure of student-athletes to high level competitions both locally and internationally so as to enhance their talent development.
- v. Universities in Kenya should develop adequate and quality sport facilities and avail the required equipment for quality practice and effective talent development.
- vi. Universities in Kenya should review their staffing levels for sports departments with a view to employ adequate number of suitably trained coaches to facilitate identification and development of talented student-athletes.
- vii. Universities should develop coach education programmes to provide coaches with opportunities to upgrade their theoretical, conceptual, technical and tactical knowledge of the sports that they coach.

- viii. There is need for universities to set aside time for sport participation in their academic calendars. This will provide adequate time for sustained regular and quality training and practice hence, assist in development of talented student-athletes to elite level.
- ix. Universities should formulate incentive programmes that include sports scholarships to motivate more talented youth to join the university.

5.6. Recommendations for Further Research

This study has opened up the need for further investigation in the area of talent identification and development in Kenya. The following areas were suggested for further research:

- i. This study focused on determining adequacy, accessibility, standards and maintenance of sports facilities and equipment based on the views of the student-athletes and games tutors. It is therefore, suggested that observational research be undertaken to determine the conditions and standards of sport facilities.
- ii. The study also focused on only three sports disciplines in the universities in Kenya. It is also recommended that the study be replicated in the other sports disciplines.
- iii. It is recommended that this study be replicated in other institutions other than universities to determine if there are significant differences in status of sport talent identification and development environments.

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APPENDIX A.**SPORT TALENT IDENTIFICATION AND DEVELOPMENT: STUDENT-ATHLETES QUESTIONNAIRE**

I am carrying out a survey on assets and modes of sport talent identification and development in selected sport disciplines in Kenyan universities as partial fulfilment of the requirements for the award of the degree of Master of Science. Would you mind if I ask you a few questions? It will not take long.

SECTION A

Instruction: Circle where applicable.

1. Indicate your gender
 - A. Male
 - B. Female
2. The category of your university.
 - A. Public
 - B. Private
3. Which sport do you participate in from the following
 - A. Basketball
 - B. Volleyball
 - C. Track and field

SECTION B

This section will ask you questions on sport talent identification and development.

Instruction: indicate whether you agree or disagree with each statement by Circling where applicable using the following code:

A. = Agree

B. = Disagree

I. Identification of talented student-athletes in my university is done.....

1)	During Inter- schools/ department competitions	A	B
2)	Externally during village/estate/ secondary schools competitions	A	B
3)	Through Observations during by university coach during competitions	A	B
4)	Through Measurement/ testing of my physical, physiological, psychological and social attributes as well as technical abilities.	A	B
II. What are the factors that hinder identification of talented student-athletes?			
5)	Absence of sport talent identification programs.	A	B
6)	Financial support by the university	A	B
7)	Absence of coaches with knowledge on talent identification	A	B
8)	Absence of necessary equipment to facilitate identification process	A	B
9)	Absence of sport scholarship for potential talented student-athletes	A	B
10)	Others (please list them.		

III. Equipment for talent identification and development.			
My university has.....			
11)	Equipment for measuring physical, physiological, psychological and social attributes as well as technical abilities of talented students	A	B
12)	Sufficient sport facilities	A	B
13)	Sport facilities that are easily accessible.	A	B
14)	Sports facilities that are of the required standard.	A	B
15)	Sport facilities that are suitable for quality training	A	B
16)	Sufficient sport equipment.	A	B
IV. Coaches for talent identification and development.			
My university has.....			
17)	Employed adequate number of sport coaches.	A	B
18)	Coaches with knowledge of programming for training and competition.	A	B
19)	Coaches with fundamental skills required for sport talent identification and development	A	B
20)	Coaches with technical and tactical knowledge of the sport	A	B
21)	Coaches who plan and structure the practice	A	B
22)	Coaches with knowledge for measuring physical, physiological, psychological and social attributes as well as technical abilities of players.	A	B
23)	Coaches who plan training to incorporate a wide variety of useful skills and attribute i.e techniques, tactical physical, mental and	A	B

	decision making skills		
V. Competitions for talent development			
24)	My university provides opportunities for me to participate in structured competitions within the university	A	B
25)	My university provides opportunities for me to participate in structured competitions at different levels outside the university	A	B
26)	I struggle to get good quality competition experience.	A	B
VI. Time for practice and training.			
27)	My university academic program provides time for regular and frequent practice and training.	A	B
VII. Motivators to participation in sports			
What motivate you to participate in sports			
28)	Passion for the sport	A	B
29)	Encouragement from coaches and others students.	A	B
30)	For fitness	A	B
31)	Availability of sports equipments and facilities	A	B
32)	Trips	A	B
33)	Allowances from the university	A	B
34)	Competitive outlets	A	B
35)	Rewards (certificates and medals).	A	B
36)	Sports scholarship	A	B
37)	Desire to improve skills	A	B
38)	Others (please list them).....		

APPENDIX B.**SPORT TALENT IDENTIFICATION AND DEVELOPMENT: GAMES****TUTOR QUESTIONNAIRE**

I am carrying out a survey on continuity of sport talent development in selected sport disciplines in Kenyan universities as partial fulfilment of the requirements for the award of the degree of Master of Science (leisure and recreation management).

Would you mind if I ask you a few questions? It will not take long.

SECTION A

Instruction: Circle where applicable.

4. Indicate your gender

A. Male

B. Female

5. The category of your university.

A. Public

B. Private

6. Which sport do you coach from the following

A. Basketball

B. Volleyball

C. Track and field

SECTION B

This section will ask you questions on sport talent identification.

Instruction: indicate whether you agree or disagree with each statement by

Circling where applicable using the following code:

A = Agree

B = Disagree

A. We identify talented student-athletes.....			
39)	During Inter- schools/department competitions	A	B
40)	Externally during village/estate/ secondary schools competitions	A	B
41)	Observations of the coach/ games tutor during competitions	A	B
42)	By Measurement/ testing of physical, physiological, psychological and social attributes as well as technical abilities.	A	B
B. What are the factors that hinder identification of talented student-athletes.....			
43)	Absence of sport talent identification programs.	A	B
44)	Inadequate Financial support by the university	A	B
45)	Absence of knowledge on talent identification	A	B
46)	Absence of necessary equipment to carry out talent identification	A	B
47)	Lack of sport scholarship for potential talented student-athletes	A	B
48)	Others (please list them.		

C. My university.....			
49)	Has equipment for measuring physical, physiological, psychological and social attributes as well as technical abilities of student-athletes.	A	B
50)	Has Sufficient sport facilities for training and practice	A	B
51)	Sport facilities are easily accessible.	A	B
52)	Sports facilities are of the required standard.	A	B
53)	Sport facilities are suitable for quality training	A	B
54)	Has Sufficient sport equipment for training and practice	A	B
D. My university			
55)	Has employed adequate number of sport coaches.	A	B
56)	Coach has knowledge of programming for training and competition.	A	B
57)	Coach has fundamental skills required for sport talent identification and development	A	B
58)	Coach has technical and tactical knowledge of the sport	A	B
59)	Coach has knowledge for measuring physical, physiological, psychological and social attributes as well as technical abilities.	A	B
60)	Coach plans training to incorporate a wide variety of useful skills and attribute i.e techniques, tactical physical, mental and decision making skills	A	B
Competitions for talent development			
E. My university provides opportunities for student-athletes to participate in			

structured competitions.....			
61)	within the university	A	B
62)	At different levels outside the university	A	B
F. Time for practice and training			
63)	My university academic calendar provide time for regular and frequent practice	A	B

Thanks

APPENDIX C: PERMISSION LETTER TO CODUCT THE STUDY

Abisai Jacob

Kenyatta University

P.O box 43844

Nairobi

Email:abijakeeyalil@yahoo.com

August 10th, 2012

Dear Sport Director,

This is to kindly request for your permission to administer questionnaires to some of your student-athletes for my Master thesis. I propose to explore information on university sport talent development environment from student-athletes. The target population for this study is first team student-athletes from basketball, volleyball and track and field teams. The study will employ questionnaires for the purpose of data gathering. The questionnaire will be administered to selected student-athletes.

By this letter, I would like to seek your permission to use some of your student-athlete for this research. In case you have any question about the study, kindly contact me.

Sincerely

E.J. Abisai

APPENDIX D: INFORMED CONSENT LETTER TO STUDENT-ATHLETE.

Dear student

I am a student a post graduate student at Kenyatta University, and am conducting a study on assets and modes of sport talent identification and development in selected sport disciplines in Kenyan universities. University sport talent identification and development environment should be appropriate so as to talent development. I am interested in your observation and experience of university sport talent identification and development. I have enclosed a questionnaire which asks you to respond to a series of statements which focus on talent factors affecting sport talent identification and development.

I want to stress that your participation in this study is voluntary and all efforts to protect your identity and keep the information confidential will be taken. If you choose to participate, complete the questionnaire and return it to researcher. The researcher looks forward to learning more on university sport talent development environment. Your participation will be highly appreciated.

Signing this form will indicate that you understand the nature of the study and give your consent prior to participation.

I have read and understand the above information. My signature below indicate that I agree to participate in this study

Name

Signature

Date

Sincerely

E.J. abisai

Kenyatta University

P.O Box 43844

APPENDIX E: RESEARCH PERMIT FROM NATIONAL COMMISSION FOR SCIENCE TECHNOLOGY AND INNOVATION

PAGE 2 **PAGE 3**

THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss/Institution
Jacob Abisai
of (Address) Kenyatta University
P.O.Box 43844-00100, Nairobi.
has been permitted to conduct research in

Location
District
Selected Counties

On the topic: Determination of factors influencing sports talent identification and development of student athletes in selected sports discipline in Kenyan Universities.

for a period ending: 22nd December, 2014.


Research Permit No. NACOSTI/RCD/14
Date of issue 13th January, 201
Fee received KSHS. 1,000




Applicant's Signature **For: Secretar National Commission for Science Technology & Innovation**

CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**



REPUBLIC OF KENYA



National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 833

CONDITIONS: see back page