

**INFLUENCE OF PARTICIPATION IN COMPETITIVE SPORTS ON  
CHARACTER CHANGES OF SECONDARY SCHOOL STUDENTS IN  
NAIROBI CITY COUNTY, KENYA**

**BY**

.

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**REGISTRATION NO H87/27459/2014**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF  
PHILOSOPHY (PHYSICAL EDUCATION) IN THE SCHOOL OF PUBLIC  
HEALTH AND APPLIED HUMAN SCIENCES OF KENYATTA UNIVERSITY**

**MARCH, 2022**

**DECLARATION**

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

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**DEDICATION**

This thesis is dedicated to my husband Michael Mwenda,

Our children Fidelis, Monica and Kevin

for their understanding as I was pursuing this degree

## ACKNOWLEDGEMENTS

It is by the Grace of God that I have come this far. I am sincerely indebted to the many individuals who were instrumental in completion of this degree. First, I would like to thank my supervisors, Prof. Elijah Gitonga Rintaugu and Prof. Andanje Mwisukha (posthumously). I am greatly humbled by your guidance, enthusiasm and support. I cherish your mentorship as well as our relationship. It has been a real privilege to work with you.

I am also grateful to the Kenya Secondary Schools Sports Association (K. S. S. S. A.) officials for their support when sampling schools for data collection. To the principals and deputy principals of the schools which took part in the study, the games teachers who facilitated my data collection and the students (competitive and non-competitive athletes) who participated in the study, I say a big ‘Thank you’.

I would like to appreciate the lecturers and other staff in the Department of Physical Education, Exercise and Sports Science and Department of Recreation and Sports Management for constantly reminding me that this PhD was attainable.

My Thesis would not have been possible without the love and support of my family. My husband Michael, daughters Fide and Moni, son Kevin were instrumental in helping make this degree a reality.

God bless them all

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**LIST OF ABBREVIATIONS AND ACRONYMS**

ANOVA:	Analysis of Variance
ASSA:	Arizona Sport Summit Accord
CDCP:	Center for Disease Control and Prevention
KSSSA:	Kenya Secondary School Sports Association
MOEST:	Ministry of Education Science and Technology
NCC:	Nairobi City County.
PCPFS:	President's Council on Physical Fitness and Sports
PE:	Physical Education
POMP:	Percentage of Maximum Possible
SPSS:	Statistical Packages for Social Sciences
WSF:	Women Sports Foundation

## OPERATIONAL DEFINITIONS OF TERMS

**Aggression:** Verbal or physical actions carried out with an intention to dominate, control or even do harm to an individual. It includes intentional and non-intentional violence like assault and insults directed to other players as well as officials in and away from sports settings.

**Caring:** Variable construct that describes attitudes, relationships, behaviors, and environments characterized by qualities such as helpfulness, concern, empathy, kindness, consideration, good will, responsiveness, and support.

**Character:** Composite of good moral qualities that include firmness of belief, resolution and practice of such moral values as integrity / honesty, sense of responsibility, respect, sportsmanship and good citizenship. It is conducting oneself in socially acceptable manner.

**Character Change:** An improvement in moral and social qualities after undergoing a period of sports participation. It is the result of post-test scores minus pre-test scores as measured using modified Individual and Team Character in Sport Questionnaire [ITCSQ], 2006; Dieckman, 2009) comprised of thirty (30) items that measure character changes in honesty, respect, responsibility, fairness and good citizenship.

**Competitive athlete:** A student who represented the school in Inter-Sub County sports championships.

**Competitive Sports:** These are institutionalized sport activities where students compete outside their schools but within interschool programme.

**Demographic Detail:** Characteristics used to define an individual such as age and gender.

**Development:** This is the process of improvement in character traits after undergoing a period of training.

**Deviance:** A form of behavior which diverges from the expected one approved by a social group. This includes acts such as truancy, aggression, drug abuse and sexual immorality.

**Fairness:** Variable construct that describes character aspect of being impartial and/or showing just treatment or behaviour towards others without favouritism or discrimination.

**Gamesmanship:** tendency to pursue winning games by using various ploys and tactics to gain undue advantage over the opponent/s.

**Good citizenship:** Character aspect of conducting oneself in accordance with the rights, duties, and privileges of being an inhabitant of a given geographical location.

**Honesty:** Variable construct that describes character aspect of being free of deceit, truthful and sincere.

**Integrity:** Conforming to ethical principles and moral values of sincerity, honesty and uprightness.

**Learning:** This is the activity of acquiring new knowledge, behaviors, skills, values, preferences or understanding which may involve synthesizing different types of information.

**Non-competitive athlete:** A student who participated in sports activities within their school in 2018 but never represented the school team in any of the Inter- Sub county sports competition.

**Outcome:** The resulting character after students participates in competitive sports over a given period of time.

**Quasi-experimental Design:** A research design in which variables cannot be manipulated as they automatically fall into existing categories such as male and female.

**Resilience:** It is the ability to ‘bounce back’ from negative events by using positive emotions to cope. It is the capacity to live with purpose, perseverance, equanimity, authenticity and self-reliance.

**Respect:** A person’s regard for fundamental worth and dignity of every human being.

**Responsibility:** This is a task/duty that has been given to a student and one that requires total sacrifice.

**Role model:** One who through personal contact and relationship inspires individuals or groups of people.

**School Category:** Refers to whether the secondary school is National, Extra-county, County or Sub-county.

**Status of School:** Refers to whether the school is boarding or day.

**Status of Student:** Refers to whether the student is a boarder or day scholar.

**Student-Athlete:** A student who participated in the school sports.

**Type of School:** Refers to whether the school is public or private. Public schools are supported by the Government whereas private schools are owned by an individual(s) or sponsored by religious organizations.

**Values:** These are factors that one believes add worth, meaning and significance to life.

**Violence:** A behavior that is intended to hurt or kill somebody such as physical assault, bullying and fighting.

## ABSTRACT

Studies reveal a wide range of benefits derived from engagement in sports such as school connectedness, academic attainment, social benefits and character development of the youth. However, some studies have also indicated that competitive sports may lead to undesirable behavior. Therefore the purpose of this study was to assess the influence of participation in sports on character changes of secondary school students. The study was guided by the null hypothesis, 'There is no significant difference in character changes between competitive and non-competitive student-athletes after six months' sports participation. The independent variables are level of sports participation, gender, age, type of sport, school category, school status, school type, status of student and class level of students. Dependent variable was the character traits at the pre-test and post-test. A Quasi-experimental research design was utilized in this study. The target population was student-athletes from 258 secondary schools in Nairobi City County. Purposive sampling was used to select six hundred and seventy two (672) students from 24(10%) of secondary schools. Of these, 336 (competitive athletes) were those who had represented the school team in Inter-Sub county sport competitions in 2018 in selected sports. Matched pairs (336 non-competitive athletes) were those who played sports at school but never represented the school team in any of the Inter-Sub county sports competition. A close-ended questionnaire on character which was adapted from different sources was utilized in this study. A pre-test was conducted at the beginning of the playing season and athletes continued with active participation until the end of the playing / competition season when the post-test was undertaken. The data obtained was coded and analyzed using IBM-SPSS Version 20. Matched Sample Wilcoxon Signed Rank test showed significant change in character scores ( $p = .049$ ) between Pre-test and Post-test, with less number of respondents ( $n=303$ ) registering positive change than the number of respondents ( $n=348$ ) who registered negative change scores. Independent Samples Mann Whitney U tests showed significant difference in character scores between Competitive and Non-Competitive student-athletes both at Pre-Test ( $p = .001$ ) and at Post-Test ( $p = .023$ ), with the Competitive group registering higher Mean Rank score than Non-Competitive group both at Pre-Test (361.75 vs. 311.25) and at Post-Test (353.58 vs. 319.42). Multinomial Logistic Regression Analyses showed that boarding status, school category and type of sport can significantly ( $p < .05$ ) influence character changes among competitive student-athletes. Therefore it is concluded that participation in school sports can provide opportunities and experiences that lead to character change and thus aid in character development. However, sports competition can also result to negative character change and thus undermine the social value of sports. Boarding status, school category and type of sport influence outcomes of sports experiences leading to positive or negative character change. It is therefore recommended that curriculum developers and implementers should integrate character education to enhance the sports experiences and outcomes to promote desirable character changes and development.

## CHAPTER ONE: INTRODUCTION

### 1.1. Background to the Study

Gerdy (2000) indicates that character is the right conduct to other people as well as to oneself regardless of external pressures or common behavior exhibited by others. The author further asserts that character is the composite of good moral qualities which show the firmness of values like belief and resolution while practicing character values. A positive character comprises practice of acts such as respect, honesty, fairness, reliability and openness (Stoll & Beller, 2000). On the other hand, negative character comprises anti-social and unethical practices such as dishonesty, unhealthy competition and aggression, cheating and doping (Yanklowitz, 2013).

DeRoche (2004) and David and Miller (2005) postulate that character is neither inherited nor is it about reputation. It is about offering a person the opportunities to clarify, reflect, decide and practice virtues such as respect, responsibility, perseverance, honesty, ethical problem solving and decision making. Good character should therefore be nurtured and bad character corrected (David & Miller, 2005).

Sports are delicately interwoven within the institutions of learning in our society (Fullinwider, 2006). At all levels of education, especially in high school, colleges and universities, sports competitions are regularly held. Besides the enrichment of high school experiences, they aid in fulfillment of the education mission of sportsmanship, fair play, teamwork, respect, citizenship, health and welfare of all students. In some instances, a school's success is determined by performance in sports; and this is a clear indication that participation in sports contributes positive values to all students (Brown,

2014; Fullinwider, 2006). Bredemeier and Shields (2006) assert that sports can empower the youth with the core values of the society which is a major component of the character development outcome. However, it is important to carefully examine the rationale underlying the over-emphasis on sports that overshadows the value of academic programmes in some of the institutions. Sports participation in Kenyan secondary schools throughout the year and sports competitions which take place during first and second terms consumes a considerable amount of time and a lot of finances. There is need to examine benefits that can be derived from sports participation settings such as the in area of character changes.

Participation in sports is important in teaching children a wide range of positive social outcomes including reduced youth crime, reduced truancy, improved physical fitness and being active citizens (Yanklowitz, 2013). It is therefore evident that sports are powerful agents of socialization that may, under the right circumstances, have positive influence on the youth (President's Council on Physical Fitness and Sports [PCPFS], 2006; Sport England, 1999; Yanklowitz, 2013). However, contrary to the belief that 'sports build character', character is taught and learned in a sports setting thus the setting provides an enabling environment for character development (Bredemeier & Shields, 2006).

Stead and Nevill (2010) and Yanklowitz (2013) indicated that participation in sport is a good way to establish a life-long pattern of exercise and act as a great vehicle for teaching students teamwork, healthy competition and discipline. Edmudson (2014) describes sports as a field with a lot of benefits such as building the body, creating a stronger resilient will power, imparting confidence and stimulating bravery. There is

therefore need to establish the possibility of positive character changes being acquired from sports participation.

Participation in sports has also been associated with cognitive benefits, enhancement of classroom behavior and school attendance which in turn contributes to academic achievement of learners (Cosden, Morrison, Gutierrez et al., 2004; Gitonga, 1998, Gitonga & Akpata, 1999; Kamau, 2015). Participation in sports may also enhance mental health, resulting to pro-social behaviors, thus positive influence on character (Akos, 2002; Long, Welsh, Braham et al., 2002; Trudeau & Shephard, 2008; Wilson, 2009). However, scholars have challenged this notion associated with positive academic outcomes and argued that this can happen only if an enabling environment is provided (Eitle, 2002; Hartman, 2008; Houlihan, 2008; Trudeau & Shephard, 2008; Wilson, 2009).

According to Houlihan (2008) and Stead and Nevill (2010), participation in schools' sports has a potential to instill in young people, positive social behavior such as co-operation, personal responsibility and empathy. Sports participation forums can be used to address a number of contemporary social issues relating to negative youth behavior such as depression, crime, truancy and drug abuse. This underpins the value of sports which aids in acquisition and accumulation of various personal, social and social-moral skills which can motivate the young people to act successfully and acceptably in a wide range of social institutions (Stead & Nevill, 2006; Center for Disease Control and Prevention [CDCP], 2009).

Houlihan (2008) indicated that violence in sports participation settings had shot up to alarming levels and often resulted to harmful acts involving direct acts of physical

violence found within and outside the rules of the game. These acts have detrimental effects to the participants and the fans (Walton, 2005; Houlihan, 2008). Thus, social significance of participation in sports is undermined by sports-related violence which is deeply rooted in the sports process. This is due to over-emphasis of 'winning at all costs' at the expense of sportsmanship (Houlihan, 2008).

Nixon's (1997) reported that male athletes were characterized by higher levels of aggression than non-competitive athletes and attributed this to beliefs in the value of toughness in sports. Conroy, Silvia, Newcomer, Walker & Johnson (2001) reported that male athletes were more aggressive than the female-athletes. This points to difference in character and may be manifested in sports situations. Shields and Edgar (1997) suggested that athletes who were exposed to aggression and violence in training and sport itself were more likely to engage in verbal intimidation, physical intimidation and violence. Staffo (2001) averred that trainers who display overly aggressive behavior encourage this vice.

Proios et al. (2011) found no significant differences between the genders in moral reasoning, but noted the mediatory role of age in moral development of both men and women, as well as in the effect of athletic experiences. Yanklowitz (2013) stated that violence in sports deteriorated with age, impacting negatively on the character of youth. These studies' findings however seems to be in contrast to Gilligan's theory of sex differences in the development of moral reasoning (Muuss, 1988). The theory asserts that men and women follow different voices; men tend to organize social relationships in a hierarchical order and subscribe to a morality of rights, while females value interpersonal

connectedness, care, sensitivity, and responsibility to people. The theorist called for integrating these complementary male (justice) and female (care) orientations to realize full human potential in moral development.

From the foregoing paragraphs it seems there are mixed results in studies focusing on gender and age differences in character development in general life and in sports experiences. Therefore a research is needed to enhance our understanding on influence of gender, age and character changes through sports.

Njoroge & Nyabuto (2014) found that day schools in Kenya were characterized by indiscipline and poor academic performance. This was partly blamed on the students' constant interactions and operating in an environment which is devoid of rules and regulations. Other studies indicated that there are disparities in positive effects of participation in competitive sports on secondary school students based on different school categories (National/County/Sub-county), status of school (public/private), class level and type of sport participated in (Gitonga, 1998, Gitonga & Akpata 1999; Bulinda, 2002; Kateshumbwa, 2011; Kamau, 2015). Conversely, Sage (1998) argued that the effect of sports participation on character development of the youth depended on the positive or negative contextual conditions of the sporting experience. The nature of school, class level and type of sport are important factors as they may affect sports experience of a student-athlete in diverse ways. In high school settings Camiré and Trudel (2010) found that majority of athletes appear to believe that social character best describes the development that occurs in sport and that gamesmanship is employed and legitimized as being part of the game. The above few cited cases indicates that there are gains in

character derived from sports participation but the mediating factors and their effects are not clearly understood. Therefore there is need to ascertain the influence of sports participation on character changes of secondary school students based on school category, status of school, class level and type of sport.

Sports can provide opportunities which can aid in character development, through deliberate efforts (PCPFS, 2006; Austin, 2010). Additionally, Doty (2006) and Gaines (2012) aver that character traits can be nurtured in a sporting experience when coaches, teachers and school administrators give priority to character development as the objective of the sport experience. During term one (2018), students participated in hockey and basketball and in term two they participated in rugby, netball, hand ball, volleyball and soccer. With the mixed results regarding sports participation and character development by different authors, there was therefore need to conduct a study in Kenya to establish the influence of participation in sports on character changes of secondary school students.

## **1.2. Statement of the Problem**

The notion that participation in sports is effective for promotion of character has been in existence since ancient times (Bredemeier & Shield, 2006). Besides muscle development, character development is widely believed to be acquired through participation in sports (Edmudson, 2014). Consequently, school administrators have encouraged students to participate in competitive sports as a way of acquiring desirable character traits (PCPFS, 2006). However, in some cases, sports teams emphasize on or even allow for development of character vices such as aggressiveness, unhealthy competition, deviance, bullying, violence, fighting, and other unsportsmanlike conduct (Edmudson, 2014; Ekeh,

2002; Fullinwider, 2006; Priest, Krause & Beach, 1999; Yanklowitz, 2013). Additionally, negative character may be adopted from peer interaction and lack of cooperation skills. Moreover, the benefits such as building the healthy body, creating a stronger resilient will power, imparting confidence and stimulating bravery (Edmudson, 2014) are eroded by negative character aspects such as risky substance abuse (Callender, 2010). Fights also happen among fans and spectators (Houlihan, 2008).

Despite continued participation in competitive sports among secondary schools, students are increasingly becoming deviant in and out of the field and this has a negative impact on education, politics and economics aspects. This leads to enormous wastage of material resources, man power, time and even human life (Bredemeier & Shields, 2006; Kombo, 1998; Stoll & Beller, 2000; Njoroge, 2005). Although these studies looked at psychosociological aspects among secondary school students, no study concerning the influence of participation in sports on character changes of had been conducted hitherto. This study, therefore, sought to establish influence of participation in competitive sports on character changes of secondary school students. The study also investigated the influence of other pertinent factors such as (i) gender, (ii) age (iii) type of sport, (iv) school category, (v) type of school, (vi) school status, and (vii) class level on character changes (changes in honesty, respect, responsibility, sportsmanship, caring and good citizenship) among student athletes.

### **1.3. Purpose of the Study**

The purpose of this study was to establish the influence of participation in competitive sports on character changes among secondary school students in Nairobi City County (NCC).

### **1.4. Objectives of the Study**

The main objectives of this study were to analyze the influence of sports participation on character changes based on level of participation/sports competition, gender, age, type of sport, school category, type of school, status of school and class level.

The specific objectives of the study were:

1. To analyse the demographic characteristics of competitive and non-competitive athletes in terms of gender, age, type of sport, school category, type of school, status of school and class level among secondary school students in Nairobi City County, Kenya.
2. To compare character of secondary school students-athletes before and after sports participation in Nairobi City County, Kenya.
3. To compare character changes between competitive and non-competitive athletes among secondary school students in Nairobi City County, Kenya.
4. To determine the influence of level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level on character changes among secondary school student athletes in Nairobi City County, Kenya.

### **1.5. Research Questions**

1. What are the demographic characteristics of competitive and non-competitive athletes in terms of gender, age, type of sport, school category, type of school, status of school and class level among secondary school students in Nairobi City County, Kenya?
2. Does participation in sports lead to change in character among secondary school students-athletes after in Nairobi City County, Kenya?
3. Is there difference in character changes between competitive and non-competitive athletes among secondary school students in Nairobi City County, Kenya?
4. Does level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level influence character changes among secondary school student athletes in Nairobi City County, Kenya?

### **1.6. Hypotheses**

- H<sub>0</sub>1. There is no significant change in character before and after sports participation among secondary school students-athletes in Nairobi City County, Kenya.
- H<sub>0</sub>2. There is no significant difference in character changes between competitive and non-competitive athletes among secondary school students in Nairobi City County, Kenya.
- H<sub>0</sub>3. Character changes is not significantly influenced by level of sport competition, gender, age, type of sport, school category, type of school, status of school and

class level on among secondary school student athletes in Nairobi City County, Kenya.

### **1.7. Significance of the Study**

Studies that have been done about participation in competitive sports concerning Kenyan secondary school students have focused more on academic attainment. So far no study has been conducted to determine the influence of participation in competitive sports on character changes among Kenyan secondary school athletes. The results of the study helped to understand whether participation in competitive sports influences character changes among Kenyan secondary school students.

This study's findings are of benefit to the Ministry of Education Science and Technology (MOEST) by getting an insight into the role played by sports on positive character changes of secondary school students. By highlighting the contextual factors that influence character changes, the study's findings informs the Kenya Secondary School Sports Association (KSSSA) officials to insist on the need for good character as they hold pre-participation briefs. Additionally, the findings may be utilized by the school administrators to use sports participation as a platform to insist on the desirable character traits expected for all students. Parents may as well use the findings of this study to encourage their daughters/ sons to add effort on participation in competitive sports for positive character changes.

Moreover, literature that is availed by this study is of benefit in providing for an existing gap in the understanding of the role of sports participation on character changes of secondary school students in Kenya.

### **1.8. Limitations of the Study**

The study did not have control in the conduct of the sports activities. Use of Quasi-experimental research design means there was no control in terms of manipulating sports activities and randomly allocating to the various independent variables. The study also did not have control over a student's inherent dispositions as pertains to character changes such as peer influence, personality, school environment and home background factors during pre and post-test. Additionally, data collected for this study was limited to the information acquired from students who participated in the inter Sub county competitions in the year 2018 and their matched pairs. The researcher made efforts to remedy these limitations by appealing to respondents to be as truthful as possible in their responses.

### **1.9. Delimitations of the Study**

This study was delimited to use of questionnaires as the tools for data collection among competitive athletes and non-competitive athletes in sampled secondary schools in Nairobi City County. Additionally, specific demographic factors of gender, age, type of sport, school category, school type, school status, and student status and class level were utilized. The study is also delimited to changes in behavior recorded within a period of three months.

### **1.10. Assumptions of the Study**

The study assumed that participation in competitive sports has significant influence on character changes of secondary school students, and that such changes contribute to character development. Additionally, the study assumed that the observed positive or negative character changes among athletes is attributed to participation in sports only and not by other obscured interventions or coincidences. The researcher further assumed that, any such other interventions or coincidences would occur equally among both the experimental and control groups participants.

### **1.11. Theoretical Framework**

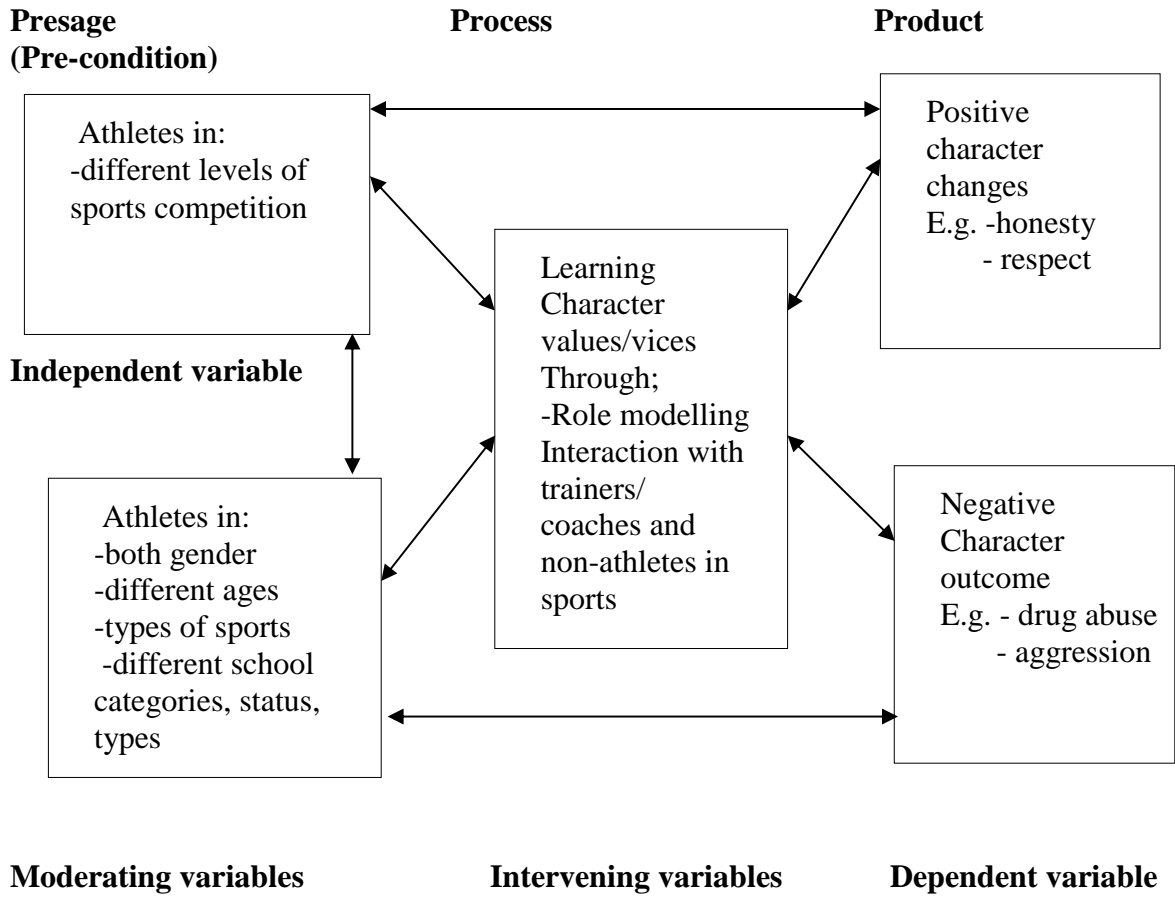
The theory adopted for this study is social learning theory advanced by Bandura (1986) which focuses on the idea of learning behaviors from the environment through the process of observational learning. In this case, children learn and imitate both pro and anti-social behaviors which are modeled by influential members of their society who include parents, friends and teachers. For effective learning and modeling of a behavior to take place, the following are the requirements; attention, retention, reproduction and motivation. In this case, positive character values are modeled by the games teacher and through genuine interaction the student-athlete get constructive feedback and support which leads to positive character change (Bandura, 1986; Doty, 2006; Logan & Scarborough, 2008; Wilson, 2009).

Within the sports context, it is possible for athletes to learn positive character traits which constitutes basis for the six pillars of character namely; trustworthiness, respect, responsibility, fairness, caring and good citizenship (Arizona Sports Summit Accord

[ASSA], 1999; Parker & Stiehl, 2010). However, this can only be achieved if ‘winning at any cost’ is de-emphasized as it could lead to cheating, aggression and doping (Coakley, 2001; Doty, 2006; Barez, 2008; Houlihan, 2008).

Sports programmes at all levels, could be utilized to equip the youth with life-time life skills (Albert, 2003; Hellison, 2003; Parker & Stiehl, 2010). This could be achieved through deliberate effort by the coaches (Bredemeier & Shields, 2006; Hellison, 2003) by modelling and reinforcing positive behaviour. Additionally, adults are called upon to demonstrate a positive character to the athletes in terms of honesty and fairness (Lumpkin, Stoll & Beller, 2002; Lumpkin, 2011; Gaines, 2012). For a positive outcome, the correct character value should be modeled.

Figure 1.1 is an illustration of the theoretical framework which will be utilized for this study. It shows the process involved in the modeling of positive character values for athletes. For a positive character development outcome, the trainers/coaches should make deliberate effort. This theoretical framework illustrates the process of character development based on the three phases of presage (pre-condition), process and product. During presage (pre-condition), there is the interaction between the athletes of different gender, ages, types of sports, school categories, school statuses, school types, class levels and the coaches/trainers/peers in sport participation settings. During the process phase, positive character values are modeled by the coaches/ trainers/ peers either intentionally or unintentionally. The outcome is the product of positive character changes which is portrayed in the form of values such as integrity and responsibility.



**Figure 1.1: Character Development / Outcome of Deviant Behaviour through Modelling in Sport Participation settings (Adapted from Briggs' 3-P model, 1993 p. 73-86).**

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 The Concept of Character in Relation to Sports

Josephson (1999) described a person's character as his/her dispositions, values, and habits that determine the way that person responds to desires, fears, challenges, opportunities, failures and successes in life. Walton (2005) described 'character' as sportsmanship, teamwork, attitude and respect. These values which focus on character development can be derived from participating in recreational and competitive sports.

Stoll (1995) explained that sportsmanship and development of positive character have been the fundamental goals of sports participation. Sage (1998) suggested that participation in sports can provide a social environment for the acquisition of personal and social values and behaviors which contribute to good character and good citizenship. Participation in sport is believed to aid in promoting societal values, integrity thus building character (Woods, 2006; Woodruff & Pascarella, 2008). Moreover, athletes are more likely to transfer character traits into their chosen career fields (Weiss, 2007). However, there is little evidence to support that mere participation in sports can lead to character development (Bredemeier & Shields, 2006; Priest, Krause & Beach, 1999; Stoll & Beller, 2000).

In order to influence character positively, character education programmes should attempt to shape the games teachers/ trainers who directly influence the athletes thinking and behavior and to encourage them to respect one another (Stoll, 2000). A typical programme would involve utilizing teachable moments effectively (Spencer, 1996; Fisher, 1999). Some programmes involve rewarding good behavior. However, the above

cited studies did not suggest how sports participation settings could be utilized for enhancement of athletes' character. There is need for an elaborate study on sports participation and positive character changes of Kenya's secondary school students.

### **2.1.1 Positive Impact of Participation in Sports on Character Changes of Secondary School Students**

There are several benefits of participating in sports such as enhanced social development and provision of a forum for learning (CDCP, 2009). The Women's Sports Foundation [WSF] (2009) report underscores the health-related benefits experienced by physically active girls which include reduced risk of developing breast cancer, osteoporosis, heart disease, and obesity in future (Staurowsky, DeSousa & Ducher, 2009). The report also notes that with increasing participation in sport, there is reduced rate of teenage pregnancy, unprotected sexual intercourse and suicide (Date, Trost, Lewin et al., 2000; Staurowsky et al., 2009; Anderson, 2012). Other studies suggest that sport participation lowers the likelihood to suffer from depression, increases the likelihood to attain higher academic goals and demonstrate improved self-esteem (Vailois, 2004; WSF, 2009). Participation in sport is one way in which young people can develop high esteem and self-confidence as well as a sense of achievement. While sports participation provides the majority of the students a chance to excel, it can be a demoralizing experience (Zarret, Fay, Carrano et al., 2009). With these authors reporting possibilities of both positive and negative influence of sports participation, a study was needed to enhance our understanding on the character changes that could be acquired from participating in sports for secondary students.

Taliaferro, Rienzo and Miller (2008) posited that youth who participated in sport portrayed higher levels of social inclusion, which provides higher levels of resilience. Trainers, peers and significant others aid in equipping the adolescents with life-skills which enhance their interactions with adults for the achievement of common goals. Moreover, participation in physical activities enhances one's competence and self-esteem (Crocker, Eklund & Kowalski, 2000; Todd & Kent, 2003). Linver, Roth and Brooks-Gunn (2009) indicated that participating in other categories of non-sport activities such as the performing arts, school clubs, and other pro-social activities can also produce many of these benefits. However, other studies averred that sport participation is key to building of confidence and self-esteem (Bartko & Eccles, 2003; Fredrick & Eccles, 2006; Weiss, 2007). Hansen, Larson and Dworkin (2003) and Fredrick and Eccles (2006) reported that youth athletes possessed higher rates of confidence, resilience and physical skills as compared to non-competitive athletes, both in academic and leadership activities which could positively influence their character. However, closer scrutiny of the assumed association between playing sport and improved behavioral outcomes (or character) is necessary. Moreover, it is important to account for variations in sport participation by level of competition, type of sport played, and other contextual factors (Bredemeier & Shields, 2006). The current study thus was necessary to scrutinize the influence of sports participation on the character changes and the contextual factors of gender, age, type of sport, school category, type of school, status of school and class level among secondary school students.

### **2.1.2 Potential Negative impacts of Participation in Sports**

Hartman (2008) indicated that, even though there are multiple benefits derived from sports participation, there are potential negative impacts attributed to participation in sports. Even with several studies pointing to positive influence (Bredemeier & Shield, 2006; Linver et al., 2009), it is possible that participation could have a negative influence on a student's academic attainment. Less study time and synergies could be availed due to over-emphasis on sports at the expense of the academics. The well-paying sports contracts may also entice the athletes to sacrifice their academic time for sport pursuits. Ironically, students with little interest in learning are believed to excel in sports. In extreme cases, athletes who have disciplinary problems and low academic scores risk being dropped from the team (Sitkowski, 2008). This makes performance in classroom to be predictable in a manner of improving during playing season and dropping during off season, therefore the need for athletes to be intrinsically motivated (Brewer, Selby, Linder et al., 1999; Sitkowski, 2008; Vallerand, 2000; Vansteenkiste, Lens & Deci, 2006).

Any bad behavior which is role modeled by the coach has a negative impact on the athletes. Gilman, Meyers and Perez (2004) indicated that participation in sports teams corresponded with greater rates of alcohol intake and drug use. The study directly attributed this to the quality of coaching, a person's peer group, and the cultural disposition of the activity within the school and community.

Wilson (2009) indicated that the coaches/trainers played a significant role in determining the morale of the participants. Athletes are known to suffer at the hands of cruel adult

leaders who lack ethics, morals and are poor-quality supervisors who may discourage the athletes from their sport pursuits. Athletes are known to suffer in the hands of some of these coaches who brand them as ‘not good enough to participate’ resulting to low self-esteem on the part of the athletes. However, even though the negative side-effects of some poorly run programs are mentioned, there are still benefits that are derived from participation in sport. With these authors reporting possibilities of negative influence of sports participation, the current study set out to investigate how the contextual factors of gender, age, type of sport, school category, type of school, status of school and class level mediate the influence of participating in competitive sports on the character changes among secondary school students.

## **2.2 Character Development Through School Sports**

CorneliBen and Pfeifer (2007) indicated that sports aided in transforming the character of young people through its teaching of behavioral habits such as motivation, confidence and perseverance. Thus these aspects could provide for opportunities for students to learn skills that are in line with the six pillars of character namely trustworthy, respect, responsibility, fairness, caring and good citizenship. Ong’ong’a, Okwaro and Okello (2010) concurred that participation in secondary school sports as a ground for acquisition of desirable character traits such as fair play and sportsmanship enhanced the character of students. They noted that athletes had fewer discipline cases, were responsible and more law-abiding.

As spectators or through direct participation, secondary school sports can impact students in many different ways. Physical educators would agree that sports participation brings

numerous physiological, psychological, educational and social benefits. The benefits include improved health, obeying the competition and societal rules, constraining delinquent behaviors such as cheating, violence, drug and alcohol abuse (Bredemeier & Shield, 2006; Bulinda, 2002; Gitonga, 1998, Gitonga & Akpata, 1999; Kamau, 2015).

Blum (2005) and Smith et al. (2008) indicated that school connectedness is the belief held by students that adults and peers in the school care about them as individuals as well as their learning. It is a general term to describe a sense of belonging to the school environment. The school environment includes people, policies and facilities. When students feel connected to their school they are less likely to engage in risky behaviors such as early pregnancy, drug abuse, violence, delinquency and truancy (Njoroge, 2005). They attain better academic grades, better school attendance and stay longer in school. The impact of participation in sport has therefore the potential of preventing students' drop-outs or reducing the drop-out rate (Bonny, Britto, Krosterma et al., 2000, Brown & Evans, 2002; Gilman, Meyers & Perez, 2004).

There is the possibility of an athlete acquiring supportive relationship, mentor or role model with an adult. When students identify with a helpful trainer, they derive a lot of benefits from them. They get an opportunity to have genuine interaction, constructive feedback and support from an adult role model while developing positive relationships outside their immediate families. This interaction may aid to develop mutual trust, respect and commitment in relationships (Fieldman & Matjasko, 2005). Most students benefit from supporting and caring relationships with teachers and other adults. The presence of other adult relationships is recognized as a developmental asset linked to facilitating

academic and life success (Logan & Scarborough, 2008). This supportive relationships in school settings is likely to permeate school sports and thus facilitate character development. However there was need to establish whether the influence yields the desirable positive results and the interplay with contextual and demographic factors such as gender, age, and nature of the school, a task that the current study sought to undertake.

Omar-Fauzee et al. (2009a) identified leadership and verbal instructions from the games teachers as key to performance in sports. These two can influence competitive athletes as well as motivate them to pursue their excellence. Therefore the games teachers/ trainers must provide an enabling environment in sports settings that could cater for support of notions of ethics, character and sportsmanship (Stoner, 2004). Additionally, trainers should aim at teaching character aspects (Austin, 2010). For a long- lasting solution, Heart of Illinois Conference (2007) and Mango (2011) suggested strategies that included insisting on high expectation of good character and respect for the officials. On the other hand, trainers are expected to be good role models and emphasize sportsmanship right from the beginning of a training session (Clifford & Fezzel, 2009; Lumpkin & Stokowski, 2011).

Gilman (2004) suggested the idea of a structured extra-curriculum programme that could aid in character development of the athletes. The programme would act as a strategy to build resilience, support pro-social behavior, offer opportunities for engagement with school and related activities, provide constructive academic performance and individual growth. Dworkin and Larson (2006) supported the notion of providing the youth with an opportunity for engagement in sport in order to improve their character. Larson (2000)

elaborated that the organized youth activities should be voluntary in order to promote intrinsic motivation, required attention and display elements of challenge and effort. Likewise the Kenyan secondary school students could be exposed to a well-structured sports programme that could aid in their character development.

Participation in sports has been suggested as an ideal training ground for character (Ghildiyal, 2015). However, despite this widespread belief, little empirical research results avail a positive picture. Thus, the trainers have to make deliberate effort to model positive character values. Bredemeier and Shields (2006) suggest that the dimensions of a sporting experience and the interaction occurring in such social settings be considered as an important variable for character development through sports participation. Moreover, this varies from sport to sport, team to team, from one geographical region to the other as well as from one level of competition to another (Sage, 1998). These studies have not indicated the reasons for the disparities, thus the need for the current study to further explore the relationships between character change and contextual factors variables.

### **2.3 Sports Competition and Character Development**

Tucker and Parks (2001) explored character development across different types of sports in intercollegiate athletics and reported that, athletic aggression could possibly be related to the level of increasing contact and collision in a game. Overall, the athletes did not consider aggression legitimate, but comparisons across sport type and gender showed that athletes in contact and noncontact sports scored lower than those in collision sports in pro-legitimate rating. Females scored lower than males in that regard. Conversely, Gardner and Janelle (2002) compared perceptions of aggressive and assertive behavior in

sport and non-sport situations among male and female athletes and non-athletes and found that aggression behavior was considered more legitimate in sports situations. These point to the complex relationship between contextual factors, moral reasoning, and judgment of behavior. There is thus need for more studies to examine the relationship between athletic behavior and the contextual factors as well as the impact on character among competitive and non-competitive athletes.

#### **2.4 Gender and Character Development through Sports**

Studies conducted by Kavussanu and Roberts (2001) and Miller, Roberts and Ommundsen (2005) reported that character development differed significantly across gender with female athletes registering higher scores than their male counterparts. They attributed this to male-athletes' greater tolerance to intentionally injurious acts. This stereotypic explanation may have resulted from the notion that sport is traditionally a male domain. However, Miller, Roberts and Ommundsen (2005) indicated that the above results may point to gender differences in sport socialization rather than differences in sport ethics. Other studies emphasize that girls who participate in sport are less likely to suffer from depression, more likely to attain higher academic goals and demonstrate improved self-esteem (Vailois, 2004; WSF, 2009). The above studies did not avail any empirical evidence to support the mentioned gender disparities in character development through sports participation. There is need therefore to study the Kenyan situation in order to explore character development through sports participation in relation to gender.

## **2.5 Age and Character Development through Sports**

Zohar et al. (2018) studied the pattern of personality development in a longitudinal population-based sample of 752 American adolescents, where Personality was assessed reliably with the Junior Temperament and Character Inventory at 12, 14, and 16 years of age. The authors reported that harm avoidance and persistence decreased whereas self-directedness and cooperativeness increased from age 12 to 16. Novelty seeking, reward dependence, and self-transcendence increased from age 12 to 14 and then decreased. This biphasic pattern suggests that prior to age 14 teens became more emancipated from adult authorities while identifying more with the emergent norms of their peers, and after age 14 their created identity was internalized. Girls were more self-directed and cooperative than boys and maintained this advantage from age 12 to 16. Dependability of temperament at age 16 was mainly predicted by the same traits at earlier ages. In contrast, maturity of character at age 16 was predicted by both temperament and character at earlier ages. The authors concluded that character develops rapidly in adolescence to self-regulate temperament in accord with personally valued goals shaped by peers.

Bredemeier and Shield (2006) and Stephens (2004) studied participation in sport according to age and its impact on character development and found that, older athletes showed higher levels of aggression as compared to younger ones. According to the social learning theory, aggression is learned through the process of modeling and reinforcement and may deteriorate with exposure (Bandura, 1986). Parents are the primary role models for children; through a process of observation and identification their behaviour is modeled. In addition, role models in the media can provide a source of vicarious reinforcement which can lead to aggressive behaviour being replicated (Bandura, 1989).

These can be expected in sports settings and in other character behavior, where senior sports practitioners act as role models to young upcoming player. The behavior of the player's sports idol whether in real life situations or in the media is likely to shape his/her character.

The above authors indicate that age is an important factor in character development and sports settings have potential to shape the character of young upcoming players – positively or negatively. The current study sought to establish the extent and status of character change attributable to sports participation and the influence of age among other possible mediating variables among secondary school student athletes in Nairobi City County.

## **2.6 School and Character Development through Sports**

Akanga (2014) explored character development through education in Kenya where the extent to which the pragmatic theory of education could be employed as a basis of character development in Kenyan schools was assessed. The study employed the critical, phenomenological and historical philosophic methods to gather and analyze relevant information. The study concluded that the poor state of discipline in Kenyan schools is attributable to the methods employed for character development in the said institutions, hence the need for a new approach to this important endeavor. Consequently, the study recommended a pedagogical strategy designed in line with the tenets of the pragmatic theory of education to guide efforts at character development in Kenyan schools. Kombo (1998) noted that Kenyan society's high expectations of the youth have been disappointed by their deviant nature which has been

termed as a 'liability'. The study suggested that an elaborate study could be carried out in effort towards restoring public image of the school as an agent of character development. The above cited studies recognized the role of schools in character development for the youth. However, the reports did not make reference to sports programme experiences and related dynamics that may possibly be utilized to deter or reverse the reported negative character among the secondary school students, hence the need for the current study to further investigate the relationships between character change and contextual factors.

### **2.6.1 Category of School and Character Development through Sports**

Secondary schools in Kenya are categorized into Sub-county, County, Extra-county and National schools. This is guided by the catchment areas that the school admits students from. More often, the School Category determines the amount of resources that are at the disposal of the school, with those with larger size of the catchment area having more, thus able to run more superior programmes, including sports. Rimbogi (2010) reported that facilities and equipment, personnel and training, knowledge and awareness of the benefits of participating in PE, sports and games and the Principals attitude were key factors that influence the level of learners participation in physical education, sports and games in secondary schools. With the different category of schools associated with amount of resources which determine level of investments in the above mentioned aspects, it is not remote to foresee school category as an important factor that may determine quality and the outcomes of school sports programme. Kamau's (2015) study on the effects of category of the school and school connectedness reported that students in National schools participated in more sporting activities as compared to their

counterparts. The study also indicated that students improved on sports participation depending on their age and experiences, leading to improved school connectedness.

The studies cited above point to possible influence of school category on sports outcomes as well as to connectedness as a psycho-sociological construct. The current study sought to establish the influence of participation in sports and possible moderating effect of school category among secondary school student-athletes in Nairobi City County, Kenya.

### **2.6.2 Type of School and Character Development through Sports**

Type of School refers to whether the school is public or private. Public schools are supported by the Government whereas private schools are owned by an individual(s) or sponsored by religious organizations. Gitonga's (2005) study on participation in sport based on school ownership reported that public secondary schools are more committed to sports participation than private schools. On the contrary, Mapfumo and Muchena (2013) reported no association between the school type and increase in level of participation in sports. The findings of the above studies appear to contradict each other. Moreover, it is likely that this disparity permeate the issue of quality of the sports programmes offered in the two types of schools. The current study looked into the influence of participation in sport on the character change outcome of secondary school students from different school types.

### **2.6.3 Status of School and Character Development through Sports**

Status of school refers to the boarding status of the school. In this regard, a school can be boarding -where students live within premises while being given formal education, or day

-where students commute/travel to school in the morning and from school in the evening. Another third status 'day and boarding'-denoting a school with both characteristics where a section of students operate as day scholars and the other as boarders. Sanderson (2021) observe that the boarding school's emphasis on educating the whole child provides plenty of opportunities to develop a wider set of skills and qualities. Boarding schools offer variety of activities programme to students, ranging from mainstream sports to minor ones, music, drama and art among other co-curricular activities. In addition to nurturing talents, these activities are aimed at developing sound character upon which young people will rely so often in their future. Despite these popular beliefs, several studies have reported mixed results on sports and character development in boarding schools. Camiré & Trudel (2010) examined character development using Rudd's framework of character development in sport participation in a Canadian context. Twenty student athletes (10 male, 10 female) from the four sports (basketball, volleyball, soccer, and badminton) participated in the study. The results showed that majority of athletes appear to believe that social character best describes the development that occurs in sport and that gamesmanship is employed and legitimized as being part of the game. The authors concluded that school administrators and coaches must be proactive and include character development initiatives in their programming in order to promote moral development and reduce incidences of gamesmanship in high school sports. With the observations by above authors pointing to mixed outcomes on influence of sports in high schools on character development, the current study sought to establish the influence of participation in sports and possible moderating effect of boarding status among secondary school student-athletes in Nairobi City County, Kenya.

## **2.7 Summary of Literature Review**

There is empirical evidence that sportsmanship and development of positive character traits has been the fundamental goals of sports participation, with the reviewed study showing that the area of sport provide opportunities for athletes to practice character values such as honesty and integrity (Bredemeier & Shield, 2006; Sage, 1998; Stoll, 1995). However, many authors assert that mere participation in sports may not lead to character development (Priest et al., 1999; Stoll & Beller, 2000). In order to affect character positively, character education should be infused in sports programmes by the games teachers / trainers and other stakeholders who directly influence the athletes thinking and behavior (Bredemeier & Shield, 2006; Stoll, 2000). The current study sought to examine the relationships between the nature of sports experiences and character changes as mediated by diverse demographical and contextual factors.

A number of local studies show that sports participation in schools setting brings numerous physiological, psychological, educational and social benefits, and is helpful in shaping student athletes behavior as they are less likely to engage in risky behaviors such as early pregnancy, drug abuse, violence, delinquency, and truancy (Bulinda, 2002; Gitonga, 1998, Gitonga & Akpata, 1999; Kamau, 2015; Njoroge, 2005). However, there is paucity of information on the influence of the various demographical and contextual factors on sports participation and the related character change. The current study was thus necessary to explore the possible determinants of character change and development through sports experiences and character changes as mediated by diverse among secondary school students in Nairobi City County, Kenya.

Various research studies done on sports participation and character development outcomes of students point to a positive influence. Yet, any bad behavior which is role modeled by the coach, peers and other sports practitioners within the school and community is likely to have a negative impact on the athletes (Gilman et al., 2004). Most studies are silent on how the sporting experience could be utilized to enhance character development of athletes (Bredemeier & Shield, 2006). Additionally some studies show biases in comparing sports participation and character development across both gender and according to the age of athletes (Vailois, 2004; WSF, 2009). Furthermore, a study conducted on character development in relation to type of sport participated in did not give indication of possible reasons for the disparities (Sage, 1998). Therefore there was need for the current study to explore various demographical and contextual factors as possible mediating factors that influence character changes student athletes.

## CHAPTER THREE: METHODOLOGY

### 3.1 Research Design

The study used a quasi-experimental research design. In quasi-experimental research designs, just like experimental designs, causal hypotheses are tested (only that it lacks randomized controlled trials) (White & Sabarwal, 2014). Quasi-experimental methods are most often used when it is not possible to use randomized controlled trials (Thyer, 2012; White & Sabarwal, 2014). The experimental group was comprised of competitive athletes (treatment) and the non-experimental (control group) were the non-competitive athletes. Randomization was not possible as the study did not have control in the conduct of the sports activities and allocating to the various independent variables, and therefore Quasi-experimental research design was taken as the most suitable.

#### 3.1.1 Study Variables

This study's purpose was to establish the influence of participation in competitive sports on character changes of secondary school students. The main independent variable of the study was participation status; competitive athletes / non-competitive athletes. Other variables which can affect / moderate the relationship were also considered; gender, age, type of sport, school category (National/ Extra-county/ County/ Sub-county), school type (public/ private), school status (boarding/ day/ day & boarding), student status (boarder/ day scholar) and class level. The dependent variable was the character changes of honesty, respect, responsibility, fairness, caring and good citizenship between pretest and posttest. The researcher was also not in control of learning character values/vices through

role modelling or interaction with trainers/ coaches, athletes and non-athletes within the school and sports settings, and thus these can be taken as extraneous variables.

### **3.2 Study Location**

This study was carried out in secondary schools in Nairobi City County (Appendix A). The rationale for choice of the study location is because of the county's metropolitan status which is populated by diverse communities. There is an abundance of secondary schools which are well-equipped with sports infrastructure in Nairobi City County. It was, therefore, possible to get an adequate sample of respondents (competitive and non-competitive athletes). Given the diverse background of the students, this study's findings can be used to give a generalization for the whole population of the country's secondary school students concerning the influence of participation in sports on positive character changes.

### **3.3 Target Population**

The target population was students (competitive athletes / non-competitive athletes) from 258 secondary schools (82 public, 176 private) in Nairobi County. Secondary schools in the county are categorized as girls only (38), boys only (32) and mixed (188). The number of day schools is 162, boarding schools 44 and day/ boarding schools 52 (Basic Education Statistical Booklet, 2015). The frequencies of the study participants as per their Sub-county are presented in Table 3.1.

### 3.4 Sample and Sampling Procedure

Multi-stage sampling procedures were done starting with Secondary schools, Sports teams, then the student participants. From the 258 secondary schools in Nairobi County, a purposive sample of 26 (10.08%) schools which produced the best teams in 2017 participated in the study, inclusion criteria being involved in the selected sports. These teams also won at the Inter Sub- county level sports and proceeded to represent their Sub- county at the County level in 2018. Exclusion criteria were any condition that could prevent a student from effective participation in sports, such as sickness or severe injury. These were facilitated by ranking the teams in order, starting with the best and others following, and other information provided by games teachers. This procedure was carried out for all selected sports. However, data collection in two of the sampled schools was not successful due to unforeseen challenges. Questionnaires from for 24 schools were completed and analysed, indicating a return rate of 92.31%.

**Table 3.1: Study participants as per their Sub-counties**

Sub- county	Competitive athletes	Non-competitive athletes	Total	Percentage
Kibera	66	66	132	19.64%
Westlands	72	72	144	21.43%
Njiru	24	24	48	7.14%
Dagoretti	42	42	84	12.50%
Kamukunji	12	12	24	3.57%
Starehe	30	30	60	8.63%
Kasarani	12	12	24	3.57%
Makadara	66	66	132	19.64%
Lang'ata	12	12	24	3.57%
<b>Total</b>	<b>336</b>	<b>336</b>	<b>672</b>	<b>99.69%</b>

Purposive sampling of participants was carried out through the examination of sports participation records which was facilitated by the games masters/ mistresses. The sampled athlete then aided in identifying a student of the same class and sex and who

does not excel in sport activities (pair-wise matching). This matching involves two students who are similar in many aspects except that one is a competitive athlete whereas the other one is a non-competitive sports participant. It is a control technique to strengthen the research design being utilized as recommended by Gratton and Jones (2004). Different games and sports are offered in the secondary schools competition and these transcend from interschool to inter-sub county competitions, inter-county and national secondary school championships which are organized by K.S.S.S.A. The 336 competitive athletes were selected from students who represented their schools in Inter-sub county championships. Non-competitive athletes had not participated in any of the selected sports. All the competitive athletes who formed the selected teams participated in the study. Selected competitive sports for this study and the number of student participants (competitive and non-competitive athletes) include soccer (boys and girls)  $n=144$ , rugby (boys only)  $n=48$ , hockey (boys and girls)  $n=144$ , volleyball (boys and girls)  $n=96$ , basketball (boys and girls)  $n=96$ , handball (boy and girls)  $n=96$  and netball (girls only)  $n=48$ .

### **3.5 Research Instrument**

Adapted close-ended questionnaires were used for data collection (Appendix E and F). Two questionnaires were administered to both competitive and non-competitive athletes. The first questionnaire (Appendix E) elicited on respondents' demographic details and experience in participation in selected sports. The second questionnaire was adopted from previous studies on influence of participation in sports on character development and researcher's input (Arizona Sport Summit Accord [ASSA], 1999; Stoner, 2004; Doty,

2006; Individual and Team Character in Sport Questionnaire [ITCSQ], 2006; Dieckman, 2009). This questionnaire comprised of thirty (30) items that sought to measure character changes of honesty, respect, responsibility, fairness, caring and good citizenship (Appendix F). Against each of the 30 statements, there were 5 options to choose from namely, Strongly Agree, Agree, Uncertain, Disagree and Strongly Disagree. The scores were 5, 4, 3, 2 and 1 respectively. The 5-point likert scale data was transformed to linear Percentage of Maximum Possible (POMP) scores as recommended by Cohen, Cohen, Aiken and West (1999).

### **3.6 Pretest**

A pretest was carried out to establish the reliability of the questionnaire. It was conducted in Nairobi City County and involved three secondary schools (a boys' school, a girls' school and a mixed school). Purposive sampling of eighty four students (42 competitive athletes, 42 non-competitive athletes) was done to select the respondents. Competitive athletes were students who represented their schools in Inter- Sub county championships in 2017 and non-competitive athletes were students who never represented their schools in the Inter- Sub county championships. The randomly selected schools were not used in the main study. The pretest helped in fine tuning of the study tools and procedures.

#### **3.6.1 Validity of the Research Instrument**

Validity was established with the aid of supervisors and other staff members in the departments of Physical and Health Education and Recreation Management and Exercise Science who are experts in psycho-sociology of sports and research methods. This was

done through consultations. The research instrument was critiqued by the above named groups and the necessary adjustments made, as recommended by Gratton & Jones (2004).

### **3.6.2 Reliability of the Research Instrument**

Reliability involved test- retest procedures. Forty two competitive athletes and same number of non-competitive athletes were purposively selected and questionnaires administered to the subjects twice with a period of two weeks interval. The two tests' correlation was calculated using the Pearson-Product-Moment as expounded by Gratton and Jones (2004) and Mugenda (2008). A reliability index of 0.80 was returned and this was considered adequate for the study.

### **3.7 Data Collection Procedures**

The researcher sought official permission from the principals of the schools to conduct the research. The permission included the participation of both the students and the staff. Subsequent to receiving the principal's permission, the researcher sought consent from the games master/ mistress and the students assented to participation in the study. Respondents filled the questionnaires which were collected upon satisfactory completion. This was carried out at the beginning of the playing season and at the end of the playing season. A pretest for athletes in basketball and hockey was carried out in January 2018 and a posttest done in March 2018. A pretest for athletes in rugby, netball, handball, volleyball and soccer was carried out in May 2018 and a posttest done in July 2018.

### 3.8 Data Analysis and Presentation

Data was coded and analyzed using the Statistical Package for Social Sciences (IBM-SPSS) version 20. Character index items were aggregated after a threshold of 0.8 was achieved by use of the Pearson Correlation Coefficient. The reliability statistics for the questionnaire yielded 0.86 and 0.84 during pre-test, for the competitive and non-competitive athletes respectively. For the post-test, results were 0.92 and 0.87 for competitive and non-competitive athletes respectively. To determine the character change indices, the aggregated pre-test composite (Percent of Maximum Possible) score was subtracted from the post-test score. A positive (+) value indicates that the character change was positive whereas a negative (-) value indicates that the character change was negative.

Descriptive scores for competitive athletes /non-competitive athletes were calculated in percentages, means and standard deviations. Shapiro-Wilk test was done to assess assumptions of normality to inform choice of statistical tools for inferential analyses. The result showed that the data (the attributes of interest) were not normally distributed across the sample, thus non-parametric statistical tools were chosen as recommended by Campbell and Shantikumar (2016). Thus, Mann Whitney U test, Wilcoxon Signed Rank test and Kruskal Wallis test were used to determine the difference on character traits among different population categories (between two independent groups samples, between two dependent/related groups samples, and between three or more groups respectively). Multinomial Logistic Regression Analyses to determine the influence of the various independent and moderating variables on character change (dependent variable). Hypotheses testing were set at  $p < .05$  level of significance.

### **3.9 Logistical and Ethical Considerations**

Once the proposal was accepted by Kenyatta University Graduate School, research permit was sought from the National Commission for Science, Technology and Innovation (NACOSTI) (Appendix G). An introductory letter to the Principals (Appendix B) was done in order to access the sampled schools. The principals helped in identifying the games masters/ mistresses (cooperating teachers) who assisted in sampling of study respondents. The researcher explained the purpose of the study to the respondents and the importance of filling in the questionnaires honestly. The respondents were assured that all information emanating from the research will be strictly confidential and used for academic purposes only. Respondents were required to sign an informed consent or assent form (Appendix C) to allow for administration of a questionnaire. Parents/Guardians were required to sign informed consent form (Appendix D) to allow for administration of questionnaires to their daughters/sons.

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

This chapter presents the findings of the study whose objective was to find out the influence of participation in competitive sports on character changes of secondary school students in Nairobi City County (NCC), Kenya. The study also focused on the influence of demographic details of students based on gender, age, type of sport, school category, type of school, status of school, boarding status of student and class level on character changes among secondary school student-athletes. The following specific guided the study:

1. To analyses the demographic characteristics of competitive and non-competitive athletes in terms of gender, age, type of sport, school category, type of school, status of school and class level among secondary school students in Nairobi City County (NCC), Kenya.
2. To compare character of secondary school students-athletes before and after sports participation in NCC, Kenya.
3. To compare character changes between competitive and non-competitive athletes among secondary school students in NCC, Kenya.
4. To determine the influence of level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level on character changes among secondary school student athletes in NCC, Kenya.

To facilitate the achievement of the stated objectives, corresponding research questions were formulated as follows:

1. What are the demographic characteristics of competitive and non-competitive athletes in terms of gender, age, type of sport, school category, type of school, status of school and class level among secondary school students in NCC, Kenya?
2. Does participation in sports lead to change in character among secondary school students-athletes after in NCC, Kenya?
3. Is there difference in character changes between competitive and non-competitive athletes among secondary school students in NCC, Kenya?
4. Does level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level influence character changes among secondary school student athletes in NCC, Kenya?

Three research hypotheses were formulated to address objectives 2, 3 and 4 as follows:

- H<sub>0</sub>1. There is no significant change in character before and after sports participation among secondary school students-athletes in NCC, Kenya.
- H<sub>0</sub>2. There is no significant difference in character changes between competitive and non-competitive athletes among secondary school students in NCC, Kenya.
- H<sub>0</sub>3. Character changes is not significantly influenced by level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level on among secondary school student athletes in NCC, Kenya.

#### **4.2 Demographic Characteristics of the Respondents**

The study sought to establish demographic characteristics of respondents by gender, age, type of sport participated in, school category, school type, status of school, status of

student and class level. Gender included male and female; age comprised of the various age categories of under 15 years, 15- 16 years, 16-17 years and 17- 18 years; types of sports included soccer, basketball, hockey, volleyball, handball, rugby and netball; school category comprised of sub-county, county, Extra- county and National; school type included private and public schools; status of school included day, boarding and day/boarding; status of student was boarder or day scholar and various class levels included Form 2, 3 and 4. The number of respondents who filled the questionnaires was 672 from 24 out of 26 sampled schools (a return rate of 92.31%) and all were included in the study. The demographic distribution of the participants based on their participation (competitive and non-competitive athletes) status is presented in the next section.

#### **4.2.1 Demographic details by Participation Status (Competitive and non-competitive athletes)**

The frequency and percentage of competitive and non-competitive athletes who participated in the study is presented in Table 4.1.

**Table 4.1: Distribution of Respondents by Participation (Competitive and Non-Competitive athletes)**

Status	Numbers	Percentage
Non- competitive athletes	336	50%
Competitive Athletes	336	50%
Total	672	100%

From Table 4.1, it is evident that an equal number of respondents participated in the study 336 (50% competitive athletes) and 336 (50% non-competitive athletes). The distribution of the participants based on their gender is presented in the next section.

#### 4.2.2 Demographic details by Gender

The frequency and percentage of female and male competitive and non-competitive athletes / respondents who participated in the study is presented in Table 4.2.

**Table 4.2: Distribution of Respondents by Gender**

Gender	Competitive Athletes	Non- competitive athletes	Total	Percentage
Male	168	168	336	50%
Female	168	168	336	50%

Results in Table 4.2 show that a total number of 672 students (336 competitive athletes, 336 non-competitive athletes) participated in this study. Of these students 50% (168 competitive athletes and 168 non-competitive athletes) were female and 50% (168 competitive athletes and 168 non-competitive athletes) were male. Thus the participants were in equal proportion across gender. The distribution of the participants based on their age category is presented in the next section.

#### 4.2.3 Demographic details by Age

The distribution of respondents who took part in the study based on their age category is presented in Table 4.3.

**Table 4.3 Distribution of Respondents by Age**

Age in Years	Competitive athletes	Non-competitive athletes	Total	Percentage
Under 15	29	29	58	8.63%
15- 16	75	75	150	22.32%
16- 17	136	136	272	40.58%
17- 18	96	96	192	28.57%

Table 4.3 shows the categories of respondents in terms of age. Majority 272 (40.58%) of respondents were in the age range between 16 and 17 years, followed by those aged between 17 and 18 years 192 (28.57%). Respondents aged between 15 and 16 years were 150 (22.32%) while those younger than 15 years were the least 58 (8.63%). This finding shows that participation in sports initially registered a steady upward trend as the student progressed through their courses but decline towards the later years of the secondary school course. The distribution of the participants based on their sport is presented in the next section.

#### **4.2.4 Demographic details by Sport**

The frequency and percentage of the study respondents by the type of sport competed in is shown in Table 4.4. It is evident that Hockey and Soccer had the greatest number of participants with 72(21.43%) for each sport. Soccer and hockey teams comprised 36 participants per team. This was followed by handball 48 (14.29%), volleyball 48 (14.29) and basketball 48 (14.29%). For each of the above three (3) sports, a team comprised 12 participants. All the above 5 sports were participated in by males and females in their

respective teams. Netball which was competed in by females only registered 24 (7.14%) players. Rugby which was for boys only registered 24 (7.14%) participants as well. Traditionally, netball is dominated by female participants whereas rugby is dominated by males.

**Table 4.4: Distribution of Respondents by Participation according to the Sport competed in**

Sport	Competitive athletes	Percentage
Soccer	72	21.43%
Basketball	48	14.29%
Hockey	72	21.43%
Volleyball	48	14.29%
Handball	48	14.29%
Rugby	24	7.14%
Netball	24	7.14%

#### 4.1.5 Demographic details by Category of School

The distribution of the study participants according to the category of school is shown in Table 4.5.

**Table 4.5: Distribution of Players according to their School Category**

School Category	Competitive athletes	Non-competitive athletes	Total	Percentage
Sub- county	48	48	96	14.29%
County	81	81	162	24.11%
Extra- county	72	72	144	21.43%
National	72	72	144	21.43%
Not indicated	63	63	126	18.75%

Results in Table 4.5 show that the County schools had the highest number of respondents with 162 (24.11%) followed by Extra-county and National schools with 144 (21.43%) for each category. Sub-county schools had the least numbers with 96 (14.29%). 126 (18.75%) did not indicate the category of their school. These were not included in the analyses that involved this variable. The distribution of the participants based on the type of school is presented in the next sub-section.

#### 4.1.6 Demographic details by Type of School

Table 4.6 shows the distribution of study respondents according to the type of school.

**Table 4.6: Distribution of Players according to Type of School**

Type of School	Competitive athletes	Non-competitive athletes	Total	Percentage
Private	61	61	122	18.15%
Public	275	275	550	81.85%

Table 4.6 shows that majority of the respondents were drawn from public schools, 550 (81.85%) and 122 (18.15%) were from private schools. The distribution of the participants based on the school status is presented in the next sub-section.

#### **4.1.7 Demographic details by Status of School**

Table 4.7 shows the distribution of student-athletes respondents based on the boarding status of school. The largest number of competitive and non-competitive athletes were drawn from boarding schools 312 (46.43 %), followed by those in day /boarding category 240 (35.71%) with the least number from day schools 120 (17.86%). The distribution of the participants based on their boarding status is presented in the next sub-section.

**Table 4.7: Distribution of Players according to Status of School**

Status of school	Competitive athletes	Non- competitive athletes	Total	Percentage
Day	60	60	120	17.86%
Day/boarding	120	120	240	35.71%
Boarding	156	156	312	46.43%

#### **4.1.8 Demographic details by Boarding Status of Student**

Table 4.8 shows the distribution of competitive and non-competitive athletes based on the boarding status of the student (boarder/ day scholar).

**Table 4.8: Distribution of Respondents according to Boarding Status of student (day scholar/ boarder)**

Status of student	Competitive athletes	Non-competitive athletes	Total	Percentage
Boarder	247	247	494	73.51%
Day scholar	76	76	152	22.62%
Not indicated	13	13	26	3.87%

Results in From Table 4.8 show that majority (494 [73.51%]) of the competitive and non-competitive athletes were boarders (from Boarding or Day-and-Boarding schools) and smaller proportion (152 [22.62%]) were day scholars (from Day or Day-and-Boarding schools). A few (26 [3.87%]) competitive and non-competitive athletes did not indicate their boarding status. The distribution of the participants based on their class level is presented in the next section.

#### **4.1.9 Demographic details by Level of Class**

Table 4.9 shows the distribution of athletes/ respondents according to the level of the class.

**Table 4.9: Distribution of Respondents according to the level of the Class**

Class level	Competitive athletes	Non-competitive athletes	Total	Percentage
<b>Form two</b>	<b>101</b>	<b>101</b>	<b>202</b>	<b>30.06%</b>
Form three	129	129	258	38.39%
Form four	106	106	212	31.55%

Findings from Table 4.9 show that Form Three students formed the majority of respondents 258 (38.39 %), followed by Form Four 212 (31.55 %) while Form Two had the least number 202 (30.06%) of participants.

#### **4.2 Tests of Normality**

Test of Normality was done to assess assumptions of normality as required by parametric statistical procedures. The results of Shapiro-Wilk test of normality (Table 4.10) showed that the data (the attributes of interest) were significantly different ( $p < .05$ ) from a normal distribution i.e. were not normally distributed across the sample. This informed the choice of non-parametric statistical tools for inferential analyses.

**Table 4.10: The Tests of Normality results**

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Character index before	.089	672	.000	.940	672	.000
Character POMP before	.087	672	.000	.940	672	.000
Character index after	.119	672	.000	.912	672	.000
Character POMP after	.116	672	.000	.913	672	.000
Change in character	.073	672	.000	.977	672	.000
Character POMP change	.074	672	.000	.977	672	.000

a. Lilliefors Significance Correction

Significant differences in character changes between competitive and non-competitive athletes were therefore determined through Mann Whitney U test (between two independent samples), Wilcoxon Signed Rank test (matched/paired sample), and Kruskal Wallis test (between three or more samples). The results are presented in the following sub-sections:

#### **4.3 Descriptive Scores on Character for Competitive and Non-Competitive Student-Athletes at Pre-Test and Post-Test**

Character scores were generated from the self-reported responses to a questionnaire composed of thirty (30) items on character development traits, adapted from previous studies on influence of participation in sports on character development (ASSA, 1999; Stoner, 2004; Doty, 2006; ITCSQ, 2006; Dieckman, 2009). The descriptive summary of pre-test and post-test character results data in likert scale index and in transformed linear

Percentage of Maximum Possible (POMP) scores for the Competitive ( $n = 336$ ), Non-Competitive ( $n = 336$ ) and Combined ( $n = 672$ ) Groups is presented in Table 4.11.

**Table 4.11: Descriptive summary of pre-test and post-test scores for the Competitive ( $n = 336$ ), Non-Competitive ( $n = 336$ ) and Combined ( $n = 672$ ) Groups**

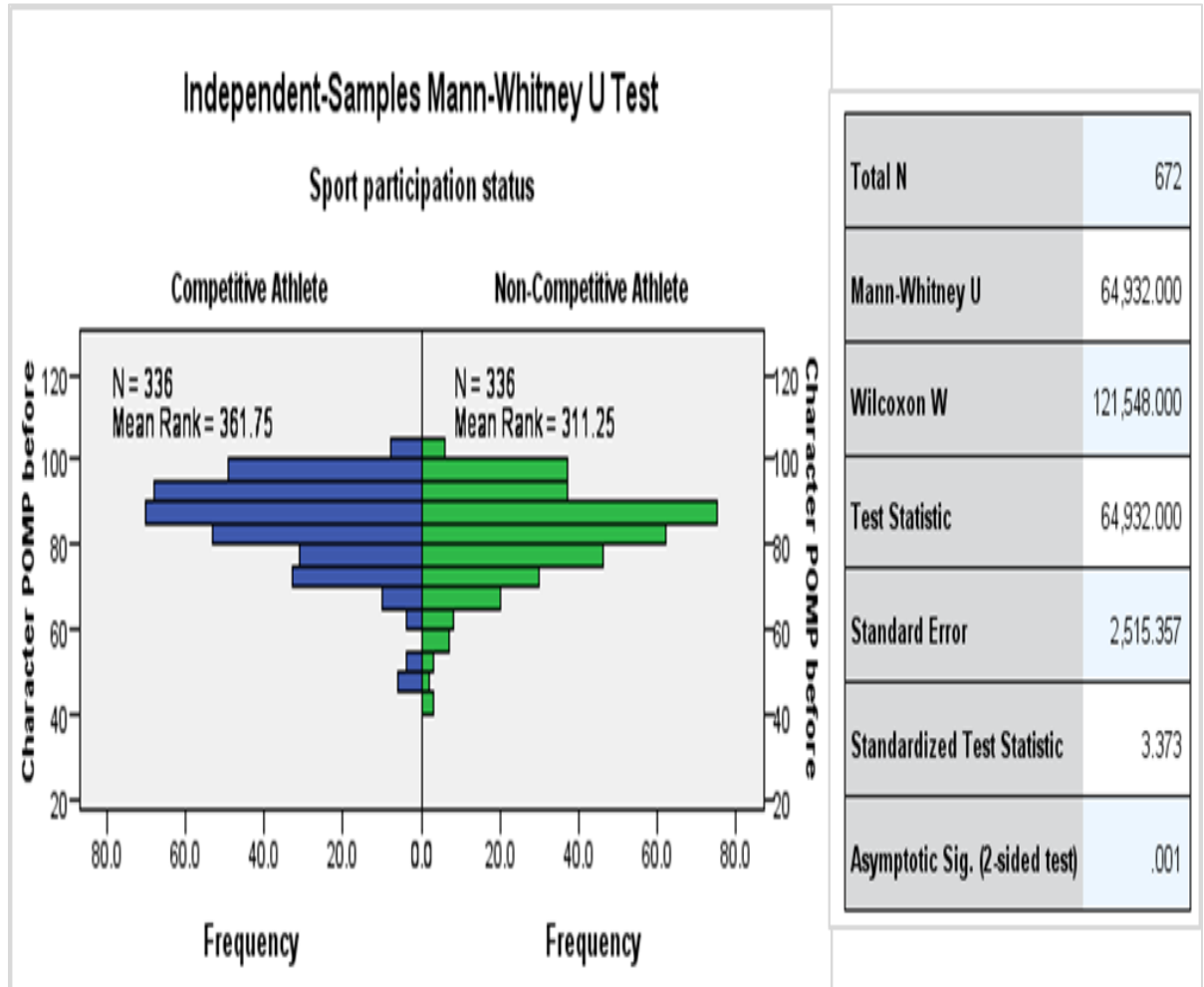
Data set	Competitive			Non-Competitive			Combined		
	$\bar{x}$	<i>SD</i>	<i>Median</i>	$\bar{x}$	<i>SD</i>	<i>Median</i>	$\bar{x}$	<i>SD</i>	<i>Median</i>
Character index at Pre-Test	4.39	.43	4.47	4.29	.44	4.37	4.34	.44	4.40
Character POMP at Pre-Test	84.83	10.61	86.67	82.21	11.00	84.17	83.52	10.88	85.00
Character index at Post-Test	4.30	.55	4.45	4.26	.49	4.33	4.28	.52	4.40
Character POMP at Post-Test	82.47	13.85	86.25	81.59	12.19	83.33	82.03	13.05	85.00

The results in Table 4.11 show that the character indices for competitive athletes were higher than for the non-competitive athletes both at pretest ( $4.39 \pm 0.43$  vs  $4.29 \pm 0.44$ ) and at post-test ( $4.30 \pm 0.55$  vs  $4.26 \pm 0.49$ ). Comparisons of character scores between competitive and non-competitive student-athletes at pre-test and at post-test are presented in the next section.

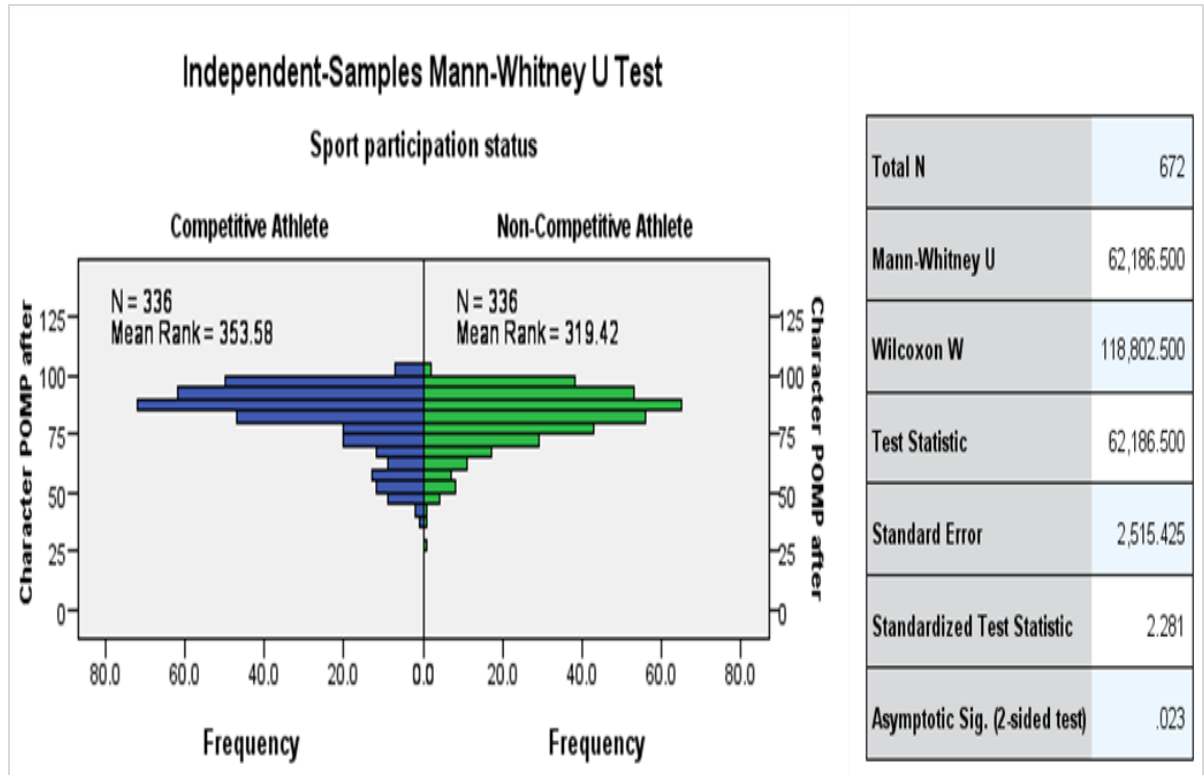
#### **4.3.1 Comparison of Character Scores Between Competitive and Non-Competitive Student-Athletes at Pre-Test and at Post-Test**

Comparison of the Character Scores between Competitive and Non-Competitive Student-Athletes using Independent Samples Mann Whitney U test showed significant difference both at Pre-Test ( $p = .001$ ) and at Post-Test ( $p = .023$ ). The Competitive group registered higher Mean Rank score than Non-Competitive group both at Pre-Test (361.75

vs. 311.25) as shown in Figure 4.1, and at Post-Test (353.58 vs. 319.42) as shown in Figure 4.2.



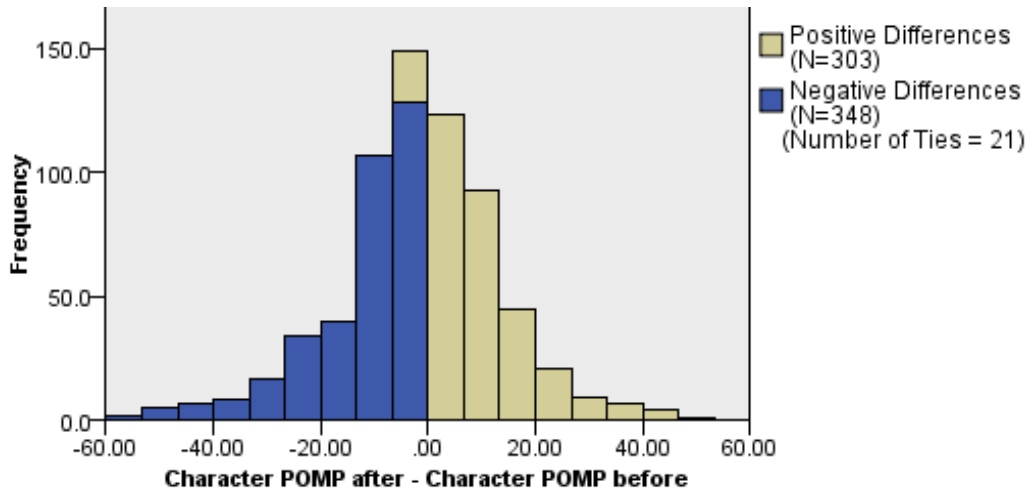
**Figure 4.1; Comparison of character scores between Competitive and Non-Competitive student-athletes at pre-test ( $p = .001$ ;  $n = 672$ )**



**Figure 4.2; Comparison of character scores between Competitive and Non-Competitive student-athletes at post-test ( $p = .023$ ;  $n = 672$ )**

#### 4.4 Comparison of Character Change Scores among Student-Athletes

To test Null hypothesis 1 ( $H_{01}$ ; There is no significant change in character before and after sports participation among secondary school students-athletes in Nairobi City County, Kenya), comparison was done between Pre-test and Post-test character scores. Matched/Paired Samples comparison using Wilcoxon Signed Rank test showed significant change in character POMP scores ( $p = .049$ ), with less number of respondents ( $n=303$ ) registering positive change than the number of respondents who registered negative change ( $n=348$ ) (see Figure 4.3). The null hypothesis was thus rejected.



<b>Total N</b>	672
<b>Test Statistic</b>	96,649.500
<b>Standard Error</b>	4,799.870
<b>Standardized Test Statistic</b>	-1.972
<b>Asymptotic Sig. (2-sided test)</b>	.049

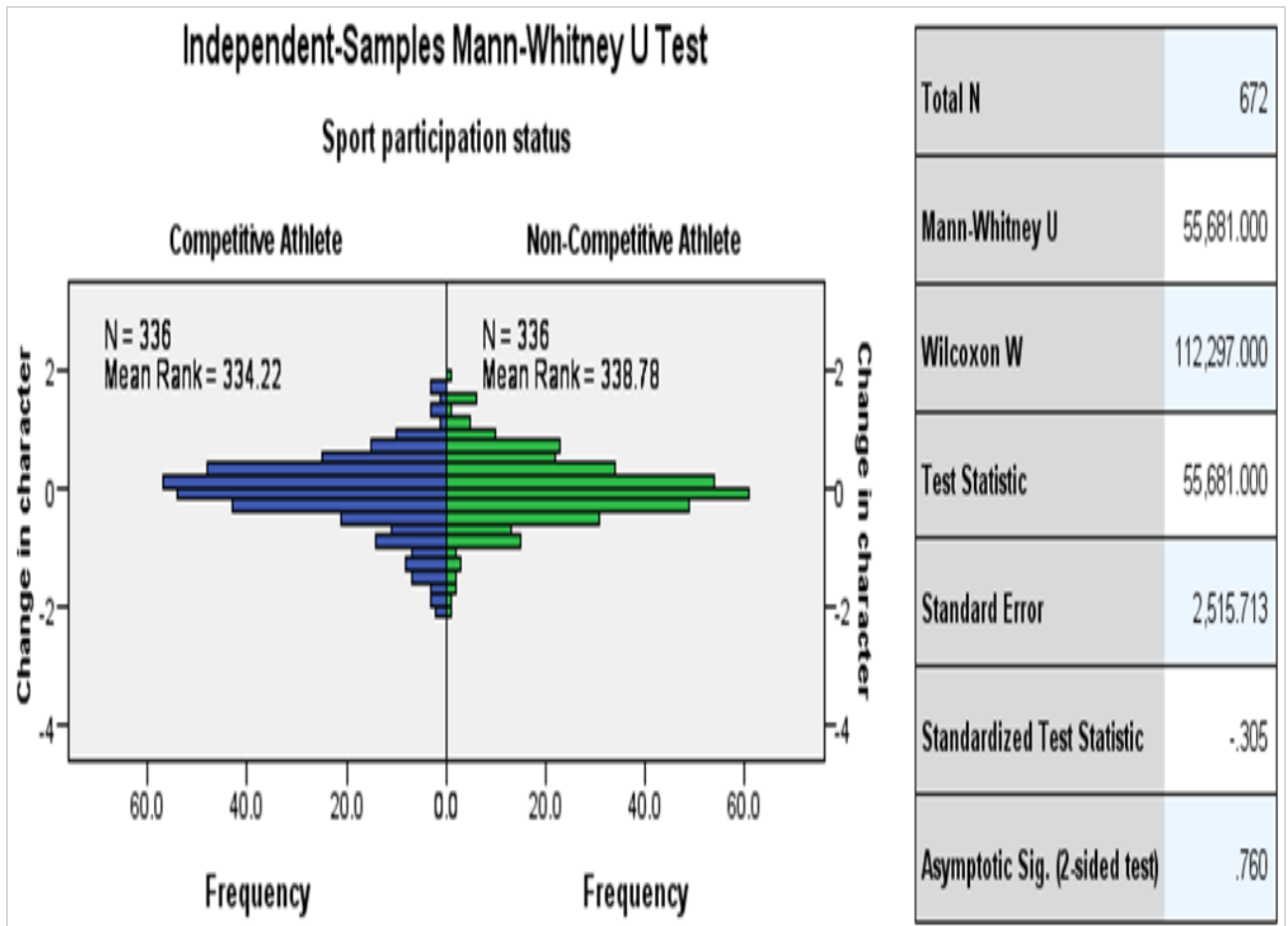
**Figure 4.3 shows comparison of character change indices between Pre-test and Post-test using Matched/ Paired Samples Wilcoxon Signed Rank test ( $p = .049$ ;  $n = 672$ ).**

With the results showing significant difference in character change between pre-test and post-test, the first null hypothesis ( $H_01$  - There is no significant change in character before and after sports participation among secondary school students-athletes in Nairobi City County, Kenya) was rejected. This means that sports participation results to change in character among the studied population.

#### **4.5 Comparison of Character Change Between Competitive and Non-Competitive Athletes**

To test Null hypothesis 2 ( $H_02$ ; There is no significant difference in character changes between competitive and non-competitive athletes among secondary school students in Nairobi City County, Kenya), comparison of the character change indices and status between competitive and non-competitive student athletes was done. To determine character change indices of the participants, pre-test scores were subtracted from and post-test scores after exposure to sporting competition experiences for a period of three months for the athletes. Positive indices indicated character change for the better (improvement) while negative indices indicated character change for the worse (deterioration).

Comparison of character change indices across participation status (Competitive athletes/ Non-competitive athletes) using Independent Samples Mann Whitney U test yielded no significant difference ( $p = .76$ ) (see Figure 4.4). This means that the overall change in character occurred in opposite direction for the two groups, thus narrowing or eliminating the difference that was noted at the pre-test stage (see Figure 4.1).



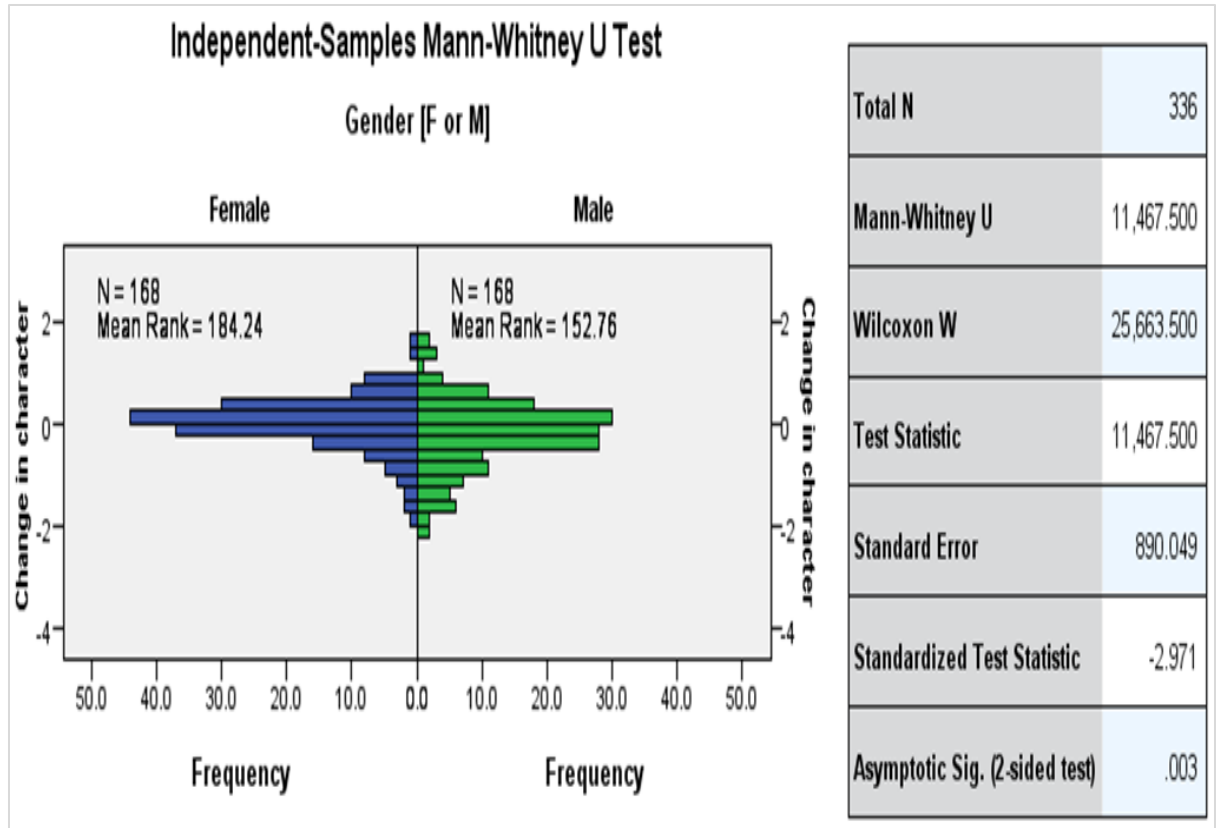
**Figure 4.4: Comparison of character change indices across participation status (Competitive athletes/ Non-competitive athletes) using Independent Samples Mann Whitney U test ( $p = .760$ ;  $n = 672$ ).**

#### **4.5.1 Comparison of character change indices and status across the various demographic categories among the Competitive Group**

Further analyses were done to compare character change indices and status across the various demographic categories. A character change index of  $\geq .05$  (5%) in POMP scores in either positive or negative direction was considered significant, while character change

indices of less than 5% in any direction was deemed not significant, thus categorized as No Sig Change. These values were adopted from conventional 0.05 significance level / alpha ( $\alpha$ ) value which denotes the probability of rejecting the null hypothesis when it is true, or 95% confidence interval i.e. a 5% risk of concluding that a difference exists when there is no actual difference (Verhagen, Ostelo & Rademaker, 2004). It is conventionally assumed that a change/difference of less than 5% can be attributed to random chance or unknown course as opposed to being a result of the factors under consideration (Dahiru, 2008). Demographics considered in comparisons of character change include; gender (males and females), age category, type of sport (soccer, rugby, hockey, volleyball, basketball, handball and netball), school category (National/ Extra-county/ County/ Sub-county), school type (public/ private), school status (boarding/ day/ day & boarding), student status (boarder/ day scholar) and class level.

Comparison of change in character POMP scores across categories of gender (males and females) using Independent Samples Mann Whitney U test are shown in Figure 4.5. The results show significant difference ( $p = .003$ ) among the competitive group ( $n = 336$ ) with females recording higher mean ranks.



**Figure 4.5: Comparison of character change indices across gender (males and females) using Independent Samples Mann Whitney U test ( $p = .003$ ;  $n = 336$ ).**

Comparison of change in character POMP scores across categories of sport (soccer, rugby, hockey, volleyball, basketball, handball and netball) using Independent Samples Kruskal-Wallis test are shown in Figure 4.6. The results show significant difference ( $p < .001$ ) among the competitive group ( $n = 336$ ). Further comparison with Dunn's post hoc pairwise test revealed that soccer (which had the highest) had significantly higher ( $p < .001$ ) character change mean rank than hockey (which had the lowest).

Comparison of character change scores within the other studied categories showed no significant difference ( $p > .05$ ); Class Level –forms 2, 3 and 4 ( $p = .833$ ), Category of school –national, extra-county, county and sub-county ( $p = .191$ ), Type of school –public

and private ( $p = .531$ ), Boarding status of the school – boarding, day-and-boarding, and day ( $p = .457$ ), and Duration one had participated in the sport ( $p = .347$ ).

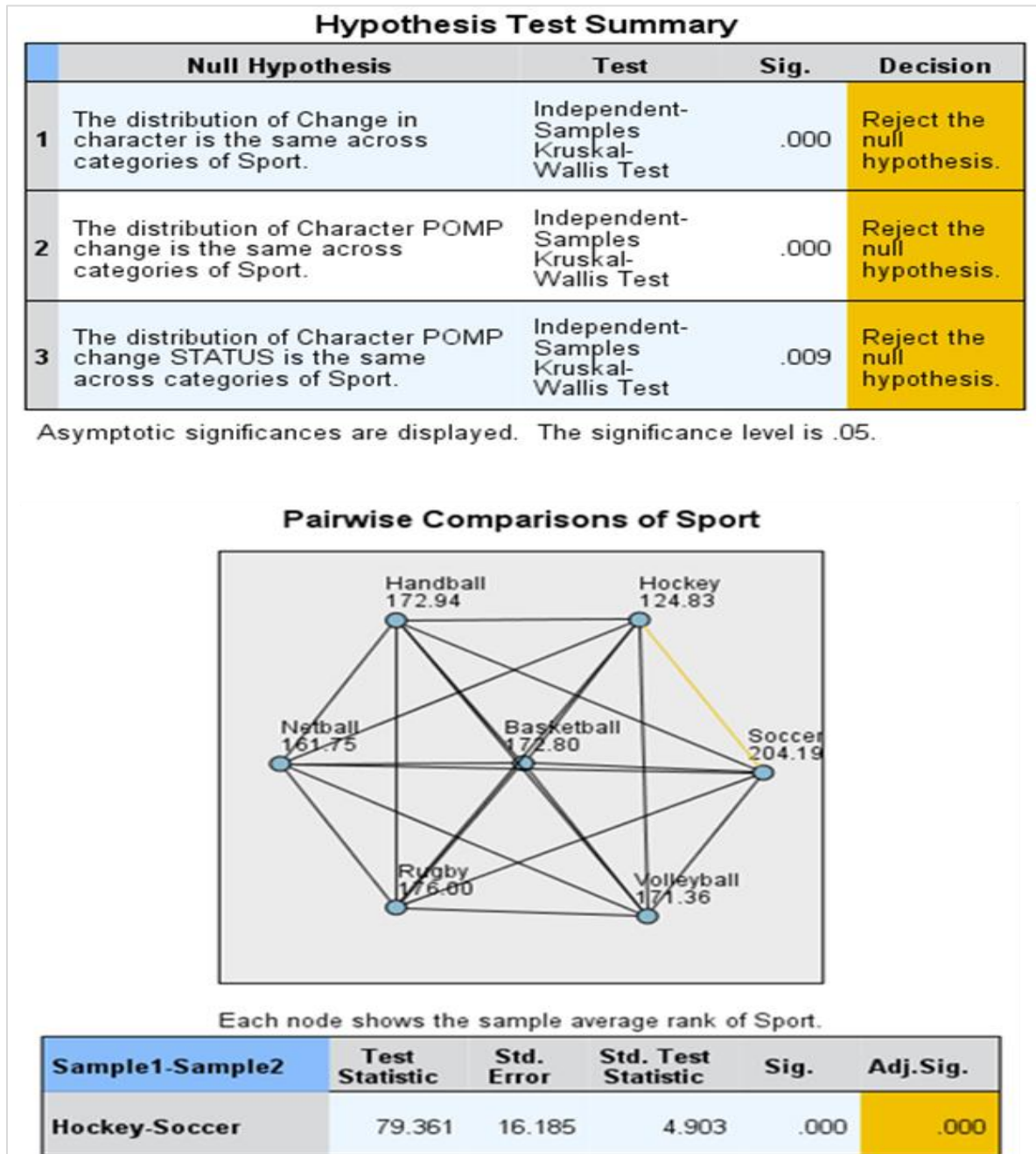


Figure 4.6 shows comparison of character change indices across Categories of Sport (soccer, rugby, hockey, volleyball, basketball, handball and netball) using Independent Samples Kruskal-Wallis test test ( $p < .001$ );  $n = 336$ ).

#### 4.5.2 Comparison of Character Components Scores between Pre-test and Post-test

The study questionnaire included items related to different character components. These were; Honesty/integrity, Respect, Good citizenship, Responsibility and Sportsmanship.

Table 4.12 show scores for each component during pre-test and post-tests.

**Table 4.12; Descriptive statistics and Comparison of Character Components POMP scores between pre-test and post-tests**

Data set	Descriptive statistics						Comparison/ Wilcoxon Signed Rank test
	Pre-Test			Post-Test			
	<i>Mean</i>	<i>SD.</i>	<i>Median</i>	<i>Mean</i>	<i>SD.</i>	<i>Median</i>	<i>Sig.</i>
<b>Combined Group (n=672)</b>							
Honesty/integrity	81.51	16.11	83.33	79.19	18.86	83.33	.044*
Respect	85.17	14.18	87.50	84.39	15.33	87.50	.461
Good citizenship	81.54	12.06	83.33	80.19	13.67	83.33	.077
Responsibility	83.14	13.53	83.33	81.49	14.36	83.33	.018*
Sportsmanship	86.22	13.68	91.67	84.88	15.10	87.50	.112
<b>Competitive Group (n=336)</b>							
Honesty/integrity	83.89	15.41	87.50	79.58	19.72	83.33	.006*
Respect	86.47	13.06	87.50	84.56	16.00	87.50	.147
Good citizenship	83.39	11.75	83.33	81.78	14.08	83.33	.113
Responsibility	85.04	12.58	87.50	83.19	14.24	83.33	.120
Sportsmanship	85.29	13.91	87.50	83.23	15.88	87.50	.138
<b>Non-Competitive Group (n=336)</b>							
Honesty/integrity	79.12	16.46	83.33	78.80	17.99	83.33	.948
Respect	83.86	15.12	87.50	84.21	14.64	87.50	.671
Good citizenship	79.68	12.09	83.33	78.60	13.08	79.17	.366
Responsibility	81.23	14.19	83.33	79.80	14.31	81.67	.086
Sportsmanship	87.14	13.39	91.67	86.53	14.10	91.67	.452

Comparing the POMP scores for each component between pre-test and post-tests using Wilcoxon Signed Rank test (related sample) showed significant difference (decline) in honesty/integrity component among the combined group ( $p = .044$ ) ( $n = 672$ ) and the competitive group ( $p = .006$ ) ( $n = 336$ ), and no significant difference among the non-competitive group ( $p = .948$ ) ( $n = 336$ ). This means the decline in honesty/integrity component occurred in competitive group and not in the non-competitive group. The result also showed significant difference (decline) in responsibility component among the combined group ( $p = .018$ ) and no significant difference among the competitive group ( $p = .120$ ) and the non-competitive group ( $p = .086$ ). The  $p$  values indicate that the decline in sense of responsibility occurred in both competitive group and the non-competitive group, but more in the non-competitive group.

With the significant difference noted in some components among competitive and not in the non-competitive group, the second null hypothesis ( $H_02$  -There is no significant difference in character changes between competitive and non-competitive athletes among secondary school students in Nairobi City County, Kenya) was rejected.

#### **4.6 Regression Analyses on Character Changes**

Regression analyses was done to test Null hypothesis 3 ( $H_03$ ; Character changes is not significantly influenced by level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level on among secondary school student athletes in Nairobi City County, Kenya). Multinomial Logistic Regression analyses were used to determine the comparative influences of independent variables on character changes using SPSS software as described by Chan (2005). It was suitable for

the current study data since the statistical analyses allows assessing for the probability of category membership (predictive analysis) of a dependent variable with more than two levels, based on multiple independent variables. The independent variables can be either dichotomous (i.e., binary) or continuous (i.e., interval or ratio in scale). The study data met the assumptions of the statistical procedure (independence of observations, no multicollinearity and no outliers -it does not assume normality in the data distribution) (Lund Research Ltd., 2018).

Variables entered into the Multinomial Logistic regression analyses included level of sport competition (participation status), gender, age, type of sport, school category, type of school, class level, boarding status of the school, boarding status of student, and the duration athletes has participated in this sport while in secondary school (see Table 4.13). The results showed that the overall model of the entered variables did not fit adequately ( $p = .033$ ) to prediction the dependent variable (Character Change) effectively (see Table 4.14). This may be due to the large number of the predictor variables entered.

Despite the overall regression model not fitting adequately, a closer examination of the results show that some of the individual variables recorded significant contribution to character change as shown in Table 4.15. Variables that registered significant negative contribution / influence are; School Category (Wald  $\chi^2 = 6.030$ ,  $p = .014$ ), School Boarding Status (Wald  $\chi^2 = 4.851$ ,  $p = .028$ ), and type of Sport (Wald  $\chi^2 = 4.677$ ,  $p = .031$ ). Only the School Boarding Status variable registered significant positive contribution / influence (Wald  $\chi^2 = 124.036$ ,  $p < .001$ ). Other variables (gender, age, type of school, and class level) entered did not show significant influence (see Table 4.15).

**Tables 4.13; Variables in Multinomial regression analyses on Character Changes among Student-Athletes**

Variables		N	Marginal Percentage
Character POMP change STATUS	Negative	200	36.4%
	No Sig Change	165	30.1%
	Positive	184	33.5%
Gender [F or M]	Female	261	47.5%
	Male	288	52.5%
Age category as at 31/12/2018	15 yrs	38	6.9%
	15-16 yrs	131	23.9%
	16-17 yrs	222	40.4%
	17-18 yrs	158	28.8%
Class level	Form 2	145	26.4%
	Form 3	226	41.2%
	Form 4	178	32.4%
Category of school	Sub-county	96	17.5%
	County	168	30.6%
	Extra-county	143	26.0%
Type of school	National	142	25.9%
	Private	2	0.4%
Boarding status of the school	Public	547	99.6%
	Day	96	17.5%
	Day/Boarding	144	26.2%
Status of student	Boarding	309	56.3%
	Boarder	447	81.4%
Duration you have participated in this sport while in Secondary school	Day scholar	102	18.6%
	1 yr	65	11.8%
	1-2 yrs	237	43.2%
Sport	2-3 yrs	247	45.0%
	Soccer	144	26.2%
	Basketball	72	13.1%
	Hockey	143	26.0%
	Volleyball	48	8.7%
	Handball	70	12.8%
	Rugby	48	8.7%
	Netball	24	4.4%
	Kibera	108	19.7%
	Westlands	119	21.7%
Location Sub-county	Njiru	48	8.7%
	Dagoretti	60	10.9%
	Kamukunji	24	4.4%
	Starehe	60	10.9%
	Kasarani	22	4.0%
	Makadara	84	15.3%
Sport participation status	Lang'ata	24	4.4%
	Non-Competitive Athlete	274	49.9%
Valid	Competitive Athlete	275	50.1%
	Missing	549	100.0%
Total		123	
		672	

**Table 4.14; Multinomial regression analyses results on Character Changes among Student-Athletes: Model Fitting Information (n=672)**

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	941.805			
Final	864.837	76.968	56	.033

**Table 4.15; Multinomial regression analyses: Estimates of Variables contribution to Character change among student-athletes (n=672)**

Character POMP change STATUS <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Negative	Intercept	5.536	2.707	4.183	1	.041			
	[SchCategory=1]	.394	1.759	.050	1	.823	1.483	.047	46.559
	[SchCategory=2]	-4.746	1.933	6.030	1	.014*	.009	.000	.384
	[SchCategory=3]	1.120	1.029	1.183	1	.277	3.064	.407	23.034
	[SchCategory=4]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[SchBoardingStatus=1]	-1.295	1.829	.501	1	.479	.274	.008	9.872
	[SchBoardingStatus=2]	-5.455	2.477	4.851	1	.028*	.004	3.334E-005	.548
	[SchBoardingStatus=3]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[Sport=1]	.040	1.596	.001	1	.980	1.041	.046	23.778
	[Sport=2]	-1.035	1.595	.421	1	.516	.355	.016	8.098
	[Sport=3]	-1.289	1.572	.672	1	.412	.276	.01	6.006
	[Sport=4]	1.027	1.839	.312	1	.577	2.793	.076	102.708
	[Sport=5]	-5.518	2.552	4.677	1	.031*	.004	2.701E-005	.596
	[Sport=6]	.743	1.772	.176	1	.675	2.103	.065	67.766
[Sport=7]	0 <sup>b</sup>	.	.	0	.	.	.	.	
Positive	[SchBoardingStatus=1]	15.213	1.366	124.036	1	.000*	4046461.372	278183.308	58859928.545
	[SchBoardingStatus=2]	-3.646	2.355	2.397	1	.122	.026	.000	2.637
	[SchBoardingStatus=3]	0 <sup>b</sup>	.	.	0	.	.	.	.

a. The reference category is: No Sig Change.  
b. This parameter is set to zero because it is redundant.

\* Significant at  $p < .05$ , \*\* Significant at  $p < .001$

In terms of the Boarding status, student-athletes in Day school [SchBoardingStatus=1] are likely to record positive character change compared to student-athletes in Boarding school [SchBoardingStatus=3] (Beta = 15.213, Wald  $\chi^2 = 124.036$ ,  $p < .001$ ) which can contribute to either positive or negative character change. Student-athletes in Day & Boarding school status [SchBoardingStatus=2] are not likely to register negative character change compared to student-athletes in Boarding school (Beta = -5.455, Wald  $\chi^2 = 4.851$ ,  $p = .028$ ). For the School Category, student-athletes in County schools [SchCategory=2] are not likely to register negative character change compared to student-athletes in National schools [SchCategory=4] (Beta = -4.746, Wald  $\chi^2 = 6.030$ ,  $p = .014$ ) who can register either positive or negative character change. Other categories (Sub-county and Extra-county schools) are unpredictable. And for the type of Sport, Handball [Sport=5] is not likely to register negative character change compared to student-athletes in Netball (Beta = -5.518, Wald  $\chi^2 = 4.677$ ,  $p = .031$ ) who can register either positive or negative character change. Other types of sports (Soccer, Basketball, Hockey, Volleyball and Rugby) are unpredictable.

With the significant contribution / influence of some variables noted above, the third null hypothesis (H<sub>03</sub> -Character changes is not significantly influenced by level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level among secondary school student athletes in Nairobi City County, Kenya was rejected.

## CHAPTER FIVE: DISCUSSIONS

### 5.1 Introduction

The study sought to find out the influence of participation in competitive sports on character changes of student-athletes in secondary schools in Nairobi City County. The need to address the increasing deviant behavior among secondary students in and out of the field, with the associated negative impact on education, politics and economics aspects (Bredemeier & Shields, 2006; Kombo, 1998; Stoll & Beller, 2000; Njoroge, 2005) informed the study. Moreover, there was mixed reports on the role of sports in shaping positive social behavior and personal responsibility, empathy and discipline (CDCP, 2009; Houlihan, 2008; Stead & Nevill, 2010; Yanklowitz, 2013), with alarming levels of harmful acts involving direct acts of physical violence having been witnessed in sports settings (Houlihan, 2008; Walton, 2005). Houlihan (2008) indicated that the social value of sports participation is undermined by sports-related violence which is deeply rooted in the sports process, attributing this to over-emphasis on 'winning at all costs' at the expense of sportsmanship. The current study sought to assess the influence of competitiveness in sports participation on character (attributes of Honesty/integrity, Respect, Good citizenship, Responsibility and Sportsmanship) changes among student athletes. The study was also interested on demographic characteristics of respondents by gender, age, type of sport participated in, school category, school type, status of school, status of student and class level as possible factors moderating influence of sports participation and competition on character change. These are pertinent parameters that have been shown to influence participation in sports and or mediate the outcomes of the same (British Broadcasting Corporation [BBC], 2020: Kamau, Rintaugu, Muniu, &

Amusa, 2015). BBC (2020) observe that participation in physical activity is influenced by social factors such as social groupings, family and friends as well as personal factors such as age, gender, disability and ethnicity. Kamau et al (2015) found that age, school type and school status are significant factors that effect relationship between participation in competitive sports and students' connectedness to school among secondary school students.

## **5.2 Demographic Characteristics of Competitive and Non-competitive Athletes**

For the first objective, the study sought to establish demographic characteristics of respondents (competitive and non-competitive athletes) by gender, age, type of sport participated in, school category, school type, status of school, status of student and class level. A total number of 672 students were involved, of whom 336 (50%) were competitive athletes and 336 (50%) non-competitive athletes. Of these students 168 (50%) were female and 168 (50%) were male. The respondents ranged between 15 and 18 years of age, in Form two, three and four. This is typical age for students in Kenyan secondary schools as per Education Policy and Data Center [EPDC], (2021) who state that majority of Kenyan secondary school students are in the 14 to 17 years age bracket. Respondents' distribution across age categories and class showed that participation in sports initially registered a steady upward trend as the student progressed through their courses but decline towards the later years of the secondary school course (tables 4.3 and 4.9). Hockey and Soccer had the greatest number of participants with 72(21.43%) for each sport, followed by handball 48 (14.29%), volleyball 48 (14.29%) and basketball 48 (14.29%). All the above 5 sports were participated in by males and females in their

respective teams. Netball which was competed in by females only registered 24 (7.14%) players. Rugby which was for boys only registered 24 (7.14%) participants as well. Traditionally, netball is dominated female participants whereas rugby is dominated by males. The respondents came from Sub-county, County, Extra-county and National school categories, 550 (81.85%) drawn from public schools, and 122 (18.15%) from private schools. With regard to boarding status, 312 (46.43 %) were from boarding, 240 (35.71%) from day/boarding category and 120 (17.86%) from day school categories.

### **5.3 Character of Secondary School Students-athletes Before and After Sports Participation**

For the second objective, the study sought to compare character of secondary school students-athletes before and after sports participation. Character scores was generated from self-reported responses on thirty questionnaire items on character traits. Mean scores ranking was highest in Sportsmanship component followed by Respect, Responsibility, Good citizenship and Honesty/integrity in decreasing order (Table 4.12). Results of comparison of the character scores between Competitive and Non-Competitive student-athletes using Independent Samples Mann Whitney U test showed significant difference both at Pre-Test and at Post-Test. The Competitive group registered higher Mean Rank scores than Non-Competitive group both at Pre-Test (361.75 vs. 311.25) and at Post-Test (353.58 vs. 319.42) (see figures 4.1 and 4.3). However, it is important to note that the figures for post-test indicate a decline (negative influence) among the Competitive group, and improvement (positive influence) among the Non-Competitive group compared to pre-test figures. The possible ways in which sports experiences can lead to positive and /or negative character change are discussed in the next subsections.

#### **5.4 Character Changes between Competitive and Non-competitive Athletes**

For the third objective, the study sought to compare character changes between competitive and non-competitive athletes among secondary school students in Nairobi City County, Kenya. Wilcoxon Signed Rank test comparing matched samples showed significantly less number of respondents ( $n=303$ ) registering positive change than the number of respondents who registered negative change ( $n=348$ ) in character scores. This is in agreement with Omar-Fauzee et al. (2012) who observed that sports have both positive and negative influence on character building, therefore the need to find out the factor that may be associated with these trends. Results of comparison analyses of specific character components / attributes (Honesty/integrity, Respect, Good citizenship, Responsibility and Sportsmanship) showed significant difference (decline) in honesty/integrity component between pre-test and post-tests among the competitive group ( $p = .006$ ) ( $n = 336$ ), and no significant difference among the non-competitive group ( $p = .948$ ) ( $n=336$ ). Honesty/integrity is a key attribute in sports which is manifestation of ethics and values which promote community confidence in sports (Canning, 2015; Stankovich, 2020). This include fair performances and outcomes, unaffected by illegitimate enhancements or external interests; and positive conduct by athletes, administrators, officials, supporters and other stakeholders, on and off the sports field. Lack of Honesty/Integrity in sports settings has unfortunately been witnessed in form of practices such as match-fixing: irregularly influencing the course or result of a sports event in order to obtain advantage for oneself or for others (Carpenter, 2012; Stankovich, 2020), and / or doping. These are unfortunate occurrence and erode social value of sports. The decline in honesty/integrity component between pre-test and post-

tests among the competitive group in the current study indicates that competitive aspect of sports is associated with the negative change of this character attribute among the study population. This indicate that some of the sports competition stakeholders in this population may have condoned, encouraged and / or engaged in unfair practices during the sports season. According to Canning (2015), dishonest behavior in sports results from a combination of personality traits particular to high-achievers and external pressures. The author observed that a person might be law-abiding, but view sports as games where cheating would have little impact. Perceiving sport as a game or as challenge to outsmart, rather than as a true measure of ability, such a person will take cheating as a smart, winning tactic. Temptations to cheat when high-profile reputations are at stake, and a 'winning is everything' mentality are other causes of dishonesty identified by the author. Even though monetary prizes are not high in Kenyan secondary school sports, high stakes can be in form of anticipated sports scholarships from local and international scouts. Also, some may justify cheating as a matter of fairness because of 'everybody else is doing it' mentality (false consensus effect). By cheating, they're thus simply leveling the playing field because they believe the other person/team might cheat or is cheating. Cheating is also linked to higher extrinsic motivation. Intrinsically motivated people would be less likely to cheat, since their sense of accomplishment comes from attaining their personal goal (Murdock, & Anderman, 2006). Taking the easy way out by cheating would undermine that. Taking the short-term view and ignoring the long-term consequences of their actions is typical of cheaters. The short-term benefits may thus blind their long-term considerations of the potential humiliation and consequences of being caught (Canning, 2015; Stankovich, 2020). The exhaustion factor has also been

cited as a likely cause of dishonesty. Canning (2015) observed that there's constant tension between what we want to do and what we ought to do. During competition one might think of winning with lower effort and if one is depleted at the same time, he/she is more likely to cheat. This is in addition to the pressure to perform from variety of entities such as peers, and significant others. The pressure to perform among the youth is especially more pronounced even in recreational sports in the modern age of social media. Sports competitions are likely to be posted and fantasized about in the social media. Here, broadcasting ones success makes the psychological benefits of winning even greater (Canning, 2015), as well as the anxiety of losing. This may heighten the pressure to perform and the likelihood of cheating.

Dishonesty in sports has also been linked to the concept of achievement goals. Studies have reported significant relationships between task and ego orientations with sportsmanship and moral functioning, with Ego orientation predicting lower moral functioning (Mwangi, Rintaugu & Toriola, 2019; Roberts, Treasure & Conroy, 2007). Compared to high task-oriented athletes, empirical data points to high association between ego-oriented athletes and lower sportsmanship, more self-reported cheating, endorsement of cheating (Roberts et al., 2007) and doping attitude (Mwangi et al., 2019). The decline in honesty/integrity component between pre-test and post-tests among the competitive group in the current study calls for sports stakeholders to work towards cultivating task-oriented sporting environments during sports competitions. The current study results on significant decline in integrity /honesty with sports participation are in line with Camiré and Trudel (2010) who found that majority of athletes believe that gamesmanship is employed and legitimized as being part of the game. Similarly,

Bredemeier & Shields (2006) reported a study where 65 male players scored lower on moral judgment than do most college students. The authors recommended that school administrators and coaches be proactive and include character development initiatives in their programming in order to promote moral development and reduce incidences of gamesmanship in high school sports.

The results of the current study also showed significant difference (decline) in responsibility component among the combined group ( $p = .018$ ). It was however established that this decline in sense of responsibility occurred more among the non-competitive group than among competitive group. This is expected as higher level of individual and collective responsibilities are required at higher level of sports participation, which involve competitive experiences (Long & Pantaléon, 2014).

### **5.5 Influence of Level of Sport Competition and Demographic Characteristics on Character Changes**

For the fourth objective, the study sought to determine the influence of level of sport competition, gender, age, type of sport, school category, type of school, status of school and class level on character changes among secondary school student athletes in Nairobi City County, Kenya. Studies have indicated that there are disparities in positive effects of participation in competitive sports on secondary school students based on different demographic aspects such as gender, school categories (National/County/Sub-county), status of school (public/private), class level, type of sport participated in, as well as boarding status (Gitonga, 1998, 1999; Bulinda, 2002; Kateshumbwa, 2011; Kamau, 2015; Njoroge & Nyabuto, 2014). The current study therefore sought to find the

influence of these demographics on character changes among secondary school student-athletes. These demographics form contextual factors that may influence, moderate or mediate the relationship between sports participation and character changes and therefore treated as independent variables. Results of Multinomial Logistic Regression analyses showed significant influence by three independent variables (as predictors of character change) (Table 4.15); School Boarding Status, School Category, and Type of Sport. Boarding Status appeared to influence character change in both directions (positive and negative) with student-athletes in day schools most likely to register positive character change compared to those in boarding school. Student-athletes in Day & Boarding school are not likely to register negative character change compared to student-athletes in Boarding school. School Category and type of Sport appeared to influence character change in the negative direction, with county schools least likely to register negative character change compared to national schools. Handball is least likely to register negative character change compared to netball. The results are in agreement with Sage (1998) who argued that the effect of sports participation on character development of the youth depended on the positive or negative contextual conditions of the sporting experience.

While boarding status of a school has been shown to be associated with some aspects of character of students, the location / school sub-location of a school may be as a result of coincidental proportion of boarding to day school ratio of sampled schools in the different sub-locations. Boarding status of school may affect discipline of the students with day schools in Kenya reported to be characterized by indiscipline and poor academic performance (Njoroge & Nyabuto, 2014) partly because of the students' constant

interaction with people in their homes and the outside society. However, the current study results indicate that participation in sports is more likely to bring positive character changes among day-school student athletes compared to boarding school status which may contribute to either positive or negative character change. While student-athletes in boarding school may enjoy some advantages related to more time to spend in training and use of facilities, student in day school may have their own benefits too –especially more parental guidance and monitoring / supervision (Our Kids, 2020). The students from day schools may also develop more resilience as a result of the hustles that they have to undergo going to and from school every day, which may be compounded when one is at the same time an athlete attending training in the evenings and some weekend days.

For the influence of school category, the results of current study indicate that change of character more likely to occur among student-athletes in national schools compared to county schools student-athletes. However, the results is intriguing in that the change in character is likely to be in negative directions compared to character change in athletes in county schools. More likelihood of the sports participation to influence character change in national schools compared to county and sub-county schools in the current study can be attributed to the fact that sporting activities continue all year round compared to other school categories whose resources may not sustain continuous sporting activities. For the type of sport, the results of current study indicate that change of character in negative directions is more likely to occur among netball athletes compared to handball athletes who are least likely to register any change. It is could be that netball is more popular than handball in the studied population. Moreover, the participants in netball were female who recorded higher overall change in character than male athletes in the competitive group,

which may be attributed to different physiological, psychological and social reactions to sports competition between the genders (Warner & Dixon, 2013). Comparison of change in character POMP scores across categories of sport among the competitive group revealed that soccer (which had the highest) had significantly higher ( $p < .001$ ) character change mean rank than hockey (which had the lowest) (Figure 4.6). Possible reason for this could be the popularity of soccer among the youth, which leads to more extensive and intensive participation. Nia & Besharata (2010) study compared athletes' personality characteristics in individual and team sports. The authors found that individual sport athletes scored significantly higher on conscientiousness and autonomy than did team sport athletes, while the team sport athletes scored significantly higher on agreeableness and sociotropy than did the individual sport athletes. There was no significant difference between the two groups on neuroticism, extraversion, and openness (Nia & Besharata, 2010).

Among the competitive group ( $n = 336$ ), comparison of change in character across categories of gender (between males and females) showed significant difference ( $p = .003$ ) with girls /female recording higher mean ranks (as shown in Figure 4.5). Warner & Dixon (2013) posits that different genders tend not only to view competition differently but also to have different physiological, psychological and social reactions to it. The authors observe that in general, most men like competition and thrive in competitive environments, whereas most women dislike competition and flounder in highly competitive environments. In a study to explore gender and the sport experience in sports competition, the authors found that men acknowledged competition as a central and important factor to their sport experience while majority of the women (21 of 36) felt

that competition only detracted from their sport experience. The male athletes perceived competition as less personal, and there was an understanding that competition created and fostered a mutual respect among competitors. The male participants viewed internal competition as a way to improve one-self and the team (Warner & Dixon, 2013). Higher character change in female athletes in the current study may therefore be attributed to the inter play of the reported women dislike of competition and the inevitability competitive environment at higher levels of sports participation, compared to male athletes whom reportedly are more at ease in such situations.

### **5.6 Strength and Weakness of the Current Study**

The current study was limited in terms of follow-up time needed to evaluate more long term character change (development). However, the study ascertained that sports participation at both competitive and non-competitive level led to character change. It is worth noting that character development is a result of cumulative character changes that happen over a relatively long period of time. It would be necessary therefore to carry out longitudinal studies to have a longer follow up on the variables of the current study. This notwithstanding, the current study established that sports participation provide opportunities character change thus can aid in character development. This is in line with CDCP (2009) and Stead and Nevill (2006) who stated that sports are valuable in aiding acquisition of various personal, social and social-moral skills which are necessary for the young people to act successfully and acceptably in a wide range of social institutions. It also resonate with Connolly (2018) who observed that coaches can help their athletes on and off the field by modeling good behaviors that he/she hope to witness in the athletes,

and exposing them to talented, established and accomplished athlete who models good social skills, leadership, mechanics and work ethic. The athletes will learn through the processes of observation, imitation and reinforcement of acceptable social behaviors, learning behaviors, motor behaviors and champion behaviors. However, it is not obvious that desirable change will always ensue in sporting situations. Bredemeier & Shields (2006) observed that sport might build character, but only under the right conditions. Noting that children and adolescents need to talk about their values; to discuss their views of right and wrong, both with their peers and with respectful adults, the authors recommended that coaches make time and space in team meetings for discussion of moral issues relevant to sports in general and to the life of the team in particular. This agrees with PCPFS (2006) and Austin (2010) who asserts that character development through sports is achieved through deliberate efforts. The current study showed both positive (improvement) and negative (decline) changes in character among the studied population, with less number of respondents (n=303) registering positive change than the number of respondents who registered negative change (n=348) (see Figure 4.3). There were also 26 of student-athletes who did not register significant change in character. These results are in line with Omar-Fauzee et al. (2012) who observed that sports participation has both positive and negative influence on character buildings. Moreover, the current study showed significant influence of some demographic factors (school boarding status, school category and type of sport) as important contextual factors that mediate / moderate the relationship between sports participation and character change. This is in agreement with Vierimaa, Bruner and Cote (2018) affirmed the critical role that coaches play in the developmental experiences of young athletes, highlighting the

importance of consideration for contextual factors of the youth sport environment - the particular setting (e.g., game, practice, recreational, competitive) in which youth sport takes place.

The results of the current study inform curriculum development in training of personnel involved in sports instruction and management, as well as implementation and practice of the same. Ferris, Ettekal, Agans & Burkhard (2015) focused on the significance of gaining an understanding of coaches' perspectives about character-based education programs, and specifically about the information they value and apply in their coaching practices. The authors concluded that, understanding of the process by which coaches integrate character-based program curriculum into their coaching practices and daily interaction with athletes will enable appropriate evaluation of sports as holistic contexts where coaches' and athletes' character strengths can align to transform youth sports culture into a character development zone. Noting the potential positive impact of participation in youth sports on the development of character attributes, Ferris et al. (2015) recommended that researchers to continue to examine the processes through which coaches' character strengths are enhanced through participation in character-based coach education programs. Doty (2006) and Gaines (2012) also points out that character traits can be nurtured in a sporting experience when coaches, teachers and school administrators give priority to character development as the objective of the sport experience. After noting that sports have both positive and negative influence on character buildings, Omar-Fauzee (2012) recommended that the concept of character development through sports should be explored further in order to make sure all individuals who involved with athletes know their roles, expectation, and responsibilities.

The current study findings affirms the above mentioned positions and further recommends formally infusing character education in training of coaches is needed, as well as constant evaluation of the sports programs outcomes. Taking to consideration of various demographical factors is necessary to achieve optimum character changes.

## **CHAPTER SIX: SUMMARY CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Summary**

The main aim of the study was to find out the influence of participation in competitive sports on character changes of student-athletes in secondary schools in Nairobi City County, Kenya. The study was informed by reported increase in deviant behavior among secondary students in and out of the field, and the concomitant negative impact on education, politics and economy. Past studies had largely reported evidence of sport participation as a means to positive character development in and outside the field. However, alarming levels of negative acts with detrimental effects to the participants and the fans have been witnessed in sports participation settings. This underpins the justification of the current study whose purpose was to find out the influence of participation in competitive sports on character changes of student-athletes in secondary schools in Nairobi City County. Quasi-experimental design was used in the study, where character assessment questionnaire was administered pre and post sports season.

Various demographic characteristics of respondents (competitive and non-competitive athletes) by gender, age, type of sport participated in, school category, school type, status of school, status of student and class level were considered in the study, where a total number of 672 student-athletes were involved. Results of comparison of the Character Scores between Competitive and Non-Competitive Student-Athletes showed significant difference both at Pre-Test and at Post-Test. Analyses showed a decline (overall negative influence) among the Competitive group, and improvement (overall positive influence)

among the Non-Competitive group. Matched/Paired Samples comparison using Wilcoxon Signed Rank test showed significant change in character POMP scores, with less number of respondents ( $n=303$ ) registering positive change than the number of respondents who registered negative change ( $n=348$ ). Twenty six respondents registered no significant change in character.

Comparing the character scores for each component between pre-test and post-tests using Wilcoxon Signed Rank test (related sample) showed significant difference (decline) in honesty/integrity component among the combined group ( $p = .044$ ) ( $n = 672$ ) and the competitive group ( $p = .006$ ) ( $n = 336$ ), and no significant difference among the non-competitive group ( $p = .948$ ) ( $n=336$ ). This means the decline in honesty/integrity component occurred in competitive group and not in the non-competitive group. There was significant difference (decline) in responsibility component among the combined group ( $p = .018$ ) which was found to have occurred more in the non-competitive group than in the competitive group.

The current study also sought to find the influence of demographic details of students - gender, age, type of sport, school category, type of school, status of school, status of student and class level on character changes among secondary school student-athletes. This was informed by the need to evaluate and consider contextual factors that may influence, moderate or mediate the relationship between sports participation and character changes. Multinomial Logistic Regression analyses were used to determine the comparative influences of demographic independent variables on character changes. Variables entered into the regression analyses included level of sport competition

(participation status), gender, age, type of sport, school category, type of school, class level, boarding status of the school, boarding status of student, and the duration you have participated in this sport while in secondary school. The results showed significant influence on the dependent variable (Character Change) by Boarding Status, School Category and Type of Sport.

## **6.2 Conclusions**

1. From the findings of the study the researcher concludes that various demographics factors influence outcomes of sports experiences in diverse ways, leading to positive or negative character change, with factors related to school category, boarding status and type of sport mediating the change.
2. Character of secondary school students-athletes in Nairobi City County, Kenya rates relatively high before and after sports participation and competition in most components.
3. There is significant influence by both competitive and non-competitive sports participation on character changes among secondary school students in Nairobi City County, Kenya, with competitive leading to more cases of declined character scores than non-competitive. Sports competition can thus undermine the social value of sports.
4. Boarding status of school, school category and type of sport have significant influence on character changes among student athletes in Nairobi City County, Kenya.

## **6.3 Recommendations**

### **6.3.1 Recommendations for Policy**

The current study recommends the following for Policy:

1. Development of character-based education curriculum for training of sports leaders (school administrators/ managers, teachers, coaches).
2. Formally integrating character education in athletes training / sports coaching programs and sports competition events in secondary schools.
3. To formulate policy guidelines appraisal of sports programmes with a focus to promote positive character change among students.

### **6.3.2 Recommendations for Practice**

The current study recommends the following for Practice:

1. Teaching, learning and modeling values related to character change and development in sports participation settings by all sports practitioners
2. Carrying out formal regular evaluation of the sports programs outcomes in relation to character change and development by school administrators and sports managers.
3. Considerations for the various demographical and contextual factors in sports programming to achieve desired character changes and development by all sports practitioners.

### **6.3.3 Recommendations for Further Research**

The current study recommends the following for further research:

1. There is need for research to explore further the possible reasons for the differences in change of character across school category, boarding status and type of sport, as well as the implications to sports coaching and management.
2. There is need to explore further the possible reasons for the confounding negative change of character in some student-athletes in Nairobi County secondary schools and potential remedies.
3. Similar studies on sports participation and character development to be conducted in other levels competition such as primary schools, colleges and universities, as well as club levels.
4. Longitudinal studies over a prolonged period of time are needed in the area to track the character change and development attributable to sports participation among student-athletes in Nairobi County secondary schools and other parts of the country.
5. Similar studies on sports participation and character development to be conducted to compare influence of other relevant factors such as individual versus and team sports, different personality categories, home background, amongst others.

## REFERENCES

- Akanga, J.O. (2014). Character Development through education in Kenya: a pragmatic perspective. *Unpublished M. Ed Thesis*, University of Nairobi: Kenya.
- Akos, P. (2002). Students' perception of the transition from elementary to Middle School. *Professional School Counseling, 5*, 5: 339-345.
- Albert, C. (2003). *Coaching Issues and Dilemmas. Character Building through Sport Participation*. Reston, VA: NASPE Publications.
- Amachie, F.A. (1989). Sports in National Building. An unpublished paper presented at a seminar organized by the National Institute for Sports, Lagos, Nigeria.
- Anderson, K. (2012). The Power of Play. *Sports Illustrated*, 44-63.
- Arizona Sports Summit Accord (1999). *Arizona sports summit accord: Implementation strategies*. Scottsdale, Arizona. CA: JICSE. Josephine Institute Center for Sports Ethics.
- Ary, D., Jacobs, L.C., Gorenson, C.K. & Walker, D. (2014). *Introduction to Research in Education* (9<sup>th</sup> Ed.). Belmont, U.S.A: Wadsworth, Cengage Learning.
- Austin, M. (2010). *How can character be built through sports? Psychology Today*. Retrieved on 15/4/2015 <http://www.psychologytoday.com/blog/ethics-everyone/201006/how-can-character-be-built-through-sport>
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development. Vol. 6. Six theories of child development* (pp. 1-60). Greenwich, CT: JAI Press.
- Barez, A. (2008). *Sport as a school of life: The mental and physical characteristics, developmental objectives and coaching methods of youth sports*. International Labour Organization Report. Geneva, Switzerland: ILO.
- Bartko, W.T. & Eccles, J.S. (2003). Adolescent participation in structured and unstructured activities: a person-oriented analysis. *Journal of Youth Adolescence, 32*, 4: 233-241.
- Basic Education Statistical Booklet, 2015
- Best, J.W. & James, V.K. (2006). *Research in Education* (10<sup>th</sup> Ed.). New Delhi, India: Pearson Prentice Hall.
- Blum, R.W. (2005). Educational leadership: A case of school connectedness. *The Adolescent Learner, 62*, 7: 16-22.
- Bonny, A. E., Britto, M. T., Klostermann, B. K., Hornung, R. W., & Slap, G. B. (2000). School disconnectedness: identifying adolescents at risk. *Pediatrics, 106*(5), 1017–1021. <https://doi.org/10.1542/peds.106.5.1017>

- Brady, M. & Khan, A.B. (2002). Letting girls play: *The Mathare Youth Sports Association's Football Program for Girls*. New York U.S.A: Population Council. <http://popcouncil.org/pdfs/girlsplay.pdf>
- Bredemeier, B. & Shields, D. (2006). Sports and character development. *Readers Digest: President's Council on Physical Fitness and Sports*, 7, 1: 1-8.
- Briggs, J.B. (1993). From theory to practice: A cognitive systems approach. *Higher Education Research and Development*, 12: 73-86.
- British Broadcasting Corporation [BBC] (2020). *Social groupings and participation in sport*. (Online) Accessed on 30 Aug 2020. <https://www.bbc.co.uk/bitesize/guides/zy62hv4/revision/5>
- Brown, S.P. (2014). *Introduction to ESS*. Lippin Williams & Wilkins, Texas State University. [www.hhp.txstate.edu/hper/faculty/...sptsoc.htm](http://www.hhp.txstate.edu/hper/faculty/...sptsoc.htm) Retrieved 15/9/2014.
- Brown, R. & Evans, W.P. (2002). Extra-curricular activity and ethnicity: Creating greater school connection among diverse student populations, *Urban Education*, 37: 41-58.
- Bulinda, H.M. (2002). Motivational factors that affect primary school pupils' participation in organized sports in Shinyalu Division of Kakamega District, Kenya. *Unpublished M. Ed Thesis*, Kenyatta University, Kenya.
- Camiré, M. & Trudel, P. (2010). High school athletes' perspectives on character development through sport participation, *Physical Education & Sport Pedagogy*, 15: 2, 193-207.
- Campbell M.J and Swinscow T.D. (2009). *Statistics at Square One* (11th ed). Wiley-Blackwell: BMJ Books.
- Campbell, M.J., Shantikumar, S. (2016). *Parametric and Non-parametric tests for comparing two or more groups*. (Online). Accessed on 24th March 2020 from <https://www.healthknowledge.org.uk/public-health-textbook/research-methods/1b-statistical-methods/parametric-nonparametric-tests>
- Callender, S.S. (2010). The early specialization of youth sports. *Athletic Training and Sports Health Care*, 2: 255-257.
- Canning, K. (2015). *7 Surprising Reasons People Cheat at Sports*. (Online). Accessed on 24th April 2020. <https://www.self.com/story/7-surprising-reasons-people-cheat-at-sports>
- Carpenter, K. (2012). Match-Fixing -The Biggest Threat to Sport in the 21st Century? *International Sports Law Review*, Issue 2: 13-24.
- Center for Disease Control and Prevention [CDCP] (2009). *School Connectedness*. Atlanta, U.S.A: Department of Health and Human Services.
- Chan, Y.H. (2005). Multinomial logistic regression: Biostatistics 305. *Singapore Medical Journal*; 46(6): 259. (Online). Retrieved on 7th March 2020 from [http://nusmedicine.nus.edu.sg/mpsu/wp-content/uploads/2016/11/Biostats305\\_Multinomial.pdf](http://nusmedicine.nus.edu.sg/mpsu/wp-content/uploads/2016/11/Biostats305_Multinomial.pdf)

- Clifford, C. & Fezzel, R.M. (2009). *Sport and Character: Reclaiming the Principles of Sportsmanship*. Champaign, IL: Human Kinetics.
- Coakley, J. (2001). *Sport in Society: Issues and Controversies* (7<sup>th</sup> Ed.). St. Louis, MO: CV Mosby co.
- Coakley, J. (2007). *Sport in Society: Issues and Controversies* (9<sup>th</sup> Ed.). Boston MA: McGraw-Hill.
- Cohen, P., Cohen, J., Aiken, L.S., & West, S.G. (1999). The problem of units and the circumstance for POMP. *Multivar Behav Res*, 34 (3), 315-346.
- Connolly, G.J. (2018). Applying Social Cognitive Theory in Coaching Athletes: The Power of Positive Role Models. *Strategies*, Vol. 30 pg 23-29.
- Conroy, D.E., Silvia, J.M., Newcomer, R.R., Walker, B.W., & Johnson, M.S. (2001). Personal and participatory socializers of the perceived legitimacy of aggressive behavior in sport. *Aggressive Behavior*, 27, 405-418.
- CorneliBen, T. & Pfeifer, C. (2007). *The impact of participation in sports on educational attainment: New evidence from German discussion paper* No 3160, November.
- Cosden, M., Morrison, G., Gutierrez, L. & Brown, M. (2004). The effects of homework programs and after-school activities on school success. *Theory and Practice*, 43, 3: 220-226.
- Crocker, P.R., Eklund, R.C. & Kowalski, K.C. (2000). Children's physical activity and physical self-perceptions. *Journal of Sports Science*, 18, 6: 383-394.
- Dahiru, T. (2008). P-value, a true test of statistical significance? A cautionary note. *Annals of Ibadan Postgraduate Medicine*. Vol.6 No.1 June, 2008
- Date, R.R., Trost, S.J., Lewin, S. & Dowda, M. (2000). Sports participation and health-related behaviors among U.S. Youth. *Arch Pedriatic Adolescence, Medical*, 154: 901-911.
- David, M. & Miller, K. (2005). Character development in sport: An ethnographic study of character developing in an elite pre-school basketball program. *Journal of Research in Character Education*, 3, 2: 121-138.
- Davidson, M.L., Khemelkov, V.T. & Moran-Miller, K.E. (2006). *Individual and Team Chatacter in Team Sport Questionnaire [ITCSQ]*, Davidsonm@Cortland.edu, 607-753 -5798.
- DeRoche, E. (2004). *Evaluating Character Development: 51 Tools for Measuring Success*. Chapel Hill, NC: Character Development Group, Inc.
- Dieckman, D. (2009). *Locker room to life: Do sports build character?* MSc research Thesis, University of Wisconsin-stout, Menomonie, U.S.A.
- Doty, J. (2006). Sports build character? *Journal of College and Character*, 2: 1-8.
- Dworkin, J. & Larson, R.W. (2006). Adolescents negative experiences in organized youth activities. *Journal of Youth Development*, 1, 3.

- Edmudson, M. (2014). Chronicle of higher education. Washington D.C., U.S.A. *The Chronicle Review*, September 22, 2014.
- Education Policy and Data Center [EPDC] (2021). *Secondary School Net and Gross Attendance Rates, Kenya*. (Online). Accessed on 5th March 2021 from [https://www.epdc.org/sites/default/files/documents/Kenya\\_coreusaid.pdf](https://www.epdc.org/sites/default/files/documents/Kenya_coreusaid.pdf)
- Eitle, T.M. & Eitle, D. (2002). Race, cultural capital and the educational effects of participation in sports. *Sociology of Education*, 75, 2: 123-146.
- Ekeh, F. I. (2002). The interplay of discipline and sports in Nigerian secondary schools. *Journal of Human Movement*, 2: 1.
- Ferris, K.A., Ettekal, A.V., Agans, J.P. & Burkhard, B.M. (2015). Character Development through Youth Sport: High School Coaches' Perspectives about a Character-based Education Program. *Journal of Youth Development*, 10, 3, Special Issue Article 151003FA010
- Fredricks, J.A. & Eccles, J.S. (2006). Is Extra-curricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology*, 42, 4: 698-713.
- Fullinwider, R.K. (2006). *Institute for philosophy and public policy*. University of Maryland Circle Working Paper 44, February 2006.
- Gaines, S.A. (2012). Theory into practice: Developing individual and team character in sport. *Strategies*, 25, 8: 30-33.
- Gardner, R.E. & Janelle, C.M. (2002). Legitimacy judgments of perceived aggression and assertion by contact and non-contact sport participants. *Journal of Sport Psychology*, 33, 290-306.
- Gerdy, J.R. (2000). *Sports in School: The Future of an Institution*. New York, U.S.A.: Teachers College, Columbia University.
- Ghildiyal R. (2015). Role of sports in the development of an individual and role of psychology in sports. *Mens sana monographs*, 13(1), 165–170. <https://doi.org/10.4103/0973-1229.153335>
- Gilman, R., Meyers, J. & Perez, L. (2004). Structured extra-curricular activities among adolescents: Findings and implications for school psychologists. *Psychology in the Schools*, 1: 31-41.
- Gitonga, E.R. (1998). The effects of participation in competitive sports on academic performance of secondary school students in Nairobi Province. *Unpublished M.Ed Thesis*, Kenyatta University, Nairobi, Kenya.
- Gitonga, E.R. & Akpata, D.O. (1999). Academic performance of Kenyan secondary school competitive and non-competitive athletes. *African Journal for Physical, Health Education, Recreation and Dance (AJPHERD)*, 5, 1: 1-11.
- Gilman, R. (2004). Structured extracurricular activities among adolescents: findings and implications for school psychologists. *Psychology in Schools*, 41, 1: 31-41.

- Gould, D. & Carson, S. (2008). Life skills development through sports: current status and future directions. *International Review of Sport and Exercise Psychology*, 1:58-78.
- Gratton, C. & Jones, I. (2004). *Research Methods for Sport Studies*. London, U.K.: Routledge.
- Hansen, D.M., Larson, R.W. & Dworkin, J.B. (2003). What Adolescents learn in Organized Youth activities: A Survey of self-reported Developmental Experiences? *Journal of Research for Adolescence*, 13, 1: 25-55.
- Hartman, D. (2008). *High school sports participation and educational attainment: Recognizing, assessing, and utilizing the relationship*. Report to the LA84 Foundation. University of Minnesota, Department of Sociology.
- Heart of Illinois Conference (2007). [www.thevib.org/HO1.htm/#code](http://www.thevib.org/HO1.htm/#code)
- Hellison, D. (2003). *Teaching Responsibility through Physical Activity*. Champaign, IL: Human Kinetics.
- Houlihan, B. (2008). *Sport and Society: A Student Introduction* (2<sup>nd</sup> Ed). London, Britain: Sage Publication, Ltd.
- Hsu, S. (2005). Help-seeking behavior of student teachers. *Educational Research*, 47, 3: 307-318.
- Josephson, M. (1999). *A training program for coaches on ethics, sportsmanship and character-building in sports*. Scottsdale AZ: Pursuing victory with honor. Retrieved 13/2/2015.
- Kamau, A.W. (2015). Effects of participation in competitive sports on school connectedness among public secondary schools in Murang'a County, Kenya. *Unpublished M.Sc. Thesis*, Kenyatta University, Nairobi, Kenya.
- Kamau, A.W., Rintaugu, E.G., Muniu, R.K. & Amusa, L.O. (2015). The effect of participation in competitive sports on school connectedness of secondary school students. *African Journal for Physical, Health Education, Recreation and Dance*, 21(3: 1), 876-889.
- Kateshumbwa, A.E. (2011). Trends towards gender equity in selected competitive sports in sports in Uganda. *Unpublished Ph.D Thesis*, Kenyatta University, Nairobi, Kenya.
- Kavussanu, M., & Roberts, G.C. (2001). Moral functioning in sport: An achievement goal perspective. *Journal of Sport and Exercise Psychology*, 23, 37-54.
- Kombo, D.K. (1998). Correlates of students' deviant behavior in selected secondary schools in Nairobi. *Unpublished Ph.D Thesis*, Kenyatta University, Nairobi, Kenya.
- Larson, R.W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55: 170-183.

- Linver, M.R., Roth, J.L. & Brooks-Gunn, J. (2009). Patterns of adolescents' participation in organized activities: Are sports best when combined with other activities? *Developmental Psychology*, 45, 2: 354-367.
- Logan, W. L. & Scarborough, J.L. (2008). Connections through clubs: Collaboration and coordination of a school wide program. *Professional School Counseling*, 12, 2: 157-161.
- Long, J., Welsh, M. Braham, P., Butterfield, J., & Llyod, E. (2002). *Count me in: The Dimensions of Social Inclusion Through Culture and Sport*. London: DCMS
- Long, T. & Pantaléon, N. (2014). When Sport and Everyday Life Citizenships Are Connected.... *Staps*, 4(4), 7-19. <https://doi.org/10.3917/sta.106.0007>
- Lumpkin, A., Stoll, S.K., & Beller, J.M. (2002). *Sport Ethics: Application for Fair Play* (3rd Ed.). St. Louis: McGraw Hill.
- Lumpkin, A. (2011). 'Building character through sports'. *Strategies: A Journal for Physical and Sport Educators*, 24, 6: 13-15.
- Lumpkin, A. & Stokowki, S. (2011). Interscholastic sports: a character building privilege. *Kappa Delta pi Record*, 124-128.
- Lund Research Ltd (2018). *Multinomial Logistic Regression using SPSS Statistics*. (Online) Retrieved on 7<sup>th</sup> March 2020 from <https://statistics.laerd.com/spss-tutorials/multinomial-logistic-regression-using-spss-statistics.php>
- Mapfumo, J. & Muchena, P. (2013). School connectedness: Exploring. The concept in Zimbabwean schools. *International Journal of Academic Research*, 4, 2: 554-575.
- Miller, B.W., Roberts, G.C., & Ommundsen, Y. (2005). Effect of perceived motivational climate on moral functioning, team moral atmosphere perceptions, and the legitimacy of intentionally injurious acts among competitive youth football players. *Psychology of Sport and Exercise*, 6, 461-477.
- Ministry of Devolution and Planning (2013). *Nairobi County Development Profile*. Nairobi, Kenya: Government Printer.
- Ministry of Education Science and Technology (2015). *Basic Education Statistical Booklet*. Nairobi, Kenya: Government Printer.
- Mugenda, A.G. (2008). *Social Science Research: Theory and Principles*. Nairobi, Kenya: Applied Research & Training Services, Arts Press.
- Muniu, R.K. (2009). Sports participation and examination-related stress among selected Kenyan secondary school students. *Unpublished Ph.D Thesis*, Kenyatta University, Nairobi, Kenya.
- Murdock, T.B. & Anderman, E.M. (2006). Motivational Perspectives on Student Cheating: Toward an Integrated Model of Academic Dishonesty. *Educational Psychologist*, 41(3), 129-145.
- Muuss, R.E. (1988) Carol Gilligan's theory of sex differences in the development of moral reasoning during adolescence. *Adolescence*, 23(89):229-43.

- Mwangi, F.M., Rintaugu, E.J. & Toriola, O. (2019). Influence of achievement goals and motivational climate on attitudes toward doping among East African university athletes. *African Journal for Physical Activity and Health Sciences*, 25(4), 547-562.
- Ngoka, P.C. (2005). *Sports an Instrument for curbing Bioviolence in Nigerian Tertiary Institutions. Leadership in PE, Sport and Dance*. Nsukka, Nigeria: Great AP Express Publishers Limited.
- Nia, M.E. & Besharata, M.A. (2010). Comparison of athletes' personality characteristics in individual and team sports. *Procedia Social and Behavioral Sciences* 5 (2010) 808–812.
- Nixon, H.L. (1997). Gender, sport and aggressive behavior outside sport. *Journal of Sport and Social Issues*, 21, 379-391.
- Njoroge, P. M., & Nyabuto, A. N. (2014). Discipline as a Factor in Academic Performance in Kenya. *Journal of Educational and Social Research*, 4(1), 289-307.
- Njoroge, S.M. (2005). Causes and effects of deviant behavior among secondary school students: A case study of Gatanga Division, Thika district. *Unpublished M.Ed Thesis*, Kenyatta University, Nairobi, Kenya.
- Okusan, J. (2010). Sports as an instrument of controlling deviant acts among students of secondary schools in Nigeria. *European Journal of Educational Studies*, 2, 1: 7-12.
- Oliver, K. L., Hamzeh, M. & MacCaughtry, N. (2009). Girls can play games/ las minas pueden jugar tambilen: Co-creating a curriculum of possibilities with fifth-grade girls. *Journal of Teaching in Physical Education*, 28, 1: 90-110.
- Omar-Fauzee, M.S., Daud, N., Kamarudin, K., Geok, S. K., Nazaruddin, M.N., Annan, S. & Salikon, R.S. (2009). What makes university students participate in sports? *European Journal of Social Sciences*, 8, 449-458.
- Omar-Fauzee, M.S., Nazarudin, M.N., Saputra, Y.M., Sutresna, N., Taweasuk, D., Chansem, W., Latif, R.A., & Geok, S.K. (2012).The Strategies for Character Building through Sports Participation. *International Journal of Academic Research in Business and Social Sciences*, 2, (3):48-58.
- Ong'ong'a, J.O., Okwaro, M.O. & Okello, T.M. (2010). Sports and secondary school education in Kenya. *Education Research*, 1, 11: 609-617.
- Our Kids (2020). *Day schools vs. boarding schools*. (Online) Accessed on 5th March 2021 from <https://www.ourkids.net/school/day-vs-boarding-schools.php>
- Parker, M. & Stiehl, J. (2010). Personal and Social Responsibility. In Tannehill, D. & Lund, J. (Eds). *Standards Based Curriculum*. Boston, MA: Jones and Bartlett.
- President's Council on Physical Fitness and Sports (2006). President's Council on Physical Fitness and Sports, *Research Digest Series* 7, No 1, March, 2006.

- Priest, R.F., Krause, J.V. & Beach, J. (1999). Four-year changes in college athletes ethical value choices in sports situations. *Research Quarterly for Exercise and Sport*, 70, 2: 170-178.
- Proios, M., Athanailidis, I., Wilińska, K., Vasilias, A. & Unierzyski, P. (2011). Moral development and gender differences in sport. *Studies in physical culture and tourism*, Vol. 18, No. 4, pg 305 – 314.
- Rimbogi C.N. (2010). Factors influencing the level of learners participation in physical education, sports and games in secondary schools: a case of Nyeri Central District. *Unpublished M. Ed Thesis*, University of Nairobi, Nairobi: Kenya.
- Rintaugu, E.G. (2005). Socialization of secondary school athletes into sports in Kenya. *Unpublished Ph.D Thesis*, Kenyatta University, Nairobi: Kenya.
- Roberts, G.C., Treasure, D.C., & Conroy, D.E. (2007). Understanding the dynamics of motivation in sport and physical activity: An achievement goal interpretation. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (p. 3–30). John Wiley & Sons Inc.
- Sage, G. (1998). *Power and Ideology in American Sport*. Champaign: Human Kinetics Press.
- Sanderson, P. (2021). *Supporting character development in a boarding school*. (Online). Accessed on 5th March 2021 from <https://www.ukbsa.com/supporting-character-development-in-a-boarding-school/>
- Shields, J. & Edgar, W. (1999). Intimidation and violence by males in high school athletics. *Adolescence*, 34,135: 503.
- Smith, A., Peled, M., Albert, M., Saewyc, E., MacKay, L., ... Shymkovich, J. (2008). *Making the grade: A Review of Alternate Education programs in British Columbia*. Vancouver: McCreary Centre Society.
- Smith, A., Ntoumanis, N., Duda, J.L. & Vansteenkiste, M. (2011). Goal striving, coping and well-being: A prospective investigation of the self-concordance model in sport. *Journal of Sport and Exercise Psychology*, 33, 124-145.
- Sport England (1999). *The Value of Sport*. England: Sport England.
- Staffo, D. F. (2001). Strategies for reducing criminal violence among athletes, *Journal of Physical Education, Recreation and Dance*, 72, 6: 38-42.
- Stankovich, C. (2020). *Sports Cheating and the Deeper Damage it can Cause*. (Online) Accessed on 24<sup>th</sup> April 2020 <https://drstankovich.com/sports-cheating-and-the-deeper-damage-it-can-cause/>
- Staurowsky, E.J., DeSouza, M.J. & Doucher, G. (2009). *Her Life Depends on it: Sport, Physical Activity and the Health and wellbeing of American Girls and Women*. New York, U.S.A.: Women Sports Foundation.
- Stead, R. & Nevill, M. (2010). *The impact of Physical Education on Educational Outcomes: A Review of Literature*, Institute of Youth Sport, School of Sport & Health Sciences, Loughborough University, UK.

- Stephens, D.E. (2004). Moral atmosphere and aggression in collegiate intramural sport. *International Sports Journal*, 8, 65–75.
- Stoll, S.K. (1995). Should we teach morality? The issue of moral education. In A. Jewett, L. Bain & C. D. Ennis (Eds), *The Curriculum Process in Physical Education* (2<sup>nd</sup> Ed.). Dubuque, IA: Brohan and Benchmark.
- Stoll, S.K. & Beller, J.M. (2000). Do sports build character? In J. R. Gerdy, *Sports in School: The Future of an Institution*. New York, America: Teachers College press.
- Stoner, M.E. (2004). Building ethics, character and sportsmanship in today's athletes. *Pennsylvania State Association for Health, Physical Education, Recreation and Dance (PSAHPERD)*, 30-31.
- Sitkowski, L.S. (2008). The Effects of Participation in Athletics on Academic Performance among High School Sophomores and Juniors. *A Doctor of Education Dissertation*, Liberty University, Lynchburg, USA.
- Taliaferro, L.A., Rienzo, B.A. & Miller, M.D. (2008). High school youth and suicide risk: exploring protection afforded through physical activity and sport participation. *Journal of School Health*, 78, 10: 545-553.
- Taliaferro, L.A., Rienzo, B.A. & Donovan, K.A. (2010). Relationships between youth sport participation and selected health- risk behaviors from 1999 to 2007. *Journal of School Health*, 80, 8: 399-410.
- Thyer, B.A. (2012). *Quasi-Experimental Research Designs*. New York: Oxford University Press.
- Todd, S.Y. & Kent, A. (2003). Student- athletes' perceptions of self. *Adolescence*, 38, 152: 659-667.
- Tolmie, A., Muijs, D. & McAteer, E. (2011). *Quantitative Methods in Educational and Social Research*. Berkshire, England: McGraw Hill Open University Press.
- Trudeau, F. & Shephard, R.J. (2008). Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition and Physical Activity*, 5: 10.
- Tucker, L.W., & Parks, J.B. (2001). Effects of Gender and Sport Type on Intercollegiate Athletes' Perceptions of the Legitimacy of aggressive behaviors in sport. *Sociology of Sport Journal*, 18, 403–413.
- Udoh, C.O. (1999). 'Participation in sports'. Health benefits derivable from there': A key note address delivered on the 12<sup>th</sup> Conference of *Nigerian Association of Sports Science and Medicine (NASSM)* Oyo, Nigeria.
- UNESCO Institute of Statistics (2021). Kenya General Information: Education System (Online) Accessed on 5<sup>th</sup> March 2021 from <http://uis.unesco.org/en/country/ke>
- Vailois, R.Z. (2004). Physical activity behaviors and perceived satisfaction among public school adolescents. *Journal of School Health*, 74, 2: 59-65.

- Vallerand, R.J. (2000). Deci and Ryan's self-determination theory: A view from the hierarchical model of intrinsic and extrinsic motivation. *Psychological Inquiry*, *11*: 312-318.
- Vansteenkiste, M., Lens, W. & Deci, E.L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation. *Educational Psychologists*, *41*: 19-31.
- Verhagen, A.P., Ostelo, R.W. & Rademaker, A. (2004). Is the p value really so significant? *The Australian Journal of Physiotherapy* *50*(4):261-2 DOI: 10.1016/S0004-9514(14)60122-7
- Vierimaa, M., Bruner, M.W., Cote, J. (2018). Positive youth development and observed athlete behavior in recreational sport. *PLoS ONE* *13*(1): e0191936. <https://doi.org/10.1371/journal>.
- Walton, B. (2005). *Good sportsmanship is losing out to winning*. *USA Today*, *13a-14a*. Retrieved 5/3/2015 from Academic Search Elite database.
- Warner, S. & Dixon, M.A. (2013): Competition, gender and the sport experience: an exploration among college athletes, *Sport, Education and Society*, DOI:10.1080/13573322.2013.774273
- Weiss, D.S. (2007). 'The ultimate experience'. *Participation in club sports as a source of women's development in college*. Retrieved March 31, 2017 from [www//www.upa.org.files](http://www.upa.org/files)
- White, H. and Sabarwal, S. (2014). Quasi-Experimental Design and Methods: In *Methodological Briefs Impact Evaluation No. 8*. UNICEF Office of Research, Florence.
- Wilson, N. (2009). *Impact of extracurricular activities on students*. Master of Science research paper, University of Wisconsin-stout, Menomonie, U.S.A.
- Woodruff, A.L. & Schallert, D.L. (2008). Studying to play, playing to study. Nine college students- athletes' motivational sense of self. *Contemporary Psychology*, *33*, 1: 34-57.
- Woods, R.B. (2006). *Social Issues in Sport*. Champaign IL: Human Kinetics.
- Women's Sports Foundation (2009). *Benefits of Sports: The Universal truths*. Available from <http://www.womensportsfoundation.org/home/she-network//health/benefits-of-sport-the-universaltruth>, Retrieved on 15/3/2015.
- Yanklowitz, R.S. (2013). *Violence in sports: Promoting character development in youth athletics*. (Online). Retrieved 11/5/2015 <file:///media/youth-athletics-sportsmanship-b-3351615.html>
- Zarrett, N., Fay, K., Carrano, J., Phelps, E. & Lerner, R.M. (2009). More than child's play: Variable- and pattern-centered approaches for examining effects of sports participation on youth development. *Developmental Psychology*, *45*, 2: 368-382.

## APPENDICES

## APPENDIX A: MAP OF STUDY AREA



Source: Ministry of Devolution and Planning (2013). **Nairobi County Development Profile**. Nairobi, Kenya: Government Printer.

**APPENDIX B: LETTER OF INTRODUCTION**

**Penninah Wanjiku Mwenda,**

Department of Physical Education,

Kenyatta University,

P.O. Box 43844,

Nairobi.

The Principal,

.....  
.....  
.....

Dear Sir/ madam,

Ref: Request to conduct research in your school.

I am conducting research for my Ph.D thesis at Kenyatta University. The title of the study is “Influence of Participation in Competitive Sports on Character Changes of Secondary School Students in Nairobi County, Kenya”. The study will involve forms two, three and four students. I would like to request the assistance of games master/ mistress in identifying the competitive athletes/ non-competitive athletes and in administration of the questionnaires. I would like to request you to grant me permission to use your students, teaching and non-teaching staff in my study.

I humbly request for your assistance in this undertaking.

Penninah W. Mwenda

Ph.D student

Department of Physical Education

**APPENDIX C: CONSENT FORM FOR RESPONDENTS**

Dear.....

You have been purposively selected to take part in the study on “Influence of Participation in Competitive Sports on Character Changes of Secondary School Students in Nairobi County, Kenya”.

The study will help to understand whether participation in competitive sports influences character changes among Kenyan secondary school students as well as the contextual factors that influence character changes. I will inform stakeholders on policy and practice in secondary school sports and areas that may need improvement to maximize the value of participation in sports as a medium of character development for the students.

This study will involve filling in questionnaires and your views will be held strictly confidential. The information you provide will be utilized for academic purposes only.

.....

I have read and understood the information concerning my participation in the study. I will complete the questionnaire as honestly and truthfully as possible. By signing and returning this consent form, I will participate in the study voluntarily.

Name.....

Signature of participant.....Date.....

**APPENDIX D: CONSENT FORM FOR PARENTS/ GUARDIANS**

Dear.....

Your daughter/son has been purposively selected to take part in the study on “Influence of Participation in Competitive Sports on Character Changes of Secondary School Students in Nairobi County, Kenya”. The study will help to understand whether participation in competitive sports influences character changes among Kenyan secondary school students as well as the contextual factors that influence character changes. I will inform stakeholders on policy and practice in secondary school sports and areas that may need improvement to maximize the value of participation in sports as a medium of character development for the students.

This study will involve filling in questionnaires and her/his views will be held strictly confidential. The information provided will be utilized for academic purposes only.

.....

I have read and understood the information concerning my daughter’s/ son’s participation in the study. By signing this consent form, I give my authority to her/him to participate.

Name.....

Signature of participant.....Date.....

## APPENDIX E: DEMOGRAPHIC DETAILS OF RESPONDENTS

### QUESTIONNAIRE FOR ATHLETES

You have been purposively selected to take part in this study on “Influence of Participation in Competitive Sports on Character Changes of Secondary School Students in Nairobi County, Kenya”. You are requested to answer the questions as honestly as possible. This information will be strictly confidential and utilized for academic purposes only.

#### Demographic Information

Please fill in the gap or tick the appropriate box

1. I am an athlete        Yes            No
2. Gender             Male             Female
3. Age as at 31/12/2018  15 yrs  15-16 yrs     16-17 yrs  17-18 yrs
4. Class level (form)     Two         Three         Four
5. Name of sport.....(indicate the sport you represented your school in during the 2018 Inter-Sub county championships).
6. Category of the school  National     County     Sub-county
7. Type of the school  Public  Private
8. Status of the school  Day  Boarding  Day/ Boarding
9. Status of the student  Day scholar     boarder (for students in day/boarder categories).
10. For how long have you participated in this sport while in secondary school? (This applies to competitive athletes only)
 

1 yr     1- 2yrs     2- 3 yrs

**APPENDIX F: CHARACTER CHANGES OF COMPETITIVE ATHLETES/ NON-  
COMPETITIVE ATHLETES**

You are presented with thirty (30) statements on character development traits. You are required to read each of the statement and rate yourself using the most suitable option in each of the given statements. Tick the statement you most agree with: (A) Strongly Agree, (B) Agree, (C) Uncertain, (D) Disagree, (E) Strongly Disagree

%		A	B	C	D	E
1.	I would cheat to win or get ahead in scores					
2.	I should show respect to my team even if they do not agree with me					
3.	I should practice activities that are difficult or even boring					
4.	I would not shy away from carrying equipment to practices and games					
5.	I should be rude to the opponents					
6.	I can make negative remarks about my games teacher so long as he/she will not hear					
7.	I always congratulate opponents who win or play well					
8.	I believe that it is okay to break rules if I won't be caught					
9.	I should admit when I make a mistake in and out of the field					
10.	I can hurt an opponent in order to make them lose.					
11.	I should remain strong even when my team is losing					
12.	I can be counted on to do my part for my team					
13.	I should apologize when I hurt an opponent					
14.	I should blame my team for making a mistake					
15.	I should be kind to my team always					
16.	I should provide encouragement to my team even when we are losing					
17.	I should always provide encouragement to my team members who are not good athletes					
18.	Players who are not very good athletes should be excluded from the team					
19.	I do not care if my team cheat to win					
20.	All players should work hard to develop new skills					
21.	All players should follow the team rules					

22.	Players should gossip about one another						
23.	I should keep trying after I have made a mistake						
24.	I should take time outside of practice to work on improving my skills						
25.	I feel good when I have done my best even if I have not won the game						
26.	Teams should trust each other						
27.	All players should be kind to one another						
28.	Players can use fights, insults or threats to resolve conflicts amongst themselves						
29.	Players should be willing to forgive those who hurt them						
30.	Players should take extra time to help team mates who are struggling						

### Scoring of Questionnaire items

Honest; 1, 8, 9, 19, 22, 26

Respect; 2, 6, 15, 17, 27, 28

Good Citizenship; 3, 11, 16, 18, 25, 29

Responsibility; 4, 12, 14, 23, 24, 30

Sportsmanship; 5, 7, 10, 13, 20, 21

Reversed Items; 1, 5, 6, 8, 10, 14, 18, 19, 22, 28

**APPENDIX G: Research Authorization by the National Commission for Science,  
Technology and Innovation**



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

Telephone: 020 400 7000,  
0713 788787,0735404245  
Fax: +254-20-318245,318249  
Email: dg@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

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

Ref. No. **NACOSTI/P/18/96475/21120**

Date: **2<sup>nd</sup> February, 2018**

Penninah Wanjiku Mwenda  
Kenyatta University  
P.O Box 43844-00100  
NAIROBI.

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on *“Influence of participation in competitive sports on character changes of secondary school students in Nairobi City County, Kenya”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **1<sup>st</sup> February, 2019**.

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

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

*G.P. Kalerwa*

**GODFREY P. KALERWA MSc., MBA, MKIM  
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Nairobi County.

**COUNTY COMMISSIONER  
NAIROBI COUNTY  
P. O. Box 30124-00100, NBI  
TEL: 341666**

The County Director of Education  
Nairobi County.

**APPENDIX I: Research Authorization by the Nairobi City County Education Office**



**Republic of Kenya  
MINISTRY OF EDUCATION  
STATE DEPARTMENT OF BASIC EDUCATION**

Telegrams: "SCHOOLING", Nairobi  
Telephone: Nairobi 020 2453699  
Email: [rcenairobi@gmail.com](mailto:rcenairobi@gmail.com)  
[cdenairobi@gmail.com](mailto:cdenairobi@gmail.com)

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

When replying please quote

Ref:RCE/NRB/GEN/1/VOL. 1

DATE:7<sup>th</sup> February 2018

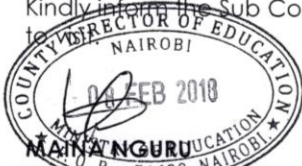
Penninah Wanjiku Mwenda  
KnyattaUniversity  
P O Box 43844-00100  
NAIROBI

**RE: RESEARCH AUTHORIZATION**

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on "**Influence of participation in competitive sports on character changes of secondary school students in Nairobi City County Kenya**"

This office has no objection and authority is hereby granted for a period ending 1<sup>st</sup> February, 2019 as indicated in the request letter.

Kindly inform the Sub County Director of Education of the Sub County you intend to



**MAINA NGURU**  
FOR: REGIONAL COORDINATOR OF EDUCATION  
NAIROBI

c.c

Director General/CEO  
Nation Commission for Science, Technology and Innovation  
NAIROBI