EFFECTS OF PARTICIPATION IN COMPETITIVE SPORTS ON SCHOOL CONNECTEDNESS AMONG PUBLIC SECONDARY SCHOOL STUDENTS IN MURANG’A COUNTY, KENYA

BY

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APRIL 2015
DECLARATION

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

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DEDICATION
To my husband Alex

To our children Christine, Victor and Vincent

Thank you for your love and support throughout this study.
iv

ACKNOWLEDGEMENT

Special thanks to the Almighty God for His love, providence and for giving me wisdom to accomplish my work.

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I wish also to thank my respondents, secondary school students from Murang’a County for availing their time to answer the questionnaires, without whose co-operation this work could not have been completed.

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OPERATIONAL DEFINITION OF TERMS

**Athlete:** A student who represents the school team in external competitions in athletics and sports and games.

**Co-curricular activities:** Programs which fulfil two basic conditions: 1) they are not part of the regular school, curricular program; and 2) they are structured to work towards some pro-social mission or goal. They can include participation in school sports, clubs, and student government among others.

**Competitive sport:** The formalized physical activities where students compete in organized sports programmes outside the school.

**School connectedness:** It refers to the extent to which students feel personally accepted, respected and included by others in schools social environment (Whitlock, 2006).

**Sport:** Refers to an athletic activity or a game requiring skill or physical prowess and often of a competitive nature, such as football, netball, athletics, chess, and table tennis rugby, among others.

**Student:** Refers to a person who is enrolled and attends classes in a secondary school.

**Non athletes:** A student who does not represent the school team in competitive sports and games.

**Athletic status:** Refers to whether a student is an athlete or a non athlete.
## LIST OF ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>FPE</td>
<td>Free Primary Education</td>
</tr>
<tr>
<td>FSE</td>
<td>Free Secondary Education</td>
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<tr>
<td>MANOVA</td>
<td>Multi-Factorial Analysis of Variance,</td>
</tr>
<tr>
<td>NCES</td>
<td>National Centre for Educational Statistics</td>
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<tr>
<td>NFHS</td>
<td>National Federation of State High School Associations</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
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<tr>
<td>SEAs</td>
<td>Structured Co-curricular Activities</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>U.S.</td>
<td>United States</td>
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ABSTRACT

School connectedness is the feeling of closeness to school personnel and the school environment. The purpose of the study was to determine the relationship between competitive sports participation and school connectedness among secondary school students in Murang’a County. The study intended to establish the effects of: gender, age, class, school type, school status and athletic status on school connectedness. The study employed a descriptive survey design. It targeted all the 98,200 students from 257 public secondary schools in Murang’a County. The study employed stratified random sampling to select 26 schools while simple random sampling was used to select 384 students. The study used a questionnaire to collect data. Data that was collected was coded and entered into an SPSS program for analysis. Data was analyzed using inferential and descriptive statistics. Descriptive statistics that were used included frequencies, percentages, means and standard deviations whereas inferential statistics used included two-way ANOVA, Tukey Post hoc test and T-test. The results were presented in frequency tables. The study established that there were no significant differences in school connectedness between boys and girls, t (340) = .647, p = .518 at α = .05. The study also established that younger athletes (X = 86.13±1.35) and non athletes (X = 87.67±2.37) were more connected to their schools compared to older athletes (X = 85.57 ±1.91) and non-athletes (X = 85.00±2.00). This means that there was a significant difference in school connectedness and age of the athletes. The results findings also revealed that class level did not have any effect on students’ connectedness to school, t (340) = 1.255, p = .210 at α= .05. Further, it was found out that there was a significant difference among students from National schools, County schools and District schools on the school connectedness. The study finally concluded that students in National schools (X = 86.77) were more connected to school compared to those in County (X = 85.43) and District schools (X = 85.06). The study recommends that: Ministry of Education, through the County Director of Education should ensure that all secondary schools have basic sports facilities and equipment in order to promote sports participation hence, school connectedness; schools principals should ensure every student identifies themselves with a particular sport. This can be done by requesting that each student register and participate in sport while in school, among other recommendations.
CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

According to Whitlock (2006), school connectedness is the psychological state of belonging in which individual students perceive that they and other students are well taken care of, trusted and appreciated by a group of adults. Cross-sectional and Longitudinal studies conducted across the world consistently show that school connectedness has positive effects on young people’s learning and development. Blum (2005) in his study found that school connectedness enable students to involve themselves in meaningful activities when in school and also when out of school. Similarly Whitlock (2006) noted that connected students are guarded against violence, risky sexual behaviour, and school dropout rate as well as drug abuse.

Studies in developed countries have established that school connectedness has many rewards for students and school establishment as a whole. In the United States of America for instance, the National Longitudinal Study of Adolescent Health looked at the impact of protective factors on adolescent health and well-being among more than 36,000 seventh to twelfth grade students (Nonnemaker, McNeely & Blum, 2003). The study found that school connectedness was a shield against a series of undesirable behaviour in adolescents. Nonnemaker et al.,(2003) demonstrated school connectedness among other factors as the strongest protective factor for both boys and girls in reducing substance use, school absenteeism, early sexual engagement, violence, and risk of accidental injury (such as drinking and driving, not wearing seat belts).
A number of studies carried outside Kenya have shown that participation in co-curricular activities promotes school connectedness. For instance, McNeely, Nonnemaker and Blum (2003) explored the impact of co-curricular activity involvement on a student’s school connectedness in the United States and established that with an increase in student’s participation in sports and other co-curricular activities measured to an equal increase in student’s connectedness to school. Similar findings reported by Gilman (2000) were that participants who were involved in Structured Co-curricular Activities (SEAs) had significantly higher school satisfaction than adolescents with minimal or no participation in such activities. Rouse-Gordon (2001) stated that participation in co-curricular activity make students more resilient to adverse experiences and stressful life variables. He further concluded that co-curricular activities play a bonding role and help students learn important skills to function socially. These past studies show that students’ participation in sports could enhance school connectedness.

Muniu (2009) in his study noted that sports participation has physical and psychological benefits for students. He further concluded that sports and games helps to ease stress, depression and anxiety. In the United States of America, the National Federation of State High School Associations (NFHS, 2002) asserts that interscholastic sports leads to acquiring virtues such as citizenship, sportsmanship, lifelong lessons, teamwork, self-discipline, and aids in the physical and emotional growth of the nation’s youth. These studies have shown that, students who participate in sports and other co-curricular activities are likely to have higher grade-point averages, better attendance records, lower dropout rates and fewer discipline issues.

Age and sex are the most studied variables of involvement in physical activity in adolescence. Literature reviewed shows that male adolescents are more active in
physical activity compared to female adolescents during their development years (Sallis, Prochaska & Tylor, 2000). Similarly, majority of girls between the ages of 18 and 19 years participate in virtually no physical activity apart from gymnastic class at school (Kimm et al., 2000). Therefore, this shows that there is a decrease in physical activity involvement with an increase in age and especially in girls (Pate, et al., 1994). These studies highlight the already existing differences between male and female participation in sports.

Mwihaki (2007) noted that vigorous participation in sports contributes to developing positive attributes like discipline, increased self-esteem, hard work, determination among others. Similarly, Gitonga (1998) noted that athletes are likely to have better attendance records, lower dropout rates and less likely to engage in drugs than non-athletes. On the same note, Crosnoe (2002) found that both male and female athletes were less likely to engage in drugs compared to non-athletes.

Muniu (2009) explored the relationship between sports participation and examination-related stress in selected national secondary schools in Kenya. His findings indicated that sports can be used to moderate examination-related stress. Musyoki (2011) investigated the relationship between school environment and psychological health among pupils in selected primary schools in Kitui West District, Kenya. His study established that the pupils had a low sense of belonging to their schools and had low school connectedness as a result of poor school environment which can be promoted through participation in competitive sports. While these Kenyan studies have shown the importance of sports participation, none of them has looked at the effects of participation in competitive sport on school connectedness.
This is the gap this study has filled by showing the importance of participating in competitive to improve school connectedness.

The performance in Kenya Certificate of Secondary Education (KCSE) and Kenya Certificate of Primary Education (KCPE) in Murang’a County has been deteriorating since 2002. The County has a challenge of coming up with appropriate strategies toward enabling production of better results and school connectedness. For instance, in 2011 Murang’a County was ranked position 40 out of 47 in the KCPE performance. In 2012 the County presented a total of 19,658 candidates for KCSE of which only 5,114 attained a mean grade of C+ and above while the rest 14,544 attained a mean grade of C and below (County Education Office, 2012). This has been partially attributed to the presence of a proscribed gang in the County, the mungiki which has recruited school-going youths and has threatened to circumcise girls in the County (Wachanga, 2003). Therefore, the gang has a lot of impact on school connectedness; hence the need to investigate on the concept of school connectedness. Another study by Njoroge (2005) observed peer influence, drug abuse, stress and negative attitude toward school as the primary causes of indiscipline in the county. This has led to strikes, school dropout, truancy and increased drug abuse (Wachanga, 2003). This implies that school connectedness is a cause of concern in Murang’a County thereby necessitated this study.

1.2 Statement of the Problem

This study sought to find out the effects of participation in competitive sports on school connectedness among students. The problem addressed by this study is that of deteriorating discipline and school disconnectedness in secondary schools in Murang’a County. Wachanga (2003) states that cases of indiscipline have led to
strikes, boycotts and deviance in secondary schools in Murang’a County and several remedial measures have been taken by stakeholders in the County. However, Njoroge (2005) noted that schools’ indiscipline and disconnectedness persists even after these measures have been taken. It is a known fact that sports participation can lead to school connectedness and eventually reduce indiscipline in schools. Few students participate in competitive sports compared to recreation sports due to lack of facilities, equipment and finances. The few who reach National competition from district schools are mostly involved in individual events like athletics which require minimal infrastructure and coaching. This study has established the importance of participation in competitive sports on school connectedness among secondary school students in Murang’a County, Kenya. This was apt as in other countries; participation in competitive sports has been indicated to curtail negative incidences or practises of truancy, absenteeism, drug abuse and indiscipline.

1.3 Purpose of the Study

The purpose of the study was to assess the effect of participation in competitive sports on school connectedness among secondary school students in Murang’a County.

1.4 Objectives of the Study

The study was guided by the following objectives:

i. To establish the effect of gender on school connectedness of athletes and non-athletes

ii. To find out the effect of age on school connectedness of athletes and non-athletes

iii. To determine the effects of class on school connectedness of athletes and non-athletes
iv. To establish the effects of school type on school connectedness of athletes and non-athletes

v. To investigate the effect of school status on school connectedness of athletes and non-athletes

vi. To compare the school connectedness of athletes and non-athletes.

1.5 Hypotheses

The study tested the following hypotheses:

H0₁: There is no significant mean difference between school connectedness of male/female athletes and male/female non-athletes in Murang’a County

H0₂: There is no significant mean difference between school connectedness among athletes and non-athletes of different age groups

H0₃: There is no significant mean difference between school connectedness among athletes and non-athletes from various class levels

H0₄: There is no significant mean difference between school connectedness among athletes and non-athletes from different types of school

H0₅: There is no significant mean difference between school connectedness among athletes and non-athletes of different school status

1.6 Significance of the Study

This study sought to establish the effect of participation in competitive sports on school connectedness among secondary school students. The findings are significant not only to students but also to teachers, curriculum planners, parents and educators as they provide an empirical data on importance of sports to teachers upon which to base their future judgements and decisions. The findings may also assist school administrators in making policies on using facilities and equipment to improve
students’ participation in competitive sports. This will help to promote a sense of belonging to schools and eventually control indiscipline. The study found out that there is a strong relationship between participation in competitive sports and school connectedness. The implication of this finding to school management and education sector is that there is need to invest heavily in facilities and equipment in order to promote competitive sports participation leading to school connectedness and eventually address cases of indiscipline, strikes and reduce truancy in the schools. This study suggest that schools should have more organized school sports programmes’ such as inter-houses, inter-classes, inter-streams and so on. It would be prudent for all schools to encourage every student to be registered to participate in at least one sport and schools should allocate more time for their participation in competitive sports.

1.7 Delimitations

There are many factors that could influence school connectedness such as peer relations, school disciplinary policies and practices, school guidance and counselling programmes and opportunities for talent development, but the study considered only the effects of participation in competitive sports on school connectedness.

1.8 Limitations

The study sought to find out the effects of participation in competitive sports on school connectedness among secondary school students in Murang’a County. The findings mainly reflect the situation in Murang’a County and may not be generalized to other counties due to diversities in other counties.
1.9 Assumptions

The study was carried out under the assumptions that secondary school students in Murang’a County participate in competitive sports and that participation in competitive sports enhances school connectedness while non-participation leads to disconnectedness.

1.10 Theoretical Framework

Astin’s (1984) Involvement Theory was adopted for this study. The theory defines the quantity of physical, mental and emotional energy that students dedicate to any education programme. The basic principle of Astin’s involvement theory is that educational experience ought to be considered in a wide sense that encompasses both classroom learning for academic performance and out-of-class experiences for physical and psychological development. The Theory provides a theoretical basis for investigating student involvement in the education experience. Active participation in academic and other co-curricular activities and especially competitive sports is highly related to student learning and their physical and mental development. Astin (1984, p.298) demonstrated that Involvement Theory is predicted on five basic assumptions: i) involvement refers to the investment of physical and psychological energy in various objects; ii) involvement occurs along a continuum; iii) involvement has both quantitative and qualitative features; iv) The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program; and v) the success of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement.

This theory presents a model for presenting student involvement in co-curricular activities, emphasizing the concepts of commitment and time taken in these activities.
Commitment refers to the qualitative or content component of involvement, and time refers to the quantitative component. Both quality and quantity involvement are important as involvement is a major factor in keeping students in school. This shows that students need enough time to actively participate in sports activities.

Learning and development are primarily factors of the degree of effort and energy committed by students to a particular learning experience. In his view, involvement is an active concept that requires the student to invest time and energy. Astin (1985) stated that students are mostly interested in the “existential benefits” of the school experience, meaning, among other things, the subjective satisfaction associated with co-curricular and academic involvement, and recreational activities. Students who participate in sports and other co-curricular activities are likely to be satisfied with school life and hence promote school connectedness. This premise supports the significance of sports and co-curricular activities involvement in schools in helping students develop both physically and psychologically.

Astin’s theory of 1984 serves as a connector between pedagogical theory and student outcomes by providing a link between the variables emphasized in these theories and the learning outcomes desired by the student and the teacher. He states that any program, whether academic or co-curricular, should motivate students to commit both time and effort to it. Those Programs that motivate students to make such a commitment are the most successful ones. The focus is on the student and their reaction to the program, rather than just on the program itself. Even a well-funded, sophisticated, co-curricular program will only meet its stated objectives if students are motivated to commit the time and effort necessary for success. His Theory further suggests that students need to be active and committed participants in the learning
process. This can only be achieved through active participation in co-curricular activities and especially sports.

1.11 Conceptual Framework

The goal of the study was to determine the effects of participation in competitive sports on school connectedness. The conceptual framework that guided the study is shown in figure 1.1.

Figure 1.1 shows the conceptual framework that was used for the study.

![Conceptual Framework Diagram]

**Figure 1.1: Conceptual Framework**

**Source**: Adapted from Astin’s (1984) involvement theory

As shown in Figure 1, the independent variables are commitment to sport activities (qualitative component of involvement) and time spent on sport activities (quantitative component of involvement) (Astin, 1984). The dependent variable is school connectedness, which will be measured in terms of liking of the school, sense of belonging to the school, positive relations with teachers and friends at school and active engagement in school activities (Thompson et al, 2006).
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This chapter presents a review of literature related to the study on effects of participation in competitive sports on school connectedness. It covers literature on sports participation and academic achievement, sports and physical, social and mental development of adolescents, school connectedness, sports participation and school connectedness.

2.2 Sports Participation and Academic Achievement
Sports and games provide an atmosphere intended for enjoyment, leisure, good health, and physical development, freedom of expression, career building, and acquisition of skills that enable one to earn a living, reduce stress (Zakrajsek, 1991; Rintaugu, 2005).

UN (2003) demonstrated that school sport programs motivate children to enrol in and attend school therefore lowering absenteeism which in turn improves on academic achievement. According to Witt and Estes (2001), participation in sports has been linked directly to higher academic performance for children under the age of 18. This is because both sports and academics require discipline, time commitment, motivation and a desire for success.

Similarly, UN (2005) noted that participation in sports activities contribute to the acquiring of virtues that are considered healthy in any educational programme such teamwork as well as increasing the confidence level of the students and hence leads to promoting school connectedness. Participation in sports decreases dropout rate and give students an opportunity to build a positive attitude towards school. In schools,
Physical Education is a key component of a quality education and can be used to promote schooling among young people. Bailey (2006) found that engagement in sports activities promotes academic achievement of the participants and there is a relationship between participation in sports and academic achievement. Similarly, in their studies Sibley & Etnier (2003) found that participation in both sports and physical activities enhanced the cognitive role in the brain. Nelson & Gordon-Larsen (2006) established that males and females who participated in sports performed well in Mathematics, English as well as in science subjects. This shows that athletes perform better due to their effort, hard work and discipline gained through competitive sports participation.

In the United States, the National Federation of State High School Association (NFHS) is a major supporter of school sports. In 1985 the NFHS (2002:4) sponsored a survey of high school principals in all 50 states and came up with the following results:

i. 95 percent of the principals believed that involvement in sports teaches important skills and ideas to students that cannot be gained in a classroom setting.

ii. 99 percent of the heads reported that involvement in sports activities’ leads to acquiring virtues such as citizenship, self-discipline among others.

iii. 78 percent of the heads reported that sport activities leads to acquiring a spirit of togetherness among the students.

iv. 76 percent of the principals indicated that they felt that the demand made on students’ time by sports is not too much excessive, and,

v. 72 percent of the principals indicated that there is strong support for sports activities from parents as well as the general public.
In summary the principals seemed to agree that active participation in sports enhances discipline, academic achievement and school connectedness.

Holland and Andre (1987) reviewed the literature on co-curricular participation and adolescent development. They looked at five areas and found that co-curricular activity participation was correlated with higher levels of self-esteem. Secondly, it helps students to get involved in political and social activities during young adolescence. Thirdly, students have a feeling of control over their life and finally lower a delinquency rate which leads to higher academic abilities and educational aspirations. They concluded that secondary schools that eliminated some of their co-curricular programs did not take into consideration the empirically-based knowledge of the positive effects of these programs on adolescent development. Their study shows that time spent on sports activities is not excessive and student should be motivated to participate more.

Similarly, Khan (2012) studied the association between participation in sports and academic achievement of college students. His study found that participation in sports improves students’ grades, academic achievement and raising their educational aspirations as well as keeping them in colleges and schools. Moreover, their Grade Point Average (GPA) in class tests results improves and they acquire the ability to succeed academically as well as enhancing their academic mission of colleges.

Miller et al. (2005) and Darling et al. (2005) in their studies revealed a positive impact of sports and physical activities on education and also in the academic enhancement of its participants. They maintained that absorption and better academic outcomes are usually proportional to commitment and time spent in competitive sports activities.
Snyder and Spreitzer (1990) suggested several reasons why sports may promote academic achievement. One of those reasons was increased interest in school. The other included the need to maintain good grades to staying eligible. Finally, there is the increased attention from adults like teachers and coaches, and other students who are academically-oriented, and have expectations to join the school team. Hanks and Eckland (1976) observed that students’ participation in extracurricular programs like sports serves two important functions for schools. The generation and reinforcement of educational goals through a network of social relations, serving to attach the student to the school and its norms, and the facilitation of achieving such goals by empowering students with personal resources, such as interpersonal skills and self-confidence.

Sabo, VanFossen and Melnick (1993) completed numerous longitudinal studies on sports involvement and learning experiences. They Utilized the High School and Beyond (HSB) study (U.S. Department of Education), by looking at the influence of sports involvement on various educational programmers’ and the academic results for male and female students. They reported that except for a few groups sports involvement is not related to educational accomplishment. Additional findings from Marsh's (1993) who conducted a longitudinal study of the HSB data supported Melnick et al.'s (1993) results. Marsh (1993) found that active involvement in sports activities in secondary schools had no positive influence on students’ grades as well as test score in the overall student population. Conversely, other studies that have gathered information on more current longitudinal data have given evidence that involvement in sports promotes academic achievement. Fejgin (1994) and Hanson and Kraus (1998, 1999), analyzed the National Educational Longitudinal Study of 1988. Both established a support for the controversy that involvement has a positive
impact on students’ grades. Fejgin (1994) found that active involvement in sports had a positive influence on students' and also helps in controlling performance. Hanson and Kraus (1998, 1999) found that female athletes performed well in science subjects compared to other subjects. The results in this study shows that female athletes were more connected to school compared to female non-athletes.

Khan (2012), in his study on the association between participation in sports and academic achievement of college students found out that there is a relationship between participation in sports and academic achievement. He further stated that sports activities had a positive effect on the education of the adolescents. He further concluded that sports activities are crucial for promoting academic mission of the colleges and ability of the students to excel academically and that sporting activities positively influence students’ abilities for recall and attentiveness on education.

2.3 Sports and Physical, Social and Mental Development of Adolescents

Witt & Estes (2001) reported that sport participation benefits a child in many areas other than academics. They further demonstrated that skills such as organization, time management and problem-solving, social and communication skills are all important skills that sports participation can help instil into children. On the same note Dale & Jackson (2001) noted that physical play whether competitive or non-competitive, enables children to develop socially and morally. In an organized sport environment, children learn to get along with and work with their peers, as well as receive constructive and/or positive feedback from adults and peers. Additionally, while engaging in sports, children learn how to share and play by the rules. These skills and values are necessary for every phase of life during adolescent development.

McPherson, et al., (1989) established that sports help an individual in character
development and discipline and also promotes teamwork and encourages unity which in turn helps to generate school devotion. Butcher, Linder & Johns (2002) also demonstrated that as athletes progress through the levels of success, they develop a necessary skill for dealing with pressure and stress. Like the other listed skills, this type of stress management is useful in their lives long after they have stopped engaging in competitive sports. Similarly, Muniu (2009) noted that competitive sports participation is a good way to reduce feelings of nervousness and despair. The appropriate activities also raise the mood of the participants which in turn is favourable for improved academic performance.

Eppright et al., (1997) reviewed literature on the importance of athletics during childhood and adolescent development. They found literature that supports the concept that sports involvement is an important area of study as a wellbeing issue and a protective tool. They concluded that play and sports enhance the physical, mental and social growth of students during childhood and adulthood. These researchers also noted that involvement in sports promotes the development of skills such as leadership, hard work, self-esteem and determination. Similarly, Hills (1998) and Taras (2005) in their studies found that sports enhances the working ability of important body systems and improves the degree of effectiveness of high school students who participates in sports. Participation in sports activities brings a positive impact on mood and also increases mental alertness hence, improving performance, attendance level, more achievements and reduces drop-out rate among students and hence reduces absenteeism. Miller, Sabo, Farrell, Barnes, and Melnick (1999) found that female athletes had fewer sexual partners and started engaging in sex late as compared to female non-athletes. The athletes had high chances of using birth control methods and hence were less likely to became pregnant compared to non-athletes. In
contrast, male athletes reported higher rates of sexual experience and more partners than non-athletes, but the athletes were more likely to use birth control. Boys were reported to be more active in competitive sports compared to girls. This is because as girls reach their physical maturity they tend to stop participating more in physical activities due to physical and psychological development such menstrual cycle (Aaron, Kriska, Dearwater, Anderson, Olsen, Cauleyad Laporte, 1993). Similarly, Kimm et al., (2000) noted that as girls develop from childhood to adulthood they become less active in physical activity and their levels drop by as much as 83%. This shows that there is a decrease in physical activity involvement with an increase in age and especially among the girls (Pate, et al., 1994). In conclusion it can be said that girls are more likely to drop out from sports activities as compared to boys.

In a secondary analysis of data from a national longitudinal survey of American high school students, Spreitzer (1994) examined the relationship between high school athletic participation and the subsequent psychosocial development of students. The data was collected through student questionnaires (measuring social background and academic orientation), social-psychological measures (such as self-esteem), and information taken from individual student files (such as test scores). The results showed that students who participated in sports had a higher socioeconomic family background, higher levels of mental ability as measured by standardized testing and higher levels of self-esteem. Those athletes who dropped out from sports participation were also more likely to drop out from other co-curricular activities such as music, drama as well as societies. Conversely, those who continued to participate actively in sports were more likely to take on additional activities besides sports as they continue to perform well in academics. Finally, according to the study by Spreitzer’s (1994),
the athletes were more likely to join higher institutions of learning immediately after high school compared to non-athletes.

Another study by Mahoney & Cairns, (1997) re-examined whether or not co-curricular activity participation protected against early school dropout. These researchers conducted longitudinal assessments of 392 adolescents who were initially interviewed during 7th grade and were followed up annually until 12th grade. They examined the relationship between co-curricular participation and early school dropout, or the failure to complete the 11th grade. Interpersonal competence scale ratings from middle school teachers identified various configurations of boys and girls who differed in their social-academic competence. The results showed that the dropout rates among these students were much lower for those students who had participated in co-curricular activities. These researchers posited that co-curricular participation decreased the tendency to drop out because it gave these students an opportunity to create a positive and voluntary connection to the educational institution (Mahoney & Cairns, 1997).

Silliker and Quirk (1997) studied the relationship between academic performance and interscholastic athletic participation by examining the in-season versus out-of-season academic performances of soccer players. The participants (123 high school students) in the study included male and female soccer players from five rural, western New York schools. They found that participation in athletics can occur without significant risk to academic performance, and results suggested that participation can enhance it. They further advised that it is unwise to take athletic participation away from students who were not performing well in academic, arguing that students with academic difficulties can receive more benefit from peer tutoring and study-skills training during athletics participation.
Camp (1990) examined the causal relationship between youth activities, including athletics, and academic achievement. The variables examined included: gender, family background, typical use of time (including hours of homework per week, television viewing habits and hour of paid employment), and students prior indicators of academic ability (including mathematics, vocabulary and reading). His findings suggested that academic achievement was enhanced by student participation in extracurricular activities such as athletics. His study also provide some support to the notion that students with academic difficulties should be permitted to participate in extracurricular and co-curricular activities when there is evidence of the positive effects from such participation.

Steinberg (2001) emphasis that the role of sports participation in teenager growth must be looked into together with the role of family, peer school and the community at large under which they are deeply rooted. Sports participation provides a background for activities that increase psychological development of adolescents. Participation in these activities helps students to communicate their ideas and discover themselves. They develop social skills and gain in monetary terms. The students are able to survive even under difficult circumstances apart from education. Teenagers feel unique when they develop skills, interact freely with adults and friends and discovering their preferences (Eccles & Barber, 1999). Associating oneself with a social group determines the activities an individual engages in during their free time and also morals they are exposed to (Eckert, 1989). When adolescents engages in sporting activities they are in a better position to understand their own behaviour and also get to know the consequences (Valentine, et al, 2002). Thus, adolescents' individuality and peer group influence enhances activity choices one engages in and determining the environment of their developmental path. Haggard & Williams,
(1992) suggests that as they progress in life, they may choose activities which values and respects their aspects of individuality as adolescents.

Apart from the developmental responsibilities gained through sports participation, researchers have found that involvement in sports activities give adolescents a chance to develop both socially and financially in a circle of friends as well as in adults (Kahne, et al, 2001). The time spent in co-curricular activities has more gains compared to the tight schedule of the classroom activities. During co-curricular activities, students socialize with their friends and get to know each other better they and form a strong relationship based on trust and loyalty. Students involved in sporting activities have a chance to develop skills of guiding and mentoring their peers to develop a positive attitude towards teachers and administrators in the school environment (Dworkin, Larson, & Hansen, 2003). This will eventually lead to student involvement in school activities thus promoting performance in academics and eventually leads to school connectedness (Lamborn, et al, 1992).

In Kenya, Sports are important in educational institutions as it supports academic objectives. However, it has been viewed in two different perspectives in schools as far as their contribution to school connectedness is concerned. Some consider sports to have positive effect on student-athletes’ academic performance while others views it as a hindrance to academic success and a waste of students’ precious time.

Ongong’a, (2010) conducted a study on the benefits of sports in secondary schools and the role of sports in secondary education from the perspectives of teachers and students in Kenya. Stratified random sampling method was used to select 24 secondary schools, 500 students and 32 games teachers for the study. The study revealed that participation in sports is generally beneficial to students in secondary
schools in making them physically fit and healthy. Mwangi, Kamenju and Rintaungu (2013) emphasized that competitive sports can be used to promote unity among students from different schools. For example, after the post-election violence in Kenya in 2008, primary and secondary schools used P.E. and sports to help students manage trauma and also promote team spirit. However, the current study explored the effects of participation in competitive sports on school connectedness.

2.4 School Connectedness

School connectedness refers to the extent to which students feel personally accepted, respected and included by teachers and other students in any schools social environment (Whitlock, 2006). It is the psychological state of belonging in which individual students perceive that they and other students are well taken care of, trusted and respected by a collection of adults that they believe they hold the power to make institutional and policy decisions. It is conceptualized as something that is not merely received but reciprocated as well. In his study he demonstrated that connectedness to school can be used to protect students against violence, risky sexual behaviour, drug abuse and control school dropout rate. Similarly, Mandox and Prinz (2003) noted that students who are more connected to school experience positive life outcomes and have lower rates of delinquency, drug abuse and school dropout. Properly connected individuals are be able to get involved in positive activities in and outside of school time.

Thompson, et al (2006) noted that although school connectedness has been defined in different ways, the most common indicators include liking school, a sense of belonging at school, positive relations with teachers and friends at school and an active engagement in school activities. For instance Klem & Connell, (2004) defines
school connectedness as the feeling of belonging and acceptance in the school environment and a student’s interest, emotional involvement and motivation to continue learning in school while others feel that it is the strong sense of connection to schools which is related to positive outcomes including increased school success (Brown & Evans, 2002) and decreased risky behaviours (Bonny et al., 2000).

School connectedness is recognized by educators and school health professionals as an essential factor in minimizing the likelihood that students experience health compromising behaviours such as drug abuse, indiscipline problems, aggression and emotional suffering, and increasing the likelihood of academic achievement (Blum, 2005). According to Klem & Connell (2004), students who feel more connected to their school have more positive academic attitude and school contentment and are less likely to be involved in aggressive behaviour, engage in early sexual activity or use drugs such as alcohol, cigarettes and bhang.

Researchers have suggested that identifying the factors associated with school connectedness is the first step toward in developing school-based prevention strategies of school connectedness (Bonny et al., 2000). Essentially, a number of questions remain unanswered with regard to school connectedness; therefore, extensive research is still required. Of particular importance in the study by Bonny et al., (2000) are the factors that promote development of school connectedness among students. This forms the basis of the current study.

Children enter school with certain predispositions regarding their education as well as a range of support and encouragement from family (McNeely, 2005). Similar to how positive family relationships can promote academic achievement and protect against risky behaviours, supportive and caring relationships with adults and peers at school
(that is, school connectedness) encourages academic success among adolescents (McNeely, 2004). Further he found out that school connectedness was more protective than any other factor, including family connectedness, against absenteeism, delinquency, drug use, unintentional injury and early pregnancy.

Finn (1989) conducted a study to examine the relationship between school success and participating in school activities. The researcher proposed an understanding of school dropout as a developmental process rather than simply a characteristic of the individual or institution. In this model, he concluded that leaving school before graduation is a chain of events often beginning in the earliest grades with absenteeism, disruptive behaviour and delinquency. He proposed greater attention on the process of withdrawal from school. This includes helping students to identify with, and have a sense of attachment to the school environment and to develop a sense of commitment to school goals. He further suggested that participation in school-related co-curricular activities promotes better contact with the school environment and specifically for students having academic difficulty; participation in school co-curricular activities provides alternate routes for maintaining that contact. Similarly, Bonny et al. (2000) argues that co-curricular activities are influential means of reaching disconnected high school students.

Finn (1989) noted the highest number of students leaving school early is minors and youths growing up in low socio-economic status situations. Furthermore, he observed that young offenders are often students who struggled in school because of a learning disability or poor ability. In the end, this group of young people is often dependent on social welfare programs because they lack the opportunities linked to having a high school certificate.
Musyoki (2011) investigated the relationship between school environment and psychological health among pupils in selected primary schools in Kathivo Zone, Kitui West District, Kenya. The study established that over 40% of the pupils agreed with the statements that: I am proud of being a member of this school, during school holidays I look forward to the day the school will re-open and I am so proud because our school is clean and orderly. On the other hand, 41.3% of the pupils disagreed with the statement that sometimes they wished they could transfer from their schools. The study concluded that the pupils felt connected to their schools. However, majority of the pupils (54.8%) had a low sense of belonging, while 27.2% had a very low sense of belonging to their schools. However, the present study sought to find out the effects of participation in competitive sports on school connectedness.

2.5 Sports Participation and School Connectedness

UN (2003) study noted that improved academic success and achievement of students is due to participation in sports activities which increases levels of student connectedness and value for school. The study also demonstrated that participation in sports and games increases self-esteem reduces stress and raises the confidence level of students. This therefore, lays the foundation for an appreciation of learning and setting the stage for higher education after high school. Similarly, Lox, Martin, Ginis & Pertruzzello (2006) suggested that participation in sports is associated with several benefits such as increased self-esteem, reduced stress, confidence building among others.

McNeely, Nonnemaker and Blum (2003) explored the impact of co-curricular activity involvement on a student’s school connectedness. Determining student connectedness to school occurred through student responses to the statements: “I feel close to people
at this school,” “I feel like I am part of this school,” “The teachers at this school treat students fairly,” and “I feel safe in my school.” Data revealed that with an increase in student participation in co-curricular activities, there was a reciprocal increase in student connectedness to school. This relationship is not restricted to sport and fine art activities. Indeed, Harrison and Narayan (2003) in their measurement of the differences in behavior, psychological factors and environmental factors associated with participation in school sports and other activities in adolescence found out that participation in these activities is also highly influential in school connectedness. These activities include school clubs, teams, community groups, family or religious organizations. Harrison & Narayan, 2003 noted that students involved in sports and school activities had significantly higher odds than those who were involved on one of them. A study by Eccles and Barber (2003) found out that students who participate in competitive sports, like school better and were more likely to attend and complete school and at the same time were likely to be employed at the age of 24.

Research by Rouse-Gordon (2001) measured the effect of co-curricular activity involvement on a student’s resilience to negative life factors. The tasks that a child needs to accomplish differ from the tasks of adolescents and adults. He noted that resilient students perform well in academics as compared to non-resilient students. The study concluded that co-curricular activity participation was one of the three protective factors in making students more resilient to adverse experiences and stressful life variables. First he talked of participation in co-curricular activities which assists students in developing feelings of competence, creating an environment which supports social abilities, resulting in improved resilience. Secondly, they elevate a student’s self-concept, motivation and thirdly there is the overall goal accomplishment. Similarly, Brown and Evans (2002) note that co-curricular activities
play a bonding function and help students learn important skills to function socially. They concluded that involvement in co-curricular activities increases connectedness among adolescents and it is often identified as a basic way to promote school connectedness. This study found that students who participated in competitive sports were more connected to school compared to non-participants.

Gilligan (2000) asserts that activity involvement is essential because of its role of assisting in sustaining the growth and positive development of children on a day-to-day basis. Apart from reducing a child’s of problems, activity involvement opens new pathways and turning points in students’ development by giving them a sense of belonging. Weiss (1996) also concurs that a significant relationship exists between co-curricular activity participation and life satisfaction stating that physical activity and sports have tremendous potential to enhance children’s motivation. Involvement in sports increases students’ overall interest and commitment to school as well as their engagement in a more personal student-teacher contact, more positive attitudes about school and great parent contact. This current study sought to explore the effect of competitive sports participation on school connectedness.

A study by Johnson (2000) of a sample of 373 sixth and ninth graders in New York, reflected the impression that co-curricular participation had on students and its relevance to a successful career. The focus was on how students can actually develop the skills, knowledge and attitudes needed for future career success. From the study 28% responded that it required “doing well in school,” followed by 21% identifying “participating in co-curricular activities” as important and 16% responding that “learning specific career-related subjects” were essential factors (p. 268). In addition 14% identified gaining hands-on experience as important, while 4% identified
gathering career-related information, obtaining special help and tutoring, developing
computer skills while 3% identified planning for post-secondary education as
important. Of most significance was the revelation that no students referred to the
subjects or skills they learned in the general studies classes as a way of preparing for
the future.

Fredricks (2002) also found that students made note of learning personal skills such as
discipline, responsibility, dealing with disappointment, the benefits of hard work and
perseverance. They also learn interpersonal skills such as getting along with others
and working together as a team, and being significant to their future career success.
Students specifically noted that skills such as time management and discipline directly
helped them in their performance in school. Students also noted that this participation
involved the learning of lessons and values that they could currently use in their
everyday lives or that would be useful for their future education or their career. Zill,
Nord and Loomis (1995) found that participation in one to four hours of
extracurricular activities per week was related to a reduced likelihood of dropping out
from school and also less likely to use drugs or smoke cigarettes. Similarly, Mcneal,
(1995) found that sports participation was related to lower probability of school
dropout and hence improves students likelihood to complete school. In a similar
study, Mahoney (2000) reported that participation in at least one co-curricular activity
was linked to reduced rates of early dropout rates among boys and girls. He asserted
that it was not only the activity but also the social networks that adolescents acquired
through participation that kept them engaged in their school and prevented them from
dropping out.
2.6 Summary of Literature Review

The literature reviewed shows the effects of competitive sports participation on school connectedness. From the literature reviewed, it can be concluded that co-curricular activities provide students with the courage and confidence to expand and aggressively pursue their academic and future life careers. This courage and confidence is essential for children to use innate and the newly acquired skills to the greatest extent. Involvement in these activities acts as a motivator that keeps students academically on track through a combination of academic policies, social influences recreational value and physiological enhancement, all of which are essential for promoting school connectedness. The literature has shown that sports participation connects students with a value to school and encourages its regular attendance. Most of the identified literature on participation in sports and school connectedness was based on studies conducted in developed countries, notably the United States of America. It further emerged that most of the studies have not covered patterns of co-curricular activities, participation over time at various grade levels such as patterns across gender, age, and school type and school status, among others. It was therefore important to conduct a study in Kenya that accounted for the various patterns on the effects of participation in competitive sports on school connectedness in secondary school students.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Design

The study adopted the descriptive survey research design to determine the effects of sports participation in competitive sports on school connectedness among secondary school students in Murang’a County. This design is non-experimental for it deals with the relationships among non-manipulated variables. Since the events or conditions have already occurred or exist, the researcher merely selected the relevant variable for the analysis of their relationships (Wiersma & Jurs, 2009). The choice of the research design for the study was based on the fact that the study was not to manipulate either independent variables such as the students’ gender, school category and school status or dependent variable (school connectedness).

3.2 Location of the Study

The study was carried out in Murang’a County, Kenya. Murang’a County was chosen because no similar study, to the best knowledge of the researcher, had been conducted in the County. Murang’a County had also witnessed cases of school strikes, violence, and a high rate of dropout of students, which warranted the study on school connectedness.

3.3 Target Population

The target population for the study consisted of all the 98,200 students from all the 257 public secondary schools in Murang’a County (Statistics from County Education Office, Murang’a, 2013). Public schools were chosen since they participate in competitive sports and have also witnessed cases of indiscipline. Of the 257 public
secondary schools in Murang’a County, 2 were of National Status, 21 County schools and 234 Sub-county schools.

3.4 Sampling Techniques

The study employed stratified random sampling technique to select 26 schools according to boarding status of the school. The schools were stratified into four strata: boys’ boarding, girls’ boarding, mixed day and mixed boarding schools. The sampled 26 schools represented 10% of the targeted 257 schools. This sample was in line with the recommendation by Gay (1992) who stated that a sample of 10% and above is considered a good representation of the target population in descriptive studies. The number of students in the 26 selected schools was 10,600. A sample of 384 students was used in the study according to the following formula adapted from Wiersma and Jurs (2009).

\[
\begin{align*}
    n &= \frac{z^2pq}{d^2} \\
    &= \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} \\
    &= 384.2 \\
    &= 384 \text{ students}
\end{align*}
\]

Where \( n \) = sample size for a population above 10,000

\( z \) = standard deviation or a normal distribution = 1.96

\( p \) = proportion of students who relate competitive sport and school connectedness

\( q \) = 1-\( p \)

\( d \) = confidence level at 0.05
Simple random sampling was used to select participants who comprised of 384 students from the 26 sampled schools. 15 students per school were randomly selected. To get the actual sample in each of the selected schools, the researcher obtained a list of all the Form Two and Form Three athletes where 8 athletes were randomly selected. Thereafter the researcher used the class register to select 7 non-athletes from the same classes. The study targeted only the Form Three and Form Two students since they were considered to have stayed in school for long. Form Ones were left out since they were considered as not fully integrated in the school programme while Form Fours were considered busy preparing for KCSE examinations.

Table 3.1: Schools’ Sampling Frame

<table>
<thead>
<tr>
<th>School Type</th>
<th>No. of schools</th>
<th>Sample</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>18</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>Girls</td>
<td>22</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>Mixed day</td>
<td>178</td>
<td>18</td>
<td>69.2</td>
</tr>
<tr>
<td>Mixed boarding</td>
<td>39</td>
<td>4</td>
<td>15.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>257</strong></td>
<td><strong>26</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Murang’a County Education Office, 2013

3.5 Research Instruments

The study used a students’ questionnaire (SQ) adapted from studies of Libbey (2004) as the main tool for data collection. The questionnaire was divided into three sections as shown in appendix A. Section A captured demographic information on students’ gender, age, class, type and status of the school. Section B captured data on sports participation. Section C gathered information on school connectedness which contained 5-point Likert scale questions of strongly agree, agree, undecided, disagree and strongly disagree which were scored as 5, 4, 3, 2 and 1 respectively.
3.6 Pilot Study

Before the study was conducted, pre-testing of questionnaires was carried out in two schools in Murang’a County, which were not included in the main study. Thirty students participated in the pilot study. The objective of the pre-testing was to determine reliability and validity of the questionnaires by ironing out any ambiguities that were found in the questionnaire. The pre-testing also helped the researcher to familiarize herself with data collection process.

3.6.1 Validity

Validity is defined as the accuracy and meaningfulness of inferences, which are based on the research results (Mugenda & Mugenda, 2003). All assessments of validity are subjective opinions based on the judgment of the researcher (Wiersma, 1995). According to Borg and Gall (1996), validity of an instrument is improved through expert judgment. As such, the researcher sought assistance of the supervisors and other university lecturers, who, as experts in research methods and sociology of sports, helped improve validity of the instrument.

3.6.2 Reliability

The test-retest technique of reliability was used to assess the reliability of the research instruments. The questionnaire was administered to 30 participants twice, with a 2 weeks interval, after which a comparison of the two sets of data was done to find out whether the responses were consistent. A correlation coefficient for the two tests was calculated using the Pearson Correlation Coefficient formula. A reliability coefficient of 0.76 was obtained and was considered adequate for the study as recommended by Wiersma (2009).
3.7 Data Collection Techniques

The researcher booked an appointment with the sampled schools through the principals to visit and administer the questionnaires. The researcher then visited each of the schools and administered the questionnaires. The participants were given instructions and assured of confidentiality after which they were given enough time to fill in the questionnaires. The filling was done in the school library or laboratory whichever was available, after which the researcher collected the filled-in questionnaires.

3.8 Data Analysis and Presentation

After data cleaning, data was coded and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS) version 21. Quantitative data was analyzed using descriptive and inferential statistics. Descriptive statistics that were used included frequency counts, percentages, means and standard deviations. The effects of participation in competitive sports on school connectedness were compared using Two Way ANOVA (Analysis of Variance) and the Tukey Post hoc test. ANOVA was used to test difference in means between two or more variables whereas Tukey Post hoc test was conducted after the researcher found a significant relationship from the results. This test was conducted to find out which group differed significantly from each other. T-test was also used to test gender differences on school connectedness. The hypotheses were tested at $p<0.05$ level of significance.

3.9 Logistical and Ethical Considerations

The researcher sought an authorization letter from Graduate School and was issued with a clearance letter from Kenyatta University Ethical Board (Appendix D). Thereafter, a research permit was obtained from the National Council for Science
Technology and Innovation (Appendix F). The researcher then informed the County Director of Education, Murang’a County about the research who then gave a letter of authorization to conduct the research (Appendix E). The researcher informed the participants of the purpose of the research, and notified them of their freedom of choice whether to participate in the research or not. Participation was purely voluntary and as such, the participants were given a consent form (Appendix A) to sign. All the information was held confidentially and the participants asked not to indicate their names or those of their school in the questionnaires.
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.0 Introduction

This chapter presents the study findings and associated issues respectively. The main purpose of the study was to determine the effect of participation in competitive sports on school connectedness among secondary school students in Murang’a County. For presentation and analysis of data, the chapter is organized into four sections. Section one presents the response rate, section two presents demographic characteristics of the participants while section three and four captures students participation in sports and school connectedness. The study findings were presented based on the following hypotheses:-

H01: There is no significant mean difference between school connectedness of male/female athletes and male/female non-athletes in Murang’a County

H02: There is no significant mean difference between school connectedness among athletes and non-athletes of different age groups

H03: There is no significant mean difference between school connectedness among athletes and non-athletes from various class levels

H04: There is no significant mean difference between school connectedness among athletes and non-athletes from different types of school

H05: There is no significant mean difference between school connectedness among athletes and non-athletes of different school status
4.1 Response Rate

The study involved 384 respondents in Murang’a County, Kenya. A total of 342 questionnaires were returned which represented 89.1% of the total sample. According to Mugenda and Mugenda (2003), a response rate of 70% and over is excellent, hence, a return rate of 89.1% was found adequate for analysis.

4.2 Participation in Sports

This section looked at number of participants who were athletes, the number of hours per week that are allocated to sports by the participating school, competitive sports participated in and highest level of competition reached by the participants.

4.2.1 Distribution of Participants by Athletic Status

The study sought to establish the distribution of participants by athletic status. The results are presented in Table 4.1.

<table>
<thead>
<tr>
<th>Athletics status</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes</td>
<td>185</td>
<td>54.1</td>
</tr>
<tr>
<td>Non-athletes</td>
<td>157</td>
<td>45.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>342</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.1 illustrates that 185 (54.1%) participants were athletes while 157 (45.9%) were non-athletes. This shows that most of the respondents who took part in the study were athletes. This difference in results could be explained by the fact that the researcher selected 8 athletes and 7 non-athletes from each of the 26 sampled schools hence resulting to a higher number of athletes than non-athletes. The high number of the participants being athletes may be influenced by the fact that sports participation increases high school students’ attachment to educational programs and they also feel
free to communicate and share with the teachers. This is in agreement with Gordon’s, (2001) noted that co-curricular activities help students to relate well with their teachers as well as learning important skills to help in socialization. School administrators, teachers, subordinate staff, parents, guidance and counseling department and coaches often do encourage students not only to excel in co-curricular activities but also to focus on academic achievements (Coleman 1991; Gould et al. 2007). Thus, sports participation often means exposing student athletes to a supportive environment that enriches both their love for their respective sports as well as their interest in school. This study found that with an increase in sports participation there was an increase in school connectedness. Ultimately, this may help reduce the degree of alienation students sometimes experience while attending boarding high schools, which are oftentimes large and unfriendly.

4.2.2 Participation in Sports by the Participants

The study also sought to determine the sports disciplines that the participants took part in. Table 4.2 presents these results.

<table>
<thead>
<tr>
<th>Sport</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soccer</td>
<td>139</td>
<td>75.1</td>
</tr>
<tr>
<td>Volleyball</td>
<td>107</td>
<td>57.8</td>
</tr>
<tr>
<td>Athletics</td>
<td>97</td>
<td>52.4</td>
</tr>
<tr>
<td>Netball</td>
<td>44</td>
<td>23.8</td>
</tr>
<tr>
<td>Hockey</td>
<td>26</td>
<td>14.1</td>
</tr>
<tr>
<td>Badminton</td>
<td>22</td>
<td>11.9</td>
</tr>
<tr>
<td>Basketball</td>
<td>21</td>
<td>11.4</td>
</tr>
<tr>
<td>Handball</td>
<td>20</td>
<td>10.8</td>
</tr>
<tr>
<td>Table tennis</td>
<td>19</td>
<td>10.3</td>
</tr>
<tr>
<td>Rugby</td>
<td>15</td>
<td>8.1</td>
</tr>
<tr>
<td>Chess</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Scrabble</td>
<td>4</td>
<td>2.2</td>
</tr>
</tbody>
</table>
Table 4.2 shows that the majority of the participants, 139 (75.1%) played soccer as a competitive sport followed by volleyball, 107 (57.8%), athletics were 97 (52.4%), netball 44 (23.8%), hockey 26 (14.1%), badminton 22 (11.9%), basketball 21 (11.4%), handball 20 (10.8%), table tennis 19 (10.3%), rugby 15 (8.1%), while those who participated in chess and scrabble were the least 4 (2.2%) each. Majority of the participants played soccer, volleyball, athletics and netball. Chess and scrabble had the least number of participants. Most schools provided facilities and equipment for soccer, volleyball, netball and athletics. This is in agreement with Mwihaki (2007) who reported that availability of sports facilities and equipment has a great impact on students’ participation in sports activities. Chess and scrabble are indoor sports and most schools lacked indoor space for participation. This could have attribute to lack of enough capital as putting up indoor facilities requires finances (Njororai, 1990). In addition, these games are not available in most primary schools where the foundation of sports is laid.

4.2.3 Number of Hours per Week Allocated to Sport

The numbers of hours per week allocated to sports were cross-tabulated with the school type. The results were presented in Table 4.3

Table 4.3 Number of Hours per Week Allocated to Sports by School Type

<table>
<thead>
<tr>
<th>School type</th>
<th>Number of hours allocated to games per week (hrs)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>n  %</td>
<td>n  %</td>
</tr>
<tr>
<td>Boys boarding</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>Girls boarding</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>Mixed Boarding</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>Mixed day</td>
<td>99  28.9</td>
<td>98  28.7</td>
</tr>
<tr>
<td>Total</td>
<td>99  28.9</td>
<td>98  28.7</td>
</tr>
</tbody>
</table>
Table 4.3 shows that 99 (28.9%) of participants indicated that only 2 hours per week are allocated to sports followed by 98 (28.7%) which allocated 3 hours, 85 (24.8%) allocated 5 hours while the rest, 60 (17.5) allocated 10 hours per week to games. The 99 (28.9%) and 98 (28.7%) of the participants hailed from Mixed Day secondary schools which allocated two and three hours per week to games respectively. All the Mixed boarding schools allocated 5 hours per week to games while the Boys and Girls Boarding schools allocated 10 hours to games per week. This is because Boys’ and Girls’ only schools have adequate time at their disposal after classes and freedom so they allocated more hours per week to games. This can be attributed to the fact that students in mixed day schools have to cover reasonable distance to their homes and have to do this before it is dark which is sometimes risky especially for girls. Gitonga (2003) noted that day school students spend less time in sporting activities as they spend most of this time doing assignments as well as going back home after classes. All the Mixed boarding schools allocated 5 hours per week to games while the Boys and Girls Boarding allocated 10 hours to games per week. This could be attributed to the fact that boarding schools take part in sports even during the weekends. They also take part in sports in the mornings unlike students in day schools who spend this time doing their academic assignments. Similarly, Bulinda (2000) noted that boarding schools’ students participate in sports both in the morning as well as after classes. The single-sex schools have adequate time at their disposal after classes and freedom hence, they allocated more hours per week to games.

4.2.4 Highest Level of Competition Reached by Athletes

In Kenya’s school system, competition in sport begins at the zonal level, and then moves on to the Sub-county level, County level, Regional level and finally ends up at the National level. If a team is eliminated at the first four levels of competition,
students wait for the next edition of the annual competitions. This study investigated the highest level attained by the participants. Table 4.4 gives a summary of the highest level of competition attained against the school status.

### Table 4.4: Highest Level of Competition Attained by Athletes in Relation to School Status

<table>
<thead>
<tr>
<th>Highest level attained</th>
<th>School status</th>
<th>National</th>
<th>County</th>
<th>Sub-county</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Zonal</td>
<td></td>
<td>24</td>
<td>13.0</td>
<td>17</td>
<td>9.2</td>
</tr>
<tr>
<td>Sub-county</td>
<td></td>
<td>17</td>
<td>9.2</td>
<td>13</td>
<td>7.0</td>
</tr>
<tr>
<td>County</td>
<td></td>
<td>11</td>
<td>5.9</td>
<td>8</td>
<td>4.3</td>
</tr>
<tr>
<td>National</td>
<td></td>
<td>5</td>
<td>2.7</td>
<td>4</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Table 4.4 shows that all participants represented their schools at the zonal level being the first level of competition. Only 68.6% of the participants qualified for the Sub-county Level. The number reduced to 44.3% at County Level while only 6.5% of the participants qualified for the National level. Perhaps this is due to stiff competition at higher levels of participation. Majority of those who reached the National Level competitions were from either National schools (5, 2.7%) followed by (4, 2.2%) who hailed from the County schools while the least number (3, 1.6%) were from the Sub-county schools. There could be several reasons attributed to this outcome. The National and County schools have facilities and equipment and finances to hire qualified coaches in different sports. These schools also allocate more time to sports per week compared to sub-county schools (Wamukoya, 1993). These findings are in agreement with Gitonga (2003) who noted that student in boarding schools have more time with their coaches who are instrumental in motivating them for continuous participation in sports. Similarly, Njororai (1990) found that students in boarding
schools have more time to train which includes weekends and after classes. On the other hand, day schools lack enough facilities, equipment as well as finances to hire services of professional coaches in various sports leading to low participation in sports. The few who reached national competitions from the Sub-county schools could have been involved in individual events like athletics which requires minimal infrastructure and coaching. Furthermore, National and County schools had more facilities and equipment in comparison to the newly developed schools most of which are day schools. This study established that National and County schools had the highest number of athletes who reached National level for competitions compared to Sub-County schools.

4.3 Effects of Sport Participation on School Connectedness

Extra-curricular activities that were based on students’ interest and activities and in which students and schools staff participate together contribute significantly to school connectedness. This may be due to the fact that these activities promoted participation in the school environment and the development of student friendship groups, leading to increased students satisfaction with the school. This relationship between co-curriculum activities and connectedness emerges when students contribute to determine the types of extra-curriculum activities that reflect their interest. Activities in which students and school staff participated together, such as sports, had a particularly powerful effect on connectedness (Rowe, Stewart and Patterson, 2007). In this view, the study focused on the effects of students’ sport participation on school connectedness based on the following independent variables:

a) Students’ gender
b) age
c) class
d) type of school

e) school status

The overall students’ school connectedness was computed from the questionnaire items which were weighted on a likert scale. The items were scored as follows: - strongly agree–5 points, agree–4 points, undecided–3 points, disagree–2 points and strongly disagree–1 point. The school connectedness questionnaire comprised of twenty items and therefore the maximum score was 100.

4.3.1 Athletic Status, Gender and School Connectedness

Table 4.5 presents the proportion of the students who took part in the study by gender.

Table 4.5: Gender Distribution of the Participants by Athletic Status

<table>
<thead>
<tr>
<th>Gender</th>
<th>Athletes</th>
<th>Non-Athletes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Male</td>
<td>110</td>
<td>32.2</td>
<td>95</td>
</tr>
<tr>
<td>Female</td>
<td>75</td>
<td>21.9</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td>54.1</td>
<td>157</td>
</tr>
</tbody>
</table>

Table 4.5 shows that majority of the participants (185, 54.1%) were athletes while (157, 45.9%) were non-athletes. In addition, majority of the participants were males (205, 60.5%) while (137, 40.1%) were female. This shows that slightly more males were participating in sports compared to female students. Dufur and Linford (2010) established that although female participation in sports had increased drastically; male students still participated more in sports than females. Similarly, Mwihaki, (2007) found that female participation in sports is lower compared to boys due to physical and physiological body changes. This is also in agreement with Douglas et al, (1997) who noted that boys are known to be more energetic in sports than girls. He established that men are more highly motivated to participate in sports by
performance and ego-related factors such as challenge, strength and endurance, competition and social recognition when compared with women regardless of the type of activity. These differences may also be explained by the fact that female students place less importance on sports than boys. They also perceive themselves as less able in the sports domain than in other domains. In contrast, male students feel more confident of their abilities in sport domain that in other domains. Riemer and Visio, (2003) noted that these patterns of self-perception and task value should be the critical mediators of gender differences in sport participation. In general, past studies have also shown that sport is considered a male domain but more specifically, activities may be perceived as masculine, feminine or neutral. These studies show the most important reasons that make a sport activity masculine or feminine. First, all activities requiring more energy, flexibility and strength are associated with male compared to female. However, this analysis is in part not correct: swimming is apparently a neutral activity but males swim faster compared to females. Hardin and Greer (2009) argue that whether a sport is masculine or feminine depends on the level femininity and masculinity of the participants’ characteristics. Male sports involve masculine characteristics, including physical body contact, face-to-face defense, strength, agility or aggressiveness while feminine sports involve feminine characteristics, such as expressivity, grace, happiness, satisfaction or esthetics. This explains why there were more male athletes compared to female athletes.

The study also sought to investigate the effects of gender, sports participation and school connectedness. Table 4.6 presents the summary of the findings on gender, athletic status and school connectedness.
Table 4.6: Descriptive Statistics on Gender, Athletic Status on School Connectedness

<table>
<thead>
<tr>
<th>Gender</th>
<th>School Connectedness</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Athletes</td>
<td>Non-Athletes</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Std. dev</td>
<td>Mean</td>
<td>Std. dev</td>
<td>Mean</td>
<td>Std. dev</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>86.98</td>
<td>1.817</td>
<td>86.24</td>
<td>1.923</td>
<td>85.57</td>
<td>1.966</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>85.85</td>
<td>1.455</td>
<td>84.95</td>
<td>2.012</td>
<td>85.43</td>
<td>1.891</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>86.42</td>
<td>1.727</td>
<td>85.6</td>
<td>2.052</td>
<td>85.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be observed from Table 4.6 that the male athletes had a higher mean value on school connectedness ($\bar{x} = 86.98 \pm 1.817$) than the male non-athletes ($\bar{x} = 86.24 \pm 1.923$). In addition, the female athletes had higher mean scores for school connectedness ($\bar{x} = 85.85 \pm 1.455$) than the non-athletic girls ($\bar{x} = 84.95 \pm 2.012$). Also, the male had a higher mean score for school connectedness ($\bar{x} = 85.57 \pm 1.966$) than the female ($\bar{x} = 85.43 \pm 1.891$). The table also shows that the athletes had a higher score for school connectedness ($\bar{x} = 85.73 \pm 1.727$) than the non-athletes ($\bar{x} = 85.32 \pm 2.052$). To test whether there were significant in the means on Table 4.6, a t-test was computed as shown in Table 4.7.

Table 4.7: Summary of the T-tests on the Effects on Gender, Athletic Status on School Connectedness

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>$\bar{x}$</th>
<th>t-test for equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>$t$</td>
</tr>
<tr>
<td>Male</td>
<td>205</td>
<td>85.57</td>
<td>.647</td>
</tr>
<tr>
<td>Female</td>
<td>137</td>
<td>85.43</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.7 shows that there was no statistically significant difference in the mean score of school connectedness between the boys and girls $t(340) = .647, p = .518$ at $\alpha = .05$. This shows that both male and female students felt connected while at school in relation to participation in sports. The first null hypothesis ($H_0$) of the study was therefore accepted and a conclusion made that there is no significant mean difference between school connectedness of male/female athletes and male/female non-athletes in Murang’a County. Conversely, the findings of Bonnney, et al. (2000) found out that boys had a higher feeling of connectedness compared to girls. Contrary to the findings of this study Summers et al. (2007) reported that gender was not a significant factor in determining school connectedness. They noted that both the male and females have almost equal feelings of school satisfaction. These conflicting findings were noted by Whitlock (2003) who observes that several researches done on relationship between gender and school connectedness have been the most contradictory. However, this study concluded that male athletes were more connected to school compared to female athletes and in general athletes were more connected than non-athletes.

### 4.3.2 Age Distribution of the Participants

Beyond the gender of the participants, the study was also interested in determining the age of the participants, athletic status and school connectedness. The age distribution of the participants is shown in Table 4.8
Table 4.8: Age Distribution of the Participants

<table>
<thead>
<tr>
<th>Age (yrs)</th>
<th>Athlete</th>
<th></th>
<th>Non-athlete</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>4.4</td>
<td>6</td>
<td>1.8</td>
<td>21</td>
<td>6.1</td>
</tr>
<tr>
<td>16</td>
<td>70</td>
<td>20.5</td>
<td>68</td>
<td>19.9</td>
<td>138</td>
<td>40.4</td>
</tr>
<tr>
<td>17</td>
<td>85</td>
<td>24.9</td>
<td>63</td>
<td>18.4</td>
<td>148</td>
<td>43.3</td>
</tr>
<tr>
<td>18</td>
<td>14</td>
<td>4.1</td>
<td>14</td>
<td>4.1</td>
<td>28</td>
<td>8.2</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>0.3</td>
<td>6</td>
<td>1.8</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>185</strong></td>
<td><strong>54.1</strong></td>
<td><strong>157</strong></td>
<td><strong>45.9</strong></td>
<td><strong>342</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.8 shows that majority of the participants 148 (43.3%) were 17 years followed by 16 years (138, 40.4%) 18 years, (28, 8.2%), 15 years (21, 6.1%) while those who were 19 years (7, 2.0%) were least represented. For the athletes, most of them 85 (24.9%) were 17 years, 70 (20.5%) were 16 years followed by 15 (4.4%) were 15 years, 18years were 14 (4.1%) while those aged 19 years were least represented or 1(0.3%). For the non-athletes, 68 (19.9%) were aged 16 years followed by 17 years (63, 18.4%), 18years (14, 4.1%) while those who were 15 years and 19 years (6, 1.8%). were least represented. These difference in age could be explained by the fact that majority of the form ones were left out since they were considered as not fully integrated in the school programme while form fours are considered busy preparing for KCSE examinations and hence dropout from sports activities.

The study also sought to investigate the effects of age, sports participation and school connectedness. Table 4.9 shows the summary of the descriptive statistics of age, athletic status and school connectedness.
Table 4.9: Summary of Descriptive Statistics on Age and Athletic Status on School Connectedness

<table>
<thead>
<tr>
<th>Athletic status</th>
<th>Age</th>
<th>n</th>
<th>School Connectedness</th>
<th>( \bar{x} )</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athlete</td>
<td>15 years</td>
<td>15</td>
<td>86.13</td>
<td>1.35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 years</td>
<td>70</td>
<td>85.25</td>
<td>1.49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17 years</td>
<td>85</td>
<td>86.10</td>
<td>1.64</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 years</td>
<td>14</td>
<td>85.57</td>
<td>1.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19 years</td>
<td>1</td>
<td>86.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>185</td>
<td>85.81</td>
<td>1.73</td>
<td></td>
</tr>
</tbody>
</table>

| Non-athlete     | 15 years | 6   | 87.67                | 2.37        |
|                 | 16 years | 68  | 85.24                | 2.08        |
|                 | 17 years | 63  | 84.94                | 2.01        |
|                 | 18 years | 14  | 85.57                | 1.95        |
|                 | 19 years | 6   | 85.00                | 2.00        |
| **Total**       |       | 157 | 85.68                | 2.05        |

| Total           | 15 years | 21  | 87.19                | 1.81        |
|                 | 16 years | 138 | 85.31                | 1.80        |
|                 | 17 years | 148 | 85.43                | 1.89        |
|                 | 18 years | 28  | 85.57                | 1.89        |
|                 | 19 years | 7   | 85.86                | 1.86        |
| **Total**       |       | 342 | 85.87                | 1.89        |

Table 4.9 shows that the athletes of age 15 years had the highest mean score on school connectedness (\( \bar{x} = 86.13 \pm 1.35 \)), followed by those athletes of age 17 years (\( \bar{x} = 86.10 \pm 1.64 \)) and then athletes of age 19 years (\( \bar{x} = 86.00 \pm 0.00 \)). Those athletes of age 18 years (\( \bar{x} = 85.57 \pm 1.91 \)) and those of age 16 years (\( \bar{x} = 85.25 \pm 1.489 \)) were least connected to their school. Further, the same table shows that the non-athletes of age 15 years had the highest mean score on school connectedness (\( \bar{x} = 87.67 \pm 2.37 \)), followed by those non-athletes of age 18 years (\( \bar{x} = 85.57 \pm 1.95 \)) and then non-athletes of age 16 years (\( \bar{x} = 85.24 \pm 2.08 \)). Non-athletes of age 19 years (\( \bar{x} = 85.00 \pm 2.000 \)) and those athlete of age 17 years were least connected to their school (\( \bar{x} = 84.94 \pm 2.014 \)). In addition, the athletes had a higher score (\( \bar{x} = 85.73 \pm 1.73 \)) than non-
athletes ($\bar{x} = 85.32 \pm 2.05$). This implies that younger athletes and non athletes were more connected to their schools compared to older athletes and non athletes. The second hypothesis of the study was rejected and its alternate form accepted that: there is a significant mean difference between school connectedness among athletes and non-athletes of different age groups.

This is in agreement with Whitlock, (2006) who noted that the older one is, the less they become disconnected to school. The work of Whitlock explored the critical relationship between school connectedness and factors including: meaningful roles at school, safety, creative engagement, and academic engagement. He observed that students defined meaningful roles in very different ways depending on their age. For instance, younger youths in grades eight to ten link meaningful roles to experiences where they have access to individual adults and to the specific situations where they have the opportunity to exercise agency (i.e., classroom or student government) (Whitlock, 2006). However, he also noted that older youths in grade eleven and twelve students associate meaningful roles with opportunities where they can have the greatest impact on institutional policies and practices. Similarly, Klem and Connell (2004) established that as children progress through school they become less connected, by age fourteen 40% - 60% of students in urban and rural schools are increasingly disconnected. This study therefore, concluded that age is a significant factor in promoting school connectedness as older students are less connected compared to younger students.

Following these disparities two-way ANOVA was performed. The results are presented in Table 4.10.
Table 4.10: Summary of the Two-Way Anova Between-Subjects Effects on Age, Athletic Status on School Connectedness

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>35.504</td>
<td>4</td>
<td>8.876</td>
<td>2.700</td>
<td>.031*</td>
</tr>
<tr>
<td>Athletic status</td>
<td>.246</td>
<td>1</td>
<td>.246</td>
<td>.75</td>
<td>.785</td>
</tr>
<tr>
<td>Age and athletic status</td>
<td>42.030</td>
<td>4</td>
<td>10.507</td>
<td>3.197</td>
<td>.013*</td>
</tr>
<tr>
<td>Error</td>
<td>1091.255</td>
<td>333</td>
<td>3.287</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1169.035</strong></td>
<td><strong>342</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 level

Table 4.10 shows that there is a significant difference in mean score of school connectedness between ages, F (4, 333) = 2.700, p = .031 at $\alpha = .05$. It also shows that there is no significant difference in the mean score of school connectedness based on athletic status of the students. It also shows that a statistically significant interaction between the effects of age and athletic status on school connectedness F, (4,333) = 3.197, p = 013, $\alpha = .05$. To trace the source of significant, Post Hoc Tests of Tukey HSD was done and presented in Table 4.11.
Table 4.11: The Multiple Comparisons of Various Ages and School Connectedness

<table>
<thead>
<tr>
<th>(I) age</th>
<th>(J) age</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15years</td>
<td>16years</td>
<td>1.88*</td>
<td>.430</td>
<td>.001*</td>
</tr>
<tr>
<td></td>
<td>17years</td>
<td>1.76*</td>
<td>.428</td>
<td>.002*</td>
</tr>
<tr>
<td></td>
<td>18years</td>
<td>1.62</td>
<td>.530</td>
<td>.056</td>
</tr>
<tr>
<td></td>
<td>19years</td>
<td>1.33</td>
<td>.802</td>
<td>.598</td>
</tr>
<tr>
<td></td>
<td>15years</td>
<td>-1.88*</td>
<td>.430</td>
<td>.001*</td>
</tr>
<tr>
<td>16years</td>
<td>17years</td>
<td>-1.12</td>
<td>.217</td>
<td>.989</td>
</tr>
<tr>
<td></td>
<td>18years</td>
<td>-2.26</td>
<td>.381</td>
<td>.977</td>
</tr>
<tr>
<td></td>
<td>19years</td>
<td>-.55</td>
<td>.712</td>
<td>.964</td>
</tr>
<tr>
<td></td>
<td>15years</td>
<td>-1.76*</td>
<td>.428</td>
<td>.002*</td>
</tr>
<tr>
<td>17years</td>
<td>16years</td>
<td>.12</td>
<td>.217</td>
<td>.989</td>
</tr>
<tr>
<td></td>
<td>18years</td>
<td>-.14</td>
<td>.378</td>
<td>.998</td>
</tr>
<tr>
<td></td>
<td>19years</td>
<td>-.42</td>
<td>.710</td>
<td>.986</td>
</tr>
<tr>
<td></td>
<td>15years</td>
<td>-1.62</td>
<td>.530</td>
<td>.056</td>
</tr>
<tr>
<td>18years</td>
<td>16years</td>
<td>.26</td>
<td>.381</td>
<td>.977</td>
</tr>
<tr>
<td></td>
<td>17years</td>
<td>.14</td>
<td>.378</td>
<td>.998</td>
</tr>
<tr>
<td></td>
<td>19years</td>
<td>-.29</td>
<td>.776</td>
<td>.998</td>
</tr>
<tr>
<td></td>
<td>15years</td>
<td>-1.33</td>
<td>.802</td>
<td>.598</td>
</tr>
<tr>
<td>19years</td>
<td>16years</td>
<td>.55</td>
<td>.712</td>
<td>.964</td>
</tr>
<tr>
<td></td>
<td>17years</td>
<td>.42</td>
<td>.710</td>
<td>.986</td>
</tr>
<tr>
<td></td>
<td>18years</td>
<td>.29</td>
<td>.776</td>
<td>.998</td>
</tr>
</tbody>
</table>

*Significant at p< 0.05 level

Table 4.11 shows that there was significant mean difference in the school connectedness between the students aged 15 and 16 years (1.88) and those aged 15 and 17 years (1.76). The highest mean scores shows that students aged 15 and 16 years were more connected to the school compared to other age groups. The results of the analysis also revealed that majority of the students who were connected to school were aged between 15 and 17 years. Darling *et.al* (2005) argues that older students are likely to be involved in other co-curricular activities apart from sports than the younger student. They also tend to dropout from sports as they are busy preparing for KCSE examination.
4.3.3 Class Level of the Participants

Beyond the age and gender of the participants, the study was also interested in finding out the level of competition in sports between form two and form three class students. Table 4.12 shows distribution of study participants by class.

<table>
<thead>
<tr>
<th>Class</th>
<th>Athletes</th>
<th>Non-Athletes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Form 2</td>
<td>92</td>
<td>26.9</td>
<td>70</td>
</tr>
<tr>
<td>Form 3</td>
<td>93</td>
<td>27.2</td>
<td>87</td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td>54.1</td>
<td>157</td>
</tr>
</tbody>
</table>

Table 4.12 shows that majority of the participants 180 (52.6%) of the participants were in Form 3 while 162 (47.4%) were in Form 2. For the athletes, most of them 93 (27.2%) were in Form 3 while 92 (26.9%) were in Form 2. For the non-athletes, most 87 (25.4%) were in Form 3 while 70 (20.5%) were in Form 2. From the findings, it can be observed that majority of the athletes were in Form 3 because it is probably the Form where the talent exhibited at lower levels mature. It is the class where the talent potential of an athlete reaches full potential. At this level, the athletes may have had a lot of exposure to sports, and also they have been in school for long for their competitiveness to be noted by teachers to join the first team of the school. The findings agree with (Bulinda, 2000; Horn & Weiss, 1991) who observed that adolescents improve on their performance depending on their experiences and age.

The results in this study shows that majority of the athletes were in Form three.
The study was interested in seeking the mean differences in the school connectedness among the Form two and Form 3 classes. The summary of the descriptive statistics is presented in Table 4.13

**Table 4.13 Main Effect of Class and Athlete Status on School Connectedness**

<table>
<thead>
<tr>
<th>Form</th>
<th>Status</th>
<th>Main Effect of Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Athlete Effects Non-Athlete</td>
<td></td>
</tr>
<tr>
<td>Form 2</td>
<td>85.16</td>
<td>0.38</td>
</tr>
<tr>
<td></td>
<td>-1.04</td>
<td></td>
</tr>
<tr>
<td>Form 3</td>
<td>86.2</td>
<td>1.09</td>
</tr>
<tr>
<td>Main effect of athletes status</td>
<td>85.68</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Results in Table 4.13 revealed that the effects of athletic status for the form two students on school connectedness (0.38) is not statistically significant at p<0.05. This means that mean score for the form two athletes (85.16) did not differ significantly with mean score for the non athletes (85.54). Among the form three students, the effect of athletic status on school connectedness (1.09) is not statistically significant at p<0.05 level. These findings indicate that mean score for the form three athletes (86.2) did not differ significantly with mean score for the non athletes (85.11).

The study also sought to investigate the effects of class, athletic status and school connectedness. The results are presented in Table 4.14.

**Table 4.14: Independent T-test of Class and School Connectedness**

<table>
<thead>
<tr>
<th>Class</th>
<th>n</th>
<th>Mean (x)</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form 2</td>
<td>162</td>
<td>85.38</td>
<td>1.978</td>
<td>-1.255</td>
<td>340</td>
<td>.210</td>
</tr>
<tr>
<td>Form 3</td>
<td>180</td>
<td>85.63</td>
<td>1.806</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not significant at p<0.05 level
Table 4.14 shows that there was no statistically significant difference in the mean score of school connectedness between Form 2 and Form 3 students, $t (340) = 1.255$, $p = .210$ at $\alpha = .05$. This was a clear indication that class level did not have any effect on students’ connectedness to school. The third hypothesis of the study which stated that there is no significant mean difference between school connectedness among the athletes and non athletes from various class levels was therefore accepted and its alternate form rejected.

4.3.4 School Type and School Connectedness

The study sought to establish the effects of school type, athletic status on school connectedness. Table 4.15 shows the distribution of participation among the school types.

Table 4.15: Distribution of Participants across the School Types

<table>
<thead>
<tr>
<th>School type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys boarding</td>
<td>30</td>
<td>8.8</td>
</tr>
<tr>
<td>Girls boarding</td>
<td>30</td>
<td>8.8</td>
</tr>
<tr>
<td>Mixed boarding</td>
<td>51</td>
<td>14.9</td>
</tr>
<tr>
<td>Mixed day</td>
<td>231</td>
<td>67.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>342</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.15 shows that 231 (67.5%) of the participants were attending mixed day schools followed by Mixed Boarding 51 (14.9%) while the Boys and Girls Boarding were 30 (8.8%) each. This can be explained by the fact that with the introduction of Free Secondary Education and Free Primary Education programmes there was high student enrolment triggering the establishment of mixed day secondary schools. Almost all primary schools in Murang’a County have a mixed secondary school located in the same school compound. These mixed secondary schools absorb the
high number of pupils who cannot be admitted into boarding schools or those who cannot afford to pay boarding fees in boarding schools.

The mean values of the school connectedness among the school type and athletic status are presented in Table 4.16

Table 4.16: Descriptive Statistics on Mean Scores of School Connectedness among School Types and Athletic Status

<table>
<thead>
<tr>
<th>School type</th>
<th>Athletes</th>
<th>Non-athletes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. dev</td>
<td>Mean</td>
</tr>
<tr>
<td>Boys boarding</td>
<td>87.09</td>
<td>1.704</td>
<td>86.15</td>
</tr>
<tr>
<td>Girls boarding</td>
<td>86.00</td>
<td>1.828</td>
<td>85.28</td>
</tr>
<tr>
<td>Mixed boarding</td>
<td>85.12</td>
<td>1.877</td>
<td>84.58</td>
</tr>
<tr>
<td>Mixed day</td>
<td>85.03</td>
<td>1.838</td>
<td>84.73</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>85.81</strong></td>
<td><strong>85.19</strong></td>
<td><strong>85.60</strong></td>
</tr>
</tbody>
</table>

Table 4.16 also shows that the participants in the BoysBoarding were most connected to their school ($\bar{x} = 86.83 \pm 1.704$), followed by the Girls Boarding ($\bar{x} = 85.58 \pm 1.828$) and then Mixed Boarding ($\bar{x} = 85.00 \pm 1.838$). The least connected were the participants of Mixed Day secondary school ($\bar{x} = 85.00 \pm 1.877$). This shows that students in boarding secondary schools were more connected to school compared to the day schools. Therefore the fourth null hypothesis was thus rejected and the alternative hypothesis that: there is a significant mean difference between school connectedness among athletes and non-athletes from different types of school accepted. This difference could be explained by the fact that athletes in the boarding schools have more time for sports participation, including weekends, have better relationship with their teachers and coaches, team spirit (solidarity) and more finances than the day schools. It is notable that majority of the day schools in Kenya have
issues of indiscipline. They also have inadequate facilities and equipment and their performance in national examinations is low compared to national schools (Njororai, 1990).

In addition to this, results of the analysis revealed that athletes in the four school types were more connected in their schools compared to non-athletes. Cooper, Valentine, Nye and Lindsay, (1999) noted that active participation in sports is closely linked to greater school connectedness and sense of belonging, better academic performance, higher academic aspirations and less dangerous behaviours’ such as violence, alcohol and drug use or dropping out of school. Similarly, Posner and Vandell (1999) noted that time spent in structured competitive sports activities is related to better peer relationship and emotional adjustments at school while unstructured leisure time is associated with poorer emotional adjustment and work habits. Mahoney and Stattin (2000) also reported that participation in unstructured activity settings is associated with higher levels of risky behavior compared to participation in structured activities.

Following the above disparities the 2-ways Anova was computed and the results are presented in Table 4.17

**Table 4.17: Summary of the 2-Way Anova on School Type and Athletic Status and School Connectedness**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes status</td>
<td>5.065</td>
<td>1</td>
<td>5.065</td>
<td>1.632</td>
<td>.202</td>
</tr>
<tr>
<td>School type</td>
<td>65.397</td>
<td>3</td>
<td>21.799</td>
<td>7.023</td>
<td>.000*</td>
</tr>
<tr>
<td>Athletic status and school type</td>
<td>67.070</td>
<td>3</td>
<td>22.357</td>
<td>7.202</td>
<td>.000*</td>
</tr>
<tr>
<td>Error</td>
<td>1036.755</td>
<td>335</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1174.287</td>
<td>342</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 level*
Table 4.17 shows that there was no statistically significant mean difference between athletes status and school connectedness, $F(1,335) = 1.632, p = 0.202, \alpha = .05$. Results of the analysis further revealed that there was a significant mean difference of school connectedness based on the school type, $F(3,335) = 7.023, p = 0.000, \alpha = .05$. In addition, there was statistically significant interaction between the effect of athletics status and school type on school connectedness, $F(3,335) = 7.202, p = 0.000, \alpha = .05$.

Further test of post Hoc Tukey test was performed and result presented in Table 4.18.

### Table 4.18: Multiple Comparison between Mean Differences between the School Types

<table>
<thead>
<tr>
<th>(I) School Type</th>
<th>(J) School Type</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys Boarding</td>
<td>Girls Boarding</td>
<td>1.83*</td>
<td>.467</td>
<td>.002*</td>
</tr>
<tr>
<td></td>
<td>Mixed Boarding</td>
<td>2.11*</td>
<td>.416</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Mixed Day</td>
<td>1.25*</td>
<td>.351</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Boys Boarding</td>
<td>-1.83*</td>
<td>.467</td>
<td>.002*</td>
</tr>
<tr>
<td>Girls Boarding</td>
<td>Mixed Boarding</td>
<td>.27</td>
<td>.416</td>
<td>.933</td>
</tr>
<tr>
<td></td>
<td>Mixed Day</td>
<td>-.58</td>
<td>.351</td>
<td>.437</td>
</tr>
<tr>
<td></td>
<td>Boys Boarding</td>
<td>-2.11*</td>
<td>.416</td>
<td>.000*</td>
</tr>
<tr>
<td>Mixed Boarding</td>
<td>Girls Boarding</td>
<td>-.27</td>
<td>.416</td>
<td>.933</td>
</tr>
<tr>
<td></td>
<td>Mixed Day</td>
<td>-.85*</td>
<td>.280</td>
<td>.027*</td>
</tr>
<tr>
<td></td>
<td>Boys Boarding</td>
<td>-1.25*</td>
<td>.351</td>
<td>.006*</td>
</tr>
<tr>
<td>Mixed Day</td>
<td>Girls Boarding</td>
<td>.58</td>
<td>.351</td>
<td>.437</td>
</tr>
<tr>
<td></td>
<td>Mixed Boarding</td>
<td>.85*</td>
<td>.280</td>
<td>.027*</td>
</tr>
</tbody>
</table>

*Significant at $p<0.05$ level

Table 4.18 shows that there were significance mean differences in the mean scores of school connectedness between the Boys Boarding and other three school types. The participants from boys boarding school were more connected to school than the girls boarding (1.83), Mixed boarding (2.11) and those from Mixed Day schools (1.25). This shows that students in Boys schools were more connected to schools compared to those in Girls, Mixed boarding and mixed day schools. The findings were not in
agreement with the results of Mapfumo and Muchena (2013) who established that there was no association between the school type and school connectedness.

4.3.5 Effects of Athletic Status, School Status and School Connectedness

Further, the study also established the participants’ school status. In Kenya, schools are classified into National, County and District schools. Table 4.19 shows the distribution of participants by school status.

**Table 4.19: Distribution of Participant by School Status**

<table>
<thead>
<tr>
<th>School status</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>30</td>
<td>8.8</td>
</tr>
<tr>
<td>County</td>
<td>30</td>
<td>8.8</td>
</tr>
<tr>
<td>District</td>
<td>282</td>
<td>82.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>342</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.19 shows that 282 (82.5%) of the participants were from the District School status while the rest 60 (17.6%) of the participants were equally distributed in the County and National Schools. As observed earlier (table 3.1), majority of the schools in Murang’a County were Mixed Day Secondary schools. These schools admit the largest number of pupils graduating from the primary schools. In addition, the number of the National and County schools in the County are few and a pupil is required to attain high marks in KCPE to be enrolled in them.
Table 4.20: Summary of Descriptive Statistics of Athletic Status, School Status and School Connectedness

<table>
<thead>
<tr>
<th>School Status</th>
<th>Mean Score of School Connectedness</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Athletes</td>
<td>Non-Athletes</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Std Dev.</td>
</tr>
<tr>
<td>National</td>
<td>86.96</td>
<td>1.813</td>
</tr>
<tr>
<td>County</td>
<td>85.82</td>
<td>1.863</td>
</tr>
<tr>
<td>District</td>
<td>85.07</td>
<td>1.799</td>
</tr>
<tr>
<td>Total</td>
<td>85.95</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.20 shows that the participants in the National Schools were most connected to their school (\( \bar{x} = 86.77 \)), followed by the County Schools (\( \bar{x} = 85.43 \)) while those from the District schools were least connected (\( \bar{x} = 85.06 \)). This shows that students in National schools were more connected to their schools compared to those in County and District schools. The results showed that national schools were not only recognized for their academic excellence but also in games and sports. These findings were supported by Nteere (1983) who found that national schools had records to show that they participated in a variety of sporting activities such as rugby, cricket, swimming and tennis unlike county and district schools. Athletes in National schools have better attendance records, lower dropout rates compared to day (Gitonga, 1998).

To test whether there were significant differences between the 3 means, the 2-way ANOVA were computed and the results are presented in Table 4.21
Table 4.21: Summary of the MANOVA Between-Subjects Effects of School Type, Athletic Status and School Connectedness

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>School status</td>
<td>25.773</td>
<td>2</td>
<td>2.011</td>
<td>.606</td>
<td>.021*</td>
</tr>
<tr>
<td>Athletic status</td>
<td>2.011</td>
<td>1</td>
<td>12.505</td>
<td>.437</td>
<td>.437</td>
</tr>
<tr>
<td>School status and athletic status</td>
<td>25.130</td>
<td>2</td>
<td>3.318</td>
<td>.024</td>
<td>.024*</td>
</tr>
<tr>
<td>Error</td>
<td>1114.741</td>
<td>337</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1167.655</td>
<td>342</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 Level

From Table 4.21, it can be observed that there was a statistically significant difference in the mean score of school connectedness among the schools of various status, F (2,337) = 0.606, p = .021 at α= .05. It was also observed that there was no significant main effect between athletic status and school connectedness, F (1,337) =0.437, p=0.437 at α= .05. However, the result of the analysis showed that there was a statistically significant interaction between the effect of athletic status and school status on school connectedness, F (2,337) = .437, p = .024 at α= .05. The fifth hypothesis was thus rejected at p<0.05 and its alternative form accepted that there is a significant mean difference between school connectedness among athletes and non athletes of different school status.

Further analyses were conducted using post Hoc Scheffe test. The result are presented in Table 4.22

Table 4.22: Multiple Comparisons of School Status and School Connectedness

<table>
<thead>
<tr>
<th>(I) School status</th>
<th>(J) School status</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>County</td>
<td>1.70*</td>
<td>.474</td>
<td>.002*</td>
</tr>
<tr>
<td></td>
<td>District</td>
<td>1.34*</td>
<td>.353</td>
<td>.001*</td>
</tr>
<tr>
<td>County</td>
<td>National</td>
<td>-1.70*</td>
<td>.474</td>
<td>.002*</td>
</tr>
<tr>
<td></td>
<td>District</td>
<td>-.36</td>
<td>.353</td>
<td>.596</td>
</tr>
<tr>
<td>District</td>
<td>National</td>
<td>-1.34*</td>
<td>.353</td>
<td>.001*</td>
</tr>
<tr>
<td></td>
<td>County</td>
<td>.36</td>
<td>.353</td>
<td>.596</td>
</tr>
</tbody>
</table>

*Significant at p<0.05 level
Table 4.22 shows that there was a significant difference among students from National schools and those from County schools and District schools on school connectedness. Large schools (national schools) having greater resources gave equal opportunities to all students to participate in variety of sports activities depending on choice. These schools can organize inter-class competition expanding their sports departments and maintain many different sports teams and therefore enhancing sports programs. The advantages of possessing resources extend beyond athletics, however. Schools having more resources can provide greater opportunities for their students than those schools with fewer resources, not only in terms of access to sports but also regarding the quality of instruction as they can hire qualified coaches. Impoverished high schools (District schools) often have weaker co-curricular programs, student governments, and athletic programs. Moreover, sports such as crew, fencing, golf, and tennis are very rare for students attending poor, urban comprehensive high schools (Jordan, 1999).
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary, conclusions and recommendations derived from the findings of the study.

5.2 Summary of the Research Findings

The main purpose of the study was to determine the effects of participation in competitive sports on school connectedness among secondary school students in Murang’a County. Data was collected using questionnaires from 342 students. The study variables were gender, age, class, school type, school status, athletic status and school connectedness. Among them, 185 (54.1%) were athletes and 157 (45.9%) were non-athletes. Majority of the participants played soccer, volleyball, athletes and netball. Chess and scrabble had the least number of participants. In relation to time allocated for sports, 99 (28.9%) of participants were allocated 2 hours per week, 98 (28.7%) were allocated 3 hours, 85 (24.8%) were allocated 5 hours while the rest, 60 (17.5) were allocated 10 hours per week for games. 99 (28.9%) of the participants hailed from Mixed Day secondary schools and allocated only two hours per week to games. All the Mixed boarding schools allocated 5 hours per week to games while the Boys and Girls Boarding allocated 10 hours to games per week. The study further established that all participants represented their schools’ at the zonal competition level, 68.6% of the participants reached the District Level whereas 44.3% of the athletes reached County Level. Only 6.5% of the participants reached the National level. The following are the main study findings.
5.2.1 Effect of Gender and Athletic Status on School Connectedness

From the study findings, it was apparent that male and female athletes obtained higher mean scores on school connectedness compared to male and female non athletes. The study further established that boys mean score on school connectedness was slightly higher compared to that of girls. However, results of the analysis revealed that there was no statistically significant difference in the mean scores of school connectedness between the boys and girls. This shows that both male and female students felt connected while at school in relation to participation in sports.

5.2.2 Effect of Age and Athletic Status on School Connectedness

In relation to this objective, the study found out that athletes of age 15 years had the highest mean score on school connectedness compared to athletes of age 18 years. More so, non-athletes of age 15 years had the highest mean score on school connectedness, compared to non athletes of age 19 years and those athletes of age 17 years. This implies that younger athletes and non athletes were more connected to their schools compared to older athletes and non-athletes.

5.2.3 Effects of Class and Athletic Status on School Connectedness

The findings revealed that mean scores obtained from responses of form two and three athletes on school connectedness were higher compared to the mean scores from those of non-athletes in the two classes. Further analysis revealed that there was no statistically significant difference in the mean score of school connectedness between Form 2 and Form 3 students. This implies that class level did not have any effect on students’ connectedness to school.
5.2.4 Effects of School Type and Athletic Status on School Connectedness

Regarding this objective, the study established that students in Boys schools were more connected to school compared to those in Girls, Mixed boarding and mixed day schools. In addition to this, results of the analysis revealed that athletes in the four school types were more connected to their schools compared to non-athletes.

5.2.5 Effect of School Status and Athletic Status on School Connectedness

Using post Hoc Scheffe test, results showed that there was a significant difference amongst students from National schools, County schools and Sub-county schools on school connectedness. Results of the analysis also revealed that athletes and non-athletes from National schools had higher mean scores of responses on school connectedness followed by those in County schools and then Sub-county schools.

5.3 Conclusions

Based on the findings of the study the following conclusions were made:

i. Majority of the participants played soccer, volleyball, athletes and netball. Chess and scrabble had the least number of participants.

ii. Mixed Day schools allocated 2 or 3 hours per week to games, mixed boarding schools allocated 5 hours per week while Boys and Girls Boarding allocated 10 hours to games per week.

iii. There was no significant difference in the mean score of school connectedness between the boys and girls. This implies that both male and female students felt connected while at school in relation to participation in sports.

iv. Younger athletes and non athletes were more connected to their schools compared to older athletes and non athletes.
v. Class level did not have any effect on students’ connectedness to school.

vi. Students in Boys schools were more connected to school compared to those in Girls, Mixed boarding and mixed day schools.

vii. There was a significant difference among students from National schools, County schools and District schools on the school connectedness.

viii. The study concluded that students in National schools were more connected to school compared to those in County and District schools

5.4 Recommendations of the Study

From the findings of the study, the following recommendations are made for policy formulation and future research:

5.4.1 Policy Formulation

i. The study found out that there was a variation in the duration set for sports in the sampled schools. Schools for Boys and Girls only allocated more time per week to games compared to Mixed boarding and Mixed day schools. As such the Kenya Institute of Curriculum Development needs to review the curriculum to allocate sports more time so that all students can participate in them hence promoting school connectedness.

5.4.2 Practices

i. There is need to sensitize school administrators, teachers and students on effects of participation in competitive sports and school connectedness. This would help school stakeholders to implement more programmes which will involve the students more and encourage more teachers-students interaction outside the classroom.
ii. The Ministry of Education, through the county Director of Education should ensure that all secondary schools have basic sports facilities and equipment in order to promote sports participation hence, school connectedness. The MOE or inspectorate should also ensure that the available sport facilities and equipments are in good condition and that they meet guidelines for the safe conduct of sport and physical activity in schools.

iii. Schools principal should ensure every student identifies themselves with a particular sport. This can be done by requesting that each student register and participate in sport while in school.

iv. Schools should provide a hall with basic sports facilities for indoor sports participation. Even schools without halls can embrace the concept of multiple force of big room like dinning hall for use of sport such as table tennis, badminton etc.

v. Mixed day schools should make an effort to provide changing rooms to increase female sports participation. This can also be done by designating such rooms like laboratories as changing rooms.

5.5 Recommendations for Further Research

The study recommends future studies to:

i. The study established that students in boys schools were more connected to school compared to those in Girls, Mixed boarding and in Mixed day. The current study suggests that, specific efforts should be made to find out why students in Girls, Mixed Boarding and Mixed Day were generally less connected to their schools.
ii. Investigate the relationship between sports participation and discipline of the students.

iii. Similar study to be done at other educational levels such as Primary schools, T.T.C’s and Universities.

iv. Similar studies can be done in those schools which do well in secondary school competitions.

v. A similar study should be conducted in other counties to find out whether the same findings would be obtained.
REFERENCES


of psychomotor learning and sport psychology conference – Bauft, Albert, 26-28 October.


APPENDIX A: STUDENTS CONSENT FORM

I willingly give my informed consent to take part in the research study indicated below.

Topic: Effects of Participation in Competitive Sports on School Connectedness among Secondary School Students in Murang’a County, Kenya

By: Agnes Wanjiku Kamau

Department: Physical and Health Education,

Kenyatta University

Taking part in this study is on voluntary basis and it is taken as noble undertaking which will lead to generating of information and yield knowledge in the research field

Participants name: …………………………………………………………………

Signature: ……………………………….. Date: ………………………

Thank you
APPENDIX B: QUESTIONNAIRE FOR STUDENTS

Introduction

This research is meant for academic purpose. The information you give will be held with strict confidentiality. You are kindly requested to provide answers to the questions as honestly as possible. **Do not write your name anywhere in the questionnaire.** Please tick [✓] where appropriate or fill in the required information on the spaces provided.

Section I: Background Information

1. Gender
   
   Male [ ] Female [ ]

2. Age ..............................

3. Class    F1 [ ]    F2 [ ]    F3 [ ]    F4 [ ]

4. Type of school:
   
   [ ] Boys Boarding    [ ] Boys Day    [ ] Girls Boarding    [ ] Girls Day
   [ ] Mixed Boarding    [ ] Mixed Day    [ ] Mixed Day & Boarding

   Other (Specify) ..............................

School status [ ] National [ ] County    [ ] District

5. Athletic status (whether a student is an athlete or a non athlete)

   [ ] Athlete    [ ] Non athlete
Section II. Participation in Sports

1. How many hours per week are committed for sports in your school?

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

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

2. Which sports do you participate in to present the school in external competitions?

Soccer [    ] Basketball [    ] Badminton [    ]
Volleyball [    ] Rugby [    ] Tennis [    ]
Netball [    ] Athletics [    ] Chess [    ]
Hockey [    ] Handball [    ] Scrabble [    ]

Other (specify) .................................................................

3. Do you present your school in the sport mentioned in No.2 during school competitions?

Yes [    ] No [    ]

4. If yes, indicate the highest competitive level reached?

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

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

Section III: School Connectedness

The tables below present some statements about your school. Please answer how true you feel each statement is in your school, by ticking on the appropriate box. Use the key below to respond.

SA = Strongly Agree, A= Agree, U= Undecided = Disagree, SD = Strongly Disagree
(a) Students’ liking of their school

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel like a real part of this school since I participate in sports</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I wish I were in a different school that participates actively in sports</td>
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<tr>
<td>I am happy to be at my school because I actively participate in sports</td>
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<tr>
<td>When playing I feel emotionally safe at my school</td>
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<tr>
<td>When playing I feel emotionally comfortable at my school</td>
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</table>

(b) Positive relations with teacher and friends at school

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
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<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel I am treated fairly by teachers in my school because I actively participate in sports</td>
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</tr>
<tr>
<td>I feel I am treated fairly by other students in my school due to my active participation in sports</td>
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<tr>
<td>I feel I am treated fairly by administrators in my school due to my active participation in sports</td>
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</tr>
<tr>
<td>When playing I am treated with as much respect as other students</td>
<td></td>
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<tr>
<td>People at this school are friendly to me due to my active participation in sports</td>
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</tbody>
</table>
(c) Sense of belonging to the school

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel a like a real part of this school because I am allowed to enjoy sport activities</td>
<td></td>
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<tr>
<td>2. I feel proud of belonging to this school because I am allowed to actively participate in more than one sport activity</td>
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<tr>
<td>3. I can really be myself at this school because the administration recognizes and appreciates me for my active participation in sports</td>
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<tr>
<td>4. Sometimes I feel as though I don’t belong here when time meant for sports is used for syllabus coverage</td>
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<tr>
<td>5. I would do all to defend the name of my school so long as sporting activities are given a priority like any other important learning activities</td>
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</tbody>
</table>

(d) Students’ engagement in other school activities

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am included in lots of activities at this school though I actively participate in sports</td>
<td></td>
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<tr>
<td>2. People notice me when I am playing sports than when participating in any other school activity</td>
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<tr>
<td>3. People here know I am good at my academic work despite participating actively in sports</td>
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<tr>
<td>4. My school offers a number of activities but sporting activities are my favourite</td>
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<tr>
<td>5. The school allows students to engage in more than one activity but I am more active in sports than any other activity</td>
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</tr>
</tbody>
</table>
APPENDIX C: MAP OF MURANG’A COUNTY

Scale 1:100,000
APPENDIX E: RESEARCH AUTHORIZATION
APPENDIX F: RESEARCH PERMIT