

## AN ASSESSMENT OF SPORT FACILITIES IN SENIOR HIGH SCHOOLS AND THEIR EFFECTS ON SPORTS DEVELOPMENT IN THE TANO NORTH AND SOUTH DISTRICTS OF GHANA

<sup>1</sup> Thomas Okyere || <sup>2</sup> Richard S. K. Abieraba || <sup>3</sup> Abdulai Osman

<sup>1</sup> St. Ambrose College of Education, Wamfie, Ghana.

<sup>2</sup> Offinso College of Education, Offinso, Ghana.

<sup>3</sup> Bagabaga College of Education, Tamale, Ghana.

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**ABSTRACT:** *The study was conducted to assess and evaluate the state of sports facilities and their effects on sports development at the Senior High School (SHS) in the Tano North and South Districts in Brong Ahafo region, Ghana. Three Hundred (300) final year students were selected using stratified and simple random sampling techniques from a population of one thousand (1000). Census study was used to select all 13 PE teachers in the six SHS chosen for the study. The research design used was descriptive survey method. The instruments used were interviews, observation and questionnaire. Data was analysed using chi-square ( $\chi^2$ ) to test the hypotheses and find the relationship between availability of sports facilities and sports performance at a significance level of 0.05. The findings revealed that the study fails to accept the hypotheses that there is no significant relationship between sports performance and provision of sports facilities. Both teachers and students accepted in the study that there is a significant effect of availability of sports facilities on sports performance and also agreed that existing facilities are not properly maintained. It was revealed that sports facilities in the various schools were not adequate for their PE subject requirement. Other findings are that most of the facilities have paths and passages across them since people use them as routes to their destinations, for celebrations and other activities. Generally, the study has revealed that sports facilities in the Tano North and South were inadequate and have significant effect on sport performance. It is recommended that administrators and other stakeholders invest in sports facilities to beef up sports performance.*

**KEYWORDS:** Assessment, sports facilities, sports development, Sports performance, Tano North and South Districts.

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## INTRODUCTION

It has been a general concern for educational set-ups to include physical education and sports in their curricular. In most educational systems, physical education (PE), also called physical training (PT) or gymnastics in less progressive settings, is a course in the curriculum which utilizes learning in the cognitive, affective and psychomotor domains in a play or movement exploration setting. The primary aim of physical education is to equip students with the knowledge, skills, capacities,

and values along with the enthusiasm to maintain a healthy lifestyle into adulthood (UNCW, 2013). Activities included in the programme that are designed to promote physical fitness, to develop motor skills, to instill knowledge and understanding of rules, concepts, and strategies, and to teach students to work as part of a team, or as individuals, in a wide variety of competitive activities (UNCW, 2013).

The Standards for Physical Education (NASPE) aims at helping students to demonstrate competency in motor skills and movement patterns needed to perform a variety of physical activities, demonstrate understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities, participate regularly in physical activity, achieve and maintain a health-enhancing level of physical fitness, exhibit responsible personal and social behaviour that respects self and others in physical activity settings and values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

Exercise, sport, play, games, dance, and many other terms have been used to describe the wide variety of pursuits considered to be physical activity. "Physical activity" is a universal term defined as "bodily movement that is produced by the contraction of skeletal muscles and that substantially increases the amount of energy expended" (USDHHS, 1996). "Exercise" is narrower in focus and is defined as "one type of physical activity conducted with the intent of developing physical fitness" (Corbin and Pangrazi, 1999). The term is typically used for calisthenics, resistance exercises, stretching exercises designed for flexibility, and aerobic exercises specifically designed to improve cardiovascular fitness. Sport, play, games, dance, and recreational activities are all different forms of physical activity although, some are more organized than others.

Sport (or sports) is all forms of usually competitive physical activity which, through casual or organized participation, aim to use, maintain or improve physical ability and skills while providing entertainment to participants, and in some cases, spectators. Hundreds of sports exist, from those requiring only two participants, through to those with hundreds of simultaneous participants, either in teams or competing as individuals (Wikipedia, 2018).

Emphasis on the general concern to include physical education and sports in school curricular places learners in a better position to live healthy and active lifestyles, which invariably has an impact in their learning. According to the UNESCO general conference at its twentieth session, Paris, 21<sup>st</sup> November, 1978, the UNESCO charter on physical education opines that every human being has a fundamental right of access to physical education and sports, which are essential for the full development of his personality. The freedom to develop physical, intellectual and moral powers through physical education and sports must be guaranteed both within the educational system and other aspects of social life.

Based on what UNESCO has enshrined in their charter as far as the learning and participation in physical education is concern, it is very vital to undergo physical education in every educational institution so as to benefit from the immense opportunities stated above in the charter. Physical education can serve as a vehicle for helping students develop the knowledge, attitudes, motor skills, behavioural skills and confidence needed to adopt, maintain and make informed decisions about leading physically active lifestyles. Regular physical activity improves functional status and

limits disability during the middle and later adult years. Physical activity contributes to quality of life, psychological health and the ability to meet physical work demands. Physical education is a key component of a coordinated school health programme that results in healthier children more ready to learn, healthier adults and healthier communities.

Tano north and south districts are two out of twenty seven districts in the Brong Ahafo Region of Ghana. The region is located in southern Ghana. Brong Ahafo is bordered to the north by the Black Volta River and to the east by the lake Volta and to the south by the Ashanti region, Eastern and Western regions, and to the west by the Ivory Coast south eastern border. The capital of Brong Ahafo is Sunyani. Brong Ahafo was created in 1958 from Bono state and named after the dominant and native inhabitant Akans; Brong and Ahafo. Brong Ahafo is renowned for its large cocoa production agriculture and agribusiness industries. Brong Ahafo contains many Akan cultural and wildlife attractions, but it is less known to tourist than the Ashanti and Central regions of which Kintampo waterfalls and Fiema monkey sanctuary are few examples. The north and south Tano districts in the Brong Ahafo region are blessed with six senior high schools of which one is a single sex (female) school. All these schools take part in sporting activities as part of the academic calendar. Also, physical education is part of the curriculum at this level of educational system. However, their performance is nothing to write home about. Several factors may have contributed to this level of performance, and this has been a source of worry to stakeholders. Some of the causes of poor performance in sports have been attributed to poor management, lack of facilities and so on in some places. The issue of lack of facilities may have contributed to this trend.

The lack of facilities is a major detrimental factor in the development of sports culture in the schools. In the Tano North district for instance, the researchers realized that there is a difficulty of access to sports facilities such as football field, handball court, volleyball court, and athletic oval.

To ascertain this, the researchers found it necessary to delve into the matter to find out the state of sports facilities in senior high schools in these districts. Facilities cannot be ignored when physical education is being made mention of.

Marriot (2010), recreational plans are a key part of the process of improving the leisure opportunities available in the community and through this, the health and well-being of the community.

The school as a typical example of the community also needs sports facilities, which the students will use during leisure and sporting activities.

Physical education programmes in schools are to be designed to promote physical fitness, to develop motor skills, to instill knowledge and understanding of rules, concepts, and strategies, and to teach students to work as part of a team, or as individuals who holds it as fundamental human right to be self-reliant to meet challenges in life. The experiences gained are to be practiced yet attempts in doing that normally becomes difficult which denies students some qualities to be developed. The inactive lifestyles of students coupled with the inadequate facilities at Senior High Schools lead to poor sports performance. This is a source of worry to most physical education teachers and other stakeholders. As a result there is the need for action to be taken to reverse the trend. This situation aroused the researchers' interest to assess and evaluate the current state of

sports facilities and its effects on sports development at the Senior High Schools in Tano North and South districts.

### **Purpose of the Study**

The purpose of this study was to assess the state of sports facilities and their effects on sports development at the Senior High Schools in Tano North and South districts of Ghana.

### **Research Objective**

To assess the state of sports facilities and their effects on sports development at the Senior High Schools in Tano North and South districts of Ghana.

### **Research Question**

1. What is the current state of sports facilities in the Senior High Schools in Tano North and South districts?
2. How are sports facilities managed in Senior High Schools in the Tano North and South districts?
3. What effects do sports facilities have on sports performance?

### **Hypothesis**

1. There is no significant relationship between sports performance and provision of sports facilities and sports performance.
2. There is no significant effect of availability of sports facilities on sports performance.

### **Justification of the study**

The findings of this study assessed the state of sports facilities and their effects on sports development at the Senior High Schools in Tano North and South districts in order to improve sports performance in the Senior High Schools in the two districts. The results of the study also helped the researchers to suggest ways of promoting the life span of sports facilities in Senior High Schools in the Tano North and South districts. To help students both in the Tano North and South districts to develop good attitude towards sports participation. The study additionally, highlighted the need to institute the culture of maintenance. The study prompted managements and all the stakeholders to do all things possible to invest in the provision of sports facilities to better the standards and the development of sports in all the schools in the two districts. Lastly, the findings of the study would contribute to academic knowledge and would be of great benefit to those who have the zeal to further research on sports facilities and their effects extending and strengthening the evidence base for decision.

### **METHODOLOGY**

In this research work the researchers used descriptive survey method which allows the researchers to summarize the characteristics of different groups or to measure their attitudes and their opinions towards some issues. According to Nelson, Thompson and Silverman, (2005), the survey is a

technique of descriptive research that seeks to determine present practices or opinions of a specific population. Survey can come in the form of questionnaire, a personal interview or normative survey. There is no manipulation of variables. The researchers therefore collected data on the variables and evaluated them.

### Population and Sampling

A population is a larger group to which one hopes to apply the results of a study (Fraenkel and Wallen, 2009). The researchers used the physical education teachers and the final year students from six schools in Tano North and South Districts in Brong Ahafo. The schools comprised Yamfo Senior High School, Bomaa Senior High School, Boakye Tromo Senior High School, Bechem Presbyterian Senior High School, Techimantia Presbyterian Senior High School and Serwaa Kesse Senior High School. The students come from predominantly farming communities. Their ages range between 17 - 19 years. All but one of the schools is a mixed sexed. Five of the schools have two (2) physical education teachers and one having three, making up a total of thirteen teachers in the two districts. The final year students in all the targeted schools make up a population of one thousand (1000). Three hundred (300) students representing thirty per cent (30%) of the target population were sampled for the study. All thirteen (13) teachers were taken due to their relatively small number in all the schools.

Census study was used to select a total of thirteen physical education teachers in the targeted schools for the study since their number was relatively small. Stratified random sampling technique was used to select five (5) classes from each school for the study in order to get proportional representation of the students. Afterwards, simple random sampling was used to select ten (10) individual students from the five classes making a total of fifty (50) students from each school which was the sample for the study. In each class, students were made to pick folded papers made up of only ten 'yes' and the rest being "no" Whoever chose yes became part of the sample for the study. Simple random sampling was used to give students equal opportunity to be selected for the study.

**Table 1: Distribution of sample population**

<b>Respondents</b>	<b>Total</b>
Students	300
Teachers	13
<b>Total</b>	<b>313</b>

**Source: Field data (2018)**

### Instrumentation

The researchers wrote an introductory letter to the heads of the schools that were selected for the studies in order to have access to work with the students. The headmasters in their acceptance introduced the researchers to the entire school. The researchers first established good rapport in the schools' environment especially with the selected individuals who were to be interviewed. They explained the rationale behind the study before embarking on the interview, and then

proceeded on to the observation of the facilities. Different dates were scheduled to conduct the studies in each of the schools.

Every researcher gather data in order to explain their findings. The researchers relied on observations, interviews and questionnaires in collecting the data from both students and physical education teachers in the targeted schools. All instruments have the capacity to gather information in survey. With interview, the researchers through personal interactions interviewed both teachers and students on series of questions concerning the availability of sports facilities and how it affects sports development in the various schools. In a methodical manner, the researchers through open and close-ended questions, interviewed and solicited the views of each of the respondents. Their opinions were freely required. An observation check list as an instrument was also used by the researchers to gather information on the availability of sports facilities. Also open and close ended questions were given to respondents to collect data.

Validity of research instrument refers to the extent to which the instrument measures what it is supposed to measure (Amin, 2005). The researchers asked an experienced lecturer at the Health, Physical Education, Recreation and Sports Department to read through the test items to prove whether they measure what they are supposed to measure and also scrutinised each item properly to make sure that they are properly constructed to measure what they are intended to. Reliability of the instrument also refers to the degree to which the said instrument consistently measures whatever it is measuring (Amin, 2005). For reliability purposes, the instrument was pilot-tested in Offinso on a similar group of students as those in sampled schools to ensure that the instrument is well understood to the respondents.

### **Statistical Presentation of Research Questions**

#### **Research Question 1: What is the current state of sports facilities in the Senior High Schools in Tano North and South districts?**

In analysing the state of sports facilities in the various Senior High Schools, four questions were addressed. This included sports facilities available in the schools, access to these facilities, surfaces of the facilities and the extent to which students and PE teachers agree that their school lack some sports facilities.

Table 2.1 presents summary of result for sports facilities available in the various Senior High Schools sampled for the study. A total of 300 (95.8%) of the respondents were students whereas 13 (4.2%) were teachers. More students were selected because their population was high compared to the teachers. However, it was found that the number of teachers for the physical education subject in the six SHS were few. This indicated that the subject is accorded relatively low attention. How, it must be realized that the subject has the potential to contribute to positive academic performance, improved health among others for students and society as a whole (GES, 2010).



**Table 2.1 Sports facilities available in the Senior High Schools**

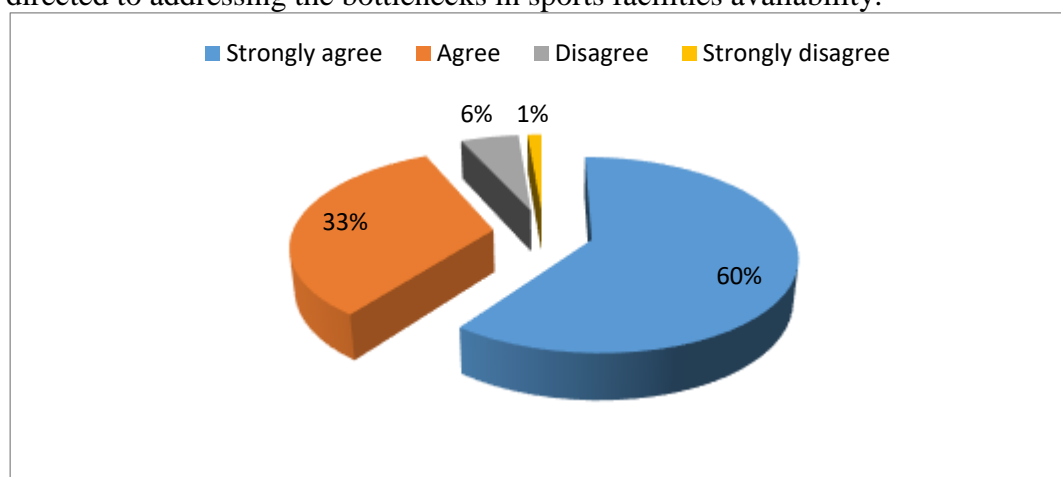
Types of sports facilities available in schools	Status of respondent		Total number of respondents, N (%) 313 (100.0)	<i>p value/</i> <i>X<sup>2</sup> Value</i>
	Student n (%) 300 (95.8)	Teacher n (%) 13 (4.2)		
Football field				
Yes	285 (91.1)	13 (4.2)	298 (95.2)	0.409*/
No	15 (4.8)	0(0.0)	15 (4.8)	0.683
Handball court				
Yes	268 (85.6)	8 (2.6)	276 (88.2)	0.002*/
No	32 (10.2)	5 (1.6)	37 (11.8)	9.235
Volleyball court				
Yes	284 (90.7)	13 (4.2)	297 (94.9)	0.393*/
No	16 (5.1)	0 (0.0)	16 (5.1)	0.588
Athletic oval				
Yes	104 (33.2)	13 (4.2)	117 (37.4)	0.000*/
No	196 (62.6)	0 (0.0)	196 (62.6)	22.721
Basketball court				
Yes	29 (9.3)	7 (2.2)	36 (11.5)	0.000*/
No	271 (86.6)	6 (1.9)	277 (88.5)	23.893
Hockey pitch				
Yes	11 (3.5)	2 (0.6)	13 (4.2)	0.038*/
No	289 (92.3)	11 (3.5)	300 (95.8)	4.298

**Source: Field survey, 2018. \*Chi- square statistics is significant at the 0.05 level**

Table 2.1 presents a summary of the results for the availability of football field, handball court, volleyball court, athletic oval, and basketball court as well as hockey pitch in schools based on evaluation by PE teachers and students. The study found that majority (95.2% representing 91.1% of students and 4.2% of PE teachers) of the respondents considered football field to be available in their schools. This implies that football field is a common sports facility in the various SHS in the study district. However, it is worthwhile noting that 4.8% (all of whom were students) pointed that they had no football fields in their school. This is an indication that teachers knew about the availability of football fields in the schools than students. The implication is that some students do not show interest in football as part the physical education subject. The Pearson's Chi- square test showed a significant difference ( $X^2=0.683$ ,  $df= 1$ ,  $p= 0.409$ ) in responds by teachers and students. When respondents were asked of the availability of handball fields in their school, 88.2% of them pointed yes indicating that they had handball fields in their schools. This includes 85.6% of students and 2.6% teachers. It can therefore be inferred that both PE teachers and students were equally aware of the availability of handball fields in their schools. Also the percentage of respondents that pointed that there were no handball fields in their schools were low (11.8%). This included a relatively large number of the PE teachers (5 out of the 13). However, the difference in the responds of teachers and students was not statistically significant ( $X^2=9.235$ ,  $df= 1$ ,  $p= 0.002$ ).

Regarding volleyball field, the result indicates that all the PE teachers (13 representing 4.2% of the total respondents) agreed they have one in their school. Also, the majority (90.7%) of the students pointed yes to this question. This implies that volleyball field was another major sport facility acknowledged by both PE teachers and students. The relationship in the responds for PE teachers and students was statistically significant ( $X^2= 0.588$ ,  $df= 1$ ,  $p= 0.443$ ). This provides evidence to justify that volleyball court is a common sports facility in the various schools surveyed. None of the PE teachers indicated “no” for the availability of volleyball field though a smaller proportion (5.1%) of the students pointed that volleyball court was not available in their schools. Interestingly, all the PE teachers (4.2%) pointed that they had athletic oval in their schools but majority (62.6%) of the students pointed they were not aware of such a facility. This was significant at a  $p$ -value of 0.000. The result implies that most students did not know what the athletic oval is. Thus efforts should be made to introduce students to the names of various facilities they use as part of the subject curriculum.

Hockey pitch appeared the least available sports facility in the schools. A disproportionate number, 300 (representing 95.8%), of the respondents pointed that they had no hockey pitch in their schools. Only 0.6% of the PE teachers and 3.5% of the students (making a total of 4.2%) pointed that they had hockey pitches. This implies that adequate provisions are not made for hockey at the SHS level in the Tano North and South Districts. Using the Likert type scale (from strongly agree to strongly disagree), respondents were required to indicate whether or not they agree to the statement that sports facilities in their schools were adequate for them. The result, as presented in figure 2.1, shows that majority (50%) of the respondents disagreed to the statement whereas 26% strongly disagreed the statement. Only 6% and 18% strongly agreed and agreed respectively. These findings reinforce the idea that PE in the various schools is among the lowest prioritize. In the 2010 academic syllabus for the subject, the GES explains that sports facilities in schools are not adequate and that teachers should make do with the few they may have at their disposal (GES, 2010). However, this gives a poor image to the discipline and makes it difficult to catch the attention of many. Therefore if the course is to fully achieve its inherent goal, policy attention should be directed to addressing the bottlenecks in sports facilities availability.



**Figure 1.1** The level of adequacy of sports facilities

Source: Field survey, 2018.



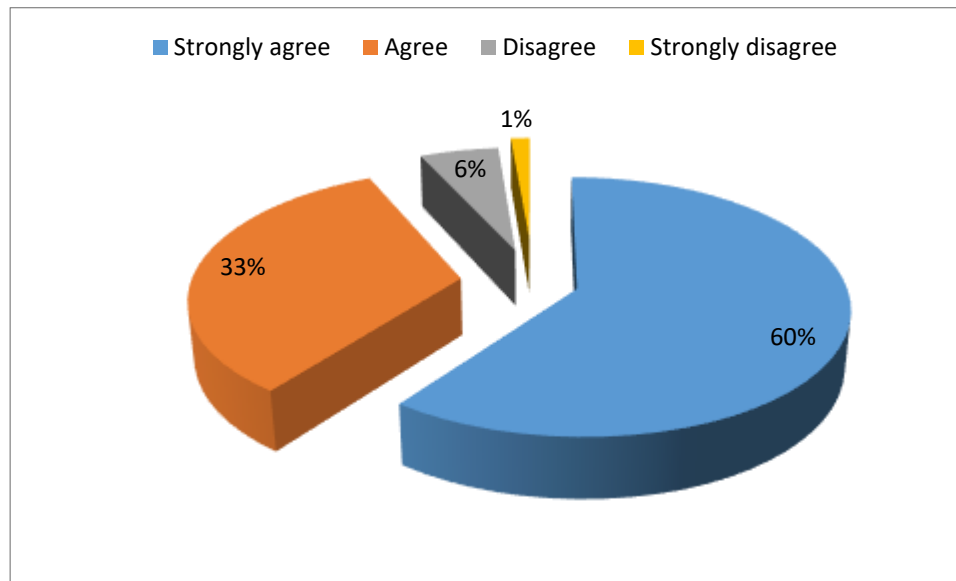
Surfaces for various sports facilities have effect on performance as well as on the type and frequency with which players (PE students) get injury (Nigg, 2003). Also, Sport England (2012) demonstrated that the type of surface used determines the various sports activities can be conducted on the facility. Table summarize result for the surfaces used for the various sports facilities in the sampled schools. The result indicates that, with the exception of football field which had majority (66.1%) of the respondents indicating that they are covered by grass, most of the surfaces of sports facilities in the various schools had bare grounds. The study indicates that, 75% and 76% of respondents had handball and volleyball courts respectively in their schools which are on bare grounds without grass or concrete. Bare surfaces have higher chance for causing injuries and therefore require efforts to be made to introduce grass or concrete for these facilities. With regards to surfaces for basketball court and hockey pitch, a little above 82% and 90% respectively pointed that N/A (Not Applicable) to indicate they do not have such facilities in their schools. This is consistent with the earlier finding in the study that basketball and hockey are not regular sports undertakings in the various schools. Attention must also be directed to introducing these games into the schools. The findings here confirms that most schools conduct PE in sports for which competitions are organised (GES, 2010)

**Table 2.2 Surfaces to the available sports facilities in schools**

Facility	Grass n (%)	Concrete, n (%)	Bare n (%)	Not available in the school n (%)
Handball court	39 (12.5)	21 (6.7)	237 (75.7)	16 (5.1)
Volleyball court	24 (7.7)	47 (15.0)	238 (76.0)	4 (1.3)
Basketball court	3 (1.0)	46 (14.7)	6 (1.9)	258 (82.4)
Hockey pitch	9 (2.9)	15 (4.8)	7 (2.2)	282 (90.1)
Football field	207 (66.1)	0 (0.0)	38 (12.1)	68 (21.7)
Athletic oval	96 (30.7)	8 (2.6)	22 (7.0)	187 (57.7)

**Source: Field survey, 2018.**

Further, the study investigated the level of agreement of respondents to a proposition that their school lack some sports facilities. To this question, the summary result in figure 2.2 reveals that a huge contrast in strongly agree and strongly disagree. The number of respondents that strongly agreed (184 representing 60% of the respondents) to the question was disproportionately larger than those that strongly disagree (4 representing only 1% of the total respondents). This evidently indicates that, in the SHS in the Tano North and South District, sports facilities are lacking for the teaching and learning of the PE subject. It can further be seen from the chart in figure 2.2 that the second largest (33%) proportion of the respondents also agree to the assertion that the schools lack some sports facilities.



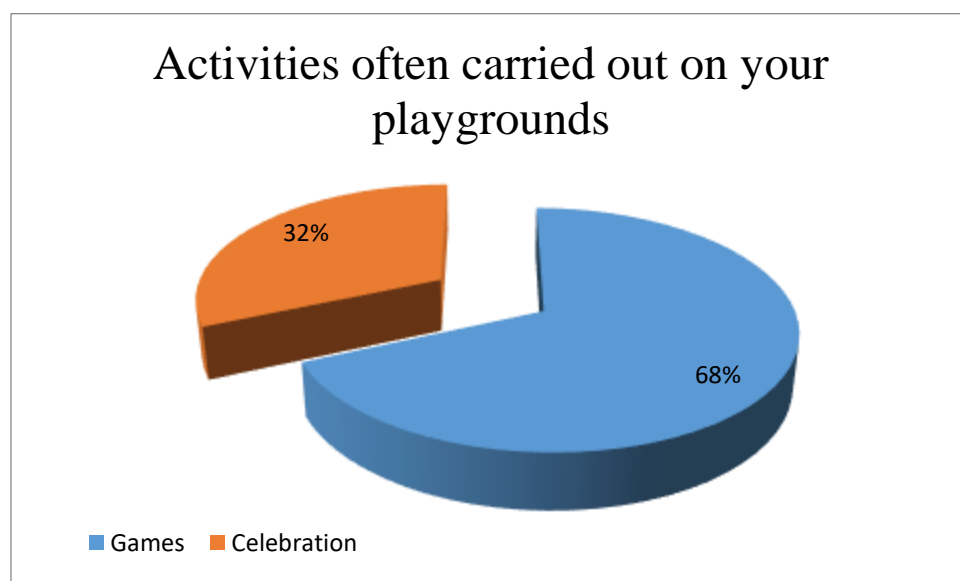
**Fig. 1.2: Sports facilities and their availability.**  
Source: Field survey, 2018

**Research Question: How are sports facilities managed in Senior High Schools in the Tano North and South districts?**

This section analyses the management procedure for the sports facilities in the SHS in the two Districts. Data for this analysis were based on modified Likert-type scales. In this analysis, the various facilities were merged into one and referred to as sports facilities (instead of analysing them separately). This was because, using the observation checklist, it was revealed that most of the schools did not have separate facilities for the various sporting activities.

**Activities Organised on Sports Facilities in the SHS of Tano North and South Districts**

Sports facilities in schools are sometimes not used solely for the purposes of Physical Education lessons. According to the UN Inter-Agency Task Force on Sport for Development and Peace (2003) can be used for multiple purposes. This has implications on the quality of the facility. Two activities were identified to include celebrations and games (that is sports activities). Respondents were required to indicate which of the activities were frequently carried out. It was revealed that a little above 68% indicated that games were carried out on their sports facilities whilst about 32% were of the view that celebrations was carried out on their sports facilities. This confirms the assertion above. The implication is that the facilities are used for activities beyond sports. This affects the quality of the fields and requires that maintenance works should commensurate its uses.



**Figure 1.3 Activities often carried out on your playgrounds?**

**Source:** Field survey, 2018.

### **Maintenance of Sports Facilities.**

In this sub-section, respondents were asked to indicate how they agree to the statement that sports facilities are in good repair. These were ranked from strongly agree to strongly disagree. Table 2.3 summarize the results. Majority (31.3%) of the respondents agreed that their school sports facilities were in good repair. However, this was not very different from those that indicated they disagree (30.4%). Further, a significant percentage (25.9) pointed that they strongly disagree and 8.6% indicated they did not know. This portrays that sports facilities in most of the schools were under poor repairs. Based on the observation checklist, the study identified a trend consistent with this result. In a school like, Bechem Presbyterian SHS, it was noted that sports facility were properly maintained. However, the researcher noted in Yamfo and Bomaa SHS those facilities were in poor state, an indication that they are under poor repair. This signals a need for education officials to pay special attention for the maintenance of these facilities.

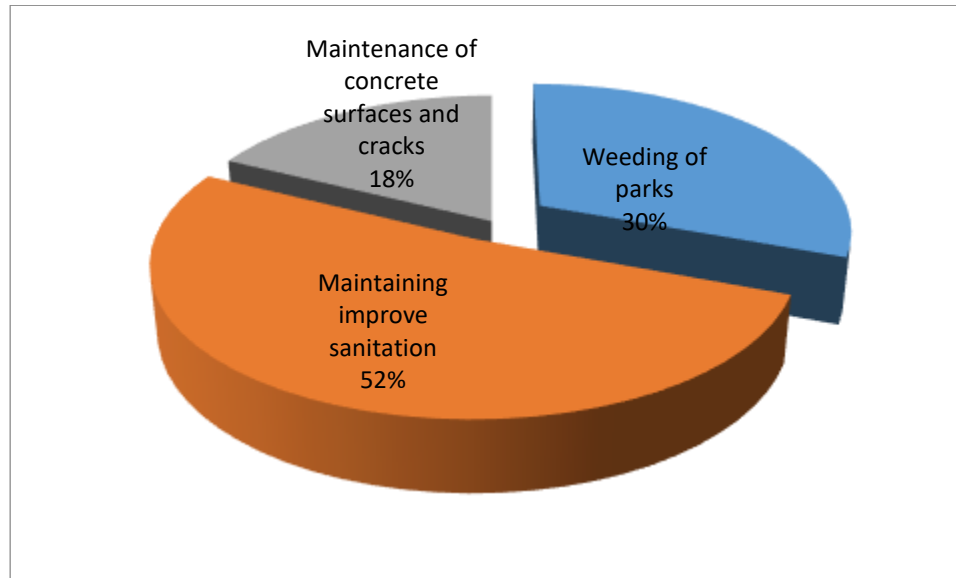
**Table 2.3 Maintenance of sports facilities in SHS of Tano North and South Districts**

Responds	Frequency	Percentages
Strongly agree	12	3.80%
Agree	98	31.30%
Disagree	95	30.40%
Strongly disagree	81	25.90%

**Source:** Field survey, 2018.

This sub section analyses PE teachers and students perceptions regarding how sports facilities should be maintained. Qualitative data was gathered and summarize to allow for frequencies and percentages to be generated. Three major themes emerged and were coded into the SPSS software

for the analysis. This has been supplement with quotations that were related to the themes identified.



**Figure 1:4 Sports Facilities and their maintenance.**

**Source: Field survey, 2018**

Table 1.4 presents the result for respondent's perceptions on how sports facilities should be maintained. This is explained to be as a result of the apathy which was demonstrated earlier. The most frequently cited suggestions were in regards to maintaining improved sanitation (52%). In this category, most of the respondents generated were about ensuring that litters are not left on the fields. The quotation below from a student of Techimantia Presbyterian SHS clearly depicts the appropriate measure to be put in place.

*“For me I think people should not be allowed to drive or walk through the parks because those people will leave rubbish and banana peels on them. Always this will make the park dirty and not attractive for us”* (Student- Techimantia Presbyterian SHS, 2018).

The second theme that emerged from the data was constant wedding of parks. Almost 30% of the respondents expressed concern related to wedding of the parks. This included both students and teachers. It was explained that this will not only help promote the quality of the subject but will also protect the students and staff from snakes and other organisms that are harboured by busy fields. In the qualitative study, following quotation has been generated to add depth to the quality of the data.

*“All the grounds used in this school are grassed. Thus frequent mowing will help to maintain the facilities especially in the rainy season. If they are not maintained in this way, dangerous animals will find their way in and harm the students.”* (Teacher- Techimantia Presbyterian SHS, 2018).

The third theme generated was in regard to maintaining concrete surfaces that have developed cracks. Only a little above 18% of the total respondents shared views related to maintaining concrete surfaces. This indicates that such surface is not common across the study prefecture. It was explained that leaving the facility bare will subject it to the mercy of the weather and will result in development of channels across. From Boakye Tromo, a student averred and in quote;

*“Some of the fields require concrete surfaces because erosion will continue to wash the topsoil away and make them undulating”* (Student- Boakye Tromo SHS, 2018).

Other respondents also explained that they have concrete surfaces on some of the sports facilities but cracks that develop on them are not attended to. This could aggravate injury and calls for urgent attention to address such situations.

### **Research Question: What effects do sports facilities have on sports performance?**

Annor (2011, unpublished Master’s Thesis), established that the Brong Ahafo Region lacks basic sports facilities. It was explained that the situation is partly responsible for low sports performance in the Region. The last research question of this study was to investigate how the available sports facilities affect the teaching of the PE subject and as well as sports performance at the SHS level. Two questions were addressed here. Foremost, the study sought to find out students and teachers reactions to the statement that sports facilities have effect on the lessons in PE. The other question was required students to indicate how sports facilities in their schools help the school to perform well in sporting competitions.

Table 1.4 presents the result for the first question. When the question of whether or not the availability of sports facilities have effect on the lessons in the Physical Education subject, a disproportionate number of them ( 117 and 103 representing corresponding percentages of 37.4 and 32.9) indicated that they strongly agree and agree respectively. From this analysis, it is shown that availability of sports facilities is as equally important as teaching the discipline itself. The result further reveals that the proportion of respondent that strongly agree and agree to the question represents all the PE teachers, 1.9% and 2.2% respectively. Thus teachers were more likely to attribute the effectiveness of sports lessons to availability of sports facilities than students. However, this was not statistically significant as the  $p$  value was greater than 5% ( $X^2= 6.116, df=4, p= 0.191$ ). The implication is, there is a general believe among both teachers and students that facilities availability affect the teaching and learning of PE in schools.

Further, the result reveals that a little above 13% and 14% disagree and strongly disagree that the available sports facilities has effects on the lessons in PE. It can be seen from table 1.4 that none of the respondents in this category was a teacher. Only a few proportion of the student do not agree that sports facilities have effect on the PE lessons. This is attributed to one on two reasons. One reason is some of the students have no regards for sports and only think of it as a waste of time on their academic calendar. This was disclosed by some of the teachers in an informal conversation. Urgent action should be taken to clear this notion and enable participation in sporting activities in order to be able to reap the number of far- reaching benefits associated with the discipline.

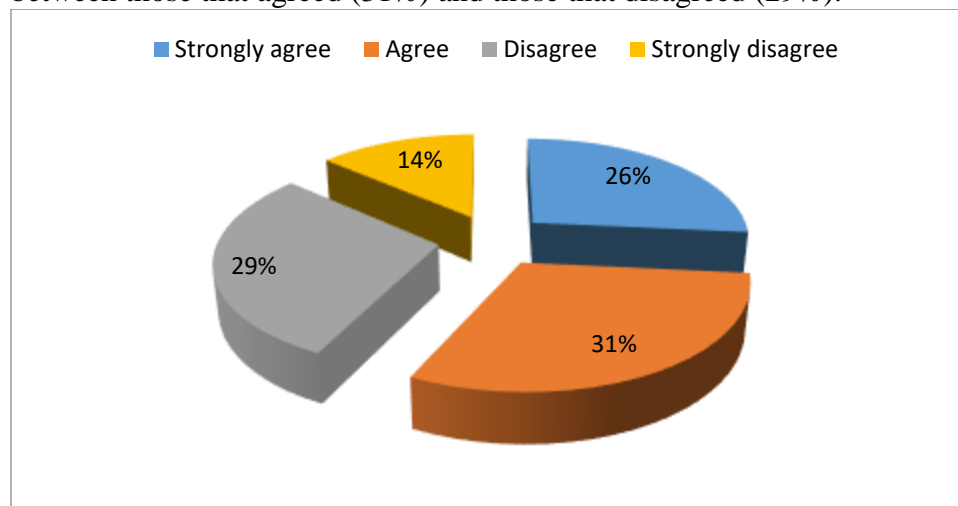
**Table 2.4 Effects of sports facilities on the subject of Physical Education**

	Status of respondent		Total number of respondents
	Student n(%)	Teacher n (%)	N (%)
Responds	300 (95.8)	13 (4.2)	313 (100.0)
Strongly agree	111 (35.5)	6 (1.9)	117 (37.4)
Agree	96 (30.7)	7 (2.2)	103 (32.9)
Disagree	41 (13.1)	0 (0.0)	0 (0.0)
Strongly disagree	45 (14.4)	0 (0.0)	0 (0.0)

$\chi^2 = 6.116$ ,  $df=4$ ,  $p= 0.191$

Source: Field survey, 2018.

The last question generated from the third objective was to find out whether or not the available sports facilities enable the various schools to perform well sports activities. The question was based on the Likert scale and respondents were required to indicate how they agree or otherwise to proposition that available sports facilities help their school to perform well in sports competitions. The responds are summarized in figure 4.5. Mixed responses were generated. Whereas the largest majority (a little above 28%) indicated they agree to the proposition, the second largest majority (almost 27%) pointed that they did not agree to the proposition. The sharp contrast in the responses is an indication of a vast dichotomy among schools in the study prefecture. Whereas schools like Bechem Presbyterian SHS are endowed in sports facilities, others like Boakye Tromo SHS have very limited facilities such that they sometimes share facilities with other schools. The numbers of respondents that strongly disagree to the proposition were low (39 representing about 14%) compared with those who strongly agree (76 representing a little above 26%). This can also be inferred to imply that all the schools are able to do well in one sporting discipline or the other depending on the availability of the particular sports facility required. A similar trend is found between those that agreed (31%) and those that disagreed (29%).

**Figure: 1.5 Availability and the use of Sports Facilities in Sports in Tano Districts**

Source: Field survey, 2018.



$H_0$ : There is no significant relationship between sports performance and provision of sports facilities. The first hypothesis was tested using the Pearson's Chi-square. Variables tested were ranked from strongly agree through to strongly disagree (categorical Likert scale variables) to the proposition that "the school lacked some sports facility" and dichotomous/ dummy variables of Yes or No to the question "Do facilities in your school have an effect on your school's performance in sports competitions?" The result as summarized in table 2.5 reveals that there is a statistically significant ( $X^2=21.971$ ,  $df=4$ ,  $p=0.000$ ) association between sports facilities provision and sports performance in the various schools. In this regard the study fails to accept the hypothesis that there is no significant relationship between sports performance and provision of sports facilities. This is because the available evidence does not support it.

**Table 2.5: Relationship between sports facility provision and sports performance**

Your school lack some sports facilities	Do facilities in your school have an effect on your school's performance in sports competitions		Total
	Yes	No	
Strongly agree	144	40	184
Agree	61	41	102
Disagree	17	0	17
Strongly disagree	4	0	4
Total	232	81	313

$X^2$  Value= 21.971,  $df=4$ ,  $p=0.000$

Source: Field survey, 2018.

$H_0$ : Both PE teachers and students have the same perception regarding the statement that sports facilities is in good repair

The second hypothesis was tested as the perception for students and PE teachers about the repair of sports facilities is the same. This was based on respondent's status, which was dummy (student or teacher) and a categorical ranked Likert-type scale (from strongly agree through to strongly disagree). The result obtained (see table 2.6) validated the hypothesis ( $X^2=6.690$ ,  $df=4$ ,  $p=0.153$ ). Only few (3.2% of students and 0.6% of PE teachers) strongly agreed that sports facilities in their school are in good repair. Responds for both PE teachers and students were nearly fairly distributed around the scale, thus second hypothesis is accepted.

**Table 2.6 Good sports facilities for PE teachers and students and their use.**

Sports facilities in your school are in good repair	Respondents status in school		Total
	Student n/%	Teacher n/%	
Strongly agree	10/3.2	2/0.6	12/3.8
Agree	93/29.7	5/1.6	98/31.3
Disagree	91/29.1	4/1.3	95/30.4
Strongly disagree	79/25.2	2/0.6	81/25.9
Total	300/95.8	13/4.2	313/100

$X^2$  Value= 6.690,  $df=4$ ,  $p=0.153$

Source: Field survey, 2018.

H<sub>0</sub>: PE teachers and students equally agree to the effect of sports facility availability on the subject of PE

Sports facilities in SHS are intended, foremost, to promote physical education. The study therefore hypothesized that PE teachers and students will equally agree to the effect of sports facility availability on the subject of PE. The Pearson's Chi square was used to determine this relationship. The result indicated no statistically significant difference in the responds of the PE teachers and students. This has vindicated the hypothesis. The cross tabulation further explains the relationship. Majority (37.4% including 111 of the students and 6 of the PE teachers) strongly agreed that sports facilities in schools have effect on PE lessons whereas 32.9% agreed. Only a few proportions disagreed (13.1%) and strongly disagreed (14.4%) respectively. This implies that there is a general notion among both PE teachers and students that sports facilities have effect on the subject of Physical Education.

**Table 2.7: Both teachers and students perception on repairs of sports facilities in schools**

Sports facilities in your school are in good repair	Respondents status in school		Total
	Student n/%	Teacher n/%	
Strongly agree	111/35.5	6/1.9	117/37.4
Agree	96/30.7	7/2.2	103/32.9
Disagree	41/13.1	0/0.0	41/13.1
Strongly disagree	45/14.4	0/0.0	0/0.0
<b>Total</b>	<b>300/95.8</b>	<b>13/4.2</b>	<b>313/100</b>

**X<sup>2</sup> Value= 6.116, df= 4, p= 0.191**

**Source: Field survey, 2018.**

### **Discussions of findings and results**

#### **The Current State of Sports Facilities in the Senior High Schools (SHS)**

The study found that football and volleyball fields were the common sports facility available in the schools. This was indicated by almost 95% of the respondents. The statistical test based on the Pearson's Chi- square revealed that only knowledge regarding the availability of football field and volleyball court were not statistically significant. This indicates that both PE teachers and students were equally likely to tell whether or not their school have football field and volleyball court. Amazingly, the study found that whereas teachers indicated that they have athletic oval in their schools a large proportion of the students (62.6) pointed that they did not have it. This tested significant at a *p* value of less than 0.05. This is an indication of knowledge gap suggesting that students did not understand the term. It is therefore necessary for teachers to stress on teaching students the names of the various facilities they use. The study found that sports facilities in the various schools were not adequate for their PE subject requirement and that they sometimes share facilities with other schools. It was also shown that most of the PE lessons in handball and volleyball were played on bare ground without the appropriate surfaces.

**How Sports Facilities are managed in SHS in the Tano North and South Districts**

From this objective, the study found that sports facilities were not used solely for sporting activities. It was indicated by about 32% of the respondents that celebrations and other events are organised on the fields. This has implications on its management. When the respondents were asked whether sports facilities were in good repair, it was found that significant percentages of 30.4 and about 25.9 indicated that they disagree and strongly disagree respectively. This is an indication of poor maintenance of sports facilities in the schools. It appeared that the major of maintenance required for the various sports facilities in the school were; improved sanitation (52%); regular weeding of sports field (30%) and maintenance of cracks on concrete fields (18%).

**Effects of Sports Facilities on Sports Performance**

It was found that majority of the respondents (37.4% and 32.9%) strongly agree and agree respectively to a proposition that sports facilities have effect of the teaching of the PE subject. A Chi-square statistical test was conducted to determine where or not there is a significant relationship between students and PE teachers regarding the question herein and the result indicated no statistical association since the  $p$  value was less than 0.05. Also only 13% and 14% of the respondents indicated that disagree and strongly disagree respectively. However, there was no PE teacher in this category. When respondents were to indicate their responds to the statement that available sports facilities help their school to perform well in sports competitions, mixed responds were generated. Those that agree (31%) were almost equal to those that disagree (29%). This was however not surprising since it gives a picture of the sharp dichotomy in sports infrastructure endowment among schools in the region.

**Implication to Research and Practice**

In considering sports facilities to make the most effective contribution to student's life experience, they must be recognised as important and valued by the administration of the institution. Sports facilities are expensive to build and expensive to maintain. They must be seen as an investment. It must also be recognised that a new sports facilities will not automatically change a campus culture. Physical education teachers and administrators will have to work to effect this change, involving student leaders and organisations.

**CONCLUSION**

The study investigated the state of sports facilities and their effects on sports development at the Senior High Schools in Tano North and South districts. The hypothesis that sports facilities provision has no effect on sports performance was not justified in the analysis. The study has revealed that majority of the SHS in the Tano North and South Districts do not have adequate sports facilities for their PE lessons. It was indicated that only football field and volleyball court availability was almost equally acknowledged by both students and PE teachers. More teachers were aware of the availability of all other sporting facilities than student as was indicated in the statistical testing.

Regarding the maintenance of sports facilities, it was found that the facilities are also used for celebrations which often bring about littering on the facilities. Respondents suggested that the most

important maintenance requirements were ensuring improved sanitation, regular weeding of fields and repair of cracks in concrete facilities.

The Chi-square statistical test conducted to determine whether or not there was a significant relationship between students and teachers on the proposition that sports facilities have effect of the teaching of the PE subject and PE teachers showed no statistical association. Facility availability was found to be an important requirement for the teaching of PE. Further, schools that had near adequate facilities agree they are able to perform well than those with relatively few facilities.

Generally, the study has found that sports facilities in SHS in the Tano North and South were inadequate and have significant effect on sports performance. Some schools were indicated to share sports facilities. There was need for improved sanitation, regular weeding and maintenance of cracks in concrete facilities as a way to improve the teaching and learning of the PE subject.

### **Recommendation**

The findings of this study prompted the researchers to make the following recommendations for institutions that want their sports facilities to be a positive and socializing part of campus culture:

It is recommended that there should be control potential tension on the usage of the limited sports facilities to promote its lifespan. For instance, restricting other activities not to be held there other than sporting activities alone.

Institutions should be prepared to invest in putting up new sports facilities, renovating, updating and expanding to meet students' needs and required standards.

Ghana Education Service should accord due attention to the subject, since it has the potential to contribute to positive academic performance, improved health among others for students and society as a whole.

Teachers need to introduce the names of the facilities to students since it was revealed that though teachers are aware of the presence of the athletic oval in their school, students had no idea about that.

### **Future Research**

The researchers suggest that future studies on assessment and evaluation of the state of sports facilities and their effects on sports development at the Senior High School (SHS) level in the Tano North and South Districts as follows:

- It is suggested that this study be replicated using different districts and regions in Ghana
- It is also suggested that this study be replicated as a national study.

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