

A study on the effects of inadequate sport equipment and facilities on sports development and academic performance in primary schools: a case study of Bwari area council of Abuja-Nigeria

Dahiru M. Sanni^{1,2,3}, Caleb Ede³, Adebayo A. Fashina^{3,4*}

¹ Department of Theoretical and Applied Physics, African University of Science and Technology, PMB 681, Garki, Abuja, Nigeria

² Department of Physics, Federal University, PMB 5001, Dutsin-ma, Kastina, Nigeria

³ Department of Research and Development, Comprehensive Educational Consults, 4 Kudang Street, Off Aminu Kano Crescent, Wuse II, Abuja, Nigeria

⁴ Department of Mathematics and Natural Sciences, Tubman University, P. O. Box 3570, Harper City, Maryland County, Liberia

*Corresponding author E-mail: adebayofashina@gmail.com

Abstract

Since physical education was designed to help students develop their physical, mental, and social abilities, there is a need to explore the development of sport in Nigerian schools, particularly, in the primary schools. This paper presents the results of a survey that provides insights on the effect of inadequate sporting facilities and equipment on the development of sports in primary schools in Bwari Area Council, FCT-Abuja, Nigeria. The six month questionnaire study was carried out in fifteen selected primary schools from the four educational zones in the Area Council. The questionnaire was administered to 195 teachers from the selected schools before the data collected was analyzed using simple percentage approach. The study identifies the factors that influence non-participation of schools in this Area council in sport competitions. The academic and social impacts of providing adequate sporting activities, equipment and facilities are discussed before recommending the appropriate programs that can help enhance sport development at the primary school level in Bwari Area Council and Nigeria at large.

Keywords: Sport Development; Primary School; Sport Equipment; Sport Facilities; Academic Impact and Nigeria.

1. Introduction

For over three decade now, there has been increasing interest in the development of sports among the Nigerian youths [1]. This has led to the introduction of sport activities in schools and physical education into the school curriculum by the national policy on education in 1982 [2], [3]. These efforts is geared towards helping children/youths develop physically, mentally and socially to their maximum potential in order to become well rounded, happy, intelligent, and socially sensitive. And since primary education is generally seen as the foundation of formal teaching, social activities are expected to be of priority in the development of primary schools pupils [4-6].

Aluko and Adodo [7] made emphasis on this when they stated that activities of learning at the primary level should be adequately diversified to ensure good growth and development of the child [7]. The authors further explained that by the virtue of the age group of the primary school pupils, children at this level of growth usually possess a lot of natural energy that can drive them to learn adequately [7]. Taggart [8] was also of the opinion that at the primary level of education, the pupils need programme of activities that are capable of simulating their interest and attention. It is on

this premise that Ojeme [9] and Aluko [10] stated that physical education programmes within the school hours (without basis facilities and equipment) are insufficient to address the need to develop the abilities and skills of the entire pupils' body and increase voluntary participation in games and other activities [9-11]. In addition, Agbonlahor [12] was of the view that lack of fund is a strong factor that is affecting the procurement or purchase of sports equipment in schools, which in turn affects the growth of physical education and sports development [12]. However, most schools say even though their school fees are modest, only a small percentage of parents bother to pay, leaving them with little funding to buy equipment and do maintenance. Agbonlahor [12] also stated that the improvement of the standard/development of sports largely depend on the availability of equipment and basic training skills provided to children. Toriola [13] and Adebayo [14] also express dissatisfaction in the manner which football fields are been converted to school buildings thereby denying school children the much needed facilities to play [13], [14]. Adebayo also cited cases where a typical primary school in Nigeria may be having gigantic architectural show-piece for its facilities and equipment in terms of hostels, library and yet its playground is critically having a bare ground surface with undulating playing field [14].

In spite of the prescription by the National Policy on Education that all primary school should have play-ground for pupils, many primary schools in Nigeria still lack basic sports equipment that enhances intra-mural sports [15]. Records have also shown that over the past decade sports facilities and equipment in primary schools are grossly inadequate and outdated [16]. The poor maintenance culture and inadequacy of sports facilities and equipment however signifies that sports development in Nigeria is not placed on the high priority list in the primary educational system [17]. There is, therefore, a need to explore the effects of inadequate sport equipment and facilities on sports development in Nigerian primary schools.

2. Purpose of the study

The main purpose of the study is to discover the effects of inadequate sport equipment and facilities on the development of sports in primary schools in Bwari Area Council. Precisely, the study sought to:

- Find out the effect of non-availability of sports equipment on the performance of primary school pupils in sports.
- Find out how effective sport equipment is to sport activities in primary school in Bwari Area Council.
- Identify the factors that influence the non-participation of schools in this Area council in local and national sport competitions.

3. Research questions

The following research questions guided the study:

- Does lack of sport facilities affect sports activities in schools in Bwari Area Council?
- Does lack of sports equipment hinder the sports performance of schools in Bwari Area Council?
- Does lack of sports facilities affect sport competitions in Bwari Area Council?
- To what extent does lack of sports facilities affect the development of sports in Bwari Area Council?
- What are the adequate sporting activities that can positively increase the academic and social impact of pupils in Bwari Area Council?

4. Methodology

4.1. Research design

The research method adopted was the descriptive survey research design which permits the description of situation as it exists. The research survey covers all the primary schools in the entire Bwari Area Council.

4.2. Population of the study

The study covered 121 primary schools in Bwari Area Council with a total of 1634 teachers.

4.3. Samples and sampling techniques

The sample size was 11.9% of the total population which was 195 respondents. 185 copies of instrument were returned. Simple random sampling technique was used to select samples for the study.

4.4. Research instrument

The instrument used in this study for data collection was a structured questionnaire that was developed by the researchers. The questionnaire consisted of 14 research question that sought information on sport equipment and its effect on sport development.

4.5. Validation of instrument

The research questionnaire was subjected to content and face validity by three experts in physical and health education. Some necessary adjustments were made before the final administration of the instrument.

4.6. Reliability of instrument

The reliability of the instrument was determined by using test-retested method. The instrument was first administered to the respondents a month before the second administration of instrument was carried out. A correlation coefficient of 0.68 was reached using Pearson product movement correlation co-efficient.

4.7. Method of data analysis

The method used to analyze the data obtained in the study was the simple percentage method, where the raw score was divided by total number of the respondents and then multiplied by one hundred.

5. Result

5.1. Research question 1

Do your school have enough sports equipment and facilities? The result is shown in Table 1.

Table 1: The Percentage Analysis of Sports Equipment in Primary Schools in Bwari Area Council

Variables	Frequency of Responses	Percentages
Yes	35	18.9%
No	150	81.1%
Total	185	100.0%

The data in Table 1 revealed that 81.1% of the respondents were of the opinion that their schools do not have adequate sports equipment, while the remaining 18.9% respondents were of the opinion that there was enough sports equipment in their schools.

5.2. Research question 2

Do primary schools lack sports equipment in Bwari Area Council? The result is shown in Table 2.

Table 2: The Percentage Analysis of the Availability of Sports Equipment in Primary Schools in Bwari Area Council

Variables	Frequency of Responses	Percentages
Yes	165	89.2%
No	20	10.8%
Total	185	100.0%

The data in Table 2 revealed that 89.3% of the respondents were of the opinion that primary schools in Bwari Area Council lacks sports equipment, while the remaining 10.8% respondents were of the opinion that primary schools in Bwari Area Council do not lack sports equipment.

5.3. Research question 3

What are the sports equipments available in selected schools? The result is shown in Table 3.

Table 3: The sports equipment available in selected primary in Bwari Area Council

S/N	Schools	Variables (Equipment)	Frequency of Response	Percentages
1	Pilot Primary School, Bwari	Football	14	7.6%
		Volley ball	15	8.1%
		Spike shoes	0	0.0%
		Batons	12	6.5%
		Hand ball	8	4.3%
2	Government day Primary School Mpape.	Football	20	11.0%
		Volley ball	3	1.6%
		Racket	30	16.2%
		High Jump stand	32	17.3%
		Football	9	4.8%
3	Unity Montessori School, Kubwa	Volley ball	14	7.5%
		Hand ball	7	3.8%
		Long Jump	21	11.4%
		Table tennis	19	10.3%
		Total	185	100.0%

The data in Table 3 revealed the numbers of sports equipment available in primary schools in Bwari Area Council as follows: 43 (23.2%) for football, 19 (10.3%) for tennis, 0 (0%) for spike shoes, 12 (6.5%) for baton, 30 (16.2%) for racket, 32 (17.3%) for volley ball, 32 (17.3%) for high jump stands and 21 (11.4%) for long jump board.

5.4. Research question 4

Have your school participated in any sports competition? The result is shown in Table 4.

Table 4: The Percentage Analysis of the Number of Primary Schools in Bwari Area Council That Had Participated in at Least One Competition

Variables	Frequency of Responses	Percentage
Yes	142	76.8%
No	43	23.2%
Total	185	100.0%

The data in Table 4 revealed that 76.8% of the respondents were of the opinion that their schools had participated in sports competitions, while the remaining 23.2% respondents were of the opinion that their schools have never participated in completion.

5.5. Research question 5

Have your school won any medal? The result is shown in Table 5.

Table 5: The Percentage Analysis of the Number of Primary Schools in Bwari Area Council That Had Won at Least One Medal

Variables (Schools)	Responses	Frequency of Response	Percentage
Pilot Primary School, Bwari	Yes	84	59.2%
Government day Primary School Mpape	No	58	40.8%
Total	Total	142	100.0%

The data in Table 5 revealed that 84 (59.2%) respondents indicated that their schools had won medals, while the remaining 58 (40.8%) respondents indicated that their schools have never won a medal in any completion.

5.6. Research question 6

What area of sports do your pupils like most? The result is shown in Table 6.

Table 6: The Percentage Analysis of the Area of Sport Liked Most by the Pupils in Primary Schools in Bwari Area Council

Variables	Frequency of Response	Percentage
Football	92	49.7%
Volleyball	45	24.3%
High Jump	48	25.9%
Total	185	100.0%

The data in Table 6 revealed that 92 (49.7%) respondents indicated that pupils in primary schools in Bwari Area Council liked football as favourite sport, 45 (24.3%) respondents indicated volleyball, while the remaining 48 (25.9%) respondents indicated that pupils in primary schools in Bwari Area Council preferred high jump to other sports.

5.7. Research question 7

Does the Area Council provide adequate sports equipment for the school? The result is shown in Table 7.

Table 7: The Percentage Analysis of the Sports Equipment Provided by the Area Council

Variables	Frequency of Response	Percentage
Adequate	18	9.7%
Fairly adequate	43	23.2%
Not adequate	124	67.0%
Total	185	100.0%

The data in Table 7 revealed that 67% of the respondents were of the opinion that the sport equipment provided by the Area Council is inadequate, 23.2% of the respondents indicated that the provision of sports equipment by the Area Council is fairly adequate, while the remaining 9.7% respondents believes that it is adequate.

5.8. Research question 8

Are pupils satisfied with the sports equipment available in the school? The result is shown in Table 8.

Table 8: The Percentage Analysis of the Satisfaction of Pupils with the Available Sports Equipment in Primary Schools in Bwari Area Council

Variables	Frequency of Response	Percentage
Yes	46	24.9%
No	139	75.1%
Total	185	100.0%

The data in Table 8 revealed that 46 (24.9%) respondents indicated that pupils were satisfied with the sports equipment available in primary schools in Bwari Area Council, 139 (75.1%) respondents indicated that pupils were not satisfied with the available sports equipment.

5.9. Research question 9

Do you think the availability of sports equipment in your school has any effect on the of sports development at the primary level of education? The result is shown in Table 9 below.

Table 9: The Percentage Analysis of the Effect of Sports Equipment on Sports Development at the Primary Level of Education in Bwari Area Council

Variables	Frequency of Response	Percentage
Yes	127	68.6%
No	58	31.4%
Total	185	100.0%

The data in Table 9 revealed that 68.6% of the respondents were of the opinion that the availability of sport equipment in schools do influence sports development at the primary level of education in the Area Council, while 31.4% of the respondents indicated that availability of sport equipment does not affect sports development at the primary level of education in the Area Council.

5.10. Research question 10

Do teachers engage their pupils in most areas of sports? The result is shown in Table 10.

Table 10: The Percentage Analysis of the Engagement of Pupils in All Areas of Sports by the Teachers

Variables	Frequency of Response	Percentage
Yes	117	63.2%
No	68	36.8%
Total	185	100.0%

The data in Table 10 revealed that 63.2% of the respondents were of the opinion that teachers engage their pupils in most areas of sports, while the remaining 36.8% of the respondents disagreed.

5.11. Research question 11

If No in research question 10, please state some reasons. The result is shown in Table 11.

Table 11: The Percentage Analysis of Reasons Why 68 Teachers Disagree That Teachers Engage Pupils in Most Areas of Sports

Variables	Frequency of Response	Percentage
Teachers do not engage the pupils in all areas of sports because most of the teachers are not trained Physical and Health Education Instructors. They know little about sports and its rules	38	55.9%
Other reasons	20	44.1%
Total	68	100.0%

The data in Table 11 revealed that 55.9% of the respondents who were of the opinion that teachers do not engage their pupils in most areas of sports identified the lack of trained physical education instructors/teachers as one of the major factors that affect the involvement of pupils in most areas of sports, while the remaining 44.1% of the respondents provided different reasons.

5.12. Research question 12

Do you think that adequate sports equipment can enhance sports performance? The result is shown in Table 12 below.

Table 12: The Percentage Analysis of the Effect of Adequate Sports Equipment on Sports Performance in Primary Schools in Bwari Area Council

Variables	Frequency of Response	Percentage
Yes	157	84.9%
No	28	15.1%
Total	185	100.0%

The data in Table 12 revealed that 157 (84.9%) respondents were of the opinion that adequate sports equipment can enhance sports performance in primary schools in Bwari Area Council, while the remaining 28 (15.1%) respondents disagreed.

5.13. Research question 13

If No, what are your reasons? The result is shown in Table 13.

Table 13: Factors That Reduces Sports Performance in Primary Schools in Bwari Area Council

Variables	Frequency of Response	Percentage
1. Performance is enhanced by trained physical educators which are lacking in schools	20	71.4%
2. Other reasons	8	28.6%
3. Total	28	100.0%

The data in Table 13 revealed that 71.4% of the respondents who were of the opinion that adequate sports equipment cannot enhance sports performance believed that sport performance can

only be enhanced in primary schools in Bwari Area Council when trained physical instructor/educators are available to teach pupils on how best to handle the available equipment, while the remaining 28.6% of the respondents provided different reasons.

5.14. Research question 14

Does sports equipment attract the interest of pupils in participating in sports activities? The result is shown in Table 14.

Table 14: The Percentage Analysis of the Effect of Sports Equipment on the Interest of Pupils in Participating in Sports Activities

Variables	Frequency of Response	Percentage
Yes	164	88.6%
No	21	11.4%
Total	185	100.0%

The data in Table 14 revealed that 164 (88.6%) respondents were of the opinion that sports equipment attracts the interest of pupils in participating in sports activities, while the remaining 21 (11.4%) respondents disagreed.

6. Discussion

The findings in Tables 1 and 2 reveal that majority of the primary schools in Bwari Area Council either lack sports equipment or do not have adequate sports equipment, which has thus, contributed immensely to the poor performance of the pupils' in sports. However, it can be deduced from Table 3 that only eight (8) types of sport equipment are available in the primary schools that have sports equipment. These include football, tennis, spike shoes, baton, racket, volley ball, high jump stands and long jump board. The data in Table 4 reveals that most of primary schools in Bwari Area Council had participated in sport competitions at least once, and of the numbers that had participated in sport competitions, only 59.2% had won sport medals as shown in Table 5. Furthermore, the findings in Table 6 reveal that pupils in primary schools in Bwari Area Council preferred football as their favourite sport compared to the other available sports. The data in Table 7 reveals that the sports equipment provided by the Area Council to primary schools is inadequate and the primary pupils are not satisfied with the available sports equipment in their various schools as indicated in the results presented in Table 8.

In addition, the study further reveals in Table 9 that the availability of sports equipment can influence the development of sports at the primary level of education in the Area Council. The data in Tables 10 and 11 reveals that teachers engage their pupils in most areas of sports and identified the lack of trained physical education instructors/teachers as one of the major factors that affect the involvement of pupils in most areas of sports respectively. Evidences around the world have shown that the quality of a nation's educational system cannot exceed the quality of the teaching in the country [18]. The finding in Tables 12 and 13 also reveals that adequate sports equipment can enhance sports performance in primary schools in Bwari Area Council if trained physical instructor/educators are available to teach pupils on how best to handle the available equipment. The results in Table 14 reveal that sports equipment attracts or increase the interest of primary pupils in participating in sports activities.

7. Implications

The implications of this study are quite significant. First, the results from the study show that the pupils' interest and performance in sports depend largely on the availability of sports equipment. Consequently, the need to ensure that adequate sports equipment are provided in various primary schools in Bwari Area Council cannot be over emphasized, following the interest the pupils have in sports activities. This implies that children within this age group are mostly inspired by these sport activities which serves as a

means of their physical, mental, and social development and when this demand is neglected, it can result into the pupils redirecting their energies on unhealthy activities. Thus, primary school pupils need to be engaged with sport inclusive playing activities that can facilitate increasing school attendance. This would also increase the pupils' chances of learning.

Secondly, the findings from this study reveal that the poor performance of the pupils in sports can be traceable to the inadequate sports equipment in various schools. Nevertheless, the place of sports in Bwari Area Council leaves much to be desired and there is therefore, a need for the Area Council to ensure that the basic or required sports equipment are put in place in primary schools, to help enhance the performance of pupils socially, mentally and academically.

8. Conclusions

The survey investigated the effect of lack of sport equipment in development of sport in primary schools in Bwari Area Council and how sports activities can be enhanced through the use of sports equipment. This study revealed that the availability of sports equipment and facilities is a crucial element in the development of sports in primary schools in Bwari Area Council. In addition, the study identified the lack of trained physical education instructors/teachers as one of the major factors that affect the involvement of pupils in most areas of sports.

9. Recommendations

Based on the findings of the study, the following are recommended:

- a) Government should consider providing sports materials to primary schools on a regular basis
- b) Government should create platform for physical education teachers to be trained on the use of the different types of sports equipment.
- c) Government should also introduce after school sports activities/clubs where pupils can learn the skills and techniques of games like scrabble or chess.
- d) Government should regularly organize sports competitions within primary schools both at the state and national level with emphasis on skills development/performance via the use of diverse sports equipment.
- e) However, efforts should be made to ensure that lessons are not on during intra-mural sports activities while all physical education practical sessions must involve the use of sports equipment.

Acknowledgement

The authors are grateful to thank the Head Teachers and Class Teacher of the selected primary schools in Bwari Area Council of Abuja for useful scientific discussions and contributions. Appreciation is also extended to Comprehensive Educational Consults for financial support.

References

- [1] Lawal I. Y. Sport development; The Nigerian way: A review. *International Journal of Physical Education, Sports and Health* 1(4), (2015) 20-24.
- [2] Ojeme E.O. Problems in the development of sports in Nigerian Universities, *International Review for Sociology of Sports*, 20(3), (1985) 120-127. <https://doi.org/10.1177/101269028502000304>.
- [3] Orunaboka, T.T. (1990) Factors related to the teaching of physical education in secondary schools in Okrika, Rivers State, *B.Ed Project. University of Port Harcourt*.
- [4] Sallis, J.F.; McKenzie, T.L.; Alcaraz, J.E.; Kolody, B.; Faucette, N.; Hovell, M.E. The effects of a 2 year physical education program (SPARK) on physical activity and fitness in elementary school students. *Am. J. Public Health* 87(8), (1997) 1328-1334. <https://doi.org/10.2105/AJPH.87.8.1328>.
- [5] Cobley S.; Abraham C.; Baker J. Relative age effects on physical education attainment and school sport participation. *Physical Education and Sport Pedagogy* 13, (2008) 267-276. <https://doi.org/10.1080/17408980701711983>.
- [6] Eather, N.; Morgan, P.J.; Lubans, D.R. Improving the fitness and physical activity levels of primary school children: results of the Fit-4-Fun group randomized controlled trial. *Prev. Med.* 56(1), (2013) 12-19. <https://doi.org/10.1016/j.ypmed.2012.10.019>.
- [7] Aluko K.; Adodo S. M. A Conceptual Analysis of School Sports Development in Nigeria. *African Research Review*, 5(5), (2011) 394-403. <https://doi.org/10.4314/afrev.v5i5.31>.
- [8] Taggart A. Don calls for new approach to physical education, Vanguard Newspaper, February, 13th (2003).
- [9] Ojeme E.O. Remodeling the physical education and sports curriculum programmes towards achieving Nigeria's vision 2020. (2009) *In Proceedings of Nigeria Association for Physical, Health Education, Recreation –Sport and Dance*, 38: pp. 84-87.
- [10] Aluko K. The status of secondary school sports in Benin metropolis: towards VISION 2020. (2009) *In Proceedings of Nigeria Association for Physical, Health Education, Recreation Sport and Dance*, 38: pp. 113-116.
- [11] Bukowsky, M.; Faigenbaum, A.D.; Myer, G.D. Fundamental Integrative Training (FIT) for physical education. *J. Phys. Educ. Recreation Dance*, 85(6), (2014) 23-30. <https://doi.org/10.1080/07303084.2014.926842>.
- [12] Agbonlahor E. I. Improving Physical Education in Nigerian Primary Schools, *European Journal of Humanities and Social Sciences* 20(1), (2013) 981-989.
- [13] Toriola O.M. Competitive Sports in Botswana. *KPER. SD.* 37(3), (2002) 40-44.
- [14] Adebayo W. (2002) Onigbinde wants more youths in sports. *Punch Newspaper*: August 22nd, 17(18): pp. 63.
- [15] Nigerian Federal Government (NFG) (2004) National Policy on Education, *Federal Ministry of Education, Abuja*.
- [16] Mgbor, M.O. (2006), Issues and future direction of physical education in Nigeria. *In The Educational Forum, Taylor & Francis Group* 70(2): pp. 134-140. <https://doi.org/10.1080/00131720608984884>.
- [17] Chappell R. The Problems and Prospects of Physical Education in Developing Countries. *International Sports Studies* 23(2), (2001) 88-95.
- [18] Fashina A. A. Teacher Quality and Liberia's Educational System. *Arts and Humanities Open Access Journal* 1(4), (2017), 132-133.