

ASSESSMENT OF PARTICIPANTS' AWARENESS ON UTILIZATION OF FACILITIES AND EQUIPMENT FOR SPORTS DEVELOPMENT IN GIRLS BOARDING SENIOR SECONDARY SCHOOLS IN KATSINA STATE, NIGERIA

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Abstract

This study assessed participants' awareness of the utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State, Nigeria. The research employed a survey design, targeting all teachers and students from fourteen girls' boarding schools, comprising 522 teachers and 7,565 students. Multi-stage sampling was used to select a representative sample of 217 (teachers and students). Data were collected using a structured questionnaire measured on a four-point Likert scale and analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (Chi-Square) at a 0.05 significance level. Findings revealed that the overall level of awareness among participants was low, with a weighted mean score of 2.78 out of 4.0. While participants demonstrated moderate awareness of commonly used sports facilities such as volleyball, basketball, and handball, awareness of less commonly utilized facilities, including field hockey, fives, tennis, and badminton, was particularly low. Chi-Square analysis indicated a statistically significant level of awareness among respondents ($\chi^2 = 89.940$, $p < 0.05$), highlighting the critical role of participant engagement in the effective utilization of sports resources. The study concluded that although facilities and equipment are available, limited awareness and utilization hinder the potential impact of sports development programs in girls' boarding schools. It is recommended that schools implement structured awareness campaigns and teacher training programs to promote equitable access, enhance utilization of sports facilities, and support holistic sports development for female students.

Keywords: Sports facilities, equipment utilization, girls' boarding schools, awareness, sports development, Katsina State

Introduction

Sports facilities and equipment constitute essential components of the educational system, serving not only as platforms for physical activity but also as instruments for fostering holistic development among students. Participation in sports enhances physical fitness, promotes mental

well-being, and develops critical life skills such as teamwork, leadership, discipline, and resilience (Bailey et al., 2013). In contemporary education, sports are increasingly recognized as a vital tool for achieving balanced development, particularly among adolescents in secondary schools. However, global evidence continues to highlight disparities in sports participation, especially along gender lines, with female students consistently participating less in organized sports than their male counterparts, with wider gaps observed in developing regions (UNESCO, 2017).

Efforts to promote gender equity in sports have gained international attention, with global frameworks emphasizing sports as a means of empowering girls and enhancing social inclusion. Increased female participation has been linked to improved confidence, leadership, and life opportunities (United Nations, 2018). Despite these advances, Sub-Saharan Africa continues to experience challenges such as inadequate infrastructure, limited access to facilities, and socio-cultural constraints that restrict girls' participation. Reports indicate that only a small proportion of schools in the region have adequate and gender-sensitive sports facilities, thereby limiting effective engagement among female students (African Development Bank, 2020).

In Nigeria, sports development within the educational system has received attention, yet gender disparities persist. Although many secondary schools report the presence of sports facilities, only a limited number provide facilities that are accessible and suitable for female students. Studies have shown that female students in boarding schools participate in sports at significantly lower rates than males, largely due to inadequate facilities and unequal resource allocation (Onu & Nwachukwu, 2017; Federal Ministry of Education Nigeria, 2021). Furthermore, the existence of facilities does not necessarily translate into effective utilization, as awareness and institutional support remain critical determinants.

Katsina State provides a relevant context for examining these issues, given recent investments in sports infrastructure across secondary schools, including girls' boarding institutions. Despite improvements in facility provision, participation among female students remains relatively low, indicating that infrastructure alone is insufficient to drive sports development. Evidence suggests that while many schools report adequate facilities, utilization levels among female students remain below expectation due to limited awareness, accessibility challenges, and institutional constraints (Katsina State Secondary Education Board, 2021; Katsina State Education Quality Assurance Agency, 2022).

Sports facilities refer to the fixed structures where sporting activities take place, while equipment includes movable items used during such activities. For sports development to be effective, these resources must not only be available but also accessible and properly utilized. However, studies indicate that many Nigerian secondary schools fall below recommended standards in terms of facility and equipment provision, particularly in female boarding schools (Nigerian Educational Research and Development Council, 2020). Accessibility is further influenced by factors such as school policies, time allocation, safety concerns, and cultural norms, which often discourage female participation (Deaner et al., 2012; Vertinsky & Captain, 1998).

The role of teachers and school administrators is also critical in promoting the effective use of sports facilities. Their level of awareness, attitudes, and preparedness to address gender-specific challenges significantly influence students' participation. However, evidence shows that many educators lack adequate training in gender-inclusive sports practices, which limits their ability to encourage female students' engagement (Federal Teachers Registration Council of Nigeria, 2021).

The apparent gap between the availability of sports facilities and their utilization among female students highlights the need for further investigation. In Katsina State, despite improvements in infrastructure, utilization rates remain low, suggesting that awareness among participants may be a key factor influencing outcomes. Therefore, this study assessed participants' awareness of the utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State, Nigeria, with the aim of providing insights that can enhance effective utilization and promote female participation in school sports.

Objective of the Study

The objective of this study was to assess the level of participants' awareness towards the utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State.

Research Question:

What is the level of participants' awareness towards utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State?

Hypothesis

There is no significant level of participants' awareness towards the utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State.

Methodology

This study employed a survey research design, which is appropriate for describing phenomena as they naturally occur without manipulating variables (Ali, 2016). The survey design enabled the

researcher to assess participants' awareness regarding the utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State, Nigeria. The target population comprised all teachers and students from the fourteen (14) girls' boarding senior secondary schools in Katsina State. According to the Katsina State Ministry of Secondary Education (2024), the total population consisted of 522 teachers and 7,565 students. The distribution of the population across schools is shown in Table 1.

Table 1: Population Distribution of Teachers and Students

S/N	School Name	Teachers	Students
1	Government Girls Science Secondary School Ajiwa	73	501
2	Government Girls Science Secondary School Daudawa	39	498
3	Government Girls Science Secondary School Mani	51	380
4	Government Girls Science Secondary School Malumfashi	51	949
5	Government Girls Science Secondary School Sandamu	43	456
6	Government Girls Senior Secondary School Rimaye	13	350
7	Government Girls Arabic Secondary School Dutsin-Ma	29	829
8	Government Girls Arabic Secondary School Fago	09	403
9	Government Girls Secondary School Shargalle	06	505
10	Government Girls Secondary School Dutsinsafe	58	300
11	Government Girls Secondary School Jibia	71	1,275
12	Government Girls Secondary School Kabomo	19	336
13	Government Girls Commercial Secondary School Charanchi	53	301
14	Government Girls Secondary School Rogogo	07	482
Total		522	7,565

A multi-stage sampling method was employed to select respondents. First, a cluster sampling technique divided the fourteen schools into three senatorial zones. Then, simple random sampling was used to select three schools from each zone. Within the selected schools, proportionate sampling was applied to ensure representation according to the population size of teachers and students in each school. A total of 217 people involving teachers and students were selected as respondents, as determined using the formula suggested by Research Advisor (2006).

This sampling procedure ensured that variations in school populations were adequately represented. The questionnaires were administered directly to respondents in the selected schools. The researchers provided instructions and supervised completion to enhance reliability. Data collection was carried out systematically to ensure all respondents had access to the same guidance and clarification. The collected data were analyzed using descriptive and inferential statistics. Descriptive statistics, including mean scores and standard deviations, were used to assess participants' level of awareness regarding the utilization of sports facilities and equipment. Items with a mean score of 2.50 and above were considered as indicating a significant level of awareness. Inferential statistics involved Chi-Square analysis to test the hypothesis that the level of participants' awareness towards utilization of sports facilities and equipment is not significant. Hypotheses were tested at a 0.05 level of significance. The Chi-Square test allowed the researchers to determine whether observed awareness levels differed significantly from expected values (Ali, 2016).

Results

Research Question: What is the level of participants' awareness towards utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State?

Table 2: Mean and Standard Deviation of Participants' Awareness on Utilization of Sports Facilities and Equipment

S/N	Statement	Mean	Std. Deviation	Decision
1	Football equipment and facilities	2.86	1.489	Accepted
2	Handball equipment and facilities	3.25	1.399	Accepted
3	Volleyball equipment and facilities	3.64	1.357	Accepted
4	Basketball equipment and facilities	3.31	1.495	Accepted
5	Field Hockey equipment and facilities	2.22	1.379	Rejected
6	Table Tennis equipment and facilities	2.85	1.456	Accepted

7	Fives equipment and facilities	2.25	1.203	Rejected
8	Tennis equipment and facilities	2.40	1.319	Rejected
9	Badminton equipment and facilities	2.45	1.286	Rejected
10	Athletics Track equipment and facilities	2.57	1.479	Accepted
Aggregate Mean		2.78	1.386	Accepted

Decision Mean= 2.5

The aggregate mean score of 2.78 which is greater than 2.5 indicates that participants' awareness of utilization of sports facilities and equipment is low, given that the maximum possible mean was 4.0. While respondents showed moderate awareness for sports such as volleyball, basketball, handball, and table tennis, awareness for field hockey, fives, tennis, and badminton facilities was notably low. This suggests that despite availability, there is limited knowledge or engagement with certain sports resources in girls' boarding schools.

Hypothesis Testing

HO1: The level of participants' awareness towards utilization of facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State is not significant.

Table 3: Chi-Square Analysis of Participants' Awareness

Variable	N	Expected N	Chi-Square	df	p-value	Decision
The level of participants' awareness towards utilization of facilities and equipment	217	6.4	89.940	216	0.000	Rejected

The Chi-Square value of 89.940 with a p-value of 0.000 ($p < 0.05$) indicates a statistically significant difference between observed and expected awareness levels. Consequently, the null

hypothesis is rejected, confirming that participants' awareness of utilization of sports facilities and equipment is significant, albeit at a relatively low level.

Discussion

The finding of this study revealed that the level of participant's awareness towards utilization of facilities and equipment for sports development in girls boarding senior secondary schools of Katsina State is significant. This highlights the essential role of participants in maximizing the benefits of sports resources. This finding is in line with that of Mamcarczyk (2024), in the study Utilization of Sports Infrastructure in Poland, found that higher levels of sports facility utilization positively influenced the quality of life of participants. The study used canonical analysis to determine the relationship between facility use and selected variables, highlighting that increased awareness and targeted engagement strategies could improve accessibility and effective utilization of sports infrastructure. This finding aligns with the current study, which revealed that participants in girls' boarding senior secondary schools in Katsina State demonstrate a significant, albeit low, level of awareness toward utilizing sports facilities and equipment. Both studies emphasize that awareness and knowledge are critical for optimizing the benefits of available resources and ensuring sustainable sports development. Similarly, Owoeye and Akinola (2019), in their study Assessment of Secondary School Students' Utilization of Sports Facilities in Southwest Nigeria, reported that students who were adequately informed and guided on available sports resources showed higher engagement and participation rates. Their findings support the notion that participant awareness is a pivotal determinant in translating facility availability into actual usage. In the context of Katsina State, the current study's findings reinforce the importance of training and sensitizing both students and teachers to maximize

utilization of sports infrastructure, particularly in environments where cultural and structural barriers exist.

Conversely, Singh (2021), in the study *Utilization of Sports Facilities in Public and Private Schools of Rajasthan*, found contrasting results. While no significant differences were observed in public schools regarding students' and teachers' perceptions of facility utilization, private schools demonstrated significant disparities, particularly in frequency of use ($p = 0.36$). The difference from the current study may be attributed to the variations in institutional structure, resource allocation, and cultural norms. Unlike Rajasthan's private schools, where resources may be unevenly distributed and usage patterns are influenced by socioeconomic status, the girls' boarding schools in Katsina State rely heavily on institutional policies and uniform access, making awareness a more critical factor than mere availability. Additionally, the cultural emphasis on gender roles in Nigeria may further moderate the link between availability and utilization, accounting for the observed low but significant awareness levels. In essence, the findings of this study support the premise that awareness is a crucial factor in the effective utilization of sports facilities and equipment. While global and regional studies corroborate the positive relationship between awareness and utilization, context-specific factors such as school policy, resource distribution, and cultural norms can explain divergent findings in other regions. The results suggest that for girls' boarding schools in Katsina State, efforts to enhance sports participation should focus not only on infrastructure provision but also on creating structured awareness programs, teacher training, and culturally sensitive strategies to encourage regular engagement with available resources.

Conclusion

The study concluded that there was a statistically significant level of participants' awareness towards the utilization of sports facilities and equipment for sports development in girls' boarding senior secondary schools in Katsina State. This was evidenced by the Chi-Square value of 89.940 and a p-value of 0.000, which was less than the 0.05 level of significance. Based on this finding, the null hypothesis was rejected. The implication of this result is that participants demonstrated awareness regarding the importance and utilization of sports facilities and equipment in promoting sports development within the schools studied. However, despite the significance of the awareness level, the study further showed that the level of awareness was relatively low. This suggests that although participants possess some knowledge and understanding about the utilization of sports facilities and equipment, such awareness may not be adequate enough to effectively support maximum participation and development of sports activities among students. Therefore, there is a need for increased sensitization, orientation programmes, and improved access to information on the proper utilization of sports facilities and equipment in order to enhance sports development in girls' boarding senior secondary schools in Katsina State.

Recommendation

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

1. School administrators and education authorities should organize regular sensitization programmes, workshops, and seminars to improve students' and staff awareness on the importance and proper utilization of sports facilities and equipment for sports development.

2. Government and relevant stakeholders should provide adequate sports facilities and equipment in girls' boarding senior secondary schools to encourage greater participation and practical utilization during sports activities.
3. Physical and Health Education teachers and sports coordinators should be trained periodically on modern methods of facility and equipment utilization to enable them effectively guide students during sports programmes.
4. Schools should incorporate regular sports orientation programmes and inter-house sporting activities to increase students' interest, exposure, and awareness of available sports facilities and equipment.
5. The Ministry of Education and school management should establish monitoring and evaluation mechanisms to ensure that available sports facilities and equipment are properly utilized and maintained for sustainable sports development.

References

- African Development Bank. (2020). *Developing skills for Africa's future: Addressing challenges in education and training systems*. African Development Bank Group.
- Ali, A. (2016). *Research methodology in education and social sciences*. Lagos: Educational Press.
- Bailey, R., Armour, K., Kirk, D., Jess, M., Pickup, I., Sandford, R., & BERA Physical Education and Sport Pedagogy Special Interest Group. (2013). The educational benefits claimed for physical education and school sport: An academic review. *Research Papers in Education*, 28(1), 1–27.
- Deaner, R. O., Balish, S. M., & Lombardo, M. P. (2012). Sex differences in sports interest and motivation: An evolutionary perspective. *Evolutionary Behavioral Sciences*, 6(2), 73–97.

- Federal Ministry of Education, Nigeria. (2021). *Annual education sector performance report*. Abuja: Federal Ministry of Education.
- Federal Teachers Registration Council of Nigeria. (2021). *Teacher professional development and capacity building report*. Abuja: TRCN.
- Katsina State Education Quality Assurance Agency. (2022). *Annual school performance and quality assurance report*. Katsina: Ministry of Education.
- Katsina State Ministry of Secondary Education. (2024). *Statistical report on secondary schools in Katsina State*. Katsina: Ministry of Education.
- Katsina State Secondary Education Board. (2021). *Statistical report on secondary schools in Katsina State*. Katsina: SSEB.
- Mamcarczyk, T. (2024). *Utilization of sports infrastructure in Poland: Implications for quality of life*. Warsaw: University of Warsaw Press.
- Nigerian Educational Research and Development Council. (2020). *Minimum standards for school facilities and instructional materials in Nigeria*. Abuja: NERDC.
- Onu, A. O., & Nwachukwu, C. C. (2017). Availability and utilization of sports facilities in secondary schools in Nigeria. *Journal of Physical Education and Sport Management*, 8(3), 45–52.
- Owoeye, T., & Akinola, O. (2019). *Assessment of secondary school students' utilization of sports facilities in Southwest Nigeria*. *African Journal of Physical Activity and Health Sciences*, 25(4), 89–102.
- Research Advisor. (2006). *Determining sample size for educational research*. New York: Research Publishing.
- Singh, R. (2021). *Utilization of sports facilities in public and private schools of Rajasthan*. *Journal of Physical Education and Sports Management*, 12(2), 45–57.
- UNESCO. (2017). *Global education monitoring report: Accountability in education – Meeting our commitments*. Paris: UNESCO.
- United Nations. (2018). *Sport for development and peace: Advancing the Sustainable Development Goals*. New York: United Nations.
- Vertinsky, P., & Captain, G. (1998). More myth than history: American culture and representations of the black female's athletic ability. *Journal of Sport History*, 25(3), 532–561.