

## **IMPACT OF SPORTS PARTICIPATION ON ETHICAL VALUES IN DIGITAL AGE AMONG SECONDARY SCHOOL STUDENTS IN KADUNA STATE**

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### **ABSTRACT**

The purpose of this study was to examine “Impact of sports participation on ethical values in digital age among Secondary School Students in Kaduna State” To carry out the study, an Ex-Post-Facto research design was used as the information required already existed. The population of the study consists of secondary school students from the twelve (12) Zonal Education Directorates in Kaduna State. Out of the twelve (12) Zonal Education Directorates, six (6) Zonal Directorates was randomly chosen. Four (4) schools from each Educational Directorate were also randomly selected. A questionnaire containing two sections (A and B) was used. Section A is on the demographic information, Section B consists of Ten (10) statements on Sports participation and ethical values in digital age: impact on Secondary School Students in Kaduna State. Statistical package for social science (SPSS) was used to analyse the data collected and descriptive statistics of frequencies, percentage, mean and standard deviation were also used. Chi-square statistics was used, the hypotheses were tested at 0.05 alpha level of significance. The result indicates that sports participation has an impact on equity in the digital age among Secondary School Students in Kaduna State. Based on the findings, the study recommends that Kaduna State Ministry of education through the zonal directorates should ensure that students participate in Sports this is because engagement in sports fosters equity among students and gives them the opportunity to contribute positively in the society.

**Keywords: Sports Participation, Ethical Values, Digital Age, Equity, Secondary School Students.**

## INTRODUCTION

Ryan, (2012) viewed sports as competitive forum that allow participants to learn lessons and gain benefit as an outcome. Historically, sports have been viewed as a way for individuals to gain moral lessons and to exercise discipline which will translate into positive life experiences. Competitive sports are filled with rules, laws and regulations that provide a set of norms to ensure that participants are able to compete on a level playing field. As in life, people have to make decisions and choices based on many different factors as to how closely they will adhere to the rules that govern the sport or games in which they participate. Some athletes seek to gain an unfair advantage by cheating or disregarding the set of rules and norms that have been set Sports remains a tool that truly unites individuals from every nation, it unites individuals regardless of their socio economic status, educational background, creed and gender.

Pagliari, Gkinnopoulos and Pacilli (2023), stated that ethical values refer to the accepted standards of moral and professional behaviour which society has set up in order to guide the conduct of affairs for its general good. These ethical values hold the fabric of society together and loss of the same portends adverse consequences on society. These consequences vary in form from moral decadence to brazen corruption which is contextually viewed as a departure from what is ethically acceptable or correct.

He, H., Yang, Y., Sun, J., Wang, F., Zhang, W., F. (2025), stated that sports leads to acquiring virtues such as Equity, citizenship, sportsmanship, lifelong lessons, teamwork, self-discipline, and aids in the physical and emotional growth of secondary school students. These studies have shown that, students who participate in sports and other co-curricular activities are likely to have higher grade-point averages, better attendance records, lower dropout rates and fewer discipline issues.

Andujar, A., Salaberri-Ramiro, M. S., & Martínez, M. S. C. (2020). State that technology plays an important role among students. The development of mobile technology has had a positive impact on improving accessibility and quality sports participation (De Meester et al., 2020). Accessibility is one of the most important elements in sports participation, especially among students. With mobile application, accessing sports facilities areas have become easier (Demirgüç-Kunt et al., 2020). Technology has levelled the playground for sports by taking away every factors that disapproves equity among students. The use of wearable sensors, mobile applications and social media help stakeholders to track sports performance.

Kim,J-H., Kim J. and Hose (2025) stated that integrating digital technology in sports participation presents a robust, data-driven opportunity to intercept unethical practices. Machine learning algorithms, automated data verification models, and digital biometric registries can systematically cross-reference student metrics to eradicate documentation fraud and age cheating before tournaments commence. Furthermore, digital technology enhanced camera feeds and algorithmic performance tracking can support match officials by delivering unbiased, real-time adjudication, thereby filtering out localized human bias and ensuring that participant outcomes are decided strictly on merit.

Digital technology offers a transformative blueprint for clean sport, its deployment in secondary educational environments presents complex ethical dilemmas and structural challenges. The continuous collection of adolescent biometric data raises significant concerns regarding data protection, institutional surveillance, and algorithmic fairness (Li, 2026). In sports environments utilizing digital technology, power asymmetries often emerge between young athletes and supervising institutions, creating risks where automated biases can misinterpret performance data or violate student privacy if proper regulatory safeguards are missing (Waśkiewicz, 2025).

Additionally, executing these state-of-the-art systems requires significant public expenditure, structured teacher training, and technological infrastructure, which are frequently constrained in public school sectors (Gouseti et al., 2024).

Lafave, (2009) stated that sport has huge impact on Secondary School Students life as it creates unity, promotes values and community pride. Therefore, secondary school students, administrators, coaches, officials and supporters taking part in sports, are expected to take personal responsibility to ensure that sport is fun and fair for everyone. Moral ethics and values are more than rules or laws. These are implied on duties or actions that one should take, but also judge what is right or good for a person. If somebody does not perform in that way, then it is wrong or bad. One of the common problems of following moral values in sport is that these differ from one player or sport to another. It thus becomes an obligation of coaches, team captains and leaders to tell the basic sports moral and ethics to their team as well as adhere themselves to become an example. He further stated that Fairness, integrity, equity and respect are four important values in sports ethics. What Secondary School Students feels about a co-player or others determines their moral sense. If Secondary School Students value others, they will be considerate and will play with moral sense and compassion. Before doing anything, they will always consider what effects their actions will have on others, the fun of the game and they will do what is right and good. If they feel that opponents are against them, they will lack empathy for their feelings. Secondary School Students without morals and ethics will not recognize the values and worth of others and will not have any compassion for their welfare. Human nature is good and people will never think of winning a single point at the expense of harming another player. Ethics are really important in sports. It forms the basis for moral behaviours of which Secondary School Students may not be able to win every time, but if they will handle their defeat well they will get respect from others.

Digital technology has transformed sports participation and has provided innovative solutions that promote ethical values such as fairness and integrity in sports (Rana, 2025; Qi et al., 2023).

### **Purpose of the Study**

The purpose of the study is to examine the impact of Sports participation on ethical values in digital age among Secondary School Students in Kaduna State. More specifically, the researcher desires to achieve the following objective:

To examine the impact of Sports participation on Equity in digital age among Secondary School Students in Kaduna State.

### **Research Question**

The study sought to answer the following research question.

Does Sports participation impact equity among Secondary school students in Kaduna State?

### **Research Hypothesis**

On the basis of the research question, one major hypotheses was formulated for the purpose of the study

#### **Major hypothesis:**

Sports Participation has no significant impact on equity among secondary school students in Kaduna state.

### **Review of Related Literature**

Opara & Nwosu (2022) found that sports participation significantly improves social behaviors, peer relationships, teamwork, leadership, and academic discipline among secondary school adolescents in Nigeria. Sports serve as a tool for character development by teaching students to work as a team and be disciplined.

The Federal Government of Nigeria (2013) in the National Policy on Education states that “sports, co-curricular activities such as clubs and societies are important instruments for character training and shall be positively encouraged”.

Omuruan (1996) and Bucher & Wuest (2006) emphasized that Physical Education teachers are custodians of sports and have a strategic role in guiding students, counseling them, and interpreting the worth of sports. In the digital age, this role extends to guiding students on online sportsmanship and cyberbullying.

Adeyemi and Ajayi (2021) noted that many parents and educators perceive sports as extracurricular rather than part of holistic development. This leads to poor funding, facilities, and equipment, which diminishes sports’ potential impact on students’ values.

Eke and Odigbo (2020) in their study found that gender stereotypes limit girls’ participation in sports, causing them to miss opportunities to build leadership skills, self-confidence, and ethical decision-making.

## **Methodology**

This study adopted an ex-post-facto research design research design is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representatives of the entire group. This design is considered appropriate because it provides the modality for obtaining information from larger population. Therefore, this design was considered most appropriate to give sufficient description of the Impact of sports participation on ethical values in digital age among Secondary School Students in Kaduna State

The population of the study consist of secondary school students from the twelve (12) zonal Education Directorates in Kaduna State which is 234847 according to 2017/2018 Kaduna State School Census, from the following Zonal directorates:

Sample size of 384 students was used out of the total number of 234847. To determine the sample size of a given population Krejcie and Morgan (1970) recommended that for the population of 234847, 384 samples was recommended. Therefore 384 subjects were drawn from the entire population of 234847. A stratified random sampling technique was used to select the Students for this study in Kaduna state. Hat and drawn method was drawn from Secondary School Students in the state so that equal chance was given to all Students.

The self-developed questionnaire was used for data collection. To determine the face and content validity of the instrument, the questionnaire was given to the supervisors for corrections and inputs, after which five (4) jurors who are experts in physical education and sports management vetted the suitability of the item's contained in the instrument from the perspectives of both its content and face validity. Their comments and observations served as the basis for the questionnaire that was used for the pilot study.

The instrument was pilot-tested at Government College Kagoro, Government Secondary School Sabon Tasha Kaduna and Government Secondary School Kwangila Zaria. Cronbach alpha and spearman-Brown statistics were used to ascertain the reliability of the instrument and reliability coefficients of 0.83 and 0.81 were obtained respectively implying that the instrument is reliable for the study. The results indicated the level of reliability coefficient of close to 1. This was a confirmation of the test of reliability which according to Spiegel, (1992), Yang and Green, (2011), the instrument is considered reliable if its reliability coefficient lies between 0 and 1, and the closer

the reliability coefficient is to zero, the less reliable it is, while the closer the calculated reliability coefficient is to 1, the more reliable is the instrument.

The instrument used for data collection was personally administered by the researcher and his research assistants within one week. Three (3) research assistants were used for data collection. Data collected were analysed inferentially using SPSS package Version 25. The hypotheses were tested using Chi-square are  $p \leq 0.05$  level of significance.

## Results

**Table 1: Demographic Characteristics of the Respondents**

|                                    | Variable     | Frequency | Percentage |
|------------------------------------|--------------|-----------|------------|
| Sex                                | Male         | 216       | 56.7       |
|                                    | Female       | 165       | 43.3       |
|                                    | Total        | 381       | 100.0      |
| Age Range                          | 13-15 years  | 11        | 2.9        |
|                                    | 16-17 years  | 109       | 28.6       |
|                                    | 18-20 years  | 147       | 38.6       |
|                                    | 21 -22 years | 114       | 29.9       |
|                                    | Total        | 381       | 100.0      |
| Experience in Sports Participation | 1-2 years    | 59        | 15.5       |
|                                    | 2-3 years    | 90        | 23.6       |
|                                    | 3-4 years    | 131       | 34.4       |
|                                    | 4-5 years    | 101       | 26.5       |
|                                    | Total        | 381       | 100.0      |
| Sport Event                        | Basketball   | 63        | 16.5       |
|                                    | Volleyball   | 5         | 1.3        |

|           |     |       |
|-----------|-----|-------|
| Soccer    | 124 | 32.5  |
| Handball  | 110 | 28.9  |
| Athletics | 79  | 20.7  |
| Total     | 381 | 100.0 |

Observation of table 1 above shows that the majority of respondents 216(56.7%) were males and the remaining 165 (43.3%) were females respondents. With regards to age range, the table further reveals that majority of the respondents 11(2.9%) were 13-15 years, 109 (28.6%) of the respondents fell between the age range of 16 – 17 years, 147 (38.6%) of the respondents fell between the age range of 18 – 20 years while a number of the respondents 114 (29.9%) were between the age range of 21 - 22 years and above. Table 4.1 also shows that 59 (15.5%) of the respondents have 1 – 2 years of experience in sports participation, 90 (23.6%) of the respondents have 2 – 3 years of experience in sports participation, 131 (34.4%) of the respondents have 3 – 4 years of experience in sports participation while 101 (26.5%) of the respondents have 4 – 5 years of experience in sports participation..

Table 1 reveals that 63 (16.5%) of the respondents participate in basketball, 5 (1.3%) of the respondents participate in volleyball, 124 (32.5%) of the respondent participate in soccer, 110 (28.9%) of the respondents participate in handball while 79 (20.7%) of the respondents participate in athletics.

**Table 2: Mean Scores of Responses on on impact of sports participation on Equity in digital age among Secondary School Students in Kaduna State**

| S/N | Items                                                                               | Mean   | STD.    |
|-----|-------------------------------------------------------------------------------------|--------|---------|
| 1   | Sports assist secondary school students to exhibit good behaviour in a competition. | 3.3596 | 1.29141 |
| 2   | Sports participation assists secondary school students to be truthful               | 2.9790 | 1.48840 |

in words and action.

|                       |                                                                                                               |               |               |
|-----------------------|---------------------------------------------------------------------------------------------------------------|---------------|---------------|
| 3                     | Sports participation help secondary school students to shun violence during competition.                      | 4.0446        | 1.03395       |
| 4                     | Sports help students to conduct themselves in an acceptable manner in any competition.                        | 4.0394        | .91825        |
| 5                     | Sports participation help students to tolerate one another in any competition                                 | 3.9501        | .91774        |
| 6                     | Sports participation helps students to stop blaming their opponents in a competition.                         | 3.9921        | 1.06496       |
| 7                     | Sport participation help students not to damage or Temper with sports facilities and equipment due to losing. | 3.9764        | .78604        |
| 8                     | Sports participation help students to show genuine concern for others during competitions.                    | 3.9921        | .84756        |
| 9                     | Sport help secondary school students to socialize and adjust better in competitions                           | 3.6693        | 1.14975       |
| 10                    | Sport participation help students to be patient during competitions.                                          | 3.9291        | .93342        |
| <b>Aggregate mean</b> |                                                                                                               | <b>3.7932</b> | <b>1.0432</b> |

**Constant mean= 3.5**

Table 2 above showed the impact of sports participation on Equity in digital age among Secondary School Students in Kaduna. The aggregate mean of responses 3.7932 was found to be higher than the decision mean of 3.5. To answer the research question, since the aggregate mean is higher than the constant mean, it can be concluded that sports influence the development of Equity among the secondary school students in Kaduna state.

Hypothesis One: Sports Participation has no significant impact on Equity in digital age among secondary school students in Kaduna state

**Table 3: Chi-square ( $\chi^2$ ) analysis on impact of sports participation on Equity in digital age among Secondary School Students in Kaduna State**

| Variable                                 | N   | Df | Cal. $\chi^2$ value | p-value | Decision                 |
|------------------------------------------|-----|----|---------------------|---------|--------------------------|
| Impact of sports participation on Equity | 384 | 4  | 21.835              | 0.000   | Ho <sub>1</sub> Rejected |

$$X^2 \text{ Crit} = 9.488, (\text{d.f} = 4) \quad P < 0.05$$

Results in Table 3 showed that Sports Participation has significant impact on Equity in digital age among secondary school students in Kaduna state. Reasons being that the P-value of 0.000 is less than 0.05 alpha level of significance while the chi square ( $\chi^2$ ) Cal. value of 21.835 is greater than the chi square critical value of 9.488 ( $X^2 \text{ Cal} (21.835) > X^2 \text{ Crit} (9.488)$ ,  $P < 0.05$ ) at df 4. Therefore, the null hypothesis which states that Sports participation will not significantly impact on Equity in digital age among Secondary School Students in Kaduna State is hereby rejected. The result implies that Sports participation has significant impact on Equity in digital age among Secondary School Students in Kaduna State.

## Discussion

This study was carried out to examine the Impact of sports participation on ethical values in digital age among Secondary School Students in Kaduna State. Findings of the study revealed that sports participation has significant impact on Equity in digital age among Secondary School Students in Kaduna.

The hypothesis revealed that sports participation has significant impact on Equity in digital age among Secondary School Students in Kaduna. Specifically, the study's P-value of 0.000, indicating statistical significance, coupled with a chi-square value that far exceeds its critical counterpart,

solidifies the assertion that sports participation is pivotal for fostering Equity among secondary school students in Kaduna state. This finding aligns with the study by Brennan. D.P and Smith A. (2022) in their study “ preparing youth for active citizenship and social justice “ who highlights the role of sports participation in fostering equity among secondary school students. Their research suggested that participation in sports can promote social and emotional learning, strengthening students in schools and create pathway for civic engagement. This is significant as sports participation can help mitigate structural inequalities faced by secondary school students in Kaduna State. Jones, (2009) stated that equity is based on the idea of moral equality, the principle that people should be treated as equals. This is the idea that, despite many differences, all people share a common humanity or human dignity and, as a result of this, we must consider how each of them should be treated. Moral equality means that when we behave in ways that affect any other people ones actions should be morally justifiable. There are certain standards of moral justification, which must in turn govern ones actions with respect to serious and non-trivial decisions.

## **Conclusion**

Based on the finding, it can be concluded that sports participation has a significant impact on ethical values in the digital age among Secondary School Students in Kaduna State as this value play a crucial role in promoting equity among students especially in Kaduna state.

## Recommendation

Based on the finding, the following recommendation was put forward:

Kaduna State ministry of education through the zonal directorates should ensure that students participate in Sports because it promotes equity among them and gives them the opportunity to contribute positively to society.

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