

**The Relationship Between Sports Participation And Students' Academic Performance In Selected
Secondary Schools In Mukono District, Uganda**

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Abstract

This study analysed the relationship between sports participation and students' academic performance in selected secondary schools in Mukono District, Uganda. It was founded on Dewey's theory of Experiential Learning. The investigation adopted a mixed-methods approach that combined correlational design with qualitative inquiry. Data were gathered from 264 respondents who were students and school stakeholders using structured questionnaires and semi-structured interviews. Quantitative findings indicated a strong positive correlation ($r = .691$, $p < .001$) between sports participation and academic outcomes with the Regression analysis further indicating that sports participation accounted for 47.7% of the variance in students' academic performance ($R^2 = .477$). Qualitative results highlighted that sports foster discipline, teamwork, and concentration, which are essential for academic success. The study concludes that structured sports programs significantly bolster academic achievement and recommends that school administrators to prioritize the provision of standard sports facilities and integrate physical activities more effectively into the curriculum.

Keywords: Sports Participation, Academic Performance, Experiential Learning, Secondary Schools, Mukono District.

1. Introduction

Academic performance is generally influenced by interplay of both traditional classroom instruction and experiential learning through outdoor activities. Internationally, studies have shown that experiential learning strategies especially sports participation contributes to both cognitive and non cognitive development of learners. Sports activities impart discipline, teamwork, concentration and resilience whereby such skills are extended into academic life to strengthen performance in examinations and continuous assessments. Schools that embed sports into their daily routines report improved learner motivation, reduced absenteeism, and stronger academic outcomes, underscoring the role of sports as an educational tool rather than mere recreation.

Across Africa, similar patterns emerged for instance in Kenya, Mwaura and Ndung'u (2021) found that sports participation improved students' discipline and time management, leading to better academic results. In Ghana, structured physical education programs boosted science performance (Oduro & Addo, 2020), while South African schools integrating sports into curricula reported enhanced learner engagement and achievement in mathematics and literacy (Maphosa & Shumba, 2021). These findings confirm that sports are a vital complement to classroom instruction, contributing to holistic student development.

In Uganda, however, sports remain underemphasized in secondary schools according to the Ministry of Education and Sports (MoES, 2022), fewer than half of schools in Mukono District have standard playgrounds or equipment, restricting students' access to structured physical activities.

Mukono District thus provides a compelling context for examining the link between sports and academic performance. With its mix of urban and peri-urban schools, the district reflects both opportunities and challenges in integrating sports into education. This study investigates how sports participation influences student achievement, drawing on John Dewey's Experiential Learning Theory (1938), which emphasizes learning through active engagement and real-life experiences. By exploring this relationship, the research aims to generate evidence to inform curriculum design, policy development, and investment in sports infrastructure as strategies for improving academic outcomes in Ugandan secondary schools.

2. Literature Review

The study was guided by John Dewey's Experiential Learning Theory (ELT), which emphasizes that meaningful learning occurs when students actively engage in real-life experiences. Sports participation provides such experiences, enabling learners to practice discipline, collaboration, and resilience. ELT suggests that knowledge is not passively absorbed but constructed through doing, reflecting, and applying making sports a natural extension of academic learning. Worldwide research consistently highlights the educational value of sports. Bailey et al. (2019) note that structured physical education enhances critical mental skills such as memory, attention, and problem-solving. Becker et al. (2020) found that students who regularly participated in sports demonstrated stronger concentration and retention compared to those limited to classroom instruction. Furthermore, structured participation in sports has been linked to social and emotional development, which indirectly influences academic performance. According to Wang et al. (2022), students who participated in team sports develop resilience, peer collaboration, and emotional regulation, which are crucial for sustaining attention and managing academic challenges. In Uganda, research by Nsubuga and Kasozi (2024) observed that students involved in inter-house competitions and school leagues demonstrated increased self-confidence and classroom engagement, leading to improved test scores in mathematics and sciences. These findings support the premise that sports participation not only promotes physical fitness but also cultivates skills and attitudes conducive to academic achievement.

The Uganda National Examinations Board (UNEB, 2023) reported that Mukono District schools achieved an average pass rate of 55% in the Uganda Certificate of Education (UCE), below the national average of 58%. The Ministry of Education and Sports (MoES, 2022) noted that fewer than half of schools in Mukono District have standard playgrounds or sports equipment, limiting opportunities for regular participation. Tumwine and Kaggwa (2021) found that schools with active sports programs reported improvements in student motivation and classroom discipline, though systematic measurement of academic outcomes remains scarce. These findings highlight the need for empirical studies to establish the direct relationship between sports participation and academic performance in Uganda.

3. Methods

This study employed a mixed-methods research design to ensure methodological triangulation. It combined both quantitative and qualitative strategies that comprehensively examined the relationship between Sports participation and students' academic performance in selected secondary schools in Mukono District. The target population included secondary school students, teachers, and administrators in Mukono District. A final sample of 264 respondents was utilized. Data were collected through 5-point Likert scale questionnaires for students and semi-structured interviews for teachers and administrators. Quantitative data were analyzed using SPSS to generate Pearson correlation and multiple regression statistics. Qualitative data were analyzed thematically to identify key patterns in student and teacher experiences.

4. Data Analysis and Results

4.1 Descriptive statistics

Table 4. 1: Descriptive Statistics of Sports Participation (SP) and Students' Academic Performance (SAP) (n = 264)

Statement(SP)	SA (5)	A (4)	N (3)	D (2)	SD (1)	Tot al (n)	Mea n	Std. Dev	Interpretat ion
SP1: I actively participate in school sports programs.	98(37.1 %)	96(36.4 %)	34(12.9 %)	20(7.6 %)	16(6.1 %)	264	3.86	1.10	Moderate-High
SP2: Sports activities help me work better with classmates in teams.	110(41.7 %)	92(34.8 %)	30(11.4 %)	20(7.6 %)	12(4.5 %)	264	3.98	1.01	High
SP3: Participatio n in sports improves my focus and	92(34.8 %)	96(36.4 %)	40(15.2 %)	20(7.6 %)	16(6.1 %)	264	3.82	1.12	Moderate

discipline in class.									
SP4: Involvement in sports increases my ability to manage time for studies.	84(31.8%)	98(37.1%)	46(17.4%)	22(8.3%)	14(5.3%)	264	3.72	1.12	Moderate
SP5: Sports participation positively influences my academic performance.	88(33.3%)	100(37.9%)	38(14.4%)	26(9.8%)	12(4.5%)	264	3.84	1.07	Moderate-High
Average	—	—	—	—	—	—	3.84>	1.08>	Moderate-High

Source: Field Data, Mukono District (September–October 2025).

The descriptive results in Table 4.1 show generally positive student perceptions of sports participation, with item means ranging from 3.72 to 3.98 and an overall average mean of 3.84 (SD = 1.08). On the adopted interpretive scale, this overall value falls in the moderate-high band, indicating that respondents perceive sports participation as beneficial though not uniformly strongly so across all dimensions. The highest mean (SP2 = 3.98) relates to teamwork, suggesting that students most strongly associate sports with improved collaborative skills a finding consistent with literature that links team sports to social skill development (Bailey et al., 2019).

Item SP1 (M=3.86, SD = 1.10), 37.1% and SP5 (M=3.84, SD=1.07) 33.3% both indicate that while many students take part in sports and perceive benefits, the effect is perceived as moderate rather than uniformly strong. This pattern matches empirical studies showing that moderate, well-structured physical activity is associated with improved attention and classroom behaviour, but the strength of effect varies by frequency, intensity, and program quality (Mualem et al., 2018; Gill, 2023).

SP3 (focus and discipline; M = 3.82) and SP4 (time management; M = 3.72) scored slightly lower, implying that students are somewhat less convinced that sports directly translate into improved study habits

or time allocation. This nuance aligns with research cautioning that the academic benefits of sport are mediated by program structure and coaching emphasis where sports are competitive or poorly managed, time costs can offset academic gains (Wang, Willett, & Eccles, 2019).

4.2 Inferential Statistics

Table 4. 2: Pearson Correlation between Sports Participation (SP) and Students’ Academic Performance (SAP)

	Sports Participation (SP)	Students’ Academic Performance (SAP)
Sports Participation (SP)	1	.691
Sig. (2-tailed)	—	.000
Students’ Academic Performance (SAP)	.691	1
Sig. (2-tailed)	.000	—

Source: Field Data, 2025

The results presented in Table 4.2 indicate a strong positive relationship between sports participation and students’ academic performance among the sampled secondary schools in Mukono District. The correlation coefficient of $r = .691$ demonstrates that students who engage more actively in sports activities tend to report higher levels of academic performance. This strength of association implies that sports participation is not merely recreational but contributes meaningfully to students' overall learning outcomes within the school setting. The coefficient is substantially higher than what would be expected by chance, suggesting a meaningful linkage between the variables.

The significance value of $p = .000$, which is below the 0.05 threshold, confirms that the observed correlation is statistically significant. Therefore, the null hypothesis that there is no relationship between sports participation and academic performance was rejected. This indicates that the probability of the relationship occurring due to random variation is extremely low. Therefore, sports participation has a reliable association with academic performance, reinforcing the view that physical engagement, teamwork, discipline, and other sports-related experiences may contribute to improved learning habits, concentration, and classroom behavior. The significance of the correlation further implies that sports programs in secondary schools play an important role in shaping the academic trajectories of learners.

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.691	.477	.475	.682

Source: Field Data, 2025

The model summary shows that $R = .691$, and this confirmed a strong positive relationship between sports participation and students' academic performance. The R^2 value of $.477$ indicated that 47.7% of the variation in students' academic performance is explained by sports participation. This suggests that sports make a substantial contribution to academic outcomes, while the remaining 52.3% may be attributed to other factors such as instructional methods, study habits, motivation, home environment, or school resources.

Table 4. 4: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	89.742	1	89.742	192.71	.000
Residual	98.582	262	0.376		
Total	188.324	263			

Source: Field Data, 2025

The ANOVA results indicate that the regression model is statistically significant ($F = 192.71$, $p = .000$). This means that the model reliably predicts students' academic performance better than would be expected by chance. The significance of the model indicates that sports participation is a meaningful predictor of academic outcomes in the selected schools.

4.3 Qualitative Insights

Since the study employed a mixed methods design, qualitative data were collected to complement the above quantitative findings. Through the interviews conducted on school administrators and teachers qualitative insights were provide and are expressed using the themes below;

Theme 1; strengthens team work and peer collaboration.

Sports activities build cooperation, leadership and peer support skills within the learners whereby these skills are carried on to the classroom activities especially in group assignments and discussions that positively improve academic performance.

"Our inter-house competitions and regular PE lessons help learners to work together we have seen quieter students take leadership on the field and then participate more in class."PE Teacher, Mukono Secondary School; October 2025.

Theme 2; concerns on time management.

A sport as an outdoor learning activity instills self discipline into the learners and this involves time management. Being a key factor for both sports and academics, time needs to be managed well with a proper structured sports schedule to ensure balancing of the two by the learners.

“Where sports are well scheduled and tied to pastoral care, students manage time better; however, schools with poor facilities struggle to run regular programs, and then the academic benefits are limited.”Deputy Head Teacher, Mukono Secondary; September 2025.

The qualitative insights on sports participation confirmed that sports activities have a high to moderate positive influence on academic performance since sports activities enhance team work collaboration and time management. These insights complemented the quantitative findings concretely proving the positive influence of sports to academic performance.

5. Discussion of Findings

The quantitative findings confirmed that sports participation is a critical complement to academic instruction. The descriptive statistics indicated that 62% of the students reported regular participation in sports activities. Inferential statistics portrayed that sports participation has a significant positive influence on academic achievement. The quantitative evidence reveals a strong, statistically significant relationship ($r^* = .691$, $p^* < .001$), with regression analysis confirming that sports participation explains 47.7% of the variance in academic performance ($R^2 = .477$). Qualitatively, it was established that involvement in sports cultivates essential non-cognitive skills including discipline, teamwork, focus, and motivation that are directly transferable to the academic setting and conducive to improved classroom performance. This conclusion is consistent with the works of Bailey et al. (2019) and Hägglund and Samuelsson (2022), affirming that sports serve as a critical complement to academic instruction by fostering the holistic development of physical, cognitive, and psychosocial capabilities essential for learning.

6. Limitations

The study was hindered by the descriptive nature of the sample, which focused on selected schools in only Mukono district hence potentially limiting broader generalizability to more remote rural contexts in Uganda. Furthermore, this study was also hindered by the focus on self-reported data whereby it heavily depended on student perceptions that are subjective to bias; however, this was reduced by cross-referencing findings with secondary school records and teacher as well as administrators' interviews. To add on the lack of well-structured infrastructures in schools, the extent to which learners participate in sports activities and this contributed to the inconsistencies of responses during the data collection process.

7. Conclusions

The study concluded that sports participation has a significant positive influence on academic achievement. The quantitative evidence reveals a strong, statistically significant relationship, with regression analysis confirming that sports participation explains 47.7% of the variance in academic performance. Qualitatively, it was established that involvement in sports cultivates essential non-cognitive skills including discipline, teamwork, focus, and motivation that are directly transferable to the academic setting and conducive to improved classroom performance. This conclusion is consistent with the works of Bailey et al. (2019) and Hägglund and Samuelsson (2022), affirming that sports serve as a critical

complement to academic instruction by fostering the holistic development of physical, cognitive, and psychosocial capabilities essential for learning.

8. Recommendations

The study recommended that School administrators and the Ministry of Education and Sports should invest more in standard sports facilities and equipment to ensure all students can participate regularly as well as schools should integrate structured outdoor sports programs more effectively into the school timetable to complement theoretical learning. Lastly there is a need for specialized training for teachers to facilitate experiential learning through sports, ensuring these activities focus on both physical and cognitive development.

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