AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

BANDITRY AROUND SCHOOL ENVIRONMENT AND ITS EFFECTS ON ACADEMIC PERFORMANCE OF SECONDARY SCHOOL BIOLOGY STUDENTS IN KADUNA STATE

[1]**Najmuddeen Alhassan**, [2]**Saadiya Ibrahim &** [3]**Amina Alhassan**

[1&2] Department of Biology, Federal University of Education, Zaria
[3]Department of Science Education, Kaduna State University, Kaduna
Corresponding author: muhalbg@gmail.com

ABSTRACT

Banditry in school environments has become a significant threat to student safety and academic performance in Nigeria. This research examined the impact of banditry on the academic engagement and performance of secondary school Biology students in Kaduna State. The study investigated the correlation between perceived security and emotional distress in relation to class participation, the direct impact of banditry on academic performance, and the moderating influence of institutional safety measures. A quantitative survey design was utilized. The population consisted of 1,568 Biology students, from which a sample of 228 was selected utilizing Krejcie and Morgan's formula. Data were collected utilizing a validated and reliable researcher-developed questionnaire (r = 0.78). Descriptive statistics and independent t-tests were performed at a significance level of 0.05. The findings indicated a notable correlation between perceived insecurity/emotional distress and class participation, a significant adverse impact of banditry on academic performance, and a considerable moderating effect of institutional safety measures on student achievement. The research indicates that insecurity negatively impacts student learning; however, institutional support can mitigate these effects. The recommendation includes the enhancement of school safety systems, the expansion of psychosocial support services, and the improvement of community engagement to promote resilience and continuous learning.

Keywords: Insecurity, Banditry, School environment, Academic performance

Introduction

Education is universally seen as a fundamental building block for nation building, yet in many conflict-prone regions of Nigeria, persistent insecurity has disrupted learning and compromised students' academic success. In recent times, banditry has emerged as a critical threat to educational stability, particularly in Kaduna State and other parts of the Northwest. Characterized by armed attacks, kidnappings, and violent raids, banditry has not only endangered lives but has also destabilized school environments, limiting access to quality

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

education and eroding student well-being (Valentine, 2023; Idowu & Arua, 2023).

The ramifications of banditry reach well beyond immediate safety issues. Research indicates that students in unsafe situations experience increased anxiety, fear, and psychological trauma, negatively impacting concentration, attendance, and overall academic performance (Saminu et al., 2023; Kanu et al., 2024). UNICEF (2022) reports that armed groups targeted over 60 schools in Zamfara State, leading to the closure of 168 elementary schools and denying education to more over 33,000 students. This reflects the extensive educational crisis in Kaduna State, characterized by persistent school closures, abductions of children and educators, and pervasive dread, which have undermined the education sector's operational efficacy.

Although there is an increasing body of literature on insecurity in Nigeria, there is a paucity of studies especially examining the impact of banditry in school settings on the academic performance of secondary school students, particularly in life science education. Biology is a fundamental scientific discipline crucial for professions in health, agriculture, and technology, rendering its disruption a significant problem for human capital development. Prior research (Perumean-Chaney & Sutton, 2012; Sodangi & Adamu, 2025) underscores that hazardous learning environments reduce students' academic engagement; nonetheless, empirical data connecting banditry to particular topic performance is limited.

This study addresses the gap by investigating the impact of banditry on the participation and academic performance of Biology students in Kaduna State. This research examines (i) the correlation between perceived insecurity and emotional discomfort with class attendance, (ii) the impact of banditry on learning outcomes, and (iii) the alleviating effect of institutional safety measures and support systems. The study's findings are anticipated to offer insights that can shape security policies, direct school-level initiatives, and enhance resilience tactics in educational environments affected by conflict.

Problem Statement

Banditry in learning institutions in Kaduna State has been recognized as a significant concern, severely hindering the educational process and jeopardizing the safety of students and staff. This issue has resulted in heightened absenteeism, psychological distress, and a significant deterioration in academic performance among secondary school biology students. The severity of the situation is highlighted by recurrent reports of school closures, abductions, and violence, fostering an atmosphere of dread and instability that erodes the foundation of the educational system (Ikechukwu Anthony Kanu et al., 2024). There is a paucity of research regarding the specific effects of banditry on educational results in Kaduna

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

State, highlighting the need for an extensive study to guide effective policy planning and intervention measures (Ekpoh et al., 2020).

Objectives of the Study

1. To investigate the perceived security and emotional impact of banditry on students' engagement and focus in Biology lessons.
2. To assess the influence of banditry on students' academic performance, attendance, and engagement in Biology learning activities.
3. To evaluate the sufficiency of institutional assistance and safety protocols offered to students in alleviating the effects of banditry on Biology instruction.

Research Questions

1. How does banditry affect students' perceived security and emotional well-being in relation to their participation in Biology classes?
2. What is the effect of banditry on students' academic performance and classroom participation in Biology?
3. To what extent do institutional safety measures and support mechanisms mitigate the effects of banditry on Biology students?

Research Hypotheses

1. **H_{01}:** There is no significant relationship between perceived security/emotional distress caused by banditry and students' participation in Biology classes.
2. **H_{02}:** Banditry has no significant effect on the academic performance of Biology students in Kaduna State.
3. **H_{03}:** Institutional safety measures and support do not significantly mitigate the effects of banditry on students' academic achievement in Biology.

Methodology

The study utilized a survey research methodology, appropriate for producing consistent data from a very large sample and measuring attitudes within a natural educational context. This design was selected to facilitate the analysis of students' experiences of insecurity and its impact on academic engagement and performance in Biology. The target group was 1,568 secondary school Biology students from four local government areas in Kaduna State significantly impacted by banditry. A sample of 228 respondents was extracted from this population utilizing Krejcie and Morgan's (1970) sample size determination formula. The sample comprised 200 children and 28 teachers to offer diverse perspectives on the effects of banditry. Schools were intentionally chosen based on their exposure to banditry, while students and teachers within those schools were randomly sampled to guarantee representativeness. Data were gathered utilizing a standardized questionnaire created by the researchers, named the Banditry and Academic Performance Scale (BAPPS). The instrument was structured into four segments: Section A: Demographic Data (10 Items). Section B:

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

Perceived security and emotional impacts (6 items), Section C: Academic performance and engagement (8 items), and Section D: Institutional support and safety protocols (6 items). Items were evaluated using a 5-point Likert scale, with Strongly Agree (5) and Strongly Disagree (1) as endpoints. The instrument's content and face validity were confirmed by three specialists in Biology Education, Psychology, and Social Studies from the Federal University of Education, Zaria. The specialists evaluated items for clarity, relevance, and connection with study aims, resulting in modest adjustments. Reliability was validated by a pilot test with 38 participants from a school exhibiting analogous features to the study location, although excluded from the primary sample. The test-retest reliability assessed over a two-week period produced a value of 0.80, signifying satisfactory internal consistency. Clearance to carry out the study was secured from the Kaduna State Zonal Inspectorate Division and the school administration. Participants were apprised of the research's objective, guaranteed confidentiality, and granted informed consent before engaging in the study. The data collection period included two weeks, during which 228 questionnaires were disseminated and 219 were retrieved, resulting in a response rate of 96.05%. The researchers delivered the questionnaires with the aid of trained field assistants. Data were examined utilizing both descriptive and inferential statistics with the assistance of SPSS version 25. Frequencies and percentages summarized demographic data, whereas means and standard deviations addressed the study issues. Hypotheses were evaluated using independent-samples t-tests with a significance threshold of 0.05.

Presentation of Results

Research Question One: How does banditry affect students perceived security and emotional well-being in relation to their participation in Biology classes?

Table 1: Mean and Standard Deviation Scores of Responses of Banditry Effect on Students Perceived Security and Emotional well-being in relation to their Participation in Biology classes

S/N	Section B: Perceived Security and Emotional Effects	SA	A	SD	D	MEAN	St. Div.	Remarks
1	I feel safe while attending my biology classes at school.	103	105	10	10	2.86	1.02	Agreed
2	The fear of banditry affects my willingness to participate in Biology lessons.	150	50	20	8	3.40	0.98	Agreed
3	I find it difficult to concentrate during Biology lessons because of security concerns.	155	60	13	0	3.48	0.74	Agreed
4	Banditry incidents have caused emotional distress that impacts my biology learning.	110	100	10	8	2.53	1.08	Agreed

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

5	I avoid certain areas of the school because I feel they are unsafe.	105	103	15	5	3.64	0.62	Agreed
6	My parents are concerned about my safety during Biology classes because of banditry.	140	68	20	0	2.53	1.08	Agreed
	Total					**18.44**	**5.52**	
	Average Mean and Standard Deviation					**3.07**	**0.92**	**Agreed**

Table 1 indicated that, the mean and standard deviation scores of responses on the banditry affect students perceived security and emotional well-being in relation to their participation in Biology classes. The average mean and standard deviation scores of items 1, 2, 3, 4, 5 and 6 is given as (N = 228, M = 3.07 and SD = 0.92) which is above the cut-off point of 2.50, indicating there is significant influence of banditry on students perceived security and emotional well-being in relation to their participation in Biology classes.

Research Question Two: What is the effect of banditry on students' academic performance and classroom participation in Biology?

Table 2: Mean and Standard Deviation Scores of Responses on the effect of banditry on students' academic performance and classroom participation in Biology

S/N	Section C: Academic Impact and Participation	SA	A	SD	D	MEAN	St. Div.	Remarks
7	Banditry around my school has disrupted normal learning activities in Biology.	98	111	10	9	3.31	0.91	Agreed
8	Due to banditry threats, my attendance in Biology classes has decreased.	114	100	10	4	3.32	0.87	Agreed
9	My interest in studying Biology has been negatively affected by incidents of banditry.	100	102	18	8	2.80	1.09	Agreed
10	My academic performance in Biology has suffered due to insecurity near my school.	120	100	4	4	3.09	0.80	Agreed
11	Banditry has led to a reduction in laboratory or fieldwork activities in Biology.	99	121	8	0	3.31	1.17	Agreed
12	I am less willing to participate in group activities in Biology due to security concerns.	105	121	2	0	3.10	0.92	Agreed
13	Biology classes are sometimes cancelled because of banditry threats.	100	112	10	6	3.21	0.88	Agreed
14	There are topics in Biology I now find more challenging because of missed classes due to insecurity.	111	109	5	3	3.72	0.92	**Agreed**
	Total					**25.86**	**7.56**	
	Average Mean and Standard Deviation					**3.23**	**0.95**	**Agreed**

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

Table 2 indicated that, the mean and standard deviation scores of responses on the effect of banditry on students' academic performance and classroom participation in Biology. The average mean and standard deviation scores of items 7, 8, 9, 10, 11, 12, 13 and 14 is given as (N = 228, M = 3.23 and SD = 0.95) which is above the cut-off point of 2.50, indicating there is significant influence effect of banditry on students' academic performance and classroom participation in Biology.

Research Question Three: To what extent do institutional safety measures and support mechanisms mitigate the effects of banditry on Biology students?

Table 3: Mean and Standard Deviation Scores of Responses on the Extent of Institutional safety measures and Support Mechanisms Mitigate the Effects of Banditry on Biology students

S/N	Section C: Institutional Support and Recommendation	SA	A	SD	D	MEAN	St. Div.	Remarks
15	Teachers discuss safety more often during Biology classes because of banditry.	120	80	20	8	3.44	0.85	Agreed
16	School authorities provide adequate support for students affected by banditry.	110	100	11	7	3.07	0.84	Agreed
17	I feel my teachers are prepared to respond effectively to security situations related to banditry.	98	99	20	11	3.73	1.05	Agreed
18	I feel protected by school security measures during Biology lessons.	100	121	7	0	3.19	0.83	Agreed
19	The threat of banditry has made me consider changing schools.	114	106	4	4	3.34	0.88	Agreed
20	I believe more should be done to ensure the safety of students during Biology classes.	125	98	3	2	3.01	0.92	Agreed
	Total					**19.78**	**5.37**	
	Average Mean and Standard Deviation					**3.30**	**0.90**	**Agreed**

Table 3 indicated that, the mean and standard deviation scores of responses on the effect of extent does institutional safety measures and support mechanisms mitigate the effects of banditry on Biology students. The average mean and standard deviation scores of items 15, 16, 17, 18, 19, and 20 is given as (N = 228, M = 3.30 and SD = 0.90) which is above the cut-off point of 2.50, indicating there is significant influence effect of banditry on students' academic performance and classroom participation in Biology.

Hypothesis One: There is no significant relationship between perceived security/emotional distress caused by banditry and students' participation in Biology classes.

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

Table 4: Result of t-test Analysis on Perceived Security/Emotional Distress caused by Banditry and Students' Participation in Biology classes

Groups	N	Mean	St. Dev.	df	T	P	Decision
Agreed	198	62.61	9.055				
				226	**34.859**	**0.000**	**Significant**
Disagreed	30	42.72	5.65				

Table 4, showed that, P – value is 0.000 which is less than the alpha value of 0.05 level of significance at df of 226. Since the p-value is less than the alpha value, it means that, there is significant relationship between perceived security/emotional distress caused by banditry and students' participation in Biology classes. Therefore, the null hypothesis one is rejected.

Hypothesis Two: Banditry has no significant effect on the academic performance of Biology students in Kaduna State.

Table 5: Result of t-test Analysis on the Effect of Banditry and Students' Academic Achievement in Biology classes

Groups	N	Mean	St. Dev.	df	t	p	Decision
Agreed	198	51.02	8.34				
				226	**24.475**	**0.000**	**Significant**
Disagreed	30	32.72	6.15				

Table 5, revealed that, P – value is 0.000 which is less than the alpha value of 0.05 level of significance at df of 226. Since the p-value is less than the alpha value, it means that, there is significant effect of banditry on the academic performance of Biology students in Kaduna State. Therefore, the null hypothesis two is rejected.

Hypothesis Three: Institutional safety measures and support do not significantly mitigate the effects of banditry on students' academic achievement in Biology.

Table 5: Result of t-test Analysis of Institutional Safety Measures and Support do Significantly Mitigate the Effects of Banditry on Students' Academic Achievement in Biology

Groups	N	Mean	St. Dev.	df	t	p	Decision
Agreed	198	65.77	7.33				
				226	**46.230**	**0.000**	**Significant**
Disagreed	30	32.22	4.16				

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.15 (2), May-August, 2025 https://ajemates.org

Table 5 showed that, P – value is 0.00 which is less than the alpha value of 0.05 level of significance at df of 226. Since the p- value is less than the alpha value, it means that, there is significant Institutional safety measures and support do significantly mitigate the effects of banditry on students' academic achievement in Biology. Therefore, the null hypothesis three is rejected. Indicating that, there is a significant influence of Institutional safety measures and support do significantly mitigate the effects of banditry on students' academic achievement in Biology.

Discussion

The results showed a significant relationship between perceived security and emotional distress caused by banditry and students' participation in Biology classes. Therefore, the first null hypothesis, which stated that there is no significant relationship between perceived security/emotional distress and students' participation in Biology classes, was rejected. This aligns the findings of Abimbola and Oyebimpe (2024), who found that learners in an insecure environment do experience increased fear and anxiety which detracts them from their academic performance. The study further echoes Perumean-Chaney and Sutton (2012) who opined that secured learning environment can surprisingly reduce student's feelings of safety, impacting their emotional well-being and participation.

The findings revealed a significant effect of banditry on the academic performance of Biology students in Kaduna State. Accordingly, the second null hypothesis, which stated that banditry has no significant effect on the academic performance of Biology students in Kaduna State, was rejected. This corroborates the findings of Saminu et al., (2023) linked school attacks in Zamfara state to sharp in enrollment and performance. Sodangi and Adamu (2025) in a related studies found environmental insecurity to have negatively affected student academic achievement in mathematics especially in rural areas of the state. Collectively, these findings underscore the severe academic costs of insecurity, which goes beyond absenteeism to long term performance declines.

The results indicated that institutional safety measures and support substantially reduce the negative impact of banditry on students' academic performance in Biology. The first null hypothesis is rejected. The results corroborate the findings of Danjumma et al. (2024), which indicate that parental and guardian engagement in discussions regarding safety measures can promote a collaborative approach to security, thereby ensuring that students feel supported in both home and school environments. López Cruz (2017) found significant relationships and communication between schools and local communities that enhance safety perception and reduce fear associated with banditry. Chepkirui and Njoroge (2024) emphasized that adequate resources and the engagement of qualified mentors mitigate the negative effects of insecurity. The evidence presented

indicates that school safety measures are essential mechanisms that ensure positive instructional outcomes for learners in conflict areas.

Conclusion

The study reveals that banditry significantly reduces students' engagement and academic performance in Biology, although institutional safety measures and psychosocial support serve to mitigate these impacts.

Strengthening school security systems, integrating trauma-informed counseling, and fostering parent–community collaboration is essential for sustaining learning in insecure environments. Policymakers should prioritize resource allocation to conflict-prone schools and institutionalize state-level Safe Schools Initiatives that integrate education and security responses. These measures, supported by evidence from prior studies, can mitigate the adverse impacts of insecurity and promote resilience in students' academic pursuits.

Recommendations

1. Schools should strengthen safety measures through secure perimeters, surveillance, and collaborative safety committees.
2. Counseling and psychosocial support services must be expanded to help students cope with trauma and anxiety.
3. Parents and communities should be actively engaged in school safety planning and monitoring.
4. Government should prioritize equipping conflict-prone schools with adequate resources, qualified teachers, and digital learning tools.
5. Policymakers should establish a coordinated Safe Schools Initiative to integrate security management into the education system.

REFERENCES

Abimbola, T. N. O., & Oyebimpe, M. (2024). Impact of insecurity on mental health of secondary school students in Barapa area of Oyo state. *International Journal of Educational Research and Library Science*, *6*(8). https://doi.org/10.70382/tijerls.v06i8.015

Babatunde Michel Idowu, & Arua, M. C. (2023). Nigerian Security Conundrum: An Analysis of Patterns and Trends of Banditry in Northwest Nigeria. *European Journal of Theoretical and Applied Sciences*, *1*(3), 215–224. https://doi.org/10.59324/ejtas.2023.1(3).24

Chepkirui, E. R., & Njoroge, S. (2024). Students Performance in Biological Sciences. *Jumuga Journal of Education Oral Studies and Human Sciences (JJEOSHS)*, *7*(1), 1–15. https://doi.org/10.35544/jjeoshs.v7i1.70

Danjumma, N. M., Aliyu, N. A., & Aliero, N. H. S. (2024). Effect of Banditry on School

Attendance Among Students in Sakaba Local Government Area, Kebbi State, Nigeria. *International Journal of Educational and Psychological Sciences*, *2*(2), 91–104. https://doi.org/10.59890/ijeps.v2i2.1483

Ekpoh, U. I., Edet, A. O., & Ukpong, N. N. (2020). Security Challenges in Universities: Implications for Safe School Environment. *Journal of Educational and Social Research*, *10*(6), 112. https://doi.org/10.36941/jesr-2020-0113

Ikechukwu Anthony Kanu, Pilani Michael Paul, Mike Boni Bazza, Kamai, P. H., Peter Bakwaph Kanyip, & Onukwuba, M. (2024). Educational Insecurity in Northwest Nigeria. *International Journal of Religion*, *5*(7), 151–164. https://doi.org/10.61707/9zmetc45

Kanu, I. A., Paul, P. M., Bazza, M. B., Kamai, P. H., Kanyip, P. B., & Onukwuba, M. (2024). Educational Insecurity in Northwest Nigeria. *International Journal of Religion*, *5*(7), 151–164. https://doi.org/10.61707/9zmetc45

López Cruz, I. G. (2017). Policing, schooling and human capital accumulation. *Journal of Economic Behavior & Organization*, *159*. https://doi.org/10.1016/j.jebo.2017.03.027

Ofoma Chinedu Valentine. (2023). Effect Of Banditry on Socio-Economic Development Of North-West Geopolitical Zone Of Nigeria. *International Journal of Public Administration Studies*, *3*(1), 1–1. https://doi.org/10.29103/ijpas.v3i1.9017

Ojewale, O. (2024). Learning on the edge: Impacts of banditry on education and strategic options for resilience in northwest Nigeria. *African Security Review*, *33*(2), 1–18. https://doi.org/10.1080/10246029.2024.2327314

Perumean-Chaney, S. E., & Sutton, L. M. (2012). Students and Perceived School Safety: The Impact of School Security Measures. *American Journal of Criminal Justice*, *38*(4), 570–588. https://doi.org/10.1007/s12103-012-9182-2

Saminu, I., Che, & Shukri, S. (2023). Bandits' Struggle for Survival and its Humanitarian Impacts in Zamfara State, Nigeria. *Cogent Social Sciences*, *9*(1). https://doi.org/10.1080/23311886.2023.2241714

Sodangi, U., & Adamu, I. (2025). Effect of Environmental Insecurity on Students' Academic Achievement in Mathematics among Senior Secondary School Students in Zamfara North Senatorial Zone. *Global Academic Journal of Humanities and Social Sciences*, *7*(01), 57–65. https://doi.org/10.36348/gajhss.2025.v07i01.007

Valentine, O. C. (2023). Effect of Banditry on Socio-Economic Development of North-West Geopolitical Zone of Nigeria. *International Journal of Public Administration Studies*, *3*(1), 1–1. https://doi.org/10.29103/ijpas.v3i1.9017