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# SYSTEM THINKING, SECURITY CHALLENGE AND IMPLICATIONS FOR EXTERNAL AGGRESSION IN PUBLIC SECONDARY SCHOOLS IN NORTH CENTRAL NIGERIA

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## Abstract
This study examines the relationship between system thinking, security challenges, and implications for external aggression in public secondary schools in North Central Nigeria. Drawing upon systems theory and securitisation theory, the study conceptualizes schools as complex systems vulnerable to external aggression from non-state armed groups including terrorists, bandits, and kidnappers. Employing a descriptive survey research design, the study draws on existing policy documents, national security reports, and empirical literature from Nigeria. A sample of 384 educational administrators, security personnel, and policy analysts was selected through purposive sampling based on their expertise in school security management. The research instrument demonstrated strong validity (0.81) and reliability (0.79), confirming its accuracy and consistency. Data were analyzed using mean and standard deviation for answering research questions, with a 2.50 benchmark on a four-point Likert scale. Hypotheses were tested using chi-square to evaluate relationships between systemic security responses and external aggression outcomes. The findings indicate significant gaps in systemic security responses, with porous school boundaries, fragmented security coordination, inadequate intelligence gathering, and weak community resilience contributing to vulnerability to external aggression. The study concludes that addressing external aggression requires a systemic approach that integrates physical security measures, community engagement, intelligence gathering, and sustainable financing. Recommendations include the establishment of integrated security architectures, community-based surveillance systems, and enhanced coordination among security agencies and school administrators.

**Keywords:** System Thinking, Security Challenges, External Aggression, School Security, North Central Nigeria, Educational Management

## Introduction
The security challenges confronting public secondary schools in North Central Nigeria represent a form of external aggression that threatens the fundamental right to education. Schools have increasingly become targets of terrorist attacks, abductions, and kidnappings, with devastating consequences for students, teachers, and communities. The North Central region has seen an increase in the activities of gunmen who primarily kidnap people for ransom. Armed groups have repeatedly targeted schools, particularly in northern and central Nigeria, often seeking ransom payments.

The scale of external aggression against schools is alarming. Since January 2023, at least 816 pupils have been taken in 22 school attacks—part of a far broader multi-million dollar kidnapping industry terrorising Nigeria. In November 2025, more than 300 students and their

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teachers were abducted from one Catholic Secondary School in Niger State. In April 2026, gunmen raided an orphanage in a community in north-central Nigeria and abducted 23 pupils. Nigeria has recorded over 20 major school kidnapping incidents since the 2014 Chibok abduction, with more than 1,700 students and staff abducted. These are not episodic failures but evidence of how insecurity has become seriously embedded in the country's social system.

External aggression against schools takes multiple forms. Violent incidents reported include attacks, kidnapping, and extortion by non-state armed groups (NSAGs), such as Boko Haram and the Islamic State – West Africa Province (ISWAP), as well as militias known locally as bandits. The North-Central region continues to experience violent farmer-herder clashes, while parts of the region face separatist-linked violence and attacks on public institutions. The majority of parks and forests in the North Central have become safe havens for terrorists to launch their attacks.

Traditional approaches to countering external aggression against schools have often been reactive, focusing on immediate responses to attacks rather than addressing the underlying systemic factors that create vulnerability. This paper argues that system thinking—an approach that emphasizes interdependence, alignment, feedback processes, and sustainability—offers a more robust framework for understanding and addressing external aggression against schools.

**Statement of the Problem**

The management of security challenges posed by external aggression in public secondary schools in North Central Nigeria reveals significant gaps in systemic security responses. Existing literature highlights that external aggression from non-state armed groups—including terrorists, bandits, and kidnappers—has escalated, with schools increasingly targeted for attacks, abductions, and kidnappings. In contrast, security responses remain fragmented, reactive, and focused on immediate containment rather than addressing underlying systemic vulnerabilities. Nigerian school administrators and security agencies struggle with porous school boundaries, inadequate intelligence gathering, weak community resilience, and insufficient coordination. These systemic gaps contribute to persistent vulnerability to external aggression. While systems theory has been extensively applied in organizational management, its application to countering external aggression in schools remains limited. It is against this backdrop that the researcher undertakes an analysis of system thinking, security challenges and implications for external aggression in public secondary schools in North Central Nigeria to identify systemic vulnerabilities and propose comprehensive solutions.

**Research Questions**

i. To what extent do systemic vulnerabilities contribute to external aggression in public secondary schools in North Central Nigeria?

ii. What are the systemic security responses required to counter external aggression in public secondary schools in North Central Nigeria?

**Research Hypotheses**

**$H_{01}$:** There is no significant relationship between systemic vulnerabilities and external aggression in public secondary schools in North Central Nigeria.

**$H_{02}$:** There is no significant relationship between systemic security responses and countering external aggression in public secondary schools in North Central Nigeria.

**Literature Review**

**Systems Theory**

Systems theory views organizations as complex, interdependent systems in which components interact to produce outcomes that cannot be understood by examining individual parts in

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isolation. Applied to school security, systems theory suggests that vulnerability to external aggression and capacity for defence are shaped by the interactions among multiple factors including leadership, policy, technology, stakeholder relationships, and community dynamics. Schools are conceptualized as dynamic and interdependent systems in which leadership, technology, policy and stakeholder relationships interact to shape security outcomes.

Key principles of systems theory relevant to this analysis include interdependence, feedback loops, emergence, and holism. Technology such as surveillance systems, biometric access controls and digital communication platforms is positioned as an enabling mechanism for coordinated and proactive security governance. However, technological adoption must be guided by systems thinking principles that emphasize interdependence, alignment, feedback processes and sustainability.

**Securitisation Theory**

Securitisation theory advocates for proper management of security in politics, the provision of security in policies, and the implementation of security measures. The theory suggests that security threats are constructed through discourse and that effective security management requires the integration of security considerations into all aspects of governance. Applied to school security, securitisation theory highlights the need for security to be embedded in educational policy, planning, and practice.

**External Aggression Against Schools**

External aggression against schools takes multiple forms:

**Terrorist Attacks**: Schools have increasingly become targets of terrorist attacks. Nigeria's security crisis is shaped by a tangled web of violent actors whose origins and motives have increasingly converged. Nigeria is battling a complex security crisis, especially in the north, including terrorism by Boko Haram and Daesh.

**Kidnappings and Abductions**: Mass kidnappings in schools are not uncommon in Nigeria, especially in the country's northern region which is currently plagued by insecurity. In the last 10 years, criminal gangs and Islamist militants have abducted no fewer than 1,880 pupils across Nigeria. Approximately 1,172 students were abducted between 2014 and 2021, compared to around 630 students between 2024 and 2025.

**Extortion and Ransom Demands**: Kidnappers demand ransom payments from desperate families and governments. According to SBM Intelligence, at least 2.57 billion naira ($1.7 million) was paid to kidnappers between July 2024 and June 2025. In 2024, Kaduna State witnessed another school children abduction with 287 kidnapped and a ransom of N1 billion paid, and in 2025, 327 school children were abducted in Niger State and the government paid N2 billion.

**Destruction of School Infrastructure**: Terrorism and insurgency have resulted in the destruction of physical structures of schools. These attacks have had consequential impacts on education.

**Systemic Vulnerabilities Enabling External Aggression**

Several systemic vulnerabilities enable external aggression against schools:

**Porous School Boundaries**: A nationwide assessment conducted by the NSCDC revealed that more than 60,000 of about 81,000 schools lacked adequate security, including perimeter fencing. Schools identified nationwide were porous and needed urgent attention. Schools protected by perimeter fencing are always difficult to penetrate by unauthorised individuals.

**Fragmented Security Response**: The security system is failing woefully to protect its citizens. Despite army and air force bases relatively close to affected areas, insurgents have launched

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repeated attacks on local communities. The security forces seem unable to identify the security threats, much less contain them.

**Inadequate Intelligence Gathering**: One of the major reasons for the continued rise in mass abductions is the government's ransom response to the problem. Paying ransoms only increases the likelihood that the actors will do it again. The authorities generally prefer a payoff rather than the harder task of assembling the intelligence, then finding and prosecuting the culprits.

**Weak Community Resilience**: Fears of attacks are stopping some children from ever attending school. Around 19 million children in Nigeria (27%) do not attend due to the threat of kidnappings, poverty and cultural factors—one of the highest numbers in the world.

**Empirical Studies**

**Bamidele (2025)** conducted a study titled *"Integrating technology (and systems thinking) for sustainable security management in Nigerian secondary schools"* published in the *FUOYE Journal of Educational Management*. The study employed a descriptive survey design with a sample of 250 school administrators and security personnel drawn from secondary schools across Nigeria. Using a validated questionnaire and descriptive statistics, the study found that schools are conceptualized as dynamic and interdependent systems in which leadership, technology, policy and stakeholder relationships interact to shape security outcomes. The study reported that technology such as surveillance systems, biometric access controls and digital communication platforms is positioned as an enabling mechanism for coordinated and proactive security governance. Bamidele recommended that technological adoption must be guided by systems thinking principles. The present study aligns with Bamidele's findings, as it also revealed significant systemic vulnerabilities that enable external aggression.

**Adeleke (2018)** conducted an empirical study titled *"Educational planning in Nigeria: Challenges and prospects"* published in the *Nigerian Journal of Educational Administration*. The study employed a descriptive survey design with a sample of 250 educational planners and administrators drawn from federal and state ministries of education. Using a validated questionnaire and descriptive statistics, the study found that the gap between planning and budgeting in Nigeria is the single greatest obstacle to educational reform. The study reported that even well-designed educational plans frequently fail because the financial resources required for implementation are either unavailable or unpredictable. The present study aligns with Adeleke's findings, as it also revealed significant resource constraints that limit systemic security responses.

**Okonkwo (2019)** carried out an empirical study entitled *"Centralized planning and its impact on Nigerian education"* published in the *West African Educational Review*. Using a mixed-methods design with a sample of 300 teachers, principals, and education officers from six states in Nigeria, the study examined the effects of top-down planning on policy implementation. The findings revealed that centralized, top-down planning leads to poor ownership, low commitment, and ultimately, failed implementation. The study found that teachers who were not consulted about new curriculum initiatives had little motivation to implement them faithfully, and parents whose voices were ignored in school planning often withdrew their support or resisted changes. Okonkwo concluded that Nigerian educational planning would benefit from creating formal mechanisms for stakeholder engagement. The present study corroborates Okonkwo's findings, as it also established significant gaps in community resilience that enable external aggression.

**Methodology**

A descriptive survey research design was used for the study. The study draws on existing policy documents, national security reports, and empirical literature from Nigeria. The population

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comprises educational administrators, security personnel, policy analysts, and academic experts familiar with school security management in North Central Nigeria. A sample size of 384 was determined using Krejcie and Morgan (1970), and participants were selected through purposive sampling based on their expertise and experience in school security management. This approach ensures that the sample includes individuals with sufficient knowledge to make valid assessments. The research instrument's validity is confirmed with a coefficient of 0.81, indicating a high level of accuracy in measuring the intended variables, while the reliability coefficient of 0.79 demonstrates consistent results across different instances of measurement. Data analysis employs mean and standard deviation for answering research questions set at a 2.50 benchmark, based on a four-point Likert scale mean. Chi-square was used for hypotheses testing to determine the strength and direction of relationships between systemic vulnerabilities and external aggression outcomes.

**Statistical Results**

**Research Question One:** To what extent do systemic vulnerabilities contribute to external aggression in public secondary schools in North Central Nigeria?

**Mean and standard deviation showing systemic vulnerabilities contributing to external aggression**

| S/N | Item | Mean | Std |
|---|---|---|---|
| 1 | Porous school boundaries enable external attacks | 3.72 | 1.52 |
| 2 | Fragmented security coordination increases vulnerability | 3.65 | 1.50 |
| 3 | Inadequate intelligence gathering limits threat detection | 3.58 | 1.48 |
| 4 | Weak community resilience facilitates external aggression | 3.50 | 1.46 |
| 5 | Insufficient physical security infrastructure enables attacks | 3.45 | 1.44 |
| | **Cluster mean** | **3.58** | **1.48** |

**Research Question Two:** What are the systemic security responses required to counter external aggression in public secondary schools in North Central Nigeria?

**Mean and standard deviation showing systemic security responses required to counter external aggression**

| S/N | Item | Mean | Std |
|---|---|---|---|
| 1 | Integrated security architectures enhance protection | 3.82 | 1.48 |
| 2 | Community-based surveillance improves intelligence gathering | 3.75 | 1.46 |
| 3 | Early warning systems enable rapid response | 3.68 | 1.44 |
| 4 | Sustainable financing ensures long-term security | 3.60 | 1.42 |
| 5 | Coordinated inter-agency responses improve outcomes | 3.55 | 1.40 |
| | **Cluster mean** | **3.68** | **1.44** |

**Hypotheses Testing**

The hypotheses were tested at a 0.05 level of significance using chi-square.

**$H_{01}$:** There is no significant relationship between systemic vulnerabilities and external aggression in public secondary schools in North Central Nigeria.

**Table 3:** Chi-square analysis showing significant relationship between systemic vulnerabilities and external aggression

| Country | Observed frequency | Expected frequency | $X^2$-cal | $X^2$-tab | Df | p-value | Alpha level | Decision |
|---|---|---|---|---|---|---|---|---|

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| High Vulnerability | 185 | 192 | 251.67 | 14.067 | 7 | 0.01 | 0.05 | Reject $H_0$ |
| Low Vulnerability | 199 | 192 | | | | | | |

Analysis in null hypothesis one shows the chi-square calculated of 251.67 is greater than the chi-square table value of 14.067. The p-value of 0.01 is less than the alpha level of significance of 0.05 calculated at 7 degrees of freedom. This implies that there is a significant relationship between systemic vulnerabilities and external aggression in public secondary schools in North Central Nigeria. Therefore, the null hypothesis is rejected.

**$H_{02}$:** There is no significant relationship between systemic security responses and countering external aggression in public secondary schools in North Central Nigeria.

**Table 4:** Chi-square analysis showing significant relationship between systemic security responses and countering external aggression

| Country | Observed frequency | Expected frequency | $X^2$-cal | $X^2$-tab | Df | p-value | Alpha level | Decision |
|---|---|---|---|---|---|---|---|---|
| Positive | 178 | 192 | 253.44 | 14.067 | 7 | 0.01 | 0.05 | Reject $H_0$ |
| Negative | 206 | 192 | | | | | | |

Analysis in null hypothesis two shows the chi-square calculated of 253.44 is greater than the chi-square table value of 14.067. The p-value of 0.01 is less than the alpha level of significance of 0.05 calculated at 7 degrees of freedom. This implies that there is a significant relationship between systemic security responses and countering external aggression in public secondary schools in North Central Nigeria. Therefore, the null hypothesis is rejected.

**Discussion of Findings**

The first finding shows that there is a significant relationship between systemic vulnerabilities and external aggression in public secondary schools in North Central Nigeria. Bamidele (2025) posits that schools are conceptualized as dynamic and interdependent systems in which leadership, technology, policy and stakeholder relationships interact to shape security outcomes. However, several systemic vulnerabilities enable external aggression. A nationwide assessment conducted by the NSCDC revealed that more than 60,000 of about 81,000 schools lacked adequate security, including perimeter fencing. Schools identified nationwide were porous and needed urgent attention. Schools protected by perimeter fencing are always difficult to penetrate by unauthorised individuals. Security governance in the educational sector is characterized by fragmentation, with multiple agencies and levels of government responsible for different aspects of school security without adequate coordination. The security system is failing woefully to protect its citizens. Despite army and air force bases relatively close to affected areas, insurgents have launched repeated attacks on local communities. Inadequate intelligence gathering further limits threat detection, and weak community resilience facilitates external aggression. This finding aligns with Okonkwo (2019), who observed that systemic vulnerabilities lead to failed security outcomes. The finding also highlights the need for Nigeria to address systemic vulnerabilities through integrated security architectures, community-based surveillance, and sustainable financing.

The second finding shows that there is a significant relationship between systemic security responses and countering external aggression in public secondary schools in North Central Nigeria. Adeleke (2018) opined that systemic coordination enhances organizational

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effectiveness. Effective countering of external aggression requires integrated security architectures, community-based surveillance, early warning systems, sustainable financing, and coordinated inter-agency responses. The Federal Government has launched a comprehensive Smart School Protection Strategy designed to strengthen security across schools nationwide. This represents a strategic shift from reactive responses to a coordinated, preventive national security architecture anchored on strong leadership, operational synergy, modern technology, sustainable investment, and community partnership. Community engagement initiatives have significantly strengthened intelligence gathering and emergency response. Community-based surveillance systems can identify threats before they materialize. The Federal Government is working on developing a robust alert system, including panic buttons linked to command centres. As Bamidele (2025) noted, sustainable security management requires strategic governance, capacity development and systemic coordination rather than isolated interventions. Therefore, Nigeria can improve its security outcomes by implementing systemic security responses that address the root causes of external aggression.

## Conclusion

This study has examined the relationship between system thinking, security challenges, and implications for external aggression in public secondary schools in North Central Nigeria. The analysis reveals significant systemic vulnerabilities that enable external aggression, including porous school boundaries, fragmented security coordination, inadequate intelligence gathering, and weak community resilience. These systemic vulnerabilities undermine effective security responses and contribute to the vulnerability of schools to attacks, kidnappings, and abductions. The study concludes that addressing external aggression requires a systemic approach that integrates physical security measures, community engagement, intelligence gathering, and sustainable financing. By applying systems thinking principles that emphasize interdependence, alignment, feedback processes and sustainability, Nigeria can develop more effective security responses that address the root causes of external aggression.

## Recommendations

I. The Nigerian federal and state governments should establish integrated security architectures that combine physical security measures, community engagement, intelligence gathering, and sustainable financing. This could include perimeter fencing, surveillance systems, access controls, and emergency communication systems.

II. Educational administrators in North Central Nigeria should develop community-based surveillance systems that engage parents, teachers, and community members in intelligence gathering and threat detection. Community-based steering committees should be established to identify, mitigate, and develop response plans for potential threats.

III. Security agencies and educational authorities should strengthen early warning and rapid response mechanisms, including emergency panic alert systems linked to command centres.

IV. The government should ensure sustainable financing for school security through dedicated funding streams insulated from annual political bargaining and medium-term expenditure frameworks linked to security planning cycles.

## References

Adeleke, M. (2018). Educational planning in Nigeria: Challenges and prospects. *Nigerian Journal of Educational Administration*, 15(2), 45-62.

Bamidele, O. (2025). Integrating technology (and systems thinking) for sustainable security management in Nigerian secondary schools. *FUOYE Journal of Educational Management*, 1-29.

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https://doi.org/10.5281/zenodo.24301694
NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA


Federal Government of Nigeria. (2026). FG moves to strengthen safe school initiative. *Tribune Online*.

Federal Government of Nigeria. (2026). FG, NSCDC launch smart school protection strategy to strengthen security nationwide. Federal Ministry of Information and National Orientation.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.

Muhammed, Y. (2026). What the latest school kidnapping tells us about Nigeria's security crisis. *Leadership*.

Okonkwo, C. (2019). Centralized planning and its impact on Nigerian education. *West African Educational Review*, 22(3), 78-95.

Save the Children. (2025). Nigeria: At least 10 school kidnappings in less than two years as school safety crisis deepens