

## **SURVEILLANCE SYSTEMS AND EMERGENCY RESPONSE PLANS AS CORRELATE OF EDUCATIONAL RESOURCES MANAGEMENT IN SECONDARY SCHOOLS IN IMO STATE**

**By**

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### **Abstract**

*In this study, the researchers examined surveillance systems and emergency response plans as correlate of educational resources management in secondary schools in Imo State. Two research questions were posed and two corresponding hypotheses were formulated at 0.05 level of significance. The study adopted the correlational research design. The population of the study is 6,566 teachers in 296 public senior secondary schools in Imo State. A sample of 328 teachers was drawn from 15 selected schools in the study area which represented 5 per cent of the entire population using proportionate random sampling technique. Two researchers' made rating scales titled "Surveillance Systems and Emergency Response Plans Scale (SSERPS) and Educational Resources Management Scale (ERMS) were used as method of data collection. The scales contained 20 items for SSERPS and 15 items for ERMS using the 4 point Likert scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD). These instruments were validated by 2 research experts from Educational Measurement and Evaluation and 3 research experts from Department of Social Science Education, all in Imo State University, Owerri. Reliability coefficients of 0.81 for SSERPS and 0.85 for ERMS were obtained using Cronbach Alpha statistics. Research questions were answered using Pearson Product Moment Correlation Coefficient (PPMCC) while the hypotheses were tested using t-test of the significance of Pearson "r". The result revealed that*

*surveillance systems and emergency response plans have substantial, positive and significant coefficient of relationship with educational resources management in secondary schools in Imo State. It was concluded that surveillance systems and emergency response plans can be effectively used to enhance security, prevent theft and vandalism, and ensure prompt response to emergencies, thereby protecting educational resources and promoting a safe learning environment in schools. It was recommended that principals should invest in installing and maintaining surveillance systems and regularly update and drill comprehensive emergency response plans in order to ensure effective management and protection of educational resources.*

**Keywords:** Educational resources management, Emergency response plan, Secondary school education and Surveillance systems.

## INTRODUCTION

Secondary school education is that stage of education that follows primary education, typically for students between the ages of 11 and 18. It is a critical phase of education that builds on foundational knowledge and skills acquired in primary school, preparing students for further education or the workforce. Secondary school education encompasses a broad range of subjects, including languages, mathematics, sciences, and humanities, aimed at fostering intellectual, social, and emotional development. Secondary school education is crucial for developing critical thinking, problem-solving, and communication skills. It provides students with a solid foundation for future academic or professional pursuits, enabling them to make informed decisions about their career paths. By acquiring a secondary school education, individuals can enhance their socio-economic prospects and contribute to national development. According to Federal Republic of Nigeria (FRN, 2013), one of the broad aims of secondary education within the overall education objectives are preparing students for useful living within the society and preparing them for higher education. Achieving this broad aims of secondary school education requires adequate educational resources.

Educational resources refer to any materials, tools, or services used to support teaching, learning, and student development, such as textbooks, digital media, and educational software. These resources encompass a wide range of assets, including human resources (e.g., teachers, students etc.), physical resources (e.g., classrooms, equipment), and digital resources (e.g., online courses, educational apps). Educational resources are materials or services designed to facilitate learning, teaching, and assessment, including print and digital texts, multimedia content, and educational technology platforms. Educational resources include any materials, tools, or technologies used to enhance student learning outcomes, such as educational games, simulations, videos, and online resources, which can be physical or digital in nature. Nwaham (2020) states educational resources can be grouped into physical and human resources. Continuing, Nwaham posits that educational physical resources refer to tangible materials and equipment used in teaching and learning, such as classrooms, libraries, laboratories, computers,

whiteboards, textbooks, and other instructional materials that support student learning and academic achievement. Malunda and Juliet (2018) assert that educational human resources refer to the personnel involved in the teaching, support, and administration of education, including teachers, lecturers, instructors, tutors, counselors, administrators, and other support staff who contribute to the delivery of quality education and student development. However, both physical and human educational resources require proper management in order to achieve the goals of secondary school education.

Educational resource management refers to the strategic planning, allocation, and utilization of resources, including human, financial, and material resources, to achieve educational objectives. It involves the efficient and effective deployment of resources to support teaching, learning, and administrative processes in schools. Ejom, Onyebu, Eji and Ayi (2024) opine that educational resource management is the process of coordinating and utilizing resources, such as personnel, facilities, technology, and materials, to support the delivery of quality education, ensuring that resources are allocated efficiently and effectively to meet the needs of students, teachers, and the institution. Educational resource management aims to optimize resource utilization, reduce waste, and improve educational outcomes in schools. Effective educational resource management is essential for ensuring that schools have the necessary resources to deliver high-quality education. Effective educational resource management according to Asuquo, Ngaji and Igwe (2024) enables institutions to optimize resource utilization, reduce waste, and improve educational outcomes. To optimally explore the usefulness of educational resources, there is the need to ensure that they are well saved and secured using safety measures such as surveillance systems.

Surveillance systems refer to the use of technology, such as cameras and sensors, to monitor and observe school premises, students, and staff. These systems can enhance safety and security, deter bullying and vandalism, and provide evidence in case of incidents. Surveillance systems can also help administrators monitor school activities, identify potential security risks, and respond promptly to emergencies. Surveillance systems are important for ensuring a safe and secure learning environment, protecting students, staff, and school property. They can deter crime, facilitate investigations, and provide valuable insights into patterns and trends. By leveraging surveillance systems, schools can respond quickly to emergencies, minimize risks, and maintain a conducive learning environment. According to Amaechi, Orih and Ohalet (2024), CCTV surveillance and its features serve as a tool for deterrence, monitoring, reducing crimes, providing safety and evidence, or supporting situational awareness. CCTV, as a tool for security, meets the objectives of theft reduction, asset protection, security investigations, providing evidence and deterrence. The quality of every society is largely predicated on the quality of its educational system (Usman, 2016). In a related study, Ekwueme, Abua and Inah (2025) who investigated the impact of secondary school facilities on security measures and students' learning outcome in mathematics in Ogoja Education Zone, Cross River State, Nigeria found that there was significant influence of availability of perimeter fencing, and Closed Circuit Television (CCTV) surveillance cameras in secondary school on students' learning experience in mathematics in the study area. Similarly, Amaechi, Orih and Ohalet

(2024) who examined adoption of CCTV in school administration and security of students: an empirical study of secondary school administration in Imo State found that CCTV has become popular, and with its wide range of applications, it serves as a tool for security, meeting the objectives of theft reduction, asset protection, security investigations, and providing evidence.

Emergency response plan is a documented procedure outlining the steps to be taken in response to an emergency or crisis situation, such as natural disasters, fires, or security breaches. It is a comprehensive plan that identifies potential risks, outlines emergency procedures, and assigns roles and responsibilities to school staff and stakeholders. Adebayo (2019) asserts that an emergency response plan in schools is a comprehensive document that outlines procedures and protocols for responding to emergencies such as natural disasters, fires, and security breaches. The plan ensures timely and effective response to emergencies, minimizing harm to students, staff, and property, and facilitating a safe learning environment (Ogunleye, 2020). An emergency response plan aims to minimize the impact of an emergency, ensure timely response, and facilitate recovery in schools. An emergency response plan is crucial for ensuring that schools are prepared to respond to unexpected events, minimizing harm to students, staff, and property. It enables schools to respond quickly and effectively, reducing risks and ensuring business continuity. Worlu and Okai (2024) who explored safety measures and students learning outcomes in public senior secondary schools in Rivers State revealed that the presence and effectiveness of security personnel, emergency preparedness measures, and psychological support systems are all positively and significantly correlated with student learning outcomes. Okorji, Asiegbu and Ibeziakor (2018) who examined principals' awareness and application of safety emergency management plan in Anambra State secondary schools found that principals' awareness of emergency safety management plan provides guidance in mapping out measures or procedures to enhance safety of school personnel.

Surveillance systems and emergency response plans are security and safety measures needed to ensure managing of secondary schools. Without these measures, secondary schools would be highly vulnerable to risks, threats, and disruptions, compromising the well-being and safety of students, staff, and facilities. This would lead to increased incidents of violence, theft, and damage to property, ultimately disrupting the learning environment and hindering academic achievement. Without security and safety measures, school administrators would struggle to maintain order, protect assets, and provide a conducive learning environment. However, several studies have been conducted on how surveillance systems and emergency response plans relate to management of secondary schools, school facilities management and students' achievement (Amaechi, Orih & Ohalete, 2024; Usman, 2016; Ekwueme, Abua & Inah, 2025; Amaechi, Orih & Ohalete, 2024; Adebayo, 2019; Ogunleye, 2020; Worlu & Okai, 2024; Okorji, Asiegbu & Ibeziakor, 2018) without any study on how these measures relate to educational resource management. There is therefore an urgent need to bridge this gap by investigating surveillance system and emergency response plans as correlate of educational resources management in secondary schools in Imo State.

The management of educational resources in secondary schools is a critical aspect of ensuring quality education. However, the increasing rate of insecurity and safety breaches in Imo State secondary schools has posed a significant challenge to the effective management of these resources. Human resources, including teachers and students, and material resources, such as infrastructure and equipment, are constantly at risk due to inadequate security measures. Principals, as school administrators, have a crucial role in ensuring the safety and security of these resources, but evidence suggests that they have not fared well in this regard. The lack of effective security measures has resulted in the loss of valuable resources, damage to infrastructure, and disruption of academic activities. The consequences of these security breaches are far-reaching, affecting not only the students and staff but also the overall quality of education. It is imperative to explore innovative solutions to address this issue and ensure that educational resources are managed effectively. This study is therefore put in question form; what is the relationship between surveillance systems, emergency response plan and educational resource management in public senior secondary schools in Imo State? Providing answer to the question becomes the thrust of this study.

### Research Questions

The following research questions were asked to guide the study:

1. What is the coefficient of relationship between surveillance systems and educational resource management in schools?
2. What is the coefficient of relationship between emergency response plans and educational resource management in schools?

### Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance:

H<sub>01</sub>: There is no significant coefficient of relationship between surveillance systems and educational resource management in schools.

H<sub>02</sub>: The coefficient of relationship between emergency response plans and educational resource management in schools is not significant.

### Methods

The study adopted the correlational research design. The rationale of adopting this design is to establish the relationship between the variables of this study. The area of the study is the 6 educational zones in Imo State. The population of the study is 6,566 teachers in 296 public senior secondary schools in Imo State (Source: Imo State Secondary Education Management Board, 2024). A sample of 328 teachers was drawn from 15 selected schools in the study area which represented 5 per cent of the entire population. Nworgu (2015) recommends 5-10% for a large population in studies. The sample size was drawn using proportionate random sampling technique. Proportionate random sampling was used to choose the required respondents according to their strength using balloting with replacement so as to give every teacher an equal

chance of being selected for the study. Two researchers' made rating scales titled "Surveillance Systems and Emergency Response Plans Scale (SSERPS) and Educational Resources Management Scale (ERMS) were used as method of data collection. The scales contained 20 items for SSERPS and 15 items for ERMS using the 4 point Likert scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD). These instruments were validated by 2 research experts from Educational Measurement and Evaluation and 3 research experts from Department of Social Science Education, all in Imo State University, Owerri. Reliability coefficients of 0.81 for SSERPS and 0.85 for ERMS were obtained using Cronbach Alpha statistics. The researchers with the aid of three research assistants administered 328 copies of the instrument to the sampled respondents on-the-spot which birthed the 100 per cent retrieval rate and this number was found suitable for the analysis. Research questions were answered using Pearson Product Moment Correlation Coefficient (PPMCC) while the hypotheses were tested using t-test of the significance of Pearson "r".

## Result

**Research Question One:** What is the coefficient of relationship between surveillance systems and educational resource management in schools?

**Table 1:** Summaries of Pearson "r" statistics used to explain the coefficient of relationship between surveillance systems and educational resource management in schools

V	n	$\Sigma$	r	$r^2$	DR	Remarks
X	328	4734				<b>Substantial</b>
			<b>0.65</b>	42.25%	Positive	<b>Positive</b>
Y	328	6986				<b>Relationship</b>

Size (n), Summation ( $\Sigma$ ), Pearson (r), Proportion of Variance ( $r^2$ ), Direction of Relationship (DR) and Remarks

Data in Table 1, presents the summaries of Pearson "r" statistics used to explain the coefficient of relationship between surveillance systems and educational resource management in schools. The analysis reveals a substantial positive relationship between surveillance systems and educational resource management indicating that as the potency of surveillance systems increases, the likelihood of educational resource management curriculum also increases. Specifically, the coefficient value of 0.65 suggests that approximately 42.25% ( $r^2 = 0.4225$ ) of the variation in the management of educational resource can be attributed to the use of surveillance systems, highlighting the significant impact of surveillance systems on the management of educational resource. Therefore, the answer to the above question reveals a substantial positive relationship between surveillance systems and educational resource management in public senior secondary schools in Imo State.



## Hypothesis One

Ho<sub>1</sub>: There is no significant coefficient of relationship between surveillance systems and educational resource management in schools.

**Table 2:** Summaries of t-test of significance of Pearson “r” statistics used to test the coefficient of relationship between surveillance systems and educational resource management in schools

V	n	$\Sigma$	r	$\alpha$	df	t <sub>cal</sub>	t <sub>tab</sub>	Decision
X	328	4734						
			0.65	0.05	326	11.865	1.96	Reject Ho <sub>1</sub>
Y	328	6986						

Sample Size (n), Summation ( $\Sigma$ ), Pearson (r), Alpha Level ( $\alpha$ ), Degree of Freedom (df) and t-test of Significance of Pearson “r” statistics between two Variables

Table 2 shows the result for the test of the coefficient of relationship between surveillance systems and educational resource management in schools. The null hypothesis, which states that the coefficient of relationship between surveillance systems and educational resource management is not significant, can be rejected. The calculated t-value (11.865) exceeds the critical t-value (1.96), indicating a statistically significant relationship at the 0.05 level with 326 degrees of freedom. However, the correlation coefficient (0.65) suggests a strong positive relationship, implying that surveillance systems have a significantly huge coefficient of relationship with educational resource management in public senior secondary schools in Imo State.

**Research Question Two:** What is the coefficient of relationship between emergency response plans and educational resource management in schools?

**Table 3:** Summaries of Pearson “r” statistics used to explain the coefficient of relationship between emergency response plans and educational resource management in schools

V	n	$\Sigma$	r	r <sup>2</sup>	DR	Remarks
X	328	4705				Substantial
			0.69	47.61%	Positive	Positive
Y	328	6986				Relationship

Size (n), Summation ( $\Sigma$ ), Pearson (r), Proportion of Variance (r<sup>2</sup>), Direction of Relationship (DR) and Remarks

In Table 3, the data presents the summaries of Pearson “r” statistics used to explain the coefficient of relationship between emergency response plans and educational resource management in schools. The analysis reveals a substantial positive relationship between

emergency response plans and educational resource management indicating that as the efficacy of emergency response plans increase, the likelihood of management of educational resources also increases. Specifically, the coefficient value of 0.69 suggests that approximately 47.61% ( $r^2 = 0.4761$ ) of the variation in the management of educational resources can be attributed to the use of emergency response plans, highlighting the significant impact of emergency response plans on the management of educational resources. Therefore, the answer to the above question reveals a substantial positive relationship between emergency response plans and educational resource management in public senior secondary schools in Imo State.

## Hypothesis Two

H<sub>02</sub>: The coefficient of relationship between emergency response plans and educational resource management in schools is not significant.

**Table 4:** Summaries of t-test of significance of Pearson “r” statistics used to test the coefficient of relationship between emergency response plans and educational resource management in schools

V	n	$\Sigma$	r	$\alpha$	df	t <sub>cal</sub>	t <sub>tab</sub>	Decision
X	328	4705						
			<b>0.69</b>	0.05	326	<b>12.922</b>	<b>1.96</b>	<b>Reject H<sub>02</sub></b>
Y	328	6986						

Sample Size (n), Summation ( $\Sigma$ ), Pearson (r), Alpha Level ( $\alpha$ ), Degree of Freedom (df) and t-test of Significance of Pearson “r” statistics between two Variables

In Table 4, the data shows the result for the test of the coefficient of relationship between emergency response plans and educational resource management in schools. The null hypothesis, which states that the coefficient of relationship between emergency response plans and educational resource management is not significant, can be rejected. The calculated t-value (12.922) exceeds the critical t-value (1.96), indicating a statistically significant relationship at the 0.05 level with 326 degrees of freedom. However, the correlation coefficient (0.69) suggests a strong positive relationship, implying that emergency response plans have significantly huge coefficient of relationship with educational resource management in public senior secondary schools in Imo State.

## Discussion of Findings

The result revealed a substantial positive and significant coefficient of relationship between surveillance systems and educational resource management in public senior secondary schools in Imo State. This substantial positive and significant coefficient of relationship is a proof that schools that adopt surveillance systems tend to have better management of resources, including human and material resources. The significant relationship implies that investing in surveillance systems can lead to improved resource management outcomes, enhancing the



overall quality of education in these schools. The findings agree with Ekwueme, Abua and Inah (2025) who found that there was significant influence of availability of perimeter fencing, and Closed Circuit Television (CCTV) surveillance cameras in secondary school on students' learning experience. Similarly, Amaechi, Orih and Ohalet (2024) found that CCTV has become popular, and with its wide range of applications, it serves as a tool for security, meeting the objectives of theft reduction, asset protection, security investigations, and providing evidence. The result strengthened the fact that the implementation of surveillance systems in public senior secondary schools in Imo State has a positive impact on the management of educational resources, enhancing security and safety. This leads to reduced theft and vandalism, protection of infrastructure and equipment, and a safer learning environment, ultimately promoting effective resource utilization. By deterring potential threats, surveillance systems enable school administrators to focus on academic and administrative tasks, improving overall resource management.

The result also revealed that there is a substantial positive and significant coefficient of relationship between emergency response plans and educational resource management in public senior secondary schools in Imo State. The result is a proof that schools with well-developed emergency response plans tend to have more effective management of resources. This implies that having a plan in place to respond to emergencies enables school administrators to mitigate risks and minimize disruptions to resource utilization. The substantial positive coefficient suggests that emergency response plans have a considerable impact on resource management outcomes. Overall, the finding highlights the importance of emergency preparedness in ensuring the effective management of educational resources. In corroborating the result, Worlu and Okai (2024) found that the presence and effectiveness of security personnel, emergency preparedness measures, and psychological support systems are all positively and significantly correlated with student learning outcomes. Also, Okorji, Asiegbu and Ibeziakor (2018) found that principals' awareness of emergency safety management plan provides guidance in mapping out measures or procedures to enhance safety of schools personnel. The result strengthened the fact that emergency response plans have a positive impact on educational resource management in public senior secondary schools in Imo State by enabling school administrators to respond promptly and effectively to emergencies, minimizing disruptions and losses. This leads to better protection of human and material resources, reduced downtime, and improved continuity of academic activities. Ultimately, emergency response plans contribute to more efficient and effective management of educational resources.

## Conclusion

The study highlighted the importance of security measures in educational resource management, revealing that both surveillance systems and emergency response plans have a substantial positive impact on resource management in public senior secondary schools in Imo State. By investing in these security measures, school management can enhance the safety and

security of human and material resources, minimize disruptions, and promote effective resource utilization. In conclusion, surveillance systems and emergency response plans can be effectively used to enhance security, prevent theft and vandalism, and ensure prompt response to emergencies, thereby protecting educational resources and promoting a safe learning environment in public senior secondary schools in Imo State.

## Recommendations

Based on the findings of the study, the researchers made the following recommendations:

1. Management of public senior secondary schools in Imo State should prioritize the installation and effective utilization of surveillance systems to enhance security and promote better management of educational resources.
2. Principals and management of public senior secondary schools in Imo State should develop, regularly update, and drill emergency response plans to ensure preparedness and effective management of educational resources in the face of potential emergencies.
3. Principals should invest in installing and maintaining surveillance systems and regularly update and drill comprehensive emergency response plans in order to ensure effective management and protection of educational resources.

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