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**Perimeter Fencing and School Security: An Empirical Survey of the Experience of the  
Secondary School Administrators and Teachers in Imo State**

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**ABSTRACT**

*This study was to assess the perimeter fencing and school security as an empirical survey of the experience of the secondary school administrators and teachers. Ex-Post Facto research design was adopted for the study. The study area was Imo state. The population of the study comprised school administrators and teachers in Imo state. A stratified sampling technique was used to select 20 principals, 40 vice principal and 240 teachers from the study area and these gave a sample size of 300 respondents which constituted the sample size for the study. The Main Instrument used in this study was a questionnaire titled “Perimeter Fencing and School Security Questionnaire (PFSSQ)”. Face and content validation of the instrument was carried out to ensure that the instrument had the accuracy for study under consideration. Cronbach Alpha technique was used to determine the level of reliability of the instrument. The reliability coefficient obtained was 0.88 and this was high enough to justify the use of the instrument. The researcher subjected the data generated for this study to appropriate statistical techniques such as descriptive statistics and simple regression. The test for significance was done at 0.05 alpha levels. The study concluded that schools indicated different levels of security via perimeter fencing with very low extent of availability of perimeter fencing. The result also proved that the level of the extent of school security is low. Finally, it was observed that there is significant influence of perimeter fencing on school security in secondary school in Imo State. One of the recommendations was that school administrators should take specific care related to “securing, perimeter fencing and limiting access points to the school.*

**KEYWORDS: Perimeter Fencing, School Security, School Administrators and Teachers  
and Imo State**

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**Introduction**

Effective teaching and learning can take place only in a safe and secure school environment. Indeed, every community wants such an environment for their children. Lundberg (1994) posits that school safety and perimeter fencing encompasses the total learning environment, including learners, classrooms, the school campus, educators, parents, and the community. Squelch (2001) defines a safe school as one that is free from danger and possible harm, where non-educators, educators and learners can work, teach and learn without fear or ridicule, intimidation, harassment, humiliation or violence. A safe school is therefore a healthy school, in that it is physically and psycho-socially safe. The Independent Project Trust (IPT, 1999) confirms this by stating that a secure school environment has a very low risk of physical, emotional and psychological injury to its occupants. Squelch (2001) propounds that a safe school is characterized by the presence of certain physical aspects such as a secure wall, perimeter fencing and gates, buildings that are in a good state of repair and well-maintained school grounds. Included in these indicators of school safety are good discipline, a culture conducive to teaching and learning, professional teacher conduct, good governance and management practices, and an absence or low level of crime and violence. Almost all schools had new perimeter fencing like iron and concrete palisades. This included secure and strong gate materials. All schools' gates observed were kept locked during school hours, reportedly as a directive from the Department of Education. However, some schools had old rickety gates that could not be properly secured or locked. In two schools, the perimeter fencing was old and with gaping holes in some sections.

The security of schools has become a growing concern due to recent changes in our society including terrorist attacks, gun crime, vandalism, arson, child exploitation and other issues prevalent in our society that put the safety of children, teachers, staff and parents at risk. In some schools, colleges or other educational institutions intruders can wander in and out of the premises as they please, as the access to buildings is not considered seriously enough within risk assessments. While some provisions are, for some establishments excessive (this is often dependent on the institution), such as metal detectors and bag checking which are now seen in some schools across the US. Other basic measures like surveillance, perimeter and access security are an absolute necessity. Students and teachers have the right to feel safe and secure with the peace of mind that should a situation arise they have the right security measures and procedures in place to keep themselves and those around them safe. Parents too should feel reassured with the knowledge that when their child attends school, they will be safe in the care of the teachers and the security of the building.

### **Statement of the Problem**

Over the years, there have been problems of insecurity not only in our society but also in the school environment. This security has created several challenges to the general society including government, the school management, parents and many more. It is interesting to note here that every challenge has a solution to it. There are numerous strategies that can minimize this problem of insecurity and one of them is construction of availability of perimeter fencing. The question here is “is there adequate perimeter fencing in public schools in Imo State? to what extent is our public schools secured in Imo State? Also, does availability of perimeter fencing actually help in any-way to eliminate or minimize the challenge of insecurity in Imo State?” All these questions will be answered in this research.

### **Objective of the Study**

1. To examine the extent of availability of perimeter fencing in secondary school in Imo State
2. To find out the extent of school security in secondary school in Imo State
3. To examine the influence of perimeter fencing on school security in secondary school in Imo State

### Research Question

1. What is the extent of availability of perimeter fencing in secondary school in Imo State?
2. What is the extents of school security in secondary school in Imo State?
3. What is the influence of perimeter fencing on school security in secondary school in Imo State?

### Hypothesis

**H0<sub>1</sub>:** There is no significant influence of perimeter fencing on school security in secondary school in Imo State

### Concept of Perimeter Fencing

In recent years, we have seen more investments in physical security in the form of gates, fences, vehicle barriers and other perimeter protection systems to ensure that secondary schools are not easily accessible. At its core, perimeter security has more to do with understanding and controlling patterns, not just locking doors. Fencing is often a starting point for establishing perimeter security and in education space, fencing often extends from the school all the way through to other facilities like sororities and dorms. For example, uses perimeter fencing systems around the outside of sororities to prevent unwanted trespassers from entering that space. Those gates and access points are controlled by a mix of mechanical and electromechanical locking devices. With many options to choose with varying levels of complexity, these devices simply control and limit who has access to secured areas (Williams & Corbin 2017). There is a wide range of physical security measures that can be put in practice to supervise security activities in schools. They can be divided into categories, consisting of the outside perimeter measure, inner middle perimeter measure and internal measures (Lamboard and Kole, 2008). The outside perimeter measures are those measures that can be found outside the school building normally the perimeter of the premises such as signs, fences and other barriers, lighting, alarms and patrols. The inner middle perimeter measures are the security measures used within the boundaries of the facility and can include fence and other barriers, alarms, light, CCTV external cameras, warning signs, doors, lock, burglar proofing on windows, security staff and access control system. Lastly, there are the internal physical security measures which are the ones that can be found within building such as alarms, CCTV cameras, turnstiles, windows and door bars, locks, safes, vaults protective lighting and other barriers (Ike, 2015).

### Concept of School Security

The term ‘security’, can be defined as the provision of cover, protection and safety to lives and properties against theft, or destruction. According to Rogers (2009), security can broadly be defined as a means of providing effective levels of protection against pure risk. It is a process used to create a relatively crime free area. The aim of security is to assess the vulnerability to risk and thereafter to employ techniques and measures in order to reduce that vulnerability to reasonable level. Security will therefore assist in creating a stable, fairly predictable environment in which individuals may move freely with reduced or without any disturbance or injury (Lamboard and Kole, 2008). Thus, school security relates more squarely to personal and physical security. This is because the school is made up of both human and material resources which are integral components of the larger society. School personnel and students as well as the material resources in schools are liable for protection and safety in this period of universal terrorist’s attacks, in which schools have become a subject of attack

The concept of school security has reached an advanced stage in various countries. This particular type of education is defined as the teaching and learning of the security concepts and experiences necessary to achieve the national security. Al-Sakran, (2008) also noted that school security is a set of methods, activities, experiences and preventive measures that lead to the protection from falling into the crime of all kinds. Al-Basheer, (2005) A further definition is that, it is the strengthening of national belonging and national identity and establishing the principle of social responsibility and the ability to test, compare, and contrast ideas. The aim of the school security is the formation of the young people’s conscience for the benefit of society through the preparation of an aware and educated generation of security immunity (Al-Sultan, 2009). School security encompasses all measures taken to combat threats to people and property in education environments. One term connected to school security is school safety, which is defined as the sheltering of students from violence and bullying, as well as exposure to harmful elements such as drugs and gang activity. Along with other public places, schools are at risk for invasion from outside as well as attacks from students or faculty because of the high traffic of potential assailants and availability of victims (Goodwin College 2016).

According to Lawrence (2007), the focus of school security has changed because it requires well-developed security and safety plans as well as proper risk assessment. It involves strategies and procedures required to protect schools against crimes and threats. It is the measures put in place to protect both humans and material resources and to reduce violence occurrence in order to ensure the promotion of safe school. In the past, schools were the safest place to be, because it was considered as a sacred place and highly respected by all and sundry for its role and what it stands for in the society. Recent development contradicts this testimony because school attacks abound in the world today, and they are often conducted without any cogent reason. In most cases, the attacks may not in any way be related to the goals of the school, rather it may be based on a more religious, political and socio-economic activities of a state.

### **Concept of School Administration**

The concept of school administration is a widespread topic of concern and has been conceptualized in diverse perspectives. According to NOUN (2006) school administration is a social process concerned with identifying, maintaining, stimulating, controlling and unifying, formally and informally organized human and material energies within an interpreted system. School administration plays a vital role in making management of every educational program grand success. According to Adeyemi (2010), it is a specialized set of organizational functions

whose purpose is to ensure the efficient and effective delivery of relevant educational services as well as implementation of legislative policies through planning, decision making and leadership behavior. School administration constitutes the following aspects in its jurisdiction as its scope: Production, Assuring Public, Finance and Accounting, Personnel, and Co-ordination. School administrations work with teachers to design and prepare curricula, establish budgets and ensure that students' academic performance meets government standards. Therefore, the importance of school administration is for effective utilization of material and non-material resources to achieved predetermined goals. Musaaazi, (2002) asserted that school administration is the process through which the school administrators arrange and plan the resources available for education and for the purpose of achieving the goals of educational system.

### **Perimeter Fencing and School Security**

Perimeter fencing is an important security and aesthetic feature of any school; it blocks intruders and other unwanted visitors from entering the site, helps keep staff and students safe on site and is one of the first things prospective students and parents see when visiting. When specifying fencing for schools, it is worth considering not only how secure a school's fencing is, but also the impression it makes. Today's schools contain valuable and portable property that is attractive to thieves (Jacksons fencing 2020). Fencing and gates are the first line of defense and have a vital role to play. Nevertheless, schools have to remain an attractive learning environment, and schools are encouraged to open their facilities to the wider community at other times. Adequate security, therefore, has to be achieved without schools looking like prisons. Furthermore, research shows that aggressive perimeter fencing and security measures can make establishments appear at risk; and if there is a perception that crimes are being committed, this can lead to an increase in crime. Procter Contracts (2007) noted that perimeter fencing and the complexity of the context, this specifier's guide to perimeter security fencing for schools explains the different options available, presents the advantages and limitations of each, and steers the reader towards making decisions that will provide the right level of security at an acceptable cost and without compromising other areas such as:

- Marks the school's boundaries
- Deters casual trespassers and/or determined intruders
- Increases the time it takes or determined intruders breach the security
- Prevents pupils leaving the school without permission
- Prevents unauthorized removal of property
- Compliance with insurer's requirements in terms of theft, damage and public liability

School perimeter security is further complicated by the need to meet legal and planning requirements, and security has to be considered as a complete package including fencing and other appropriate measures such as CCTV, access control and security lighting. Every school has its own needs and challenges, so the solution to the problem is different in each case. Fencing is the most important of the available security measures, as highlighted in a survey of LEAs (Be-Safe Technologies 2018) some security experts have recommended installing fences around school property. Proponents suggest that fences, if installed well and maintained, can be beneficial to a school for a number of reasons. Not only for boosting surveillance and improving security but, perhaps unexpectedly, for the morale and well-being of the students.

### **Methods**

Ex-post facto research design was adopted for the study. The area of study is Imo state in Nigeria. The population of the study comprised school administration and teachers in Imo state. A stratified sampling technique was used to select 20 principals, 40 vice principal and 240 teachers from the study area and these gave a sample size of 300 respondents. The Main Instrument used in this study was a questionnaire titled “Perimeter Fencing and School Security Questionnaire (PFSSQ)”. Face and content validation of the instrument was carried out to ensure that the instrument had the accuracy for study under consideration. Cronbach Alpha technique was used to determine the level of reliability of the instrument. The reliability coefficient obtained was 0.88 and this was high enough to justify the use of the instrument. The researcher subjected the data generated for this study to appropriate statistical techniques such as descriptive statistics and simple regression. The test for significance was done at 0.05 alpha levels.

**Result**

**Research Questions 1:** The research question sought to find out the availability of perimeter fencing in secondary school in Imo State. To answer the research percentage analysis was performed on the data, (see table 1).

**Table 1: Percentage analysis of the extent of availability of perimeter fencing in secondary school in Imo State.**

<b>EXTENTS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
HIGH EXTENT	15	5*
LOW EXTENT	89	29.67
VERY LOW EXTENT	196	65.33**
<b>TOTAL</b>	<b>300</b>	<b>100%</b>

\*\* The highest percentage frequency

\* The least percentage frequency

**SOURCE:** Field survey

The above table 1 presents the percentage analysis of the extent of availability of perimeter fencing in secondary school in Imo State. From the result of the data analysis, it was observed that the highest percentage (65.33%) of the respondents affirmed that the extent of availability of perimeter fencing is very low, while the least percentage (5%) of the respondents the extent of availability of perimeter fencing in secondary school in Imo State is high.

**Research Questions 2:** The research question sought to find out the extents of school security in secondary school in Imo State. To answer the research percentage analysis was performed on the data, (see table 2).

**Table 2: Percentage analysis of extents of school security in secondary school in Imo State.**

<b>EXTENTS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
HIGH EXTENT	58	19.33*
LOW EXTENT	125	41.67**
VERY LOW EXTENT	117	39.00

<b>TOTAL</b>	<b>300</b>	<b>100%</b>
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\*\* The highest percentage frequency

\* The least percentage frequency

SOURCE: Field survey

The above table 2 presents the percentage analysis of the extents of school security in secondary school in Imo State. From the result of the data analysis, it was observed that the highest percentage (41.67%) of the respondents affirmed that the extent of school security is low, while the least percentage (19.33%) of the respondents stated that the extents of school security in secondary school in Imo State is high.

**Research Questions 3:** The research question sought to find out the influence of perimeter fencing on school security in secondary school in Imo State. In order to answer the research question, descriptive analysis was performed on the data collected as shown in Table 3.

**Table 3: Descriptive statistics of the influence of perimeter fencing on school security in secondary school in Imo State.**

Variable	N	Arithmetic Mean	Expected Mean	R	Remarks
School Security	300	15.68	12.5	0.76*	*Moderately Strong Relationship
Perimeter Fencing		16.87	12.5		

Source: Field Survey

The above table 3 presents the result of the descriptive analysis of the influence of perimeter fencing on school security in secondary school in Imo State. The two variables were observed to have moderately strong relationship at 76%. The arithmetic mean for school security (15.68) was observed to be greater than the expected mean score of 12.5. In addition to that, the arithmetic mean as regards perimeter fencing (16.87) was observed to be higher than the expected mean score of 12.5. The result therefore means that there is remarkable influence of perimeter fencing on school security in secondary school in Imo State.

**Hypothesis One:** The null hypothesis states that there is significant influence of perimeter fencing on school security in secondary school in Imo State. In order to test the hypothesis simple regression analysis was performed on the data, (see table 4).

**TABLE 4: Simple Regression Analysis of the significant influence of perimeter fencing on school security in secondary school in Imo State.**

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.76a	0.58	0.57	1.54	0.58

\*Significant at 0.05 level; df= 298; N= 300; critical R-value = 0.139

The above table 4 shows that the calculated R-value (0.76) was greater than the critical R-value of 0.139 at 0.5 alpha levels with 298 degrees of freedom. The R-Square value of 0.58 predicts 58% influence of perimeter fencing on school security. This rate of percentage is highly positive

and therefore means that there is significant influence of perimeter fencing on school security in secondary school in Imo State. It was also deemed necessary to find out the influence of the variance of each class of independent variable as responded by each respondent (see table 5).

**TABLE 5: Analysis of variance of the significant influence of perimeter fencing on school security in secondary school in Imo State**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	955.18	1	955.18	404.26	.000b
Residual	704.10	298	2.36		
Total	1659.28	299			

a. Dependent Variable: School Security

b. Predictors: (Constant), Perimeter Fencing

The above table 5 presents the calculated F-value as (404.26) and the P-value as (.000b). Being that the P-value (.000b) is below the probability level of 0.05, the result therefore means that there is significant influence exerted by the independent variables i.e. perimeter fencing on the dependent variable which is school security. The result therefore was in agreement with the research findings of Jacksons fencing (2020), perimeter fencing is an important security and aesthetic feature of any school; it blocks intruders and other unwanted visitors from entering the site, helps keep staff and students safe on site and is one of the first things prospective students and parents see when visiting. The significance of the result caused the null hypotheses to be rejected while the alternative was accepted.

### **Conclusion**

The study concluded that schools indicated different levels of safety, perimeter fencing and school security in the physical environments. In terms of school-based activities, schools that were observed displayed inadequate maintenance and surveillance systems. The physical environments of schools need more attention in terms of ensuring that the basic features of safety, perimeter fencing and security are put in place. In this way, schools would be in a position to engage in general safety, and security in terms of school environments as entities comprising both physical and social aspects in perimeter fencing.

### **Recommendation**

The study recommended that:

1. Schools should take care to priorities solutions appropriate to their site’s specific risks and challenges
2. Perimeter fencing should include at least two points of entry, in case one is blocked during an emergency.



3. Schools should reflect on the contribution of perimeter fencing to these strategies when choosing among various options.
4. School administrators should take specific care related to “securing, perimeter fencing and limiting access to the school.
5. School administrators should ensure that the areas can be easily accessed by emergency vehicles.
6. Each secondary school especially rural schools, should be provided with one entrance so as to enable proper checks and regulation of who goes in and out of the school premises.

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