Principals Application of Technological Security Management Practices for Curbing Security Threats in Secondary Schools in Anambra State

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Abstract

The study determined principals' application of technological security management practices for curbing security threats in secondary schools in Anambra State. One research question guided the study and two hypotheses were tested at 0.05 level of significance. The study was a descriptive survey. The population of the study comprised 258 principals in public secondary schools in Anambra State. A validated structured questionnaire was used for data collection. The reliability of the instrument was tested Cronbach Alpha reliability method which yielded a score of 0.72 for internal consistency and was deemed high for the study. The data collected from the respondents were analyzed using descriptive mean, standard deviation and t-test. The mean value was used to answer the research question while the standard deviation was used to ascertain the homogeneity or otherwise of the respondents' ratings. The null hypothesis was tested with t-test at 0.05 level of significance. Findings revealed that principals utilized technological security management practices for curbing security threats in secondary schools in Anambra State at a very low extent. It was also revealed that male and female principals in rural and urban public secondary schools did not differ in their opinion on the extent they apply technological security management practices in public secondary schools in Anambra State. Based on these findings, the following recommendations were made among others, that principals of public secondary schools should improve their knowledge on technological security management tools and gadgets by purchasing books, school security manuals and security journals among others. It was also recommended that the Federal and the State Government through the federal and state ministries of education and the Post Primary School Service Commission (PPSSC) should make available funding for the purchase and installation of technological security gadgets in the federal and state government owned schools.

Keywords: Technological, Security Management Practices, Principals, Public, Secondary Schools

Introduction

The school is integral to a child's training and development. This is because the school is the centre where the teaching and learning process takes place thus the need to emphasize the need to ensure the safety of the children, teachers and other personnel in the school. The school is defined as a place where individuals are prepared for the part they are going to play in society (Burton, 2008). Thus, schools are institutions where individuals go to learn, develop and get an education in order to prepare them for their future. Formal schooling in Nigeria is carried out at pre-basic, basic (which includes primary schools and junior secondary 1-3), senior secondary and tertiary levels of education. Secondary school education is the phase of education students receive

after primary school and before the tertiary education. Apart from serving as the link between primary and tertiary education, it provides opportunity for a child to acquire additional knowledge, skills and traits beyond the primary level. The aim of secondary education is to develop in a child better literacy, numeracy and communication skills. According to the Federal Government of Nigeria (FGN) (2013), the broad goals of secondary education is to prepare people for useful living in the society and for higher education. Secondary education helps to inspire students with the desire for self-improvement and achievement of excellence; raises a generation of people who can think for themselves, respect the views and feelings of others and respect the dignity of labour (FGN, 2013). However, it appears that the insecurity and unsafe school environment is a problem to achieving the above aims of secondary education.

This is evident in the high rate of indiscipline which is visible in students who are victimized in schools by fellow students, teachers, cultists and kidnappers. This is further enunciated by the plethora of school violence in some parts of Anambra State. Sadly, cultism and cult activities have been on the increase among secondary school students in Anambra State (Usman, 2016). According to Usman, there is rarely any academic session without reported incidents of cult related violent clashes in most secondary schools in the country, which usually result in the loss of lives of promising youths. This situation is not different in Anambra State where the State Police Command has consistently arrested young boys and girls of secondary school age in all manners of cult related activities (Kalu, 2016). This situation has increased the call by stakeholders in education on the need for the adoption of effective security practices by principals and managers of secondary schools in Nigeria and Anambra State in particular so as to forestall incidents of security threats on students and staff.

Security is defined as the degree of protection against danger, damage, loss and crime. In the views of Van Jaarsveld (2011), security is a form of protection where a separation is created between the assets and the threat. Thus, security is the precaution taken to safeguard an environment from impending danger or injury. School security is the establishment and maintenance of protective measures that ensure a state of inviolability from hostile act or influences (Menkiti, 2012). This is to say that security measures are to be reinforced to keep students, teachers, other workers and the environment free from harm and danger. Creating and

maintaining secure environment needs clear understanding and management by all, students, teachers and non-teaching staff.

Despite the benefits of maintaining security in secondary schools in Nigeria and Anambra State in particular, it appears that school principals, who are the chief executive officers of public secondary schools, are failing to apply technological security management practices or measures in their schools. This claim is further evidenced by the prevalent incidence of bullying, gansterism and cultism which is prevalent in secondary schools (Ojo, 2016). Ojo further noted that principals must be concerned not only with the quality of instruction, but also with the maintenance of safety and security in the school. It thus becomes important that principals are made to realize the importance of the application of technological security management practices in their schools.

Technology has just like in every other aspect of life has enormous benefits in ensuring school safety. Technological security management practices are aspects of security management that deals with the application of technological tools and equipment in preventing and combating insecurity (Mastisa, 2011). Van Jaarsveld (2011) opined that technological security management practices, as adjunct to physical security management, can be excellent tools and make great contributions to the safety of scholars and staff as well as reducing violence in schools. The aim of using security technologies is to reduce the opportunities to commit crimes or violence, to increase the likelihood that someone will get caught and to be able to collect evidence of some of the acts of violence being committed, thus making it easier to prosecute (Van Jaarsveld, 2011).

There are various security technologies that can be implemented within a school. These could include closed circuit television (CCTV) systems, including the videoing and storing of video surveillance footage whether analogue or digital; intruder alarms; metal detectors or hand-held detectors; x-ray machines and/or card reader systems (Lombaard & Kole, 2008). This security management practice will assist in reducing the probability of occurrence and the impact that crime and violence has on the school environment. However, in the past security technologies were seldom implemented and used in schools as part of school security. This is because of failure of some principals to adapt to the changes in technology. In another vein, the location of school has been blamed as a factor influencing principals' application of technology security management practices. According to Mastisa (2011), principals in urban schools will be faced with greater security threats than those in the rural area. The location of a school can give rise to many threats

to the school community and the ability of principals to utilize these technological security management practices. Furthermore, gender has also been advanced as an important factor that could influence principals' application of security management strategies.

Mastisa (2011) observed that gender plays important role in the way principals administer and manage security in their schools. Gender analysis recognizes that the realities of men's and women's lives are different, and that equal opportunities do not necessarily mean equal results. Oyoyo (2014) opined that gender can influence principals' decision-making capacity with regards to school management. However, these views have not been empirically proven to be the case among secondary school principals in Anambra State. It is against this background that the researcher empirically investigated principals' application of technological security management practices for curbing security threats in secondary schools in Anambra State.

Statement of the Problem

In recent times, the security situation in Anambra State has given parents, teachers, students, principals and educational administration alike a cause for concern and worry. This is heighted by the increasing rate of cult activities among secondary school students in the State which has resulted in arrests, injuries and deaths of secondary school students in criminal and cult related activities in secondary schools in the State.

The researchers are worried that these cases endanger the lives of students and teachers in the school and reinforce the need for the application of technological security management practices to forestall security threats in their schools. However, the level of application of these technological security management practices by secondary school principals in Anambra State is not clearly known. Hence, the need for the study.

Purpose of the Study

The study ascertained principals' application of technological security management practices for curbing security threats in secondary schools in Anambra State.

Research Questions

1. To what extent do principals apply technological security management practices for curbing security threats in secondary schools in Anambra State?

Hypotheses

HO_1: There is no significant difference in the mean ratings of principals of rural and urban secondary schools in Anambra State on the extent they apply technological security management practices for curbing security threats.

HO_2: There is no significant difference in the mean ratings of male and female principals of secondary schools in Anambra State on the extent they apply technological security management practices for curbing security threats.

Method

The study determined principals' application of technological security management practices for curbing security threats in secondary schools in Anambra State. One research question guided the study and two hypotheses were tested at 0.05 level of significance. The study was a descriptive survey. The population of the study comprised 258 principals in public secondary schools in Anambra State. A validated structured questionnaire was used for data collection. The instrument was validated by three experts. The Cronbach Alpha method was applied on the data gathered from the pilot study and the co-efficient value of 0.72 was obtained for internal consistency which was deemed high for the study. The questionnaire was structured on a five-point response categories of Very High Extent (VHE) (5), High Extent (HE) (4), Moderate Extent (ME) (3), Low Extent (LE) (2) and Very Low Extent (VLE) (1). The data collected from the respondents were analyzed using mean, standard deviation and t-test. The mean value was used to answer the research question while the standard deviation was used to ascertain the homogeneity or otherwise of the respondents' ratings. The decision rule was done using the real limits of numbers on the 5-point rating scale. The null hypothesis was tested with t-test at 0.05 level of significance. Where the calculated t-value is less than the critical value of t, it means that there was no significant difference in respondents' mean ratings and the hypothesis was accepted. Also, where the calculated t-value is equal to or greater than the critical t-value, it means that there was significant difference in the respondents' mean ratings and the hypothesis was rejected.

Results

Research Questions 1: To what extent do principals apply technological security management practices for curbing security threats in secondary schools in Anambra State?

Table 1: Principals Mean Ratings on the extent they Apply Technological Security Management Practices for Curbing Security Threats in Secondary Schools

S/NO	Physical security management practices:	Rural			Urban			Male			Female		
		$\bar{X}$	SD	D	$\bar{X}$	SD	D	$\bar{X}$	SD	D	$\bar{X}$	SD	D
1.	Issuing electronic key cards to specific staff members so to restrict access to outsiders for effective administration of public secondary schools	1.23	0.42	VLE	1.45	0.35	VLE	1.29	0.54	VLE	1.35	0.38	VLE
2.	Using the metal detectors to check students bags at the school point of entry for effective administration of public secondary schools	1.09	0.28	VLE	1.18	0.38	VLE	1.21	0.44	VLE	1.22	0.29	VLE
3.	Installing close circuit cameras at strategic points in the school premises for effective administration of public secondary schools	1.50	0.57	LE	1.59	0.23	LE	1.61	0.57	LE	1.52	0.38	LE
4.	Using biometrics technologies (like finger prints scanners, iris readers, hand vein readers and facial recognition technology) to clear admit students into the school premises for effective administration of public secondary schools	1.09	0.27	VLE	1.40	0.42	VLE	1.47	0.34	VLE	1.30	0.32	VLE
5.	Installing remote lockdown systems in the school for effective administration of public secondary schools.	1.10	0.32	VLE	1.13	0.47	VLE	1.32	0.28	LE	1.41	0.38	VLE
6.	Implementing an electronically controlled access system for effective administration of public secondary schools.	2.31	0.52	LE	2.42	0.41	LE	2.10	0.38	LE	2.12	0.41	LE
7.	Implementing a computerized bio-metric staff database system for effective administration of public secondary schools.	2.07	0.26	LE	2.13	0.33	LE	2.08	0.28	LE	2.11	0.32	LE
8.	Implementing a computerized bio-metric student database system for effective administration of public secondary schools.	2.45	0.62	LE	2.10	0.34	LE	2.15	0.41	LE	1.59	0.61	LE
9.	Installing of panic and burglar alarms for effective administration of public secondary schools.	2.08	0.46	LE	2.40	0.62	LE	2.38	0.35	LE	2.24	0.51	LE
10.	Implementing an electronic mass notification system for parents and staff (cell phones, e-mail, pagers etc.) for effective administration of public secondary schools.	2.19	0.56	LE	2.32	0.46	LE	2.33	0.46	LE	2.12	0.34	LE

11.	Utilizing electronically powered visitors' badges to make them easily spotted while in the school premises for effective administration of public secondary schools.	2.20	0.38	LE	2.11	0.42	LE	2.18	0.30	LE	2.15	0.48	LE
	Grand Mean	**1.75**	**0.42**	**LE**	**1.84**	**0.40**	**LE**	**1.83**	**0.40**	**LE**	**1.74**	**0.50**	**LE**

Data in Table 1 reveal that the respondents apply 7 items for curbing security threats in public secondary schools with mean ratings ranging between 1.50 to 2.38 at a low extent. They also rated 4 items for effective administration of public secondary schools with mean ratings ranging between 1.09 to 1.47 at a very low extent. The grand mean scores of 1.75 for principals in the rural area and 1.84 for principals in urban areas shows that public secondary school principals in Anambra State apply technological security management practices for curbing security threats in public secondary schools at a low extent. Similarly, the grand mean scores of 1.83 for male principals and 1.74 for female principals also indicate that the extent of application technological security management practices for curbing security threats in secondary schools in Anambra State at a low extent. Standard deviation scores for all the items are within the same range which shows that the respondents are not wide apart in their rating.

Hypothesis 1: There is no significant difference in the mean ratings of principals in rural and urban secondary schools in Anambra state on the extent they apply technological security management practices for curbing security threats.

Table 2: t-test Analysis on the Mean Ratings of Principals in Rural and Urban Secondary Schools in on the extent they Apply Technological Security Management Practices

Variable	N	Mean	SD	df	*ά*	t-cal.	t-crit.	Decision
Rural Principals	122	1.75	0.42					
				236	0.05	0.18	1.96	Not Significant
Urban Principals	116	1.84	0.40					

Data in Table 2 show that the calculated t-value of 0.18 at 236 degree of freedom and at 0.05 level of significance is less than the critical value of 1.96. This shows that the location of the respondents did not significantly affect their application of technological security management practices for curbing security threats in secondary schools in Anambra State. Therefore, the hypothesis is accepted.

Hypothesis 2: There is no significant difference in the mean ratings of principals in secondary schools in Anambra state on the extent they apply technological security management practices for curbing security threats based on gender.

Table 3: t-test Analysis on the Mean Ratings of Male and Female Principals in Secondary Schools in on the extent they Apply Technological Security Management Practices

Variable	N	Mean	SD	df	*ά*	t-cal.	t-crit.	Decision
Male Principals	86	1.83	0.40	236	0.05	-1.33	1.96	Not Significant
Female Principals	152	1.74	0.50					

Data in Table 3 show that the calculated t-value of -1.33 at 236 degree of freedom and at 0.05 level of significance is less than the critical value of 1.96. This shows that the gender of the respondents did not significantly affect their application of technological security management practices for curbing security threats in secondary schools in Anambra State. Therefore, the hypothesis is accepted.

Discussion

Findings on the research question revealed that principals of public secondary schools in Anambra State apply technological security management practices at a very low extent. This finding is in line with the finding of Schneider (2010), who posits that technological security tools can be excellent tools and a great contribution to the safety of scholars and staff in schools and in reducing the violence in schools. They have, however, to be applied correctly within the school environment and be maintained after the installment, otherwise they will not be effective. The finding is in agreement with that of Rich (2012), who posits that technologies can assist a school by providing information that would not otherwise be available, they can free-up manpower and they can, in-the-long-run, be cost- effective for a school. Similarly, this finding is in consonance with that of Ike (2015), who posits that secondary school administrators do not apply technologies in management of school security in Nigeria. Ike called for the sensitization of school principals as well as educational administrators on the importance of applying technology in school security procedures. Furthermore, findings also showed that principals do not differ significantly in their mean ratings on their application of technological security management practices based on location. It was also revealed that principals do not differ significantly in their mean ratings on their application of technological security management practices based on gender. This is in line

with Ike (2015) who revealed that both male and female heads as well as public and private schools' heads had no significant mean differences regarding technological security measures at secondary level schools. Ike further noted that secondary school principals seldom applied technology as tools for maintaining school security because of lack of funds and lack of technical know-how.

Conclusion

Based on the findings of the study, the researchers conclude that principals do not apply technological security management practices for curbing security threats in public secondary schools in Anambra State. This might be a major factor for the increase rate of undetected and preventable criminal activities in and around public secondary schools in Anambra State. It therefore becomes imperative that concerted efforts are made to formulate measures to forestall the security threats in and around the schools.

Recommendations

Based on the findings of the study the following recommendations were made:

1. Principals of public secondary schools should improve their knowledge on technological security management tools and gadgets. They can do this by purchasing books, school security manuals and security journals among others.
2. The federal and the state governments through the federal and state ministries of education and the Post Primary School Service Commission (PPSSC) should organize workshops and seminars that will expose principals on the latest technological tools for ensuring security in their schools.
3. The federal and the state governments through the federal and state ministries of education and the Post Primary School Service Commission (PPSSC) should make available funding for the purchase and installation of technological security gadgets in the federal and state government owned schools.
4. Public secondary school principals can go into public-private partnership with high-tech security organizations for the provision of basic security gadget like CCTV systems and intruder alerts in and around the school premises.

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