School Security Measures and Students' Discipline in Public Boys' Boarding Secondary Schools in Western Region, Kenya

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ABSTRACT

School discipline is a matter of concern particularly among teachers, family, educators and other stakeholders. Students cannot learn and teachers cannot teach effectively in an undisciplined and unsafe environment and therefore order and discipline are necessary for successful educational outcomes. The purpose of the study was to investigate the influence of school security measures on students' discipline in public boys' boarding secondary schools. The study was guided by B.F Skinners theory of Reinforcement. This study adopted a descriptive survey research design. The target population of the study consisted of 153 boys' boarding secondary schools. Using random sampling 74 boys boarding schools were sampled. The study sampled 314 respondents comprising of 74 deputy Principals and 240 class teachers through purposive and simple random sampling respectively. The study used a questionnaire and interview guide to gather primary data. Quantitative data was analyzed using frequencies, percentages, mean, standard deviation, Pearson correlation and linear regressions. Qualitative data was coded and reported in themes and sub-themes. The study established that school security system had a statistically significant influence on student discipline. The study recommended that in order to instill good discipline among students, the school boards of management should ensure maximum security measures in the school.

KEYWORDS: Boys, Boarding School, Discipline, Security Measures

1. INTRODUCTION

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 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.

School safety 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, 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 United States. Other basic measures like CCTV surveillance, perimeter walls and access security are an absolute necessity. Safe schools promote the protection of students from violence, exposure to weapons and threats, theft, and the sale or use of illegal substance on school grounds. School safety is linked to improved student and school outcomes. In particular, emotional and physical safety in school are related to academic performance (Hudson, 1999).

1.1. CCTV Surveillance Technology and School Discipline

The primary role of CCTV is considered to be the triggering of a perceptual mechanism that impacts on the offender's choice structuring properties in a manner that persuades them to abstain from crime (Ratcliffe, 2006). It combats anti-social behavior in a school environment. It enhances prevention of crime and disorder through deterrence (pizza, Caplan, and Kennedy, 2009). Nobody wants to be recorded on camera committing a crime. Students will point out the cameras to other students which will make everyone aware that their activities are being recorded. When students know that they are being watched, they are usually on their best behavior (Short and Ditton 1998).

Studies show that CCTV aids detection through its surveillance capability and the opportunity it may afford to deploy security personnel appropriately (Ratcliffe, 2006). CCTV provides public reassurance and therefore reduces fear of crime, which may in turn, increase the use of public spaces. (Bennet and Gelsthorpe, 1996; Tilley, 1997 who suggests that CCTV may reduce crime as people are deterred from visiting CCTV covered areas, believing them to be more dangerous). CCTV can also be used as a site management tool, for instance, for crowd control at football matches, or even in crowded areas like assemblies or when taking meals, in case a major incidence occurs, the information required will be available (Federal Commission on school safety, 2018).

CCTV system technology can be used in both internal and external environments in schools to enhance surveillance and protect people (learners and staff), property, and vehicles-both for staff and visitors and their valuables. CCTV equipment can provide instant alerts when problematic trouble occurs, ensuring that crime against people, theft and vandalism are all substantially reduced and covered. When crime occurs, CCTV system incident recording can provide valuable evidence, improving the likelihood of a conviction and proper course of action (Ratcliffe, 2006). CCTV surveillance help to deter sex offenders. By having highly visible surveillance cameras around the school helps to deter the presence of these criminals. CCTV cameras also decrease the chances of bullying on school grounds. This helps to provide a child friendly school for students to learn in. (Tilley, 1993).

1.2. School Perimeter Fencing and Student Discipline

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). The cameras aid in Emergency Evacuation. In case of an emergency such as fire

or terrorist attack, surveillance cameras can show where the trouble spots are so that people can be directed in safe direction, by making sure that all students and other members have access to the security systems alert feature, which makes it easy to notify them when something goes wrong. E.g. during terrorist attack CCTV surveillance also helps to eliminate unauthorized intruders. These are unscrupulous people who tend to prey on students because they see them as easy targets' technology will help keep an eye on remote entrances/exits and out of limit areas. By having security cameras (with motion detection technology) in pre- selected areas, one will be instantly notified when movement is detected. One can have access to the security system through the computer, laptop, tablet, mobile phone or any other internet connected device. This helps to monitor any visitor who enters the school compound. (Federal Commission on School Safety, 2018). CCTV can also be used to monitor students. For instance, those who are late or often violate the school rules.

Being able to track students helps to determine how best to approach the issue. It also helps the management in monitoring staff. One can know who does their job right. Using video surveillance system can help one choose the right person for the right job. Security cameras also remind teachers that their professionalism and hard work is important and always being observed. (Ratcliffe, 2006). CCTV security cameras provides a peace of mind to parents. With all the violent events that have occurred in schools, parents are more concerned than ever before.

Parents need to know that their children are safe when they are at school. There are programs that allow parents to look in on their children in classroom during the day. This works well for both the parents and the school. Safety in school is a subject of widespread public concern.

This is due to several violent and tragic incidents in schools in recent years which have alarmed parents with children of school age and caused horror and outrage within society at large. School safety is considered as an aspect of health and safety. As schools across the country assess and improve their safety procedures to meet such incidents, they are discovering penalties in doing so. Parents while expecting their children to be safe and secure, also want to go into school to see their children's work, to talk to staff and to take part in school activities. The most common safety risks that are monitored using CCTV in schools are attacks on staff and pupils in school and its immediate vicinity, including assaults on teachers by aggrieved parents, drugs, and solvent abuse, trespassing on school grounds, arson, vandalism, burglary and theft of property (Hudson, 1999).

CCTV video recordings are useful when dealing with parents who may deny their child's guilt despite credible testimony. Parents will quickly accept their child's involvement in an incident when shown a CCTV footage (Carli, 2008). Video cameras may reduce some adult supervision requirements on school grounds. For instance, if cameras are covering a large area where students congregate during breaks, adults who normally would be assigned to oversee that area, may attend to other matters of concern. However, should an incident occur, a camera can only capture evidence, it cannot respond to or interrupt an incident in progress (Carli, 2008).

2. Descriptive analysis of school security measures in public boys' boarding secondary schools Western Region of Kenya

The class teachers were required to assess school security measures in public boys' boarding secondary schools in Western Region. Their responses are summarized in Table 1.

Table 1. Descriptive Analysis of Security Measures

Statement	SA	A	U	D	SD
The school is well fenced	37	67	24	34	12
	21.3%	38.5%	13.8%	19.5%	6.9%
The CCTV is in use	32	27	9	49	57
	18.4%	15.5%	5.2%	28.2%	32.8%
Regular student inspections are conducted	64	76	13	16	5
	36.8%	43.7%	7.5%	9.2%	2.9%
Roll calls especially at night are taken	19	23	16	59	57
	10.9%	13.2%	9.2%	33.9%	32.8%
The security guards in the school are effective	47	61	8	34	24
	27.0%	35.1%	4.6%	19.5%	13.8%

Regular checks especially at the gate	34	64	21	26	29
	19.5%	36.8%	12.1%	14.9%	16.7%

KEY: SA–Strongly Agree A- Agree U- Undecided D-Disagree SD– Strongly Disagree

As reflected in Table 1, various items were used to determine the school security measures in public boys' boarding secondary schools in Western Region. From the results, it is evident that about 60 % of the class teachers indicated (strongly agreed and agreed) that their schools were well fenced. 37(21.3 %) class teachers strongly agreed and 67 (38.5 %) class teachers agreed that that their schools were well fenced. about a quarter (26.4%) of the schools were not well fenced. This is an indication that a majority of the schools were well fenced.

At the same time, only 33.9% (strongly agreed and agreed) of the teachers observed that Their schools use CCTV. 61 % of the schools did not use the CCTV. 57 (32.8 %) class teachers strongly disagreed and 49 (28.2 %) class teachers disagreed respectively. Generally, the results show that more than half of the schools do not utilize the CCTV technology.

The questionnaire item "Regular student inspections are conducted" registered 64(36.8%) of the class teachers strongly agreed with it and 76 (43.7%) agreed, while 16 (9.2%) disagreed as 5 (2.9%) strongly disagreed. This is an indication that more than three quarters (80.5 %) of the schools of the conducted regular student inspections.

Likewise on the questionnaire item "Roll calls especially at night are taken" registered 19 (10.9%) of the class teachers strongly agreed with it and 23 (13.2%) agreed, while 59 (33.9%) disagreed as 57(32.8%) strongly disagreed. This is an indication that over 60 % (66.7 %) of the schools of the administered roll calls especially at night are taken.

Further from the study, it was observed that 62.1 class teachers noted that the security guards in the school are effective 47 (27.0%) of the class teachers strongly agreed and61 (35.1%) agreed security guards in the school are effective. only 33.3 % of the teachers denied that that the security guards in the school are effective. a majority of the schools indicated that having security guard can enhance good discipline

A majority of the schools that participated in the study agreed that regular checks especially at the gate. 34 (19.5%) of the class teachers strongly agreed and 64 (36.8%) agreed that regular checks especially at the gate. This is an indication that there are adequate regular checks especially done, especially at the gate by most schools.

2.1. Descriptive Statistics of School Security Measures

On further analysis the mean index and standard deviation on the responses of the teachers perception on school security measures were computed. The study used the following mean scale: 1.0-1.8 = Strongly agree; 1.9-2.6 = Disagree; 2.7-3.4 = Not sure; 3.5-4.2 =Disagree ; 4.3-5.0 = Strongly Disagree, with an average mean index was 3.0. The transformed values were later used in carrying out parametric tests. Their responses with mean values were summarized in Table 2.

Table 2. Descriptive summary of school security measures

Sentiments on school security measures	N	Mean	Std.	Range	Std. Error of Mean
The school is well fenced	172	2.123	.362	5	.1257
The CCTV is in use	171	3.414	.965	5	.2563
Regular student inspections are conducted	171	1.977	1.253	5	.2712
Roll calls especially at night are taken	167	3.644	.791	5	.1277
The security guards in the school are effective	164	2.080	1.302	5	.1331
Regular checks especially at the gate	166	2.124	1.096	5	.2143
Composite values		**2.56**	**0.962**		**0.188**

** Positive statement changed to negative statement for data analysis

As reflected in Table 2, the weighted mean for security measures was 2.56 with a standard deviation of 0.962. The class teachers agreed that their schools had taken security matters seriously and hence it improved discipline in their schools.

The class teachers indicated that their schools were well fenced (mean = 2.123, SD= 0.362). At the same time, class teachers observed that their schools use CCTV technology (mean = 3.414, SD= 0.965).

The class teachers agreed that regular student inspections are conducted (mean = 1.977, SD= 1.253). Class teachers disagreed they take roll calls especially at night are taken (mean= 3.644, SD= 0.791).The class teachers

noted that the security guards in the school are effective (mean= 2.080, SD= 1.302). A majority of the schools that participated in the study agreed that regular checks especially at the gate (mean= 2.124, SD= 1.096).

2.2. Correlation between the school security measures and students' discipline

The further sought to investigate the relationship between school security measures and discipline in public boys' boarding secondary schools in Western region. To do this, a Pearson Product Moment Correlation Coefficient was computed. A correlation is a number between -1 and +1 that measures the degree of relationship between two variables. The correlation coefficient value (r) that ranges from 0.10 to 0.29 would be considered weak, from 0.30 to 0.49 would be considered medium and from 0.50 to 1.0 would be considered strong. Therefore, a positive value for the correlation would imply a positive relationship and a negative value for the correlation would imply an inverse or negative association.

All the items were appropriately reversed so that high scale represented high level of school security measures and discipline in public boys' boarding secondary schools in Western region. The study findings are presented in Table 3.

Table 3. Pearson correlation of school security measures and students' discipline

School security measures and discipline (Pearson Correlation)		1	2	3	4	5	6
Students' discipline	Correlation Sig.	1					
The school is well fenced	Correlation Sig	.123 .968	1				
The CCTV is in use	Correlation Sig	.025 .852	.134 .862	1			
Regular student inspections are conducted	Correlation Sig	.489** .023	.116 .356	-.152 .658	1		
Roll calls especially at night are taken	Correlation Sig	.435** .042	.203 1.23	.561** .000	.581** .035	1	
The security guards in the school are effective	Correlation Sig	.569** .000	.237 .086	.391** .035	.391** .000	.452** .043	
Regular checks especially at the gate	Correlation Sig	.612** .000	.365** .049	.486** .002	-.012 2.56	.631** .000	1

The findings in Table 3 of the study indicate that there was statistically significant (p<.05) positive correlation between the school security measures and students' discipline in public boys' boarding secondary schools in Western Region. Four out of the six aspects of the school security measures correlated with levels of student discipline. Indeed, school security measures correlated with students' discipline. The correlations were between 0.435 to 0.612. Therefore, students' discipline was likely affected by school security measures.

The Pearson correlation index obtained on the third variable "Regular student inspections are conducted " was r= 0.489, it is moderate positive correlation with ρ=0.489 which is less than alpha = 0.05 which means that students discipline would be enhanced by regular student inspections.

The fourth variable "Roll calls especially at night are taken". ((r =0.435, ρ=0.042) at α= 0.05)) moderately positively correlation with student discipline. The fifth variable "The security guards in the school are effective." strongly correlated with student discipline. ((r =0.569, ρ<0.0001) at α= 0.05)).

The sixth variable "Regular checks especially at the gate" strongly correlated with levels of student discipline. (r =0.612, ρ<0.0001) at α= 0.05)).

The first variable "The school is well fenced "((r =0.123, ρ=0.968) at α= 0.05)) and the second variable "The CCTV is in use" ((r = 0.025, ρ=825) at α= 0.05)) did not correlated with levels of student discipline in public boys' boarding secondary schools in Western Region

2.3. General Correlation between the school security measures and students' discipline

To investigate whether there was any statistical relationship between the school security measures and students' discipline, a Pearson Product Moment Correlation Coefficient was computed; with overall scores from the five aspects of students' discipline. All the items were appropriately reversed so that high scale represented high level of school security measures and students' discipline in public boys' boarding secondary schools in Western Region. Table 4 shows the correlation analysis results.

Table 4. Correlation Analysis Results

	Pearson Correlation	students' discipline	school security measures
Students' discipline	Correlation	1	.491**
	Sig. (2-tailed)		.039
	N	174	174
School security measures	Correlation	491**	1
	Sig. (2-tailed)	.039	
	N	174	174
**. Correlation is significant at the 0.05 level (2-tailed)			

The findings in Table 4 of the study shows that there was statistically significant positive correlation (r=.503, n=174, p=0.39) between the school security measures and students' discipline.

2.4. Regression Analysis of the School Security Measures and Students' Discipline

In order to estimate the level of influence of school security measures on students' discipline, a coefficient of determination was computed using a regression analysis whose results were as shown in Table 5.

The model was of the form: $Y = \beta_0 + \beta_1 X_1 + \varepsilon$. where

Y = Discipline in public boys' boarding secondary

X1= school security measures β = Coefficient of variation ε1 = the error term.

Table 5. Model Fitness for the school security measures and students' discipline

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.423a	.305	.296	2.2365
a. Predictors: (Constant), school security measures				

The results for the model summary are as presented in Table 5 where R^2 (coefficient of multiple determinants) is shown. As the model depicts, the adjusted R^2 is 0.296, an indication that there is a relationship between school security measures and student discipline. This means that a proportion of 29.6 % of students' discipline can be explained by the singular effect school security measures. the other proportion of 71.4% was explained by other factors. The model significance was presented using the ANOVA test. The findings were summarized in Table 6.

Table 6. ANOVA for school security measures influence on students' discipline

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	62.325	1	43.865	72.365	.000b
Residual	96.965	373	19.857		
Total	**159.29**	**374**			

a. **Dependent Variable:** students' discipline
b. **Predictors:** (Constant), school security measures.

The results in Table 7 indicated that the model was statistically significant. This was supported by an F statistic 72.365 and the reported p value (0.000) which was less than 0.05 significance level. Therefore, at the 95 % confidence level a statistically significant influence existed between school security measures and students' discipline, p < 0.05.

Table 7. Regression Coefficients(N=174)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	6.36	.4586		21.253	.000
school security measures.	.231	.0056	.192	16.259	.000

a. **Dependent Variable:** students' discipline.
b. **Predictors:** (Constant), school security measures.

The results illustrated in Table 7 indicates that the t-test values for the school security measures coefficient is significant at 0.05 level of significance (t= 16.259, p < 0.05). Therefore, the null hypothesis,

HO that, *"there is no significant influence of the school security measures on students' discipline in public boys' boarding secondary schools in Western Region"*was rejected. Suggesting that school security

measures significantly influence to the overall students' discipline in public boys' boarding secondary schools in Western Region.

The findings in Table 7 supports those of Benjamin, et al., (2018) who examined the association between school security measures (security personnel, metal detectors, and surveillance cameras) and students' perceptions of informal social control (relationships with teachers, other school adults, and the fairness and consistency of school rules). Benjamin, *et al.*, (2018) provided evidence that school security measures enhanced student behaviour.

In addition, the findings in Table 7 tallies with the interview data collected from the deputy Principals', it was established that there was a positive relationship between school security measures and students' discipline. Some of the deputy head teachers observed that:

Respondent '22' remarks:
"Despite intense searches on reporting days, boys have discovered sophisticated methods of smuggling what they desire, including drugs in the dormitories… CCTV use is not adequate".

Respondent '19' remarks:
"Security precautions are still inadequate; for example, on the opening day of school, some boys disassemble mobile phones and distribute components to their classmates in order to slip into the school disguised as innocuous scrap. Once in the dormitories, the phones are reassembled. Mobile phones are also wrapped in polythene and submerged into margarine tins."

Respondent '30' echo:
"…..even books have become possible couriers for hard drugs. It might be anything from unrolled tobacco, drugs, or illegal tablets skillfully placed between pages; it is a significant difficulty for teachers to conduct inspections on the lads. There is a need to create new approaches to strengthen school security"

Table 7 indicate the unstandardized coefficient for the variable was 0.231 and the P-value is 0.000. The new model now becomes: $Y = 6.36 + 0.231 X_1 + \varepsilon$

Where X_1= school security measures

Thus, implying that at a significance level of 0.05, school security measures influence the students' discipline by up to 23.1%. The findings also indicate that the *t*-statistics (21.253) is higher than the *t*-critical (1.325) an indication that school security measures significantly influence students' discipline.

It is evident from Table 7 that if the school security measures were improved by one standard deviation, then students' discipline would improve by 0.231 standard deviation units.

Conclusion
Based on the study's findings, the study concludes that school security measures significantly correlated to the overall students' discipline in public boys' boarding secondary schools.

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