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AN INVESTIGATION OF THE INFLUENCE OF INSECURITY ON THE MANAGEMENT OF SYLLABUS COVERAGE IN PUBLIC PRIMARY SCHOOLS IN WEST POKOT COUNTY, KENYA

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Abstract:

There is a current concern on the escalating cases of insecurity among the pastoralists' communities in the Republic of Kenya which calls for an urgent need to investigate its influence of insecurity on the management of syllabus coverage in public primary schools in West Pokot County. The study looked into the objective on the influence of insecurity syllabus coverage. This study was guided by Securitization and School Management theories. The study embraced mixed methodology and the concurrent triangulation design. The target population was 1,161 consisting of 80 head teachers and 611 teachers, 4 Quality Assurance Officers, 465 BoM members and 1 county director of education. Stratified sampling was used to choose schools from the 4 sub counties each giving 6 schools, from where 9 teachers per school were sampled randomly and selected to come up with a total of 216 teachers. The 24 head teachers were selected purposively. The total sample was 245 participants consisting of 216 primary school teachers, 24 head teachers, 2 QASOs, 2 BoM members and 1 County Director of Education which was 21.10 % of the target population. Teachers were randomly sampled while QASO officers and BoM members were purposively sampled. Questionnaires with Likert scales were used for teachers and students. There were interview schedules for the County Education Officer, QASO officers, BoM members and a documents' analysis was developed. The research instruments were piloted in public primary schools in the county which were excluded from the final research sample. The researcher asked experts and the supervisors to scrutinize instruments for validity. For reliability, test retest method was used. A Pearson Correlation Coefficient of 0.800 was achieved in the piloting. Concurrent triangulation was used to ensure

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credibility. An in-depth interview was used to test dependability of qualitative instruments. Quantitative data was analyzed in descriptive statistics and presented in tables, frequencies and percentages. Inferential statistics was used in quantitative data whereby Chi-square was conducted to establish the extent to which the study variables associated with each other. Qualitative data was presented through thematic analysis. Then there was mixing and interpretation of data. The investigation established that insecurity in the study county hampered syllabus coverage. It was recommended that the government put in place security measures to curb insecurity in the county and the local communities use peace talks. Further research was recommended on influence of insecurity in secondary schools and other institutions of higher learning.

Keywords: insecurity, learner control, security management, primary schools

1. Introduction

The segment conveys the background and situation of issue that was scrutinized, the intention of the exploration and investigation objective and question. It additionally presented the investigation worth as well as the study scope.

1.1 The Study Background

There is a clear common relationship amongst peaceable and safe atmosphere and education attainment and subsequently education managing. Confirmation from Europe (Reichel, 2014; Hall & Sullivan, 2006) display plainly that the nonexistence of fear or uncertainty that is categorized by malicious actions of fierceness together with associated aspects is frequently a pre-condition normally acceptable for the expansion of vital scholastic programmes in not only Europe, but in any nation of the world (Wahab, 2005; Reichel, 2014; So'nmez, 2008). Scholars (Hall & Sullivan, 2006; Goodrich, 2012) have similarly revealed that political uncertainty and relationships impact the contact of education by youngsters, infrastructural advances in faculties amongst other concerns.

Goodrich (2012) in an investigation in Scandinavian nations mainly France and Germany established that, the bad pictures of anxiety and tension, along with a overall sensation of disappointment that are frequently anticipated owing to anxiety and political uncertainties are regularly hard to extricate even after such anxieties end. So far, hazard to lives, individual security and belongings of people and their possessions should supersede any other deliberations and mostly when handling the educational ambitions of its youngsters (Goodrich, 2012).

Crisp (2009) in an investigation in Canada reasoned that refugee activities caused by uncertainty had become both an inventor of skirmish amongst persons dwelling crosswise boundaries and a task to the host national safety which subsequently results to a muddled education control. In Kenya, this could likewise bring an issue with the numerous immigrants in boundary townships like in West Pokot County that is

bordering Uganda to the East. Issues of uncertainty have habitually been alleged to send shocking, perturbing indicators to numerous states (Wahab, 2005; Goodrich, 2012).

According to So'nmez (2008) in various African republics, predominantly in Northern Africa nations like Tunisia and Morocco, uncertainty is understood comes out of fierce explosions grounded on political coercion and violence catapulted by religious, political and tribal organizations. Crisp (2009) totally agreed with this which is spilled over impact which disturbs education of its youngsters.

In this country, insecurity disturbs educational controlling and hampers school expansion. An examination into extremely established institutions like the ones in Nairobi, remarkably, Nairobi and Olympic primary schools, divulges that considerable school growth does not just occur. The excellence of administration is the one which distinguishes achievement from disappointment of a school (Millette, 2008). In well-organized institutions, and schools which do well in the countrywide exams and attain their goals, the head teachers and the BoMs are keen in inspiring teachers and learners to realize their uppermost prospective.

In West Pokot for example, persistent smashes, both intra and inter community, are ordinary frequently spun about monitoring and retrieving natural resources specifically water and pastures. The uncertainty in the area is seen in by animal attacks, historical enmity and politically provoked rattles.

Concerning the education part, mass media reported insecurity occurrences in West Pokot County which necessitated schools to shut down until further notice. Institutions like Moi Masol, Turkwel Gorge, among others shut down owing to insecurity trials. Rendering to the County Education Officer Report (2015) numerous other institutions were at the border of closing owing to the fierce activities emanating from fighting groups of tribal rattles amongst the West Pokot people.

2. The Problem Statement

A remarkable number of school controlling issues like the syllabus coverage for learners who live in animal grazing zones appear to have extremely unsuccessful. Syllabus coverage in West Pokot County has been a management issue among the communities living there. Institutions like Moi Masol, Chesegon and Manyangpong among others were closed prematurely hence hampering learning. Media has that in the year 2016, some 30 schools were closed due to tribal clashes. Schools should be peaceful palces where children learn happily. If they become chaotic as it is seen in the study county, it will be next to impossible for the teachers to cover syllabus. The authorities in both central and county governments should take stern measures to ensure safe learning institutions in this region.

3. The Study Purpose

The purpose of this research was to investigate the influence of insecurity on the management of syllabus coverage in public primary schools in West Pokot County, Kenya

3.1 Objective of the Research

This study was guided by a research objective:-

 To determine the influence of insecurity on the management of syllabus coverage in public primary schools in West Pokot County

3.2 Research Question

The research was guided by a question which was derived from the research objective:-

 To what extent does insecurity influence the management of syllabus coverage in public primary schools in West Pokot County?

3.3 The Study Rationale

The investigation had additional essential and applicable material on insecurity and educational controlling both in the safety literature and educational managing area. Undoubtedly, there was necessity to find out the magnitude to which insecurity affected syllabus coverage. The investigation was necessary for school managers and other stakeholders in education.

3.4 The Study Significance

This exploration treasured to the School Management Committees with statistics on how insecurity negatively affected educational administration and provided suggestions on how to assist institutions handle safety tasks. Furthermore, the scholarship outcomes aided school leaders advance cherished tactics improved their worth of supervision amongst uncertainty trials. The investigation helped educational participants such as parents, education officials and the public with material that was valued in the controlling of insecurity in institutions.

4. Literature Review

This section dealt with the literature concerning the research objective to answer the question derived from the objective concerning syllabus coverage.

4.1 Influence of Insecurity on the Management of Syllabus Coverage

Kentli (2009) contended that syllabus covering was built on the procedure and aims reached in guaranteeing that the course that a learner takes was completely and standardly done. This is of course tied to curriculum which is defined as a way that indicates the idea of dominion. As indicated, the idea of administration modifies

schools in various aspects and characterizes them as creators of culture that are important for socialization.

The running of syllabus is badly affected by several of issues. Insecurity and power is paramount in this instance. Syllabus coverage is important for the full attainment of educational goals and as Essner (2012) noted, the coverage of any syllabus is an indicator of the progress of education as academic achievement depends largely on the coverage of examinable syllabus

This study was conducted in primary schools in West Pokot aiming to finding out insecurity matters hampering syllabus coverage. If pupils went into exam season without having to complete the syllabus that translated into imminent catastrophe in the countrywide exams and henceforth low changeover into secondary school education.

Regional insecurity issues have had detrimental influences in the coverage of syllabus in the conflict-prone areas. The Northern Kenya has suffered the problem of insecurity for a long period of time. For instance, clear differences are obvious in the regions in as far as syllabus coverage is concerned. In addition, the exercise utilized as a part of the text books learning are gotten essentially from agricultural places, for example, Rift Valley and Central. More awful, the education depends on double curriculum. The pupils from the former North Eastern Province of Kenya more often embark on physical sciences while in different areas of Kenya, learners can think about pure sciences. This system of confining mobility could be the legacy of pilgrim strategy. The framework, for instance, in UK is tripartite. In Kenya, lack of quality education could have been as a result of failure to cover the recommended syllabus form the Ministry of Education or the Kenya Institute of Curriculum Development. Half-baked pupils had no chance of doing any better in secondary schools (Kipkorir, 2008).

The present educating system in this country helps to recreate and duplicate current unsatisfactory socio economic arrangements and consequently selected countrywide learning institutions for minority, mass institutions for the others. On account of Northern Kenya, rather than advancing and empowering social mobility training serves to smother personal aspiration and subsequently bringing about restricted social portability in North Eastern Kenya. Moreover, formal education was avoided because of its relationship with Christianity (Ruto *et al*, 2010; Morah, 2000). However, today the concept of missionaries is far forgotten as education becomes more and more demanded. This means the recommended curriculum in primary schools has to be covered since it was connected with what was taught in secondary schools, tertiary institutions and consequently the universities.

Insecurity is characterized by crime and may be described as an "an act submitted or overlooked infringing upon a law restricting or instructing it" and brutality as "an unjust or baseless activity of power, for instance with the accompaniment of fervency, outrage or anger" (Wahab, 2005). The two concepts when considered in numerous occasions create insecurity activities that are then regarded as aggression, criminality, assault, desecration, assassination, etc. In many other situations, violent and criminal acts such

as, upheaval, civil wars political unrests and uproars, are seen as criminal acts, (Somnez, 2008).

There are areas (in Kenya) which grieve from educational insecurity and 84 percent consider this as showing undesirable influence on educational areas, this brings down the educational image and produces education stakeholders' discontent. Lately, the occurrence is getting bigger in high-density on the increase nation educational areas. Such as, the persistent insecurity has compelled the Moroccan Government to hold tightly on unlicensed visitors and other aliens. Essner, (2012) showed that in 2004, Indian local police were sent to significant areas in the capital city to guard students against violence and insecurity by indigenous taxi operators, a practice common at areas around the beach resorts in Goa and to which consequently affects educational management of schools around the area (Mwathe, 2011).

As indicated by Williams (2010) education can be connected to security in two chief ways. Education can be contemplated to comprehend its potential impact to "review worldwide security dangers", or, generally, to fathom "the influence of the new security dangers on training" (Williams, 2010; 193). Participation (or a child in school) will allude to a child who was enlisted toward the start of the year and was effectively going to class at the season of the study and a dropout will allude to a child who left school.

Teachers and pupils who were disrupted by insecurity often times than not fled schools for fear of being attacked. This took long before situations were put into normalcy. When schools resumed, time lost was not recovered since the Kenyan curriculum is overloaded. This meant that the learners were going to suffer as teachers closed schools leaving chunks of materials untaught. This went on year after a year. There was no evidence that the balance of work was ever compensated.

5. Research Methodology and Design

This research employed mixed methodology which is a mixture of both quantitative and qualitative approaches (Creswell, 2004). According to Kothari (2005) in quantitative technique, the specialist asks particular inquiries, gathers quantifiable information from a large number of participants; breaks down these numbers utilizing insights; and behaviors the request in a fair and target way. Quantitative information was gathered utilizing surveys. The study applied concurrent triangulation method which involves a mix of numerical and words analyses in order to gain a whole image of the explanation of events and happenings in a bid to understand the causes and effects of a phenomenon. Since this study was about explaining the influence of insecurity on educational management and since it sought to study the cause (insecurity) and effect (educational management); this research design becomes appropriate because as Kothari (2004) mentioned, concurrent triangulation method is concerned with a causal link that ties quantitative and qualitative analyses to get a broader and deeper scope of the problem.

5.1 The Study Location

This study took place in the county of West Pokot. It has predictable populace of 123,345 people covering an area of 253.8 km² (KNBS, 2009). The area is largely arid and semi-arid land. It has numerous schools and the foremost commercial activity is animal rearing. The investigation was carried out in this region because of the frequent insecurity incidences that were witnessed there. Many schools had been closed down due to insecurity (County Education Officer Report, 2015).

5.2 Target Population

The population targeted comprised of 80 primary schools in West Pokot County, 611 teachers and 80 school heads including the County Director of Education.

Table 1: Target population

West Pokot County	No. of schools	Number of teachers	Number of	QASO	BOM
Dalaat Manth	22	105	head teachers	1	120
Pokot North	23	185	23	1	138
Pokot South	22	152	22	1	122
Pokot Central	21	145	21	1	119
West Pokot	14	129	14	1	86
Totals	80	611	80	4	465

Source: County Education Office, 2017

5.3 Sample Size and Sampling Procedures

Stratified sample techniques were employed by the investigator to select schools. This was built on Central Limit Theory where applicable which says that, for every sample size, N≥30, sample scattering of means is nearly the usual distribution regardless of the original populace. This was trailed by determination of schools in every zone (stratum) by utilization of basic random sampling technique methods and Stratified sampling. As per Orodho, (2005) the exploration population to be concentrated on ought to be thirty per cent of the research. Hence, thirty per cent of 80 institutions in this investigation equals to 24 learning institutions.

Random selection was utilized to choose 9 teachers from each institution for this selection since this helped to avoid the feeling of bias amongst the respondents and a sample size of teachers was 216 which are approximately 30%. The nine teachers per school had five male teachers selected due to their superior numbers and 4 female teachers selected too. Selection of 24 school heads and County Director of Education was done by purposive sampling as they gave critical facts pertinent for the qualitative characteristics of the research. The total sample was 245 participants consisting of 216 primary school teachers, 24 head teachers, 2 QASOs, 2 BoM members and 1 County Director of Education. Table 2 shows the sampling grid.

			Tab	ole 2: Samp	ling grid				
	No. of	Sample	Number of	Teacher sample	Number of head	Sample of	QASO	BOM	CDE
	schools		teachers	sample	teachers	heads			
Pokot	23	7	185	63	23	7	1	1	
North									
Pokot	22	6	152	54	22	6	1	1	
South									
Pokot	21	6	145	54	21	6	1	1	
Central									
West	14	5	129	45	14	5	1	1	
Pokot									
Totals	80	24	611	216	80	24	2	2	1

Source: The Researcher, 2017

5.4 Data Collection Instruments

There was a questionnaire for the Head Teachers in the study area. The survey likewise utilized Likert scale with inquiries regarding section A with questions on demographic data like gender, age and experience, section B had questions on objective one on effect of insecurity on learner participation (six items), section C had questions on objective two on effect of insecurity on syllabus coverage (five items); section D had questions on objective three on effect of insecurity on management of examinations (six items), section E had questions on objective four on effect of insecurity on management of discipline (six items) and section F had questions on objective five on effect of insecurity on management of infrastructure (six items).

There was a questionnaire for primary school teachers. The questionnaires collected the essential quantitative facts helpful to the research. This was controlled to educators and head teachers. The survey likewise utilized Likert scale with inquiries regarding section A with questions on demographic data like gender, age and experience, section B had questions on objective one on effect of insecurity on learner participation (six items), section C had questions on objective two on effect of insecurity on syllabus coverage (five items); section D had questions on objective three on effect of insecurity on management of examinations (six items), section E had questions on objective four on effect of insecurity on management of discipline (six items) and section F had questions on objective five on effect of insecurity on management of infrastructure (six items). The tool is found in the appendices at the end of the thesis.

It was a qualitative instrument utilized as a part of the research process which gave non-numerical data discoveries. Dialogue was for the education officer in the county. Dialogues are imperative to accumulate top to bottom reactions from the participants who were pertinent for the investigation. This officer was helpful since he provided master guidance on the matter of comprehensive instruction.

The study scrutinized documents relevant to the study objectives. This included the syllabus coverage plans of schools, the examination timetables and the infrastructure inventories and building schedules and plans of schools. All these documents were scrutinized to give detailed examination of the study.

5.5 Data Collection Procedures

The researcher obtained Ethics and Review clearance from Mount Kenya University He then got an introducing letter written by School of Post Graduate Studies of the University to empower him acquire a study permit from NACOSTI prior to going for data collection. Subsequent to procuring the license, the investigator additionally looked for authorization from the West Pokot Count Education Officer to empower him to study the sampled institutions. The investigator looked for authorization from chosen institutions and was permitted to do the study. Tools were distributed to sampled participants using a drop and pick later method with the respondent being given four days maximum to answer the questions (Kerlinger, 1986). The interview schedule was done by the researcher within the four days within which the questionnaires were responded to.

5.6 Data Analysis Procedures

In view of the information measurement tools, numerical and non-numerical data systematic approaches were used; descriptive breakdown in the form of frequencies, percentages and tables were utilized in data analysis for quantitative data derived from the syllabus coverage, variables and were presented in tables. Inferential breakdown of data was used reflecting on Pearson for instruments' piloting and Chi-square analyses were utilized to form different methods that prove the connection between variables, and for this investigation incorporate insecurity and educational management issues.

The PC package of SPSS version 21 was utilized to help in the investigation. At that point, facts from surveys were displayed in tables in Chi-square. Non-numerical facts from the interview schedule also to measure responses on insecurity, learner participation, syllabus coverage, management of examinations, discipline and infrastructure management were analyzed using thematic analysis and presented in narrative format. Both descriptive and inferential analyses were used to test for relationship at 95% significance between the independent variables and the dependent variable. Prediction by the independent variables (Learner participation, syllabus coverage, management of examinations, discipline and infrastructure management) was ascertained (Kothari, 2004).

Table 3: Data analysis procedures

	Independent variable (input)	Dependent variable (output)	Analysis approach
To what extent does insecurity	Insecurity	Management of	 Frequencies
influence the management of syllabus		syllabus coverage	 Percentages
coverage in public primary schools in			 Chi-square
West Pokot County?			Thematic analysis

Source: The Researcher, 2017

6. Research Findings and Discussions

This section provided the study outcome on the influence of insecurity on syllabus coverage in public primary schools in West Pokot. Data on the study objective was examined at this point. The analysis utilized descriptive and inferential statistics as well as thematic analysis of data collected from the field by the investigator. The chapter concluded in the discussions of the findings.

6.1 Influence of Insecurity on the Management of Syllabus Coverage in Public Primary Schools

The objective sought to establish the influence of insecurity on the management of syllabus coverage in primary schools in West Pokot. The investigator treated data levels such as descriptive, inferential, thematic and then the mixing and interpretation of the data at the end of the objective.

6.2 Descriptive Statistics Analysis

In this study, the researcher used tables, frequencies and percentages and analyzed the statistics according to the research objective as it is shown below, examining the head teachers and teachers respectively.

6.2.1 Influence of Insecurity on the Management of Syllabus Coverage

To seek information on the management of syllabus coverage in public primary schools in West Pokot County, the school head teachers filled part C of their questionnaire. The results were shown on table below.

Table 4: Head teachers' responses on the management of syllabus coverage

Items	SA	A	U	D	SD
	5	4	3	2	1
Insecurity has affected course outline coverage	F 9	F 8	F 1	F 5	F 1
	37.5 %	33.3 %	4.2 %	20.8 %	4.2 %
The insecurity has caused teachers constant non-	F 5	F 9	F 2	F 6	F 2
attendance	20.8 %	37.5 %	8.3 %	25 %	8.3 %
The insecurity has resulted to teachers attrition	F 5	F 9	F 1	F 8	F 1
	20.8 %	37.5 %	4.2 %	33.3 %	4.2 %
The insecurity is characterized by destruction of school	F 4	F 10	F 4	F 5	F 1
property like, chairs books which hinders coverage of	16.7 %	41.6 %	16.7 %	20.8 %	4.2 %
syllabus	E.C	E 0	F.7	E 2	TE O
The insecurity is characterized by fear of violence	F 6	F 8	F 7	F 3	F 0
leading to students unable to attend classes to cover the syllabus	25 %	33.3 %	29.2 %	12.5 %	0 %
The insecurity is characterized by death of students	F 4	F 8	F 1	F 9	F 2
and teachers who will not be available to cover the	16.7 %	33.3 %	4.2 %	37.5 %	8.3 %
syllabus					
Generally, the insecurity levels of the schools here is	F 2	F 11	F 3	F 8	F 0
high and threatening which hinders syllabus coverage	8.3 %	45.9 %	12.5 %	33.3 %	0 %

Source: The Researcher, 2017

Looking at the table above, insecurity has affected course outline coverage in a great magnitude majority 17 (70.8 %) of the head teachers were in agreement. Some small minority of 1 (4.2 %) were neither agreeing nor disagreeing. However, 6 (25 %) of the participants were in total disagreement with the statement. It was evident that insecurity had caused teachers constant non-school and class attendance in West Pokot County as 14 (58.3 %) was in agreement. Only 2 (8.3 %) were neutral to this issue and 8 (33.3 %) disagreed. This means some teachers were not able to attend school and classes for fear of attack or any other insecurity reasons. A meaningful percentage of over thirty was in disagreement possibly because they did want appear that they were missing school for no apparent reasons. These being the head teachers it might have been difficult for them to appear that they missed work for any reason whatsoever. They would be reporting themselves to the authorities that they deserted duty. However, 9 (37.5 %) of the head teachers were not in agreement with others. As it has been said earlier, this percentage might have been that way due to the reason that the head teachers were protecting themselves such that they did not look that they were so much affected by insecurity such that they could be away from duty or seek transfers to other safer schools.

The researcher further established that insecurity had caused teachers' attrition in the study county of West Pokot as 14 (58.3 %) of the head teachers agreed. Another 1 (4.2 %) was not decided and this was an insignificant figure that could not raise any problem. The fact that insecurity was characterized by destruction of school property like chairs, books which hinders coverage of syllabus was still acceptable as 14 (58.3 %) of the head teachers agreed. This is so since when schools were deserted due to ethnic clashes there was a possibility that the enemies could interfere with the institutions' property. Again the culture of war among children could have caused them displace their anger on the school property. Some 4 (16.7 %) decided to remain silent possibly due to the fact that this did not possibly occur occasionally in their schools or they did want to be specific about the matter. When 6 (25 %) of the head teachers disagreed, it might have been due to the fact that they did not witness such hooliganism in their schools or that such things were not rampant as far as they were concerned. This means that a number of schools in the study county enjoyed some peace to a certain extent.

It is seemingly a true saying that insecurity was characterized by fear of violence leading to students unable to attend classes hence were unable to cover the syllabus to a certain degree in West Pokot. This was ascertained by 14 (58.3 %) of the participants in the study. As it has been seen earlier, school and class attendance were both affected by insecurity in West Pokot County. This, of course, crippled syllabus coverage in a significant way. It was interesting that 7 (29.2 %) of the head teachers were neutral. This could have been due to the fact that the head teachers did want to commit themselves into the fact that they did not cover the school syllabus due to the insecurity issue; they might have thought that there were other factors apart from insecurity. The 3 (12.5 %) who disagreed were not a significant number to cause worry in this research outcomes. The problem might not have been pronounced as such in their institutions and so they were not going to blame insecurity for no apparent reason.

Only half 12 (50 %) of the head teachers agreed that insecurity was characterized by death of students and teachers who were not be available to cover the syllabus. The fact that deaths of pupils and teachers caused failure to cover syllabus was not as convincing as it is shown by this percentage. However, the percentage indicated that there was truth in the fact that in some cases, teachers and pupils were affected by deaths hence failed to complete the syllabus in good time. In the case where a number of teachers have passed away due to insecurity, one does not expect the dead teachers to cover the syllabus. Since only 1 (4.2 %) were not sure, it seemed that most head teachers were certain on what they were saying. This is why about half 11 (45.8 %) of the head teachers did not see this as a big issue as far as the coverage of the syllabus was concerned. In other words, the head teachers were divided over this matter and the researcher respected their views. This means it could be either way; that there was a problem or there results were not significant enough to take either side. The fact remains that some schools could or had experienced such deaths of teachers and pupils as result of insecurity in West Pokot County.

Some 13 (54.2 %) of the participants felt that the insecurity levels of the schools were high and intimidating which slowed down syllabus coverage in the study county. If more than half of the head teachers felt that there was a threat of insecurity and that it hampered syllabus coverage, then the researcher had nothing to say but to accept that fact. This is through document analysis it was established that schools' syllabus coverage was poor. In this statement, 3 (12.5 %) did not want to take sides in the issue. But 8 (33.3 %) disagreed meaning that still insecurity was not the sole culprit in syllabus coverage. Other factors could have been identified.

The findings seen above were in line with Ling (2012) who did research in the Peoples' Republic of China. In the study, it was established that insecurity pulled down efforts for syllabus coverage in schools in China. In China, children were forced to study by themselves as schools closed down abruptly due to insecurity cases. Consequently, there was low syllabus coverage just as it was seen in the case of West Pokot County. Unfortunately, the West Pokot children might not have had the opportunity to study at home; instead they went to look after the animals making it even worse for them.

6.2.2 Teachers' Responses on the Management of Syllabus Coverage

The researcher sought views of the teachers regarding this objective on the management of syllabus coverage in the study county. The questionnaire responses from part C of the questionnaire for teachers were tabled and analyzed in table below.

Table 5: Teachers' responses on the management of syllabus coverage					
	SA	A	U	D	SD
Insecurity has affected syllabus coverage	F 73	F 73	F 22	F 28	F 12
	35.1 %	35.1 %	10.5 %	13.5 %	5.8 %
The insecurity has caused teachers constant	F 58	F 76	F 24	F 33	F 17
absenteeism	27.9 %	36.5 %	11.5 %	15.9 %	8.2 %
The insecurity has resulted to teachers attrition	F 46	F 81	F 21	F 40	F 20
	22.1 %	38.9 %	10.1 %	19.2 %	9.7 %
The insecurity is characterized by destruction of	F 88	F 68	F 17	F 25	F 10
textbooks and other syllabus coverage resources	42.3 %	32.7 %	8.2 %	12 %	4.8 %
The insecurity is characterized by fear of violence	F 52	F 67	F 24	F 35	F 30
leading to students unable to attend classes to	25 %	32.2 %	11.5 %	16.8 %	14.5 %
cover the syllabus					
The insecurity is characterized by death of	F 71	F 72	F 23	F 28	F 14
students and teachers who will not be available to	34.1 %	34.6 %	11.1 %	13.5 %	6.7 %
cover the syllabus					
Generally, the insecurity levels of the schools here	F 71	F 73	F 23	F 29	F 12
is high and threatening which hinders syllabus	34.1 %	35.1 %	11.1 %	13.9 %	5.8 %

Source: The Researcher, 2017

coverage

From the table above, it was agreed by the teachers that insecurity had affected syllabus coverage as they indicated 146 (70.2 %) in the questionnaire. This indicated that there was a big problem of insecurity in West Pokot which affected learning in the primary schools. Only 22 (10.5 %) of the teachers could not agree. These teachers who did not agree may have come from schools where insecurity was not so evident. This was echoed by the 40 (19.3 %) of their counter parts who disagreed with the statement. The teachers meant that there was an issue of insecurity in their schools. It was interesting that insecurity had caused teachers' constant absenteeism from schools as 134 (64.4 %) of them agreed. The researcher hoped that this was not a scape goat for teachers to abscond their duties hiding in the insecurity issue in the county. It was hoped that they were genuine. However, 24 (11.5 %) of the teachers were not so sure about the statement and so they opted to remain silent on the matter. However, 50 (24.1 %) of the teachers disagreed. These teachers seemed to have come from safer schools in the county of West Pokot.

Insecurity had caused teachers' attrition in West Pokot as it was indicated by 61 % of the teachers. This was majority of participants' response on this statement which could not be ignored by the researcher to make his conclusions. Only 21 (10.1 %) of the teachers were not so sure about the statement and so they remained neutral. However, a significant score of 60 (28.9 %) of the teachers may not be ignored. This number, though far from half, still means something to this study. The interpretation here is that there were still schools that could be proud of their good security and were not so much affected. This shows that not every school in West Pokot County was deadly affected by insecurity.

Amazingly, majority of 156 (75 %) of the teachers were of the opinion that insecurity was characterized by destruction of textbooks and other syllabus coverage

resources as only 17 (8.2 %) were not sure. Some 35 (16.8 %) disagreed with this statement but this was insignificant figure with only a small weight on the matter. A majority of 119 (57.2 %) said that insecurity was characterized by fear of violence leading to students unable to attend classes to cover the school syllabus. Only 24 (11.5 %) were neutral to the statement as another 65 (31.3 %) disagreed with the statement. The teachers who disagreed had some weight on this matter as they indicated that the problem did not affect all the schools in West Pokot such that learning was incapacitated totally. So there was still hope that some schools enjoyed learning almost normally.

Insecurity was characterized by demise of pupils and teachers who could not be available to cover the syllabus as some 143 (68.7 %) of the teachers indicated. Only a small minority of 23 (11.1 %) was not decided. Nevertheless, 42 (20.2 %) of the participants were not in agreement. This indicated that there were positive teachers about insecurity but only a small percentage.

A majority of 144 (69.2 %) of the teachers agreed that insecurity levels of the schools were high and frightening which stalled syllabus coverage. This was a significant percentage to believe that there was a looming danger as far as insecurity was concerned in the study county. Only 23 (11.1 %) of the teachers remained quiet on the matter. There was disagreement among 41 (19.7 %) of the participants which was not so significant but implied positivity in the research objective.

The teachers' sentiments from the data observed above concurred with the opinions of Lowton (1980) who found that insecurity was among the factors that hampered the progress of syllabus coverage meaningfully. In the Republic of Ireland, when civil wars broke, most schools closed down as the children were forced to study from their homes. Therefore, there was poor syllabus coverage culminating into poor examination results. This was the case in West Pokot as it was seen above as schools hardly covered the syllabus.

6.2.3 Inferential Statistics on the Management of Syllabus Coverage in Public Primary Schools

The researcher ran Chi-square test to detect the association between the variables and tested if the projected proportions met the genuineness of the experiment. This showed that the researcher linked the observed data to what was anticipated to be seen under normal circumstances. The decision was based on either; it was accidental or due to significant association.

Answers from the school head teachers were taken from five Likert levels namely: strongly agree, agree; undecided, disagree and strongly disagree. The responses for the five levels were entered in chi-square in SPSS and the test results were presented in table below.

Table 6: Chi-square test on the management of syllabus coverage
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Test Statistics	_			
	Strongly Agree	Agree	Undecided	Strongly Disagree
Chi-Square	.714a	.714a	.857b	.714a
df	5	5	4	5
Asymp. Sig.	.982	.982	.931	.982

a. 6 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.2. b. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.4.

Source: The Researcher, 2017

The Chi-square test was judged on the fact that if \mathbf{Q} values were greater than $\boldsymbol{\alpha}$ value ($\mathbf{Q} > \boldsymbol{\alpha}$), then it was satisfactory that the relations were not by accident but what would have been expected under usual circumstances. In this case, the asymptotic values recorded .982, .982, .931 and .982 as it is seen on the table above. The value of $\boldsymbol{\alpha}$ is generally .05. As it can be observed here, all the \mathbf{Q} values obtained in this test were exceeding .05 in all the cases, signifying that the observations for the variables were not different from what would have been observed under usual circumstances. Therefore the researcher resolved that the association between the variables was not by chance but was what one would have anticipated under normal circumstances. This indicated that the responses from the primary school head teachers in West Pokot in this objective were reliable and trustworthy enough to be dependable.

The Chi-square outcomes indicated that the responses given by the head teachers were genuine it was evident that the influence of insecurity on pupils' participation negatively existed. The views in this inferential statistics are what any observe would have seen and they met the expectations of the objective.

These inferential statistics conclusions were in agreement with what was established by Ruto *et al* (2010) who lamented that the Kenyan education system emphasized on examinations and hence the syllabus coverage. This was bringing negative results in the Northern part of Kenya due to constant ethnic wars among the pastoralists communities. Most schools therefore went into the examination periods without having covered the academic work outlined in the syllabus.

6.3 Thematic Analysis on the Management of Syllabus Coverage in Public Primary Schools

In the second objective, the investigator used thematic analysis from two instruments namely: document analysis and interview schedule.

6.3.1 Research Findings from Document Analysis

The researcher looked at document such as the school log books, schemes of work, records of work and the class registers. During the time of perusing the schemes of work, it was established that there was lack of coverage of syllabus as it was evident that the planned work did not align with the weeks in the schools' calendar. In other words there was discrepancy between the schemes and the school weeks for instance in week four of the school calendar, teachers were still in week two or week one. The

records of work showed the same results that the syllabus was behind the schedule. The class registers indicated irregular attendance in school, meaning that pupils who were away from school could not be available to cover the syllabus. The school log books showed that the attendance was not consistent in all days of the week. It was sometimes high and others low. Therefore, coverage of syllabus, in this case, was next to impossible if it had to be done.

Findings from these documents were echoed by Otunga and Nyandusi (2009) that most curriculum decisions hence syllabus decisions were made from the top. There was no favourable curriculum for the pastoralist communities like the Pokots. There was only one curriculum covering more than forty ethnic groups in the Republic of Kenya. The Ministry of Education does not consider the diversity of cultures among the Kenyan people as the Kenya Institute of Curriculum Development works on the curriculum. West Pokot being a war torn and hardship zone in Kenya, the syllabus coverage has been impossible in most primary schools.

6.3.2 Research Findings from Interview Schedule

From the interviews conducted among County Director of Education, two BoM members and two QASO officers, it was evident that influence of insecurity on the management of syllabus coverage was negatively affecting management of schools in West Pokot especially when it comes to school work that needed to be done in the school terms. The CDE1 was sharp to observe, "For teachers to cover syllabus, they need peace and stability. When we talk of ethnic clashes, cattle rustling and other evils in this county, we are saying that there is a big problem of insecurity and therefore teachers cannot be comfortable enough to cover the school work" (Male Education Officer aged 50 years). It was established that teachers were working under poor conditions as CDE1 said, "The teachers and pupils are working with meager resources and this has hampered syllabus coverage" (Male Education Officer aged 50 years). There was an issue in children attending school regularly as CDE1 put it, "Teachers are forced to repeat lessons especially when class attendance was poor. If a teacher finds only half of the class present, he or she will have to move in a very slow pace" (Male Education Officer aged 50 years). Facilities matter if the teachers are expected to complete teaching syllabus as CDE1 concurred, "When you talk of syllabus coverage, there are many elements to consider in addition to insecurity for instance the question of available facilities. Some children learn outside under the trees, they are distracted by the passers-by and this hampers syllabus coverage" (Male Education Officer aged 50 years). There was need for the county government and the central government to ensure security for both teachers and pupils as CDE1 stated, "The authorities have the challenge to protect teachers and pupils to enhance syllabus coverage as the teachers were ready to work. You do not expect speedy teaching where gunshots are heard just a few meters from the schools" (Male Education Officer aged 50 years).

The two BoM members were of the same opinion that syllabus could not be covered whereby insecurity was not taken care of. BOM1 said, "Teachers and pupils need peace in order to do well in class. This means the syllabus will be covered well if there are no ethnic clashes or other skirmishes" (Male BOM member aged 45 years). It was also

established that non-school attendance was hampering syllabus coverage as BOM2 put it, "Children must attend school in order to be taught but if they are absent, how will the teachers cover the work? They will have to slow down to help pupils catch up." Teaching time was always disrupted, "It does not take a month before you hear that there were clashes in the village. There is no way teaching can go on during the fighting and therefore you do not expect the teachers to cover much" (Female BOM member aged 40 years). Teaching requires peace as it is said by BOM1; "If there is peace in the villages where schools are situated, then the teachers will work better and the examination performance will improve" (Male BOM member aged 45 years).

The QASO officers were more official when QASO1 said, "Officially the coverage of syllabus rests on the teachers but there are issues that can hamper this for instance the security matters" (Male QASO Officer aged 45 years). QASO2 added, "Allowing pupils to sit KCPE without covering the syllabus is suicidal. But when you look at our county, we have insecurity challenges that cripple our efforts to teach as much as we want" (Female QASO Officer aged 40 years). One problem was failure of the pupils to attend school as QASO1 said, "The school attendance is again very poor. Some children are away from school to look after animals while others are afraid to come to school in fear of ethnic clashes" (Male QASO Officer aged 45 years). There was also need to motivate both teachers and pupils to work better as QASO2 observed, "Learning needs motivation in addition to security. If security is provided but low motivation is witnessed, syllabuses will not be covered in time and children will sit final exams half baked" (Female QASO Officer aged 40 years).

The research findings from the interview schedule were supported by Poirier (2011) who said that insecurity experiences in schools may cause psychological and emotional disorders among other conditions. This meant that a degree of terror and nervousness did affect educational management and the syllabus coverage. Teachers and pupils did not feel comfortable enough to learn as fast as they should have. This psychological impact caused by insecurity might have slowed down learning hence hampered syllabus coverage.

6.3.3 Mixing and Interpreting Data on the Management of Syllabus Coverage in Public Primary Schools

The investigator assorted and interpreted data from descriptive, inferential and thematic on the second objective on the influence of insecurity on the management of syllabus coverage in primary schools in West Pokot County. From the descriptive statistics, in most of the schools it was seen that insecurity hampering management of syllabus coverage as a total of 70.8 % of the head teachers showed agreement and strongly agreement. From the primary school teachers, it was seen that insecurity was high which had hampered the management of syllabus coverage in West Pokot County primary schools. This was indicated by 70.2 % of the primary school teachers who replied in the survey. There was no doubt that both the head teachers and teachers were in agreement that insecurity crippled syllabus coverage in West Pokot County.

The document analyzed by the researcher indicated that there was a big problem as far as insecurity was concerned making it impossible to cover syllabus schools in the

study county. This was echoed by the county director of education, BoM members and the QASO officers who all agreed that the county was affected by insecurity and the syllabus coverage was dwarfed by this insecurity. There was no way syllabus coverage could have been achieved if schools were not safe and secure. Thus the data analyzed for the second objective showed clearly that there was need to secure primary schools in the study county to enable meaningful education for the children of West Pokot by timely coverage of the syllabus.

The mixing and interpreting of data concurred with Blockland (2011) who argued that insecurity demotivated teachers and pupils from learning activities such as syllabus coverage. Sometimes it went to the extent of sexual abuse on the participants and worse, school shootings. This incapacitated efforts to cover the school syllabus in most cases.

7. Summary, Conclusions and Recommendations

This chapter provided summary, conclusions and recommendations on the study on investigation of the influence of insecurity on the management of syllabus coverage in public primary schools in West Pokot County. It offered the summary of key observations, conclusions and recommendations based on the findings during the research process.

7.1 Summary of Research Findings

The researcher summarized the outcomes findings according to the study objective, handling the objective individually.

7.2 Influence of Insecurity on the Management of Syllabus Coverage in Primary Schools

Summarizing the questionnaires from the head teachers and teachers, it was documented that insecurity hampered management of syllabus coverage in primary schools in the study county. There were documents examined and interviews conducted by the researcher proving the same results. There was therefore need to enable syllabus coverage by keeping schools secure so that learning may take place smoothly. Covering the school syllabus in good time would enable children adequate time to revise for the final national examinations and consequently perform well. This would improve transition rate from primary schools to secondary schools.

7.3 Conclusion of the research findings

From the information collected, coverage of the syllabus was deficient. In most schools, due to insecurity, the teachers did not cover syllabuses adequately. This was a drawback to the welfare of the child. It was the responsibility of all the leaders of teaching particularly the head teachers, teachers, parents and the political leaders fully stop insecurity activities. This would enable teachers cover syllabuses in time following which exam results would improve for the betterment of the pupils.

7.4 Recommendations for Practice

Based on the study outcomes, the researcher suggested that:

• There is need to improve security in schools so that there could be good management of syllabus coverage in the schools. Head teachers and teachers should make sure that pupils cover syllabus in good time for revision for the national examination – KCPE.

7.5 Recommendations for Further Research

• The researcher recommended that the following further areas of study be undertaken: the role of government in implementing security standards in primary schools to ensure coverage of the syllabus

References

- 1. Adan, M. Evans D., & Adjun, B. (2008): Concept of Peace Committees A snapshot of Analysis of the Concept of Peace Committees in Relation to Peace Building Initiatives in Kenya, Practical Action International.
- 2. Brownell, M. & Pajares, F. (2009). Teacher efficacy and perceived success in mainstreaming students with learning and behavior problems. *Teacher Education and Special Education*, 22, 154-164
- 3. Buckland, P. (2005). *Reshaping the future: Education and post-conflict reconstruction*. Washington: World Bank.
- 4. Buchanan-Smith, M. & Lind, J. (2005). Armed Violence and poverty in Northern Kenya: A case study for the armed violence and Poverty initiatives. The Centre for International Cooperation and Security Department for Peace Studies in Collaboration with DFID. University of Bradford. UK.
- 5. Bush, K. and Saltarelli, D. (2000). The two faces of Education in Ethnic Conflict: Towards a Peace -Building Approach to Education. UNICEF, Innocenti Center
- 6. Christie, K. (1998). Introduction: The problem with ethnicity and tribal politics. In Christie K. (ed.) Ethnic conflict, tribal politics: A global perspective. London: Curzon Press. Great Britain
- 7. Corbert, D. (2009). School resources and student outcomes: An overview of the literature and new evidence from North and South Carolina. *Journal of Economic Perspectives*, 10, 31-40.
- 8. Creswell, J. (2004). Educational research: Planning, conducting and evaluating quantitative and qualitative research. New Jersey: Pearson Prentice Hall.
- 9. Crisp, K. (2009). *Introduction: The problem with ethnicity and tribal politics. In Christie K. (ed.) Ethnic conflict, tribal politics: A global perspective.* London: Curzon Press. Great Britain
- 10. Cutter, S. (2011). American Hazardscapes: The Regionalization of Hazards and Disasters. Joseph Henry Press.

- 11. Emeka, E. (1999). Climate Change, Population Drift and Violent Conflict over Land Resources in North Eastern Nigeria. Social Development Department, Nigerian Institute of Social and Economic Research (NISER), Ibadan, Nigeria
- 12. Essner, J. (2012) Terrorism's impact on Education; What the Institutions may learn from Egypt's struggle with al-Gama'a al–Islamiya. *Security and Development*(6) 88
- 13. Goodrich, J. (2012) September 11 2001 attack on America: A record of immediate impacts and reactions in the USA. 23(6);573-80.
- 14. Hall, H. & Sullivan G. (2006).Industrial and General Administration. Paris: Dunod. Freemont E. Kast and James E. Rosenzweig. (1985). *Management: Systems and Contingency Approach*. New York: McGraw Hill.
- 15. Haskell, D. (2008). Building bridges between Science and Special Education. *Electronic Journal of Science Education*. 4(3).
- 16. KESSP, (2012).Report on the Monitoring of schools Broadcast through World Space in Primary Schools. Nairobi: KESSP
- 17. Kipkorir B. and Welbourn F.B. 1973. The Marakwet of Kenya: A Preliminary Study. Nairobi: E.A.L.Bureau.
- 18. Konza, C. (2009). Factors influencing the academic achievement of the Turkish urban poor. *International Journal of Educational Development*, 29, 17–29.
- 19. Kothari, S. (2004) Research Methodology and Techniques (4th Ed).New Delhi- India. Wannick Publications,
- 20. Koutrouba, W. Akinfolarin, C. & Alimi, O. (2006). Correlate of Resource Utilization and Students' Learning Outcome in Colleges of Education in South West Nigeria. *International Education Studies* Vol. 4, No. 3, 18-20.
- 21. Kentli, F. (2009). "Comparison of Hidden Curriculum Theories". European
- 22. Kenya Human Rights Commission [KHRC]. 1998. Killing the Vote: State Sponsored Violence and Flawed Elections in Kenya. Nairobi: KHRC Report.
- 23. Mileti, D. (2009). Disasters by Design: A Reassessment of Natural Hazards in the United States. Joseph Henry Press.
- 24. Mintzberg, H. (1973). The Nature of Managerial Work. Prentice-Hall, New York.
- 25. Ministry of Education Science and Technology; Republic of Kenya: Education Sector Support Programme 2005-2010: Delivering Quality Education and Training For all Kenya: 2005
- 26. Mugenda, O. & Mugenda, A. (2008). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi, Kenya: Acton Press
- 27. Mukhopadhyay, S.(2009). Factors influencing the practice of inclusive education in Botswana primary school (Unpublished doctoral dissertation). University of Botswana.
- 28. Mukopadhyay, K. M. Bear, G. Deemer, S. & Griffin, S. (2009). Teachers' experiences with inclusive classrooms: Implications for special education reform. The *Journal of Special Education*, 30,152-186.
- 29. Mwathe, J. (2011). The current crisis in Sudan and how it has affected the Education of its Children. http://www/ezinearticles.com/?experts.

- 30. Nyukuri, B. (1997). The Impact of Past and Potential Ethnic Conflicts on Kenyan's Stability and Development. A Paper prepared for the USAID Conference on Conflict Resolution in the Great Horn of Africa, June 1997.
- 31. Nyukuri, B. (1992). "Ethnicity and the Politics of National Integration in Kenya". A Paper presented on 22nd October at Kisumu.
- 32. Orodho, A. (2005). *Elements of Education Social and Science Research Method*. Nairobi: Masola Publishers.
- 33. Osamba, J. (2000) The Sociology of Insecurity: Cattle Rustling and Banditry in Northwestern Kenya. African Journal on Conflict Resolution, 1, 2.
- 34. Reichel, D. (2014). Building bridges between Science and Special Education. *Electronic Journal of Science Education.*, 4(3).
- 35. Richardson, N. (2003). *Education Research: An introduction*. New York Longman Publishers.
- 36. Roberts, H. and Robert G. (2010). When systems fail. *Organizational Dynamics*. 29:179-191.
- 37. Siegel, J. (2008). *Regular education teachers' attitudes toward their mainstreamed students*. Paper presented at the annual Convention of the Council for Exceptional Children, Baltimore, MD.
- 38. Singal, N. (2009). Mapping the field of inclusive education: A review of Indian literature. *International Journal of Inclusive Education*, *9*, 331-350.
- 39. So'nmez, S. (2008). Education, terrorism and political instability. *Annals of Education research*.25,2,pp416-56
- 40. Stoler, R. (2007). Perceptions of regular teachers towards inclusion of all handicapped
- 41. Tawil, S. and Harley, A. (2004). Education, Conflict and Social Cohesion. UNESCO International Bureau of Education. Geneva.
- 42. UNESCO (2010), Out-Of-School Children: New Data Reveal Persistent Challenges. Uis Fact Sheet, June 2011, No. 12
- 43. UNICEF (1994) Basic Education in Eastern Africa. Report on a seminar, Nairobi
- 44. Wahab, S. (2005). Terrorism; A challenge to Education. In B. Sahlberg, L. Nyberg, C. Almer (eds.) First global research on security and risk on education. Report 1995;2 (pp84-108) Mid-Swedish University. Ostergund; Department of Education Studies.
- 45. Westwood, E. & Graham, K. (2008). The attitudes and behaviors of the teachers towards the students they perceived as unsuccessful. *Journal of Turkish Educational Sciences*, 5(1), 135-154.
- 46. Wills, S. & Jackson B. (2000). Evolutionary Demographic Transition Theory: Comparative Causes of Prehistoric, Historic and Modern Demographic Transitions. Ph.D. Thesis, University of Florida.
- 47. Wishart, E. & Manning, J. A. (2007). Efficiency and equity in schools around the world. *Economics of Education Review*, 22, 481-502.
- 48. World Bank (2004) 'Natural Disasters: Eluding Nature's Wrath' (mimeo). World Bank, Washington, D.C.

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