SECONDARY SCHOOLS' READINESS ON A HUNDRED PERCENT TRANSITION RATE OF PUPILS FROM PRIMARY LEVEL IN SIGOWET SUB-COUNTY, KERICHO COUNTY

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A Research Project Submitted in Partial Fulfilment of the Requirements for the Award of the Degree of Master of Education in Educational Planning

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DECLARATION

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DEDICATION

This work is dedicated to my wife Mrs. Joyce Kirui and our children Tracy,

Shadrack, Ezra and Patience

ACKNOWLEDGEMENTS

I thank almighty God the source of my strength. It was his grace that I was able to undertake and complete this study. Glory be to him. I deeply appreciate the entire University of Nairobi for granting me the chance to study. I am grateful to my supervisors, Dr. Ibrahim Khatete and Dr. Andrew Riechi whose constructive criticism, encouragement and patience has been of great value to the completion of this study. Kindly accept my gratitude. Also appreciation goes to all the respondents who participated in the sampled schools in Sigowet Sub-County, Kericho County who contributed immensely to the study. To my wife and children, thank you for the moral and financial support you offered me. May the Almighty God bless the many friends and colleagues who are not mentioned here by names who contributed in one way or another for the undertaking of this work to its logical conclusion.

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ACRONYMS

ANCES......American National Center for Education Statistics

EFA..... Education for All

FDSE.... Free Day Secondary Education

FPE.... Free Primary Education

KESSP... Kenya Education Sector Support Plan

NACOSTI... National Council of Science, Technology and Innovation

NESP... National Education Sector Plan

SCDE... Sub County Director of Education

TSC..... Teachers Service Commission

SCQASO.....Sub-County Quality Assurance Officer

USE...... Universal Secondary Education

UNESCO...... United Nations Educational Scientific and Cultural
Organization

WCEFA...... World Conference on Education for All

WHO...... World Health Organization

ABSTRACT

This study examined the state of secondary schools' readiness on a hundred percent transition rate of pupils from primary level to secondary level of education in Sigowet sub-county, Kericho County. Four objectives guided the study: - to examine the level of infrastructure provision, to examine schools' staffing levels, to evaluate the safety and security measures in schools and to examine the levels instructional material provision for the realization of a hundred percent transition rates of pupils from primary schools to secondary level. The study was based and guided by systems theory as advanced by Butterlanffy (1968). The study targeted all the secondary schools in Sigowet sub-county. Stratified Random Sampling was used to select the respondents for the study to ensure that all categories of schools were captured. Purposive sampling was used to select the SCDE, the 11 principals and the 11 BOM Chairpersons in the sampled schools. The study employed descriptive research design and used questionnaires, interview guide and observation checklist as instrument to gather data. Collected data were analyzed both quantitatively and qualitatively. Key findings from the study revealed that; the hundred percent transition rate led to increased enrollment rate by 97 students in 2019 compared to 2018. However, facilities were strained in most schools. 36% of schools were overenrolled. It also indicated that schools had well-articulated strategic plans to improve the quality of education as 81% of schools had laboratory constructions underway. Most schools were one streamed but had room for expansion. All schools had adequate textbooks but classrooms, toilets, libraries, laboratories and dormitories required expansion. Schools countered teacher shortfall by employing Teachers' Service (TSC) compliant BOM teachers, Schools also had effective safety and security measures in place, however only 9% of schools had adopted modern technology such Closed Circuit Television (CCTV) security cameras. From the study findings, it is concluded that secondary schools were partially ready for the implementation of a hundred percent transition rate of pupils from primary level in Sigowet sub-county. All schools had at least one infrastructure facility being inadequate. Basing on the study findings, it is recommended that the ministry of education in collaboration with TSC should deploy more teachers to schools to match increased enrolment rates experienced. Since the study only dwelled on readiness of secondary schools for a hundred percent transition rate of pupils from primary level, further studies can be undertaken to determine the impact of a hundred percent transition rate on the quality of education.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education is a public good, a fundamental human right and a foundation for ensuring the realization of other rights. It equips individuals with knowledge, skills, values, attitudes and capacities needed to increase overall productivity and income generation. Research evidence show that future career opportunities and life chances of young people are largely determined by their educational attainment at school (OECD,1998) and therefore as a fundamental human right (UDHR,1948), all sovereign states across the world are continually striving to meet the social cost of educating their citizens.

Economic growth and development of any nation relates to the level of human capital capacities of its populace. It is thus prudent that every development conscious government plan and invest in educating its people. Economically developed nations like Korea, was able to advance its industrial growth by linking manpower planning and education development. Its education expansion was sequential from primary in 1960's then secondary in 1970's and later tertiary expansion in 1980's. By matching education expansion at different levels with industrial advancement, the needed labor was assured that propelled the economy to what it is currently (Lee, 2001).

The social pillar in vision 2030 identified education sector as a vital unit responsible for creating the 21st century human capital required to catapult Kenya to become a newly industrialized middle level income country in the era of knowledge based economy (Government of Kenya,2007).

The Incheon Declaration on Education 2030 Framework for Action emphasized provision of 12 years of free, publicly funded, equitable quality primary and secondary education, and that the heart of education lies at the country level and governments have primary responsibility for successful implementation, follow-up and review of education policies (UNESCO,2015)

Kenya is one of the countries in sub-Saharan Africa committed to(EFA) goals Jomtien (2000). First it introduced FPE in 2003 and then FSDE in 2008 (Government of Kenya, 2012). The two programmes abolished tuition fee and profoundly made basic education affordable as witnessed by tremendous increase in both primary and secondary school enrolment rates, reaching 93 and 83.1 percent respectively in 2017 as indicated by 2018 Kenya economic survey. Secondary education is considered basic education with the aim of enhancing the citizens' access to quality and equitable education so as to achieve the Vision 2030 goals (Government of Kenya, 2012).

To accommodate the rising enrollments in schools, the Kenyan Government in its Education Sector Medium Term Plan II (MPT2) envisioned establishment of additional schools in each constituency and at the same time constructing extra classrooms to make existing secondary schools at least three streamed (Government of Kenya, 2012)

Implementation of a hundred percent transition policy has recorded a tremendous increase in enrollments across all public secondary schools in Kenya (EMIS, 2019). This massive enrollment is a probable reason for overcrowded classrooms, laboratories, libraries and dormitories.

Educational planners always emphasize two elements in education provision; sustainable strategies for expansion of access and quality improvement. While expanding access, quality must be maintained in order to reap the benefits of education (UNESCO, 2015). Research indicate that implementation of free education policies without adequate resource provision often deny education quality. For instance, in Tanzania, the well-intended school fee abolishment impacted negatively on quality of education evidenced by overcrowded classrooms, inadequate textbooks, and stalled hazardous facilities. This was occasioned by inadequate funding of the programme (Chonjo, 1994). Learning from Tanzanian case, the Government of Kenya should ensure adequate facilities are constructed in schools so as to comfortably handle masses of students from primary schools.

Puplic Private Partnership (PPP) financing stragey ensured successful implementation of Universal Secondary Education (USE) programme in Uganda. Parents provide accommodation, lunch, uniforms and medical care, the government employed teachers, paid tuition fees and provide textbooks, whereas the donor constructed schools (Mathe,2016). In this vein, private schools should be supported in order to create more places for students who could have otherwise missed public school places.

Schools' readiness is a quality of being prepared to implement a hundred percent transition policy such that access and quality are concurrently enhanced. It is expected that all pupils graduating from primary level will enroll in secondary level regardless of their academic or economic status (Government of Kenya, 2019) thus additional infrastructural facilities, teachers and instructional materials are necessary so as to maintain education quality.

Instructional materials such as visual and non-visual aid, objects or devices can facilitate the teaching and learning process in classroom (Isola, 2015). Textbooks and laboratory equipment are the core inevitable instructional materials in schools. Textbooks in the hands of students are primary conduit for delivering content knowledge and one of the most consistently positive school factors predicting academic achievement (Fuller and Clark, 1994). It is this backdrop that educators recommend one to one student book ratio.

Unavailability of funds coupled with high cost of instructional materials has in the past constraint schools from accessing the right quantity of these materials. However, the new Kenyan government strategy where books are directly issued to students at school level is a move to ensure a one to one student book ratio at a relatively low cost. The government does so through competitive tendering process, a similar case that ensured Singaporean government attain one to one textbook to student ratio in its early years of education expansion (Boon, 2006).

Adequate laboratory equipment makes the teaching of science subjects practical and enjoyable. Learners are able to retain much more of what they perform in practical lessons than what they theorize. In bid to strengthen the teaching of sciences in schools, the Government of Kenya through the KESSP programme funds small schools in hardship areas to acquire laboratory equipment to enhance teaching of science subjects (Republic of Kenya, 2005)

Infrastructure facilities provide shelter, privacy, security and comfort to both learners and staff within school community. The core ones are classrooms, dormitories, laboratories and lavatories. The quantity and quality of these facilities in relation to school population affect the quality of education (Murillo, 2011) for instance, good performance of students in Finland is attributed to small class sizes, where schools on average have only 195 students, with only 19 in each classroom (Finnish national Board of Education 2016). The Tennessee

STAR experiment conducted in 1980's has also indicated that there are long term positive effects on students who are taught in smaller classes (Nye et al. 1999).

Poor infrastructure can be a barrier to effective schooling and learning. Dilapidated structures predispose learners to bad weather elements detrimental to their health. Where classrooms are inadequate, learners are forced to learn under trees or crowd in existing few structures. A case is Malawi and Tanzania; free primary education successfully opened doors for many children to schooling opportunities, however their governments did not allocate sufficient funds for putting up the needed infrastructure. Classrooms became overcrowded and on average class size exceeded 70 pupils per class (UIS, 2016).

Kenya's Education Sector Support Programme (KESSP) has been mandated to ensure construction schools have adequate places for the rising enrolment rates. In the second medium term plan, it envisioned constructing extra classes in secondary schools to ensure that each school is at least three streamed and constructing 600 new secondary schools. Additionally, the National Government Constituency Development Funds(NG-CDF) finance rehabilitation and establishment of new schools' country wide (NG-CDF Act, 2016).

The World Health Organization recommends a student-toilet ratio of one door for 30 boys or 25 girls. Availability of sanitation facilities have been noted to improves the learning environment, improves pupils' health, boosts school

attendance and promotes gender equality(UNESCO,2016). It was observed in Morocco that well-built schools, equipped with adequate water and sanitation facilities, increases the attractiveness of schools for girls (UNESCO, 2015). Secondary schools should therefor avail adequatequality infrastructure in order to absorb and retain high number of students transiting from primary school.

Staffing level refers to number of teachers deployed to teach in a school. Demand for teachers in schools varies proportionately with the number of pupils enrolled as well as system efficiency (UNESCO,2016). Increase inenrollment rate causes an increase in the number of teachers required in the education system as long as pupil-teacher ratio remains constant.

In Kenya, the teachers service commission role is to establish and maintain sufficient professional teaching services for public educational institutions in the country. However, government frozen direct employment of teachers in 1998 and replaced with a new policy of recruitment based on schools' demand basis.

Secondary schools staffing needs is informed by Curriculum Based Establishment (CBE) and deployment of teachers is based on the curriculum offered by a schools. According to TSC the current a teacher shortage in secondary schools stands at 58,291. at the post primary (Government of Kenya, 2019). The shortage has been occasioned by improved enrolment rates in secondary schools as a product of free primary education (FPE) and affordable Day Secondary School

Education as well as the establishment of new schools (NESP, 2016). Teachers recruitment is constrained by the limited budgetary provision (TSC Strategic Plan, 2019). Low recruitment rate aside, huge teacher turnover due to poor package, further worsen shortage gap. The objective of a hundred percent transition policy has already led to the increased demand for teachers at the secondary school level

Squelch, (2001)noticed that a safe school is one that is free from fear, ridicule, intimidation, harassment, humiliation or violence.

With heightened terror and crime cases worldwide, schools can no longer be regarded as safe havens as was in the past. Fire arson, substance and weapons trafficking have been frequently reported in schools (Lopez 2011, Simpson 2001 & Opondo 2008). These happenings are associated with loss of lives and school property.

In response to these incidences, states and institutions have expedited various measures to ensure safety of learners and institutions. In the United States, zero tolerance policies, CCTV installation, wearing uniforms, visitors sign-in, using metal detectors have been adapted (U.S Department of Education, 2002). In South Africa, the safe school surveillance project creates safe and disciplined learning environment (Rika, 2008).

School safety standards guideline has been developed Kenyan schools. Safety in school system exists if some form of preparedness is guaranteed. However,

Omolo,2010 noted with concern that low budgetary allocation may constraints implementation safety and security measures in schools.

1.2 Statement of the Problem

The FDSE programme in Kenya has greatly widened access of learners to secondary education. However, increased enrolment in secondary schools has not equalled the primary school output(Republic of Kenya, 2012). This has made the need for secondary education to be higher.

Expansion of secondary education has not equalled that of primary education posing challenges on capacities at secondary level. Physical facilities have often been inadequate as much attention was drawn to primary level to address challenges created by introduction of FPE programme. Attention is now turning to secondary schools. Increasing enrolment requires increased investment and expansion of physical facilities (Government of Kenya, 2017).

Additional teachers are required to match increased enrolments. In the past, implementation of FPE programme had shifted teachers' recruitment attention to primary level with little concern to secondary schools. (Government of Kenya, 2019). Despite the existence of large number of qualified teachers in the country, shortage is looming in schools because funding and deployment has not been rationalized (NESP, 2015).

The Government's move to issue textbooks directly to students at school level is likely to ensure one to one student book ratio. However, high rate of wear and tear of textbooks particularly in rural areas impede attainment of acceptable ratios hence the need for libraries for proper storage (Education Policy Brief 2017).

The huge intake of form one students has prompted fears of a possible decline in the quality of education, with principals, teachers, unions and parents raising concerns on the government's measures to support the hundred percent transition policy. Adequate facilities, additional teachers and textbooks, and rational safety measures will be necessary for successful implementation of a hundred percent transition policy.

Sigowet Sub-County is a geographically hardship zone of Kericho County. It has 29 schools, majority of which were recently established with the aid of CDF funds. According to sub-county education office records, students' enrolment rate in secondary schools have been on the rise. It is anticipated that successful implementation of a hundred percent transition rate policy necessitates additional facilities and personnel in schools. It is therefore prudent to investigate whether schools are ready for effective implementation of the policy.

1.3 Purpose of the Study

The aim of the proposed survey will be to examine the extent of secondary schools' readiness for a hundred percent transition rate of pupils from primary level in Sigowet sub-county, Kericho County

1.4 Objectives of the Study

The following four objectives guided the study

- To examine the level of provision of infrastructure for realization of a hundred percent changeover of pupils from primary to secondary schools
- ii) To examine schools' staffing levels for realization a hundred percent transition rate of students from primary schools
- iii) To evaluate the safety and security measures put up by schools for realization of a hundred percent shift rate of pupils from primary schools
- iv) To examine the levels of provision of instructional material for realization a hundred percent transition rates of pupils from primary to secondary schools

1.5 Research Questions

a) Does level of school infrastructure increase in relation to a hundred percent transition rate of pupils from primary to secondary level of education?

- b) To what extent have school aligned the staffing level in relation a hundred percent transition rate of pupils from primary to secondary level?
- c) How have schools arranged for safety and security measures in relation to a hundred percent transition rate of pupils from primary to secondary level?
- d) To what extent do level of instructional materials vary in relation to a hundred percent switch of pupils starting primary to secondary level?

1.6 Significance of the Study

Findings from this research can benefit all education sector stakeholders. The lessons learnt may be used to guide future policy formulation. Apart from bringing into light the gaps that may exist, may suggest tenable solutions. The findings may form a planning baseline for school administrators in prioritizing school development activities. It is an evaluation exercise that the ministry of education may measure how far educational goals have been achieved. Conclusions inferred may inform future research by academicians in the same field.

1.7 Limitation of the Study

The study mirrored that of school inspection exercise where schools' authorities could withhold crucial data especially where school's conditions were below the standards. To guarantee optimum data retrieval, the researcher's intentions were explained to the participants early before the actual study. Permission was sought and supportive documents were displayed to authorities that made them open up.

The researcher informed participants that anonymity was going to be upheld and the findings generalized.

1.8 Delimitation of the Study

Though the implementation of a hundred percent transition rate of pupils from primary to secondary school level was a nationwide exercise, the study was confined to Sigowet Sub-County in Kericho County. The study focused particularly on school infrastructure, staffing levels, instruction materials and school safety in relation to a hundred percent transition rate of pupils between primary and secondary school levels.

1.9 Basic Assumptions of the Study

- i) That a hundred percent transition rate of pupils from primary to secondary school levels was supposed to be implemented countrywide
- ii) That the actualization of a hundred percent transition rate policy increased enrollment rate in schools nationwide

1.10 Definition of significant terms

Infrastructure refers to provision classrooms, sanitary facilities, dormitories, laboratories and libraries

Instructional materials; refers to textbooks and laboratory chemicals and equipment

Readiness refers to a quality of being able or willing to implement a hundred percent transition policy

Safety refers to protection from harm or other non-desirable outcomes

Staffing level refers to the number of professional personnel involved in direct student instruction in a school

Transition rate refers to the number of students admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of students enrolled in the final grade of the lower level of education in the previous year

1.11 Organization of the Study

The study has been organized into five parts. The first section covers; the background to the study, statement of the problem, purpose and objectives of the study, research questions, significance of the study, limitations and delimitations of the study, basic assumptions, definitions of significant terms and organization of the study. Part two entails review of related literature paying attention to the concepts of transition and readiness in terms of infrastructure provision, level instructional material provision, staffing level and safety and security, theoretical framework and finally conceptual framework. Chapter three covers research methodology which include research design, target population, sample size and sampling procedures, research instruments for data collection and analysis and ethical consideration. Parts four consist of data analysis, presentation, interpretation and discussion of the findings. Part five covers the summary of the study, conclusion, recommendation and suggestion for further studies. References and appendices appears after chapter five.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This section reviews literature on secondary schools' readiness on a hundred percent pupils' transition from primary level with respect to infrastructural development, staffing level, instructional resources and safety and security.

2.2 Concept of Transition Rate and Readiness

Transition rate to secondary education is the number of new entrants to the first grade of secondary education in a given year, expressed as a percentage of the number of pupils enrolled in the final grade of primary education in the previous year. High transition rate indicate high level of access as well intake capacity of secondary schools. Transition rates from junior to senior sectors of the education system are primarily determined by the availability of places in the more advanced levels (Lewin, 2001).

Readiness is being prepared for something (Oxford living dictionary), thus secondary school readiness is the state of being fully prepared to absorb all primary school graduates. It is a financial consequence of enrolment expansion at primary level for secondary schools (Lewin, 2001) and thus more budgetary allocation is needed in secondary schools for additional facilities and resources. The indicators of readiness are levels of infrastructure provision, instructional resources, staffing and school safety and security measures

2.3 Infrastructure Provision and Transition Rates

Infrastructure are physical facilities designed to facilitate teaching and learning.

The core ones are classrooms, laboratories, libraries, lavatories and dormitories.

Quality infrastructure increase school attendance of students, enhance staff motivation and improve academic achievement of students (Alimi,2012). Schools with well-built and equipped facilities have been proved to attract students and hence reduce dropout rate. For instance, in Morocco, the nicely built schools equipped with adequate water and sanitation facilities in rural areas have attracted and improve enrolment of girls (UNESCO, 2015)

Research findings indicate that widening education access without planned infrastructure provision have negative effect on quality. The FPE programme in Tanzania led to influx of pupils in schools but without matching facilities, classrooms designed to serve 45 pupils served 80 or more pupils, children attended classes under trees and sitting on the ground, some classrooms were small and hazardous, up to 100 pupils shared a toilet hole against the recommended WHO standard of one toilet hole per 25-35 pupils (Chonjo,1994).

Adan (2011), pointed out implementation of FSDE had challenges like classrooms, toilets, and laboratories without which learning cannot take place smoothly. In 2016, Secondary schools in the country could only absorb 80% of Kenya Certificate of Primary Education candidates to Form one due to

infrastructure shortages as indicated by the Education Sector report of September 2016.

The Tennessee STAR experiment on the effects of class size on student academic performance through a five year follow up found that there were long term positive effects on students who had been in smaller classes (Nye, 1999)

Overcrowding is a school that enrolled more students than the facility was created to accommodate (NCES, 2000). American National Center for Education Statistics (ANCES) has defined overcrowding using a formula

$$X = \left[\frac{(tse) - (cpib)}{(cpib)} \right]$$

Where: tse- total student enrolment,

cpib- capacity of permanent instructional building

Value of 5 % and above indicate over-enrolment.

Using this as a standard measure of overcrowding, this study will find out the level of school infrastructural readiness in relation to a hundred percent transition.

2.4 Staffing Levels and Transition Rates

Staffing level refers to teacher supply that meet individual school demand. Reports indicates that there is acute teacher shortage across sub-Saharan countries (UIS-UNESCO, 2016) and in Kenya the shortfall currently stands at 58,291 according to TSC 2019 statistics. The demand for teachers in any country vary

proportionately with the number of pupils as well as system efficiency, and how teachers are deployed to meet education quality and equity goals (UNESCO,2016).

The teachers service commission is a body mandated in Kenya to establish and maintain sufficient and professional teaching services for public educational institutions in the country. However, government frozen direct employment of teachers in 1998 and replaced with a new policy of recruitment based on schools' demand basis.

The staffing needs of secondary schools is informed by curriculum based establishment (CBE) criterion and teachers are deployed based on the subjects offered in various schools. However low number of teachers are recruited annually due to limited budgetary allocation by the National Government (Government of Kenya, 2012). The few teachers recruited are deployed to teach in the most understaffed schools. However, a huge number of teachers is required to deliver quality education in the country.

The teacher shortage is as a result of rapid growth in school enrolment attributed to the implementation of affordable Day Secondary School Education as well as the establishment of new schools (NESP, 2016). To facilitate a hundred percent transition, TSC planned to recruited more post primary school teachers (Republic of Kenya, 2019). The increase in enrolment in secondary schools occasioned by

the objective of a hundred percent transition policy has already increase demand for teachers at the secondary schools.

2.5 Instructional Material and Transition Rates

Instructional materials such as visual and non-visual aid, objects or devices can enhance teaching learning process (Isola, 2010). They promote teachers' efficiency, improve students' performance and makes learning more exciting, practical, realistic and appealing (Olayinka,2016). Textbooks are primary conduit for delivering content knowledge, guiding teachers through the syllabus content and ordering of instruction (UNESCO, 2010).

Adequacy of teaching and learning recourses enable smooth delivery of content as well as promote the motivation of both the teachers and the students. Non-availability or inadequacy of instructional materials are major causes of inefficiencies of school systems and poor performance of students in schools (Abdu-Raheem, 2011, Murillo, 2011). An investigation by Ndabi(1985) on relationship between school characteristics and student academic achievement revealed that students who had the requisite textbooks in all the subjects taught tended to have better performance than students in schools with relatively high incidence of text-book shortages

Financial challenges like the case of Tanzania can hamper acquisition of quality instructional materials, the local government had problems of purchasing

adequate books and teaching materials for schools. High cost of instructional materials constraint schools from accessing the right quantity of these materials. However, the new Kenyan government strategy where books are directly issued to students at school level is a move to ensure a one to one student book ratio at a relatively low cost. The government does so through competitive tendering process.

2.6 School Safety and Security and Transition Rates

With rising cases of terror and varied crimes worldwide, schools can no longer be regarded as safe havens as was in the past. Fire arson, substance and weapons trafficking have been frequently reported in schools (Lopez 2011, Simpson 2001 & Opondo 2008). These happenings are associated with loss of lives and school property. In response to these incidences, states and institutions have expedited various measures to ensure safety of learners and institutions. In the United States, zero tolerance policies, CCTV installation, wearing uniforms, visitors sign-in, using metal detectors have been adapted (U.S Department of Education, 2002). In South Africa, the safe school surveillance project was launched in 2000 to create safe and disciplined learning environment. It embodied working together with the police, creating functioning and well-informed school safety committees, developing a written school safety plan and improving relationships with the communities surrounding the school (Rika, 2008). In Kenya, school safety

standards guideline was developed to direct the implementation of safety measures in schools.

Commendable measures have been put in places as a way of ensuring safety in their schoolsin Sigowet. Safety is guaranteed, if some form of preparedness exists in the school.

2.7Summary of Reviewed Literature

From literature review, Ndabi 1985, Isola 2010 and Olayinka found out that instructional materials in the hands of students have positive impact in their academic performance. However, little has been done to find out whether such materials are readily available for students use in schools. Lopez 2011, Simpson 2001 and Opodo in their research work noted that following rampant fire arson and weapon trafficking in school, quite a number of measures were rushed to curb the vice. Conversely, little is document about the levels of preparedness that existed in schools' prior the incidences. It is important therefore find out how schools have planned to ensure safety and security for masses of students enrolling in schools as a result of hundred percent transition rate from primary level. Report by UNESCO 2016, has pointed that teacher shortage looms in sub-Saharan African countries Kenya included. In the same vein TSC 2019 report indicated that inadequate funding limit employment of required number of teachers but no alternative has been offered on how schools will cope with teacher shortage within the backdrop of hundred percent transition rate. It prudent

therefore to find out how schools have organized to meet the teacher demand levels. Alami 2012 and UNESCO 2015 have identified that quality infrastructure tend to attract and improve student retention rates in schools. However, less have done to find out whether schools have adequate quality infrastructure to enhance effective implementation of hundred percent transition rate policy in Kenya.

It is overarching that expansion of access to education must be accompanied by articulated means of financing the attendant issues. The success of countries like Korea and Singapore for example is attributed high to value placed on education as a source of manpower needed to propel economic growth (Lee, 2005). Quality education is enhanced when physical facilities are sufficient, instructional materials are adequate, qualified teachers are available in right number and safety measures are well grounded. It is in this that one can judge whether school is prepared on not for a hundred percent transition policy.

2.8 Theoretical Framework

This research will be anchored on systems theory which was proposed by a biologist Ludwig VonBertalanffy in 1940's. He posits that a system is characterized by the interactions of its components and the nonlinearity of those interactions (Bertalabffy, 1968).

Bertalanffy defined a system as a set of elements standing in interrelation among themselves and with environment. Real systems are open to, and interact with,

their environments, and that they can acquire qualitatively new properties through emergence, resulting in continual evolution.

A system goal directed, governed by feedback and have the ability to adapt to new policies. This means that the output of primary school level is the input of the secondary school level because a school is a system.

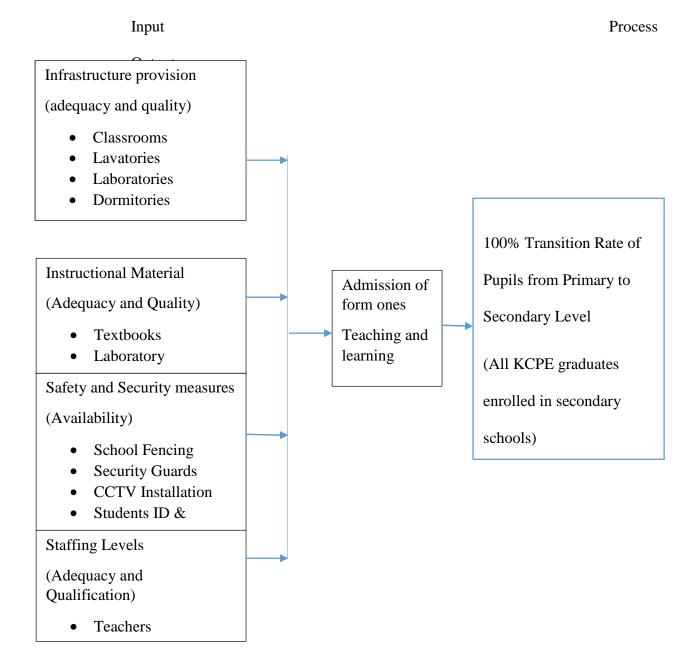
A school system has predictability in that those enrolled in primary are expected to join secondary level after standard eight. Therefore, certain arrangements are required to enable secondary schools absorb all primary school graduates. According to Hanson (1977), these are; human resources, materials resources, financial resources and constraints.

A system is governed by feedback; monitoring and evaluation of programmes implementation provides this information on how the system is fairing. Progression of learners from one level of education to another is a measure of a system's internal efficiency as well as its physical capacity.

2.9 Conceptual Framework

Kombo and Tromp (2006), define conceptual frame work as a presentation showing possible relations that exist between dependent and independent variables in a study.

Figure 2.1 is a conceptual model for secondary schools' readiness on a hundred percent transition rate of pupils from primary level



The secondary schools' readiness for a hundred percent transition of pupils from primary level is dependent on availability and adequacy of infrastructure, instructional materials, and teachers as well as safety and security measures in schools.

Provision of more classrooms, dormitories and toilets create more room for admission of form one students hence all the KCPE graduates will be enrolled in secondary schools. Supply of more textbooks by the government to schools will ensure 1:1 student book ration for quality learning. Employing more teachers, ease teacher workload and increase teacher-student contact hence quality teaching learning

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section focuses on the methodology that was used in the study. Under the headings; research design, target population, sample and sampling procedures, research instruments, instruments validity, instrument reliability, data collection procedures, data analysis techniques and ethical considerations.

3.2 Research Design

This study used descriptive survey research design. According to Orodho (2005) descriptive survey is a method of collecting information by interviewing and administering questionnaire to a sample of individuals. The descriptive survey design was chosen because it enabled the use of feedback from respondents on secondary schools' readiness for a hundred percent transition of pupils from primary level in Sigowet sub-County.

3.3 Target Population

A target population refers all members of a real or hypothetical set of people, events or objects which a researcher wishes to generalize the findings of the study Borg and Gall (1989).

As per records of Sigowet sub-County education office 2019), there were 29 Public Secondary Schools comprising of 8 Boarding and 21 Day mixed Secondary Schools. The study targeted one SCDE, 29 BOM Chairpersons, 29

Principals, 225 Teachers, 1890 Students in the 29 community Secondary Schools in Sigowet.

3.4 Sample Size and Sampling Procedures

A sample is a small proportion of the target population selected for study, meaning choosing from a given number of respondents from a defined population.30% sample size is adequate for a small population of less than 10,000 objects and 10% for large population Mugenda and Mugenda (2003). Where target population is small, more than 30% or all individuals can be included using census method.

In this study the sample size was as in table below.

Table 3.1 Sampling Frame

Category	Total population	Percentage (%)	Sample size
SCDE	1	100	1
Principals	29	37	11
BOM Chairpersons	29	37	11
Teachers	225	30	68
Students	1980	10	198
Total	2264		289

Source: Sigowet Sub-County Education office (2019); Secondary Schools Statistics

SCDE, Principals, BOM Chairpersons were purposively selected while Teachers and students were randomly selected for the study.

3.5 Research Instruments

According to Kombo and Tromp (2006), questionnaire is easy to administer to a large number of respondent who respond in private setting. This study used questionnaires in order to uphold confidentiality and save time. Four sets of questionnaires were developed; for Principals, Teachers, Students and BOM Chairpersons. The questionnaire had five sections. Section A gathered demographic information, section B, C, D and E gathered information based on each of the research objectives respectively.

Mugenda&Mugenda (2003) purport that, Observation Checklist are used to record what is observed during data collection. Observation Checklist was designed to document availability, adequacy and maintenance status of facilities and resources in the field.

3.5.1 Validity of the Instruments

Orodho& Kombo, (2002) defines instrument validity as the degree to which a tool measures that which is intended to measure .Peer assessment of tools and use of professional judgement was used to boost content validity.

Instruments were dissected and endorsed by University supervisors. They ascertained that the tools were in consistent with the study objectives and by addition answers the research questions. Items in the instruments were corrected based on supervisors' advice.

3.5.2 Reliability of the Instruments

Mugenda and Mugenda (2003)says that Reliability refers to the consistency of a particular measuring instrument yielding a similar result over a number of repeated trails. In this study, test retest method was used in two secondary schools in Sigowet sub-county to judge the reliability of the instruments.

According to McMillam & Schmacher (2001) test re-test method involves administering the same instrument twice to the same respondents after a time lapse. The questionnaires were sampled and scores from both tests were correlated to indicate the reliability of the instruments. The Pearson's Product Moment Correlation Co-efficient formula was used to estimate coefficient correlation of the two tests as follows

$$r) = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{N\Sigma}X^2 - (\Sigma X)^2)\sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

(r)= Coefficient correlation

N= Total number of subjects in the study

X= Sum of scores in X distribution

Y= Sum of scores in Y distribution

= Summation symbol

 X^2 = Sum of squared scores in X distribution

 Y^2 = Sum of squared scores in Y distribution

XY= Sum of products of paired X and Y scores

When the value of (r) is equal to +1, the two sets are in perfect agreement and is -1 when in perfect disagreement.

Data on questionnaires returned from the two pilot schools were cleaned and tabulated as indicated in table 3.2

Table 3.2: Reliability coefficient of the instrument

Items		Test (X)	Retest (Y)	\mathbf{X}^2	\mathbf{Y}^2	XY
Infrastructure	Adequate	0	0	0	0	0
	Inadequate	2	2	4	4	4
Instructional	Adequate	2	2	4	4	4
material	Inadequate	0	0	0	0	0
Staffing level	Adequate	0	1	0	1	0
	Inadequate	2	1	4	1	2
Safety measures	Adequate	2	1	4	1	2
	Inadequate	0	1	0	1	0
	N=8	X=8	Y=8	$X^2 = 16$	$Y^2 = 12$	XY=12

$$(r) = \frac{(8x12) - (8x8)}{\sqrt{[(8x16) - (8)^2][(8x12) - (8)^2]}}$$

$$(r) = 0.707$$

The reliability co-efficient (r) of 0.707 was obtained hence the instrument was considered reliable for the study.

3.6 Data Collection Procedures

After getting a NACOSTI consent, the researcher visited Kericho County Commissioner and County Director of Education offices for further authorization. The researcher also wrote introductory letter and sought appointment with participants in the sampled schools and assured them of confidentiality when administering the questionnaires. Questionnaires were collected by contact person on agreed time. While respondents fill the questionnaires, the researcher observed and documented the conditions and status of facilities and resources in the sampled schools.

3.7 Data Analysis Techniques

Data analysis is the process of systematically sorting, arranging, organizing and breaking data into meaningful units. The data collected was cleaned and tabulated to ensure it was presented in a desired manner for ease of processing. Analyzed data was aided by Excel computer application packages and presented in frequency tables, percentages and bar charts.

3.8 Ethical Considerations

Permission was sought from schools' authorities. Researcher explain the purpose of the study to the respondents and requested them to participate voluntarily. Anonymity of respondents was guaranteed.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1: Introduction to the chapter

This chapter presents the Study results on secondary schools' readiness on 100% conversion rate from primary level in Sigowet sub-county. It begins with demographic characteristics of the respondents and schools followed by variables on infrastructure provision and transition rate, provision of instructional materials and transition rate, staffing level and transition rate and finally provision of safety measures and transition rates. The data has been presented using distribution tables, figures and brief explanations given to clarify the results on tables and figures

4.2: Questionnaire Return Rate

185 out of 192 questionnaires were returned as shown in table below.

Questionnaires	Administered	Returned	Percentage(%) returned
SCDE	1	1	100
Principals	11	11	100
BOM Chairperson	11	9	81.2
Teachers	68	65	95.6
Form One Students	101	99	98
Average			96.4

An average of 96.4% return rate was obtained and was considered satisfactory for the purpose of the study.

4.3: Demographic characteristics of respondents

The study sought to highlight the demographic characteristics of the target population who were the BOM Chairpersons, Principals, and Teachers. This data helped in explaining vital attributes of respondents that influence the learning environment of secondary schools. The characteristics include gender, age, educational qualifications and experience in years in the recent position.

4.3.1: Respondents' Composition by Gender

The study asked the respondents to indicate their gender. The response was as in table 4.2

Table 4.2: Respondents composition by gender

Sex	ВОМ		Principals		Teachers	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Male	9	100	9	81.8	33	50.8
Female	0	0	2	18.2	32	49.2
Total	9	100	11	100	65	100

From the findings, majority of the principals were males taking 81.8 percent of the positions. This indicate gender disparities in the leadership role within the sub-county. However, the number of male and female teachers are nearly at bar constituting 50.8 and 49.2 percent respectively indicating parity in the

employment of qualified teachers across the schools by TSC. All the BOM Chairpersons sampled happened to be males an indication that females are either shying away from the responsibility or are discriminated against during selection of BOM Chairpersons by schools. This illustration signals that more females need to be encouraged to take up leadership roles in line with Kenyan constitution 2010.

4.3.2: Respondent Composition by Academic requirement

The survey wanted to ascertain the educational qualification as well as work experience of the respondents. Academic qualification is a great indicator of one's potential towards productivity and problem solving in the teaching profession. The responses were as in table 4.3

Table 4.3: Composition of Respondents by Academic Qualifications

Qualification	Principals		Teachers	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Master and above	5	45.5	6	9.2
Bachelor degree	6	54.5	49	73.4
Diploma	0	0	10	15.4
	11	100	65	100

Findings from Table 4.3 confirms that each and every teachers comply to the minimum qualification required for secondary school teachers in Kenya. 73.4 percent of teachers had bachelors' degree, and some having attained postgraduate

degrees. Nearly a half of principals have attained postgraduate qualification. This indicates that all the respondents possessed relevant knowledge, skills and competence in implementing best practices in education thus positively influencing education programmes in their schools.

4.3.3: Respondents' Working Experience

The number of years a principal has stayed in a school has a bearing on infrastructural prioritization. The longer the period stayed in a station, the more the time to plan and articulate to school strategic plans. Teachers take time to learn new school environment before embarking on serious development.

Table 4.4: Work Experience of Respondents in Years

No. of years in service	As a Principals		As a Teachers	
	Frequency Percentage (%)		Frequency	Percentage
				(%)
Less than 5	2	18.2	11	16.9
6-10	7	63.6	24	36.9
Over 10	2	18.2	30	46.2
	11	100	65	100

From table 4.4 majority of the principals had experience of more than six years while a few had experience of less than 5 years as a principal. Further still more than half of the teachers had teaching experience of over 6 years, and majorityhad taught for over 10 years while the least had less than 5 years of experience. 5

years and above of experience in service signal that the respondent was capable to participate positively and articulate to school strategic plans.

4.3.4: Distribution of Schools by Number of Streams

The study sought to categorize schools based on years of existed since time of establishment as large, medium and small schools.

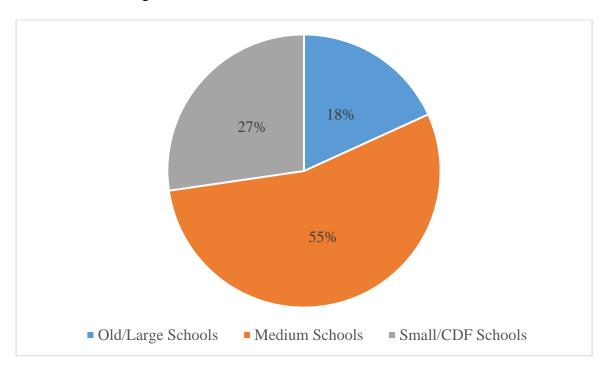


Figure 4.1: Percentage distribution of schools according to years from establishment

Figure 4.1 demonstrates that more than half of the schools in Sigowet sub-county are medium sized sub-county mixed day schools category. 18.2% consist of County and extra county schools in the sub-county.

The presence of New schools in a region indicates government's commitment to its Education sector MTP II in which it envisioned to establish at least one new school in every constituency through NG-CDF

Table 4.6: Distribution of Schools as per umber of Streams

Number of streams	Frequency	Percentage (%)
1	6	54.5
2	3	27.3
3 and above	2	18.2

More than half of schools are single streamed with only 18.2 percent being three streamed. This limit the capacity of schools to absorb large number of students graduating from primary level.

By comparing table 4.5 and table 4.6, it clear that some of the medium schools have failed to expand and have stagnated as one streamed school for a range of 5 to 15 years.

4.4: Infrastructure Provision in Schools

The studysought to compare the number of form one students enrolled in 2019 to that of 2018. The record obtain from Sigowet sub-county education office was as shown in figure 4.2

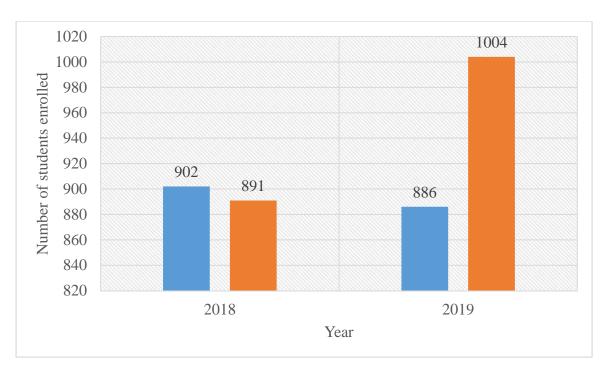


Figure 4.2: Form One Enrolment in year 2018 and 2019

From figure 4.2, the hundred percent transition rate policy impacted positively on the overall number of students enrolled in form one in 2019. There were additional 97 students joining form one in 2019 compared to 2018. However, the number of Boys declined by 16 while that of Girls increased by 113 respectively in 2019 compared to 2018. The 100 percent transition rate policy had positive impact on Girls.

The additional 97 students netted imply additional resource provision.

When asked how schools were ready for implementation of a hundred percent transition rate of pupils from primary level, the SCQASO, gave the following responses

- Some schools set aside more funds to build more classes/ dorms
- Some set aside more funds to employ more BOM teachers

- Some schools especially day schools sensitized community to build more classrooms
- Built temporary structures to accommodate more learners However, SCQASO pointed the imminent challenges in schools as
 - Strained resources/ congestion
 - Environmental issues
 - Some students not placed in their correct schools despite scoring highly
 - Over enrollment meant huge classes which teachers could not manage marking consultation

4.5: Locale of the Schools

The study sought to examine the physical environmental conditions of school locale. Teachers were asked to state if the school structures were sited in a conducive environment or not. Further still, the researcher used observation the responses given by (teachers). The findings showed that many of the schools had been established on grounds with conducive environmental factors. However, a few schools (19%) sat on risky grounds. This was either abandoned quarry site that was reclaimed or swampy ground. of land that was formerly quarry site.

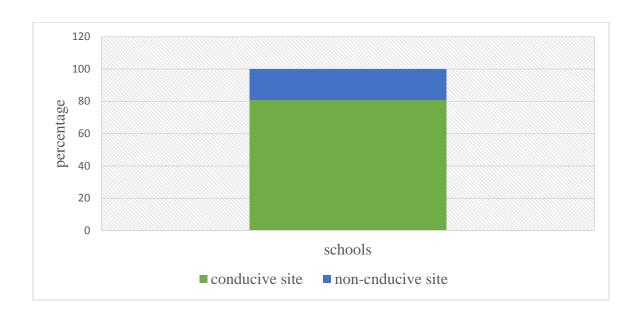


Figure 4.3: Percentage distribution of environmental conditions of school site.

4.6: Adequacy Levels of Infrastructure

Head teachers were told to specify whether or not each of the seven listed basic infrastructure was adequate in their schools. (Classroom, Staffroom, Toilet, Library, Laboratory, Dining hall and Dormitory). The results were as shown in figure 4.4.

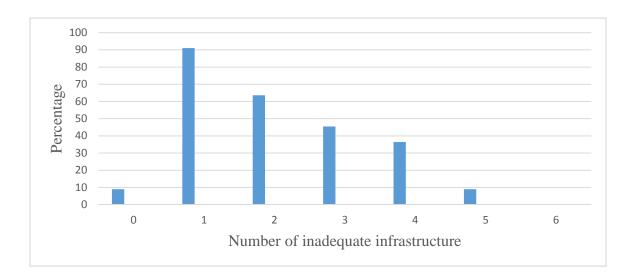


Figure 4.4: Percentage distribution of schools with at least one inadequate infrastructure

The results indicate that facilities were inadequate in nearly all the schools. 91 % of the school had at least one category of inadequate infrastructure. 9 % of the schools were desperate with nearly all the basic infrastructure being inadequate.

Further the study intended to find out whether instructional facilities were under enrolled, at capacity or over enrolled.

Overcrowding occurs when the number of students enrolled in the school is larger than the number of students the school is designed to accommodate.

The study asked for the number of students enrolled in form one and the number of students the permanent form one classrooms were designed to serve excluding space provided by portable and other temporary instructional space. Using the two numbers a proportion was calculated indicating the degree to which enrollment

exceeds the capacity of permanent building s and instructional space using the formula:

$$X = \left[\frac{(tse) - (cpib)}{(cpib)} \right]$$

School that had enrolment within 5 percent of the capacity of permanent instructional building and space was considered neither under enrolled or overcrowded. When the value of the proportion was greater than 5 percent and negative, student enrolment was considered less than the building capacity and the school considered under enrolled. When the value of the proportion was greater than 5 percent and positive, the enrollment exceeded the building's capacity and the school considered overcrowded. Analyzed findings were as in figure 4.5

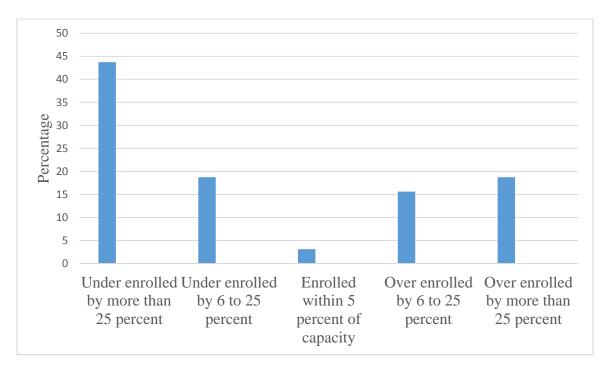


Figure 4.5: Percentage distribution of schools according to enrolment index

Though there was overall increase in enrollment rate within the sub-county, the was insignificant in some schools. Figure 4.5, shows that enrollment rate declined in more than 50% of the schools as classrooms were under enrolled. However, the case was converse in some schools, the classrooms were excessively over crowed. This indicate that some schools are more attractive than others. Girls' schools were more crowded than boys' schools.

4.6.1: Infrastructure Need priority by Schools

Teachers were asked to give infrastructure facility that they would recommend their schools to put up urgently if given a chance. The response was as shown in figure 4.6

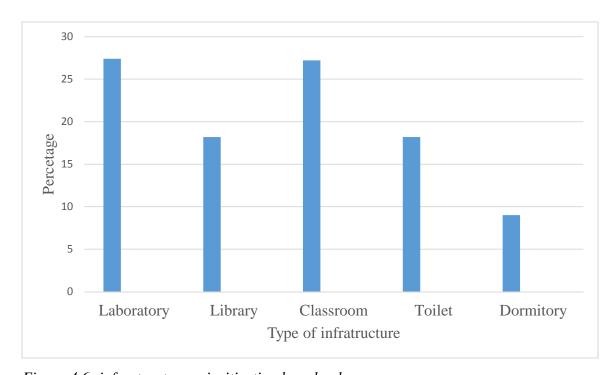


Figure 4.6: infrastructure prioritization by schools

The findings indicate that schools have varied infrastructural needs. However, the need for some facilities were prioritized more than others. The most urgently required facility being laboratory as was prioritized 27.4% of the schools.

Reasons given for each prioritized infrastructure were as follows:

Laboratory: - Need more practical sessions, no laboratory structure in school, to facilitate practical by learners

Classroom: - Staffroom have been converted into classroom with principal sharing an office with teachers, to accommodate the growing population of students

Toilet: - Currently teachers share toilets with students, three toilets sunk due to swampy conditions

Library: - To promote private studies, limited space in existing one

Dormitory: -To accommodate the increasing number of students, congestion in the existing facility

4.7: The staffing levels in schools

The study checked allocation of teachers by sexual category. The finding was as shown in figure 4.7

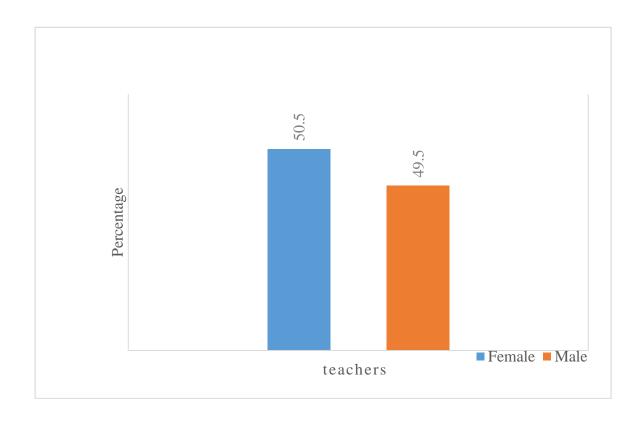


Figure 4.7: Distribution of teachers by gender

Figures 4.7 shows that the ratio of male to female teachers in schools are nearly equal indicating gender parity in deployment of teachers by teachers' service commission. However, women teachers were slightly more than their men counterparts by a margin of one percent.

Curriculum Based Establishment (CBE) is a method used to determine the deployment of teachers to public secondary schools by TSC. Number of teachers required by a school is based on enrollment and curriculum it offers.

The study wanted to unearth the level of teacher adequacy in schools. Head teachers were informed to indicate how many teachers were required as per CBE of their schools. The results were as in Table 4.9

Table 4.9: Teacher shortage in Schools

Teacher shortfall in a school	Frequency	Percentage (%)
2	3	27.3
3	6	54.5
4	2	18.2

From the findings, all schools had teacher shortage but in varying numbers ranging from 2 to 4 teacher shortfall. 54.5 percent of the schools had a shortage of 3 teachers.

Principals were also asked to state the most understaffed subject in their schools.

The results were as in table 4.10

Table 4.10: Most understaffed subjects in schools

Subject	Frequency	Percentage(%)
English	2	18.2
Geography	4	36.4
History	3	27.3
Business studies	1	9.1

From the findings, schools had varied needs for teachers depending on curriculum they offer. However, the most understaffed subject was Geography.

When asked how schools had been able to managed teacher shortages, the response was that they counter the shortage by employing qualified BOM

teachers compliant to TSC requirement. TSC required that all teachers employed to teach in schools were registered and possessed TSC registration number.

Further, students were asked to list one subject they wished had been offered but missed in their school curriculum. Majority (55%)of the students indicated that computer studies was not offered in their schools and wished was introduced. This indicated that majority of the schools offered narrow curriculum. Most technical subjects were not offered in schools' due to unavailability of personnel to handle.

4.8: Safety and Security measures in schools

Another objective of the study was to examine safety and security measures that schools had put in place with increased student enrolment rates.

Head teachers were told to point out any of the listed known safety and security measures applied to their schools. The outcome were as shown in table 4.11

Safety and security measure	Frequency	Percentage(%)
School perimeter fenced	11	100
Trained security guard employed	11	100
CCTVs installed	1	9
Students ID issued	11	100
Firefighting equipment in place	9	81
Central fire assembly point demarcated	4	36
Doors opening outwards	11	100
Windows without grills	11	100

From Table 4.11, It evident that schools have put in place quite a number of safety and security measures. School perimeter fencing, use of security guards, issuance of students' ID, having doors opening outward and windows without grills were universal measures across the schools. 81 % of schools had firefighting equipment in place. However, a half of those schools lacked demarcated fire assembly point. Use of CCTVs and metal detectors were rarely in place. Only 9% of the schools had CCTVs in use but none of the schools had metal detectors at entry points.

Other safety and security measures noted by schools included: -

- All schools conducted students' sensitization on security preparedness through first aid drills
- All schools issue students with permission chit whenever they are out to track their whereabouts
- All schools have empowered student council
- All schools encouraged high moral and discipline level among students
- 70 % of schools had friendly and supportive neighborhood/parents
- Day schools allow students to report in school early but at hours safe for their security
- 91% of schools had functional disciplinary committee

Further on safety and security, students were asked to indicate whether some of the vices had ever occurred in school. The outcomes were as revealed in table 4.12

Table 4.12: prevalence of identified vices in schools

Vice	Frequency of schools	Percentage(%)
Bullying by other students	4	36.4
Students sneaking out of school	7	63.4

Reflected in table 4.12, the most prevalent vices in schools is that of students sneaking out of school.

Though not indicated, sneaking is associated with alcoholism and drug trafficking. A thorough search could reveal such vices happening in schools where sneaking is rampant. It is thus needful to have measure that facilitate close monitoring of students at any time.

4.9: Provision of instructional material

The study intended to investigate the adequacy of instructional materials in schools relative to hundred percent transition. The specific instructional materials were textbooks and laboratory equipment

The head teachers were told to specify the number of core subject textbooks in their library stock against the number of form one students enrolled in the year 2019. The student to textbook ratio was calculated and the result obtained indicated that all schools had attain a student to textbook ratio of 1:1. Further most schools had been oversupplied with core subject textbooks.

On laboratory chemicals and apparatus, Observation was made to ascertain their adequacy level. The results revealed that only 36% of schools had adequate

laboratory facilities. The rest of the schools had inadequate apparatus. Checklist as a guide was made.

When asked how they cope with limited supply of chemicals and apparatus, the responses listed by teachers were as follows

- They resort to classroom demonstration
- Arranging for group experiments
- Improvisation where apparatus is not available.
- Skipping the practical sessions altogether
- Use of ICT

The study sought to verify responses given by the sampled respondents.

Observation was made and noted the following;

Table 4.13: Availability of Laboratories in schools

Availability of laboratory facility	Number of schools	Percentage (%)
Three separate labs	2	18
Twin lab	2	18
Single lab	3	27
No lab	4	37
Total	11	100

New schools lacked library and laboratory infrastructure. However, nearly all of them had laboratory construction underway. Old schools had provisions for both library and laboratory facilities though were not adequate. Only 18 % of schools had separate labs for the 3 science subjects, the others had either a single laboratory or no laboratory at all.

In 70 % of the schools, students' lockers were adequately spaced in 70 % of the schools. This indicate that classrooms were adequate except for a few schools where lockers were squeezed.

Dormitories were highly congested particularly in girls' schools. Two students share a bed.

Majority of the schools met the recommended WHO standard of 1 door for 25 girls or 30 boys. However, 40 % of the schools had inadequate toilet provision and in some of these teachers shared toilets with students.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1: Introduction

The idea of the research was to examine secondary schools' readiness for a hundred percent transition rate from primary level in Sigowet sub-county, Kericho county. This section presents the summaries of the study findings followed by conclusions. It further outlines the recommendations and finally gives suggestions on areas for further studies.

5.2: Summary of the Study

The rationale of the survey was to examine secondary schools' readiness for a 100 percent transition rate of pupils from primary level in Sigowet sub-county, Kericho county. The parameters analyzed included the level of infrastructure provision, the staffing levels, the level of instructional materials and the safety and security measures in schools.

The survey engaged Descriptive research design and used questionnaires and observation checklist as instrument to gather data. The study targeted 29 secondary schools, SCDE, 11 Head teachers, 11 BOM Chairpersons, 68 Teachers and 198 Students constituted the sampled respondents. Data was analyzed both quantitatively and qualitatively. Key findings from the study revealed that; the hundred percent policy impacted positively on the number of students joining secondary school. High number of girls enrolled compared to boys. Some schools(45%) were overenrolled while quite a number particularly the new CDF

schools recorded low number of students in 2019 compared to 2018, their classrooms were under enrolled

The study also found that facilities in most schools were strained. However, schools had varied challenges to address. The most lacking infrastructure was laboratory and was prioritized for construction by many schools. Most schools were one streamed but had room for expansion. Textbooks were adequate but classrooms, toilets, libraries, laboratories and dormitories required expansion. Teacher shortage was revealed in all the schools. Schools countered teacher shortfall by employing TSC compliant BOM teacher. Schools had effective safety and security measures in place, however modern technology such use CCTVs had not been widely adopted.

5.3: Conclusion

From the findings, it is clear that all schools were partially prepared for a hundred percent changeover rate of pupils from primary level in Sigowet sub-county. No school was adequately sufficient in resources. High enrollments recorded strained the available facilities. Over 50% of schools lack laboratory facility and in boarding schools, dormitories were overcapacity. All schools had teacher shortage. Safety and security measures in schools were adequate.

5.4: Recommendations

Priority recommendation emanating from the study is to stress the urgency for education stake holders to:

- Ensure equity in distribution of educational facilities throughout all schools in the country
- ii. Rationalize the number of students joining various categories of schools to match the available facilities
- iii. Schools should not be established in swampy areas.

5.5: Suggestion for Further Research

Since this research was delimited to secondary schools' readiness for a hundred percent transition rate of pupils from primary level in Sigowet sub-county, the study suggests that

- To allow generalization of findings similar studies should be done in other sub-counties for comparison purposes.
- ii. Related studies should be done to evaluate the impact of a hundred percent transition rate policy on quality of education.

REFERENCES

- Bertalanffy, L. V. (1968). *General Systems Theory*. New York: George Braziller, Inc.
- Bliqees, O. & Abdu-Raheem (2016). Effects of Instructional Material on Secondary Schools Students' Academic Achievement in Social Studies in Ekiti State, Nigeria. Sciedu Press World Journal of Education
- Borg, W.R. & Gall, M.D. (1989). *Educational Research: An Introduction*(5thed). London; Longman Inc
- Denscombe, M. (2007). The Good Research Guide for Small-Scale Social Research Projects (3rd edition), Maidenhead: Open University Press
- Huylebroeck, Lisa and Kristof Titeca (2015) 'Universal Secondary Education (USE) in Uganda: blessing or curse? The impact of USE on educational attainment and performance
- Isola, O.M. (2010). Effects of Standardized and Improvised Instructional Materials on Students' Academic Achievements in Secondary School Physics. M.Ed Thesis, University of Ibadan, Ibadan
- Kafka, J. (2011). *The History of "Zero Tolerance" in American Public Schooling*. New York, NY: Palgrave Macmillan
- Kombo, D.K. & Tromp, D.L.A. (2006). *Proposal and Thesis writing: An Introduction*. Nairobi: Paulins Publications Africa
- Lee, J. (2001). Education Policy in Republic of Korea: Building Block or Stumbling Block? Washingto DC: World Bank
- Mathe, S. B. (2016). School Construction in Uganda under UPPET APL1, mimeo, World Bank, Washington, DC
- Mugenda, O. &, Mugenda, P. (2003). Research Methods: Quantitative and Qualitative Approaches, Nairobi: Acts press
- Murillo, F. e. (2011). School Infrastructure and Resources Do Matter: Analysis of the Incidence of School Resources on Performance of Latin America.
- Nation, d. (June 22nd 2018).

- Orodho, J. A. (2006). Policies on Free Primary and Secondary Education in East Africa: Are Kenya and Tanzania on course to attain Education for All (EFA)
- Republic of Kenya. (2008). *The Safety Standards Manual for schools in Kenya. 1stEdition*. Nairobi: Church World Service
- Republic of Kenya (2015). *Basic Education Regulations*. Nairobi. Government Press
- Republic of Kenya (2015). *National Education Sector Plan 2013-2018*. Nairobi. Government Press.
- Republic of Kenya (2017). *Policy brief; Education Policy as an Agenda for Election 2017*; Institute of Economic Affairs, Issue n1-june 2017
- Rika J. (2008). South Africa's Approach to School Safety: Can it Succeed?
- Squelch, J. (2001). Do school governing bodies have a duty to create safe schools? An Education law perspective. Perspectives in Education
- Sungmin, P. (2010). Teacher Policies in Korea, HDNED, World Bank, 2010
- U.S Department of Education, National Center for Educational Statistics (2000). Conditions of America's Public School Facilities: 1999, NCES 2000-032. Washington DC
- UNESCO. (1990). World Declaration on Education for All. Jomtien, Thailand: UNESCO.
- Wildman R.A. (2008). Reviewing Eight Years of the Implementation of the School Funding Norms, 2000 to 2008. Cape Town: IDASA.
- World Bank (2009). Abolishing school fees in Africa: Lessons from Ethiopia, Ghana, Kenya, Malawi, and Mozambique. Washington, DC

Appendix I: Letter of Introduction

Kirui Fredrick
University of Nairobi
Department of educational administration and planning
P.O. Box 30197-00100,
Nairobi
Date:
The principal
Secondary School
Dear sir/ madam
RE: PERMISSION TO CONDUCT A RESEARCH IN YOUR SCHOOL
I am a post graduate student at University of Nairobi.
I am carrying out a research on secondary schools' readiness for a hundred
percent transition of pupils from primary level in Sigowet sub-county. I am kindly
requesting to involve you and your staff in this study. The information gathered
will be used for the study only and the identities of the respondents will be kept
confidential. Your cooperation will be highly appreciated.
Yours faithfully,
Kirui Fredrick

Appendix II: Questionnaire for the Principal

Dear Sir/Madam,

This questionnaire is meant to collect information on the Secondary Schools' Readiness for a Hundred Percent Transition of Pupils from Primary level in Sigowet Sub-County, Kericho County. Kindly respond to all the questions. Do not indicate your name.

Section A: Demographic Information

1.	What is your gender? Male [] Female[]
2.	What is the type of your school? Girls Boarding [] Boys Boarding [] Day
	Mixed []
3.	How long have you served as a principal in this school? Below 5 years []
	5-8 years [], Above 8 years []
4.	What is the level of your academic qualification? Diploma [] Bachelor []
	Master []
5.	When was your school established?

Class	Form 1	Form 2	Form 3	Form 4
Population (total number of students)				

6. What is the current population of student per class in your school?

7.	How	many	form	one	students	did	you	enroll	in	the	year	2018?
		•••••										
8	How	many si	tudents	rene	ated form	one i	n 201	97				

9. Indicate the current number of streams per class in your school

Class		Form 1	Form 2	Form 3	Form 4
Number	of				
streams					

Section B: Infrastructure Facilities

10. Indicate the number of each facility listed and the optimum capacity for which a unit of each was designed to serve

Facility	Classroom	laboratory	Library	toilet	Dormitory
Capacity of a					
unit					
Number of units					

11. Researcher to observe and indicate by ticking the maintenance status of thelistedfacilities

Key: 3=well maintained (smooth floor, painted wall/roof, leak proof, window vanes and doors intact) 2=poorly maintained (minor cracked floor, walls not painted) l=dilapidated (pot holes on floor, leaking roofs, missing doors shatters/ window vanes)

Facilities	3	2	1
Classrooms			
Laboratories			
Libraries			
Lavatories			
Dormitories			

12. Researcher to observe and rate the spacing of the following in school?

Facilities	Adequately spacious	Fairly spacious	Congested
Lockers in class			
Beds in dormitories			

13. What strategies have enabled you accommodate increased student population over the last one year?

Section C: Instructional Materials

14. Do you have separate laboratories for the three science subjects in your school

Yes [] No []

If Yes indicate the number of units for each

Subject	Biology	Chemistry	Physics
Number of laboratory rooms			

If No How is the available facility shared?

15. Researcher to observe availability of laboratory equipment and chemicals in stock

	Adequately stocked	Not adequate
Equipment		
Chemicals		

16. Indicate the number of the form one core-subject text books in the library stock

Subject	Maths	English	Kiswahili	Biology	Chemistry	Physics
Number of books						

Section D: Staffing level

17. How	many teachers	do you ha	ave in your	school?
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TSC Employed Teachers [......], BOM Employed Teachers [......]

- 18. How many newly employed TSC teachers have you had in the last one year? [.....]
- 19. Are all the BOM teachers in your station registered by TSC? [Yes] [No]
- 20. By ticking indicate the lowest qualification grade of teachers teaching in your station? [Form four leavers] [Diploma] [Undergraduate] [Postgraduate]

21.	How	often	do	engage	teacher	development/training/in	servicing
	progra	mmes i	n you	r school?	[rarely]	[once in two years] [yearly	[termly]
22.	Do you	u have a	ıny te	achers ch	allenge a	s per your CBE? [No] [Yes	8],
	If Yes	which s	subje	ct is most	understaf	fed?	
	If No l	now hav	e yo	u manage	d this?		

Section E: School Safety and Security

23. By ticking, indicate whether the following measures have been taken in your school

Safety and security measure	Put a tick if available
School Perimeter fencing	
Employing security guards	
CCTVs installation	
Use of metal detectors at entry points	
Installation of firefighting equipment	
Central fire assembly point	
Doors opening outward	
Windows without grills	

Appendix III: Questionnaire for the Teachers

Dear Sir/Madam,

This questionnaire is meant to collect information on the Secondary Schools' Readiness for a Hundred Percent Transition of Pupils from Primary level in Sigowet Sub-County, Kericho County. Kindly respond to all the questions. Do not indicate your name.

Section A: Demographic Information

- 1. What is your gender? [Male] [Female]
- 2. What is your position in the school? [Teacher] [HOD] [D/principal] [Others-specify]

Section B: infrastructure Facilities

- 3. If need be, can you easily move round the class while teaching? Yes [] No
 [] If No, what is the challenge?
- 4. Are classrooms/dormitories located in a conducive environment which promote learning in your school? [Yes] [No], Explain,

Section C: Instructional Material

6. How often do students perform practical in your school? [Once a week]

[Once a month] [Rarely] [Not at all]

7.	Do tea	ache	rs hav	e chal	lenge	s conductin	g practica	l lessons	s in you	r sch	ool?
	Yes	[] No] (]		If	Yes,	what	is	the
	reason	1				•••••	•••••				
	If No,	hov	v have	they r	nanag	ged?					•••
8.	Do st	uden	its acc	ess ac	lditio	nal learning	materials	in you	r school	libra	ary?
	Yes [] No	o [],]	If No.	, What do y	ou recom	mend yo	our scho	ol to	do?
					• • • • • •						
	If Yes	, ho	w has	your s	chool	managed?	•••••	• • • • • • • • • • • • • • • • • • • •		••	
Section	n D: So	choo	ol Safe	ty and	l Seci	urity					
9.	Is the	re a	funct	ional	stude	ents' discip	linary con	nmittee	in your	scho	ool?
	[Yes]	[No]								
10.	How	h	ave	teach	ers	managed	students	s' safe	ety ir	ı y	your
	schoo	1?									
11.	Are pa	aren	ts part	of stu	dents	' disciplina	ry commit	tee in yo	our scho	ol? Y	es [
] No [], if	Yes, v	what is	s their	r role?					
Section	n E: St	affi	ng Lev	vel							
12.	Are te	ache	ers sati	sfied	with t	heir worklo	ad in your	school?	Yes []	No [] If
	No, w	hy?									
13.	Are th	nere	subjec	ts who	ere tw	vo or more	classes are	e fused v	while tea	achin	g in
	your s	cho	ol? [Y	es] [N	o]. I	f Yes, list th	iem				

Thank you for participating

Appendix IV: Questionnaire for the Students

Dear Student,

This questionnaire is meant to collect information on the Secondary Schools' Readiness for a Hundred Percent Transition Rate of Pupils from Primary level in Sigowet Sub-County, Kericho County. Kindly respond to all the questions. Do not indicate your name.

Section A: Demographic Information

- 1. What is your gender? [Male] [Female]
- 2. What is the type of your school? [Girls Boarding] [Boys Boarding] [Day Mixed]
- 3. Which year of study are you? [Form I] [Form II] [Form IV]

Section B: Infrastructure Facilities

4.	Do stud	lents	have d	lifficult	y acce	essing	their lo	ckers in	your cla	ass? Y	res []
	No [],							In	either	case	give a
	reason.	• • • • • •		• • • • • • • • • • • • • • • • • • • •	· •						
5.	Do stud	lents	queue	while ı	ısing	toilets	in you	r school	? [Yes][]	No], i	if Yes,
	why?										
6.	Do stud	lents	easily	access	their	beds/	persona	al items	in your	dorm	nitory?
	Yes	[]	No	[],	if	No,	what	is	the
	cause?				•••••	•••••					

	Section	C : 1	Instructional	Materials
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7.	How often do you perform Practical?	[Regularly] [Once a while] [Rarely
	[Not at all]	

8.	Do	students	perform	individualize	or	group	experiment	in	your	class
	duri	ing practi	cal lesson	s? Individualiz	ze [] Grou	p[]			
	If g	roup expe	eriment, w	hat is the reason	on?					

Section D: School Safety and Security

9. Indicate by ticking if the following vices have been occurred in your school

Cases	Put a tick if it has once happen
Student taking alcohol	
Drug sneaked to school	
Bullying by other students	
Students sneaking out of school	

Section E: Staffing Level

10. List the subjects not offered in your school that you wished have been included

Appendix II: Questionnaire for the BOM Chairperson

Dear Sir/Madam,

This questionnaire is meant to collect information on the Secondary Schools' Readiness for a Hundred Percent Transition of Pupils from Primary level in Sigowet Sub-County, Kericho County. Kindly respond to all the questions. Do not indicate your name.

- 1. What is your gender? [Male] [Female]
- 2. What is the level of your academic qualification? [Masters] [Bachelors] [Diploma]
- 3. How long have you served as a BOM chair in this school?.....years
- 4. What has been growth trend of form class in terms of streams in you school

	2017	2018	2019
Streams			

- 5. What priority infrastructural development areas do you have in yours school?
- 6. What strategies have you put in place to ensure adequacy of teachers in your school?
- 7. How are education programmes and projects financed in your school?
- 8. What safety and security measures have you adopted in your school?

Appendix V: Interview schedule for Sub-County SCDE

Thank you for taking part in this interview. The purpose of this interview is to collect data on schools' readiness for a hundred percent transition rate of pupils from primary to secondary school levels in Sigowet sub-county. I wish to assure you that the responses you give will be confidential and will be used for academic purposes.

Kindly respond to these questions.

- 1. What is your designation in the sub county?
- 2. How long have you worked with the Ministry of Education?
- 3. How many schools are there in Sigowet sub county?
- 4. How does the transition rate from primary to secondary in your sub county in 2018 compare to that of 2019?
- 5. How ready were secondary schools in the sub county to enroll the high number of form ones' students?
- 6. What are the challenges facing secondary schools in the implementation of the transition policy? How is your office assisting them?

What mechanisms have the school administrators devised to cope with the high enrolments?

Appendix VI: Observation Guide for The Researcher

 Researcher to observe document the maintenance status of the listed facilities

Key: 3=well maintained (smooth floor, painted wall/roof, leak proof, window vanes and doors intact) 2=poorly maintained (minor cracked floor, walls not painted) l=dilapidated (pot holes on floor, leaking roofs, missing doors shatters/ window vanes)

Facilities	3	2	1	
Classrooms				
Laboratories				
Libraries				
Lavatories				
Dormitories				

2. Researcher to observe and rate the spacing of the listed facilities in school?

Facilities	Adequately spacious	Fairly spacious	congested
Lockers in class			
Beds in dormitories			

3.	Researcher to observe availability	of laboratory	equipment	and	chemicals
	in stock				

	Adequately stocked	Not adequate
Equipment		
Chemicals		