

**INSTITUTIONAL DETERMINANTS OF IMPLEMENTATION OF FREE AND
COMPULSORY EDUCATION IN PUBLIC DAY SECONDARY SCHOOLS IN
KITUI COUNTY, KENYA**

Mutia Peter Mbalaka

**A Research Thesis Submitted in Fulfilment of the Requirements for the Degree of
Doctor of Philosophy in Educational Administration of
South Eastern Kenya University**

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DECLARATION

I understand that plagiarism is an offence and I therefore declare that this thesis is my original work and has not been presented to any other institution for any other award.

Signature: _____ Date: ____.

Mutia Peter Mbalaka
E70/MAC/30123/2016

This research thesis has been submitted for examination with our approval as university supervisors.

Signature: _____ Date: ____.

Dr. Selpher K. Cheloti (PhD)

Senior Lecturer,
Department of Educational Administration and Planning,
South Eastern Kenya University

Signature: _____ Date: ____.

Dr. Redempta Maithya (PhD)

Senior Lecturer,
Department of Educational Administration and Planning,
South Eastern Kenya University

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This Doctoral thesis is in memory of my late parents: Mutia Masila and Kangw'ele Mutia and my late daughter- Mercy Kangw'ele Peter. The thesis is similarly and wholeheartedly, dedicated to my family: wife Everlyne Kasyoka, daughter Grace Katunge, son Benedict Mutia and grand daughter Annah Mercy for their unwavering moral, spiritual and emotional support throughout my course and research work. Without their support, this research would not have been possible. I am grateful to all of them and wish them God's blessings forever.

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ABBREVIATIONS AND ACRONYMS

ACHPR	:	African Charter on Human and People’s Rights
ACRWC	:	African Charter on the Rights and Welfare of the Child
AD	:	Anno Domini/ After Death
ASALs	:	Arid and Semi-Arid Lands
AU	:	African Union
BOM	:	Board of Management
BPS	:	Board of Post Graduate Studies
CBE	:	Curriculum Based Establishment
CDE	:	County Director of Education
CEQASO	:	County Education Quality Assurance and Standards Officer
CESA	:	Continental Education Strategy for Africa
CRC	:	Convention on the Rights of the Child
CS	:	Cabinet Secretary
CSEE	:	Certificate of Secondary Education Examination
EFA	:	Education for All
FDSE	:	Free Day Secondary Education
FPE	:	Free Primary Education
FSE	:	Free Secondary Education
FCUBE	:	Free Compulsory Universal Basic Education
GEMR	:	Global Educatio Monitoring Report
GER	:	Gross Enrolment Rate
GOK	:	Government of Kenya
GPE	:	Global Partnership for Education
ICT	:	Information Communication Technology
KCPE	:	Kenya Certificate of Primary Education
KCSE	:	Kenya Certificate of Secondary Education
KNEC	:	Kenya National Examinations Council
LET	:	Liberal Educational Theory
MOE	:	Ministry of Education
NACOSTI	:	National Commission for Science, Technology and Innovation

NEMIS	:	National Education Management Information System
NER	:	Net Enrolment Rate
NGAAF	:	National Government Affirmative Action Fund
NG-CDFs	:	National Government -Constituency Development Funds
OECD	:	Organization of Economic Co operation and Development
PA	:	Parents' Association
QASO	:	Quality Assurance and Standards Officer
RTE	:	Right to Education
SCDE	:	Sub County Director of Education
SCQASO	:	Sub County Quality Assurance and Standards Officer
SDGs	:	Sustainable Development Goals
SPSS	:	Statistical Package for Social Sciences
STR	:	Student Teacher Ratio
TALIS	:	Teaching and Learning International Survey
UPE	:	Universal Primary Education
USE	:	Universal Secondary Education
VIF	:	Variance Inflation Factor

ABSTRACT

Transition to secondary schools in Kenya, retention and completion at Kenya Certificate of Secondary Education (KCSE) have remained below 100 percent. This is contrary to Kenya government's effort and desire of ensuring that every Kenya Certificate of Primary Education (KCPE) candidate has access to secondary education. Following specific objectives guided the study, to establish the relationship between charging of extra levies, school infrastructure adequacy, teaching staff adequacy and learners' entry behaviour and implementation of free and compulsory education in public day secondary schools in Kitui County. Literature was reviewed on basis of the study objectives while the study was founded on Liberal Educational Theory (LET). The study used a descriptive study research design. The target population for the study was 655: 327 public day secondary school principals, 327 Parents Associations (PA) chairpersons of those schools and Kitui County Director of Education (CDE). The researcher collected data from a sample of 182 respondents: 164 principals, 17 (PA) chairpersons and the Kitui CDE. A questionnaire was used for data collection from the principals while interview schedules were used to collect data from the CDE and PA chairpersons. Document review analysis (NEMIS and KNEC records and requests for charging extra levies) were used to collect secondary data from the Kitui CDE's office. Qualitative data from PA chairpersons and CDE interview schedules and document review analysis were analyzed based on emerging themes, while descriptive statistics were used to analyze quantitative data from QP questionnaire. Hypothesis testing was done using the Pearson product moment correlation coefficient (Pr) method and at a significance level of .05. The study findings showed that there was a negative and significant correlation ($r = -.747$; $p \leq .01$) between transition, retention and completion rates and extra levies charged. There was also a significant and negative relationship between school infrastructure adequacy and rates of transition, retention and completion ($r = -.795$; $p \leq .01$). Additionally, the study established that the relationship between teaching staff adequacy and implementation rate was negative and significant ($r = -.722$; $p \leq .01$) and finally the relationship between learners' entry behavior and transition, retention and completion rates was negative and significant ($r = -.678$; $p \leq .01$). Considering the aforesaid results, the study made the conclusion that the indirect relationship between the study variables negatively affected the implementation of free and compulsory education within the public day secondary schools in the study area in particular and the whole of Kenya in general. On this basis, the study recommends, among others that school principals should desist from charging extra levies, government to fund schools on need basis and staff secondary schools with adequate teachers on basis of curriculum based establishment (CBE). On the same note, principals should adhere to the policy of admitting KCPE candidates regardless of marks obtained. This would enhance prospects of 100 % transition, retention and completion rates in public day secondary schools in Kitui County and Kenya in general.

CHAPTER ONE

1.0 Introduction

1.1 Background to The Study

Balestrino, Gazzimi and Luporini (2013) explain that education is a lasting social process by which persons acquire knowledge and abilities that are important to empower them adapt to the culture of their community. Free and mandatory education is a system of tutelage that is funded utilizing public assets and is required of all children of school going age. By enforcing free and obligatory schooling, countries ensure that no child of school attendance age is deprived an opportunity to acquire education, for children from both humble and rich households get opportunity for schooling (Heyman, 2014). Balestrino et al (2013) affirm that secondary schooling is an instrumental level in the instruction cycle, for it links basic to tertiary education. This implies that secondary school training connects educational system to the labour market and improves development, supports regard for social liberties and rights, and empowers individuals to optimally interact in a free culture.

The right to education is enshrined in the Universal Declaration of Human Rights (UDHR) (United Nations, 1948). The free and compulsory aspects especially for the fundamental stages are articulated in Article 26 (1) of UDHR. The Convention on the Rights of the Child (CRC), embraced in 1989 also underscores the right of the child to schooling. Segment 28 (a) and (b) of CRC require each state to enact legislations that reduce social and monetary bottlenecks to basic tutelage (CRC, 1989). Notwithstanding the endorsement of the CRC and confirmation of Education for All (EFA) 1990, Millennium Development Goals (MDGs) 2000 and Sustainable Development Goals (SDGs) 2015, by most nations, some of them have relentlessly charged educational expenses on students. The enforcement of educational expenses presents unreasonable test to getting secondary schooling by students from monetarily deprived families (Heyman, 2014). This therefore implies that states ought to institute legislations and policies that ensure that essential instruction is free, mandatory and executable, leading to high paces of transition, retention and completion.

Massachusetts was the first state in United States of America (USA) to pass general public funded education law in 1642 (Alec, 2007). The law forced obligatory school participation

for youngsters aged 7-16 years. The intention of the law is to push demographic minorities across America to join government funded schools and to procure instruction. The securing of training provides one with knowledge and abilities to contribute optimally to advancement and progress of his/her community. Every USA state and resident government has a commitment of subsidizing instruction to the tune of 90 percent and the central government contributing 10 percent of the public schooling financial plan (Alec, 2007). Execution of the free and mandatory instruction guarantees that each child in the USA acquires free public primary and secondary education and that there is high rate of enrolment, retention and accomplishment.

All learning institutions in Cuba are public and the education sector gets one of the best yearly monetary plan allocations to public education in the world, currently evaluated at 13 percent of Cuba's yearly monetary arrangements (Lopez, 2017). Cuba's public education is fully free, for government funds cost of the public education at the tune of 100 percent. A 2014 World Bank report shows that Cuba has the best tutoring structure and universal literacy in Latin America and the Caribbean regions (Lopez, 2017). The free education is also compulsory for all children aged 6-16 years and who attend primary school for six years and secondary school for 3-4 years. Finishing rate at primary schooling is estimated at 99.3 percent and all graduates changeover to basic secondary tutoring and subsequently to higher secondary or technical institutes. Individuals who qualify join university education or technological polytechnics. This practice empowers Cuba to meet the target of Education for All (EFA).

Compulsory instruction in Finland was implemented in 1921 and covers pre-primary training which takes one year and basic education (grades 1-9) covering primary and lower secondary tutoring (Christa & Toledo, 2020). The pre-primary, basic and higher level instruction, is offered free by government; additionally, pupils get free daily dinner, free health care, free welfare and free school transport services. After lower secondary, there is non-mandatory 3 years upper secondary (grades 10-12) program that makes students ready for university qualification test for a 3 year vocational training for various careers. The free and obligatory training for pre-primary, primary and lower secondary helps Finland to have

one of the best completion rates globally, currently assessed at 99 percent. Changeover from one level to the next is high, and progress from schooling to labour market is similarly high, courtesy of training at vocational colleges and universities. However, to enhance progress from lower secondary to upper secondary, Finland government needs to make upper secondary tutelage mandatory.

The establishment of the Right to Free and Compulsory Education (RTE) Act, in 2009 in India prompted Gross Enrolment Rate (GER) getting to 101.56 percent in the elementally schooling in 2014 (Mukherjee & Singh, 2015). Having instituted the RTE, the Indian government turned its focus towards accomplishing Universal secondary education (USE). To guarantee improved admittance to and quality of the secondary instruction, the public authority of India instituted a centrally sponsored scheme for secondary schooling. This brought about huge expansion in enrolment at secondary schools from 27.6 million in 2001 to 59.6 million by 2014 (Mukherjee & Singh, 2015).

A World Bank (2018) report indicates that primary level education in the Dominican Republic is free and obligatory for children aged 6-11 and which runs for six years. In spite of the secondary level of education being free, it is not obligatory (World Bank, 2018). The secondary school level education is divided into two years of lower secondary meant for children aged 12-13 years and upper secondary assigned for children aged 14-17 years. The lower secondary level is intended for general education while the upper secondary level is intended for either technical/vocational or arts education.

Enforcement of school attendance is minimal despite the mandatory nature of primary education. This leads to low retention and completion rates at the primary level. Resultantly, the non-obligatory nature of secondary education creates a significant impairment to completion of secondary education. The paces of progress to and completion at secondary school were gauged at 93 percent and 62 percent individually in 2018. This implies that primary and secondary schooling are yet to be enforced in the Dominican Republic. This then necessitates that Dominican Republic enforces participation at

elementary school level and makes secondary level tutoring mandatory and enforceable (World Bank, 2018).

In Haiti, government gives little assets to help execute public education and training because of its low monetary status (Adelman & Holland, 2015). In 2011, the Haiti government launched general free and mandatory education for primary schools, but not in secondary schools. The financing to the primary schools is poor and there is intense lack of teachers in the elementary schools. Accordingly, more than 80 percent of learners in Haiti enrol in private primary schools. The non-public schools collect educational expenses to pay teachers and which makes destitute families not to send children to school. The poor financing and acute shortage of teachers in primary schools leads to low net enrolment rate (NER) in the primary schools currently projected at 50 percent. Since there is no free and mandatory secondary education in Haiti, secondary school enrolment is estimated at 20 percent of the suitable age learners. This implies that the Haiti government should pass a strategy on execution of free and obligatory schooling at secondary school level.

A report by European Commission (2018) on education and culture in Kosovo shows that primary and lower secondary education (grades 1-9) is obligatory, however upper secondary (grades 10-13) is not. This is owed to economic hardship occasioned by insistent fighting with Yugoslavia for a surprisingly long time until 2017 when Kosovo acquired confirmation as a sovereign state. Besides, upper secondary is considered as necessary only when a learner is seeking to join an academic university. Moreover, Kosovo has a discriminative culture, for in the event that families are to make a decision, they really incline in the direction of educating boys and not girls. The non-financing of upper secondary tutoring and the discriminative culture against girls make completion rates in upper secondary stay under 100 percent. Hereafter Kosovo government needs to authorize a course of action on financing upper secondary education and educating the girl child.

The 1986 African Charter on Human and People's Rights (ACHPR) asserts acknowledgment of African countries to the principle of human and individuals' rights and liberties. The rights and liberties are contained in legitimate instruments approved by the

African Union (AU) and in the worldwide affirmations, conventions and treaties approved by AU. Article 17 (1) of the ACHPR which shows that; every individual will have the right to education. Article 11 (3) of the African Charter on the Rights and Welfare of the Child (ACRWC), expresses essentials on the right to free and obligatory education for the youth (ACRWC, 1990)

In Ghana the government came up with a policy on free schooling in 1995 by focusing on giving Free Compulsory Universal Basic Education (FCUBE) by 2005 (Melara, 2014). The Ghana FCUBE covers eleven years: 2 years of nursery education, 6 years of primary tutoring and 3 years of junior secondary school. The goal is to abolish educational expenses hence expand enrolment. Due to unpredictable distributions of assets by the government, guardians pay compulsory additional expenses dubbed Parents Teachers Association (PTA) dues to provide for school repairs, social exercises and sports. For some low income families cannot meet the dues they do not send their children to school. This has brought about 40 percent of youngsters aged 6-11 years pushed out of schools (Melara, 2014).

In accordance with ACRWC requirements, Uganda introduced Universal Primary Education (UPE) in January 1997. This instigated duplicating of enrolment in primary schools in a period of 2. The call for secondary tutelage by youngsters who were appropriately finishing primary schooling under UPE in Uganda initiated introduction of Universal Secondary Education (USE) in 2007. Titeca and Lisa (2015), did a research on the effect of USE on enrolment in Uganda. The research found out that USE remarkably and positively influenced enrolment. The positive result was prompted by the strategy on automatic promotion to the next class independent of performance in progressive tests in preceding classes.

Tanzanian government ratified Free Primary Education (FPE) in 2002. This prompted extension of primary school enrolment from 59 percent in 2000 to 94 percent in 2011 (Kizito, 2016). In January 2016, Tanzanian government started implementing the policy of Free Secondary Education (FSE) for all adolescents exiting primary schools. This set the nation according to Sustainable Development Goal (SDG) 4. The goal anticipates that

states should guarantee that every national completes free, reasonable and quality fundamental and secondary tutoring. The FSE disregards extra costs, for instance, for uniform and writing materials purchase. With the removal of costs at the secondary school level transition, retention and completion rates are anticipated to augment in the Tanzanian secondary schools.

Education is officially compulsory in the State of Eritrea for children aged 7-16 years. For physical structures and facilities are not adequate, it becomes testing to oblige every eligible learner to enroll in school (Mengesha & Tessema, 2019). The schooling is just free at basic level, owing to low financial status. The poor financial status is occasioned by 30 years of battling for freedom, acquired in 1993 from its motherland, Ethiopia. Horrible agro ecological environment and henceforth food insecurity likewise add to the low financial status. Due to non-financing of the training at secondary level by government and inadequacy of infrastructure, just 57 percent and 21 percent of eligible youth take part in primary and secondary schooling respectively (Mengesha & Tessema, 2019). The above enrolment percentages are demonstrative of tremendous wastage along instructive framework from primary to secondary regardless of the fact that the government of Eritrea has persistent effort to establish schools and staff the schools with qualified educators. In view of instructors' shortage, student- educator proportions are high, assessed at 45:1 at the elementary level and 54:1 at secondary level. The elementary level classrooms accomodate 63 learners while secondary level classrooms accommodate 97 learners. The inadequacy of infrastructure, notably classrooms, with available ones being crowded and teachers' shortage leads to high exit rates, hence poor transition to and retention and completion rates at the secondary school level.

A UNESCO report, (2017) shows that primary education in South Sudan is free and mandatory, however secondary education is not, for the schooling at this level is not a need in accordance with government spending. This is because of troublesome monetary conditions in South Sudan. Due to many years of battle with previous parent country, Sudan and adjoining nations, South Sudan is compelled to undertake exceptionally costly security resulting in disregard of education (UNESCO, 2017). This has prompted deficient

assets and structures in secondary schools, subsequently resulting in low changeover, retention and consummation rates. This implies that free and mandatory training strategy in secondary school level in South Sudan is yet to be legislated and enforced.

Free primary public education was declared in Somaliland in 2011, but the government of Somaliland does not fund the schools effectively. This is owed to low financial status, as indicated by United Nations International Children's Emergency Fund (UNICEF) report (UNICEF, 2017). The poor financing of schools prompts lacking of essential infrastructure, guidance and learning materials and shoddy management and administration of schools. Students are likewise forced to incur additional expenses in obtaining writing materials. This prompts high dropout rates, causing Somaliland to have one of the most minimal worldwide primary school gross enrolment rates (GER) presently assessed at 44.3%. Secondary education in Somaliland, which spans 4 years, is neither free nor mandatory, owing to low monetary standing. Therefore, the changeover and fulfillment rates are exceptionally low in secondary schools in Somaliland. This again causes Somaliland to have one of the most unfortunate secondary school GER universally and which remained at 21.3 percent in 2015. To help increment enrolment, retention and consummation rates, it is vital that Somaliland comes up with a comprehensive approach on free and mandatory schooling execution in both primary and secondary levels of instruction.

Kenya is not just a signatory to the aforestated worldwide and regional declarations and charters, but besides party to EFA (1990), and MDGs (2000), Universal Primary Education (UPE) 2000 and SDGs (2015) commitments. This committed Kenya to once again, introduce Free Primary Education (FPE) in 2003 after unsuccessful attempts to offer free education in primary school level (Republic of Kenya, 2003). Five years down the line and because of fruitful execution of the FPE, Kenya introduced Free Secondary Education (FSE) in 2008 (Republic of Kenya, 2008). To guarantee equal opportunities for all learners leaving primary schools, the Government of Kenya (GoK) introduced the part of compulsion in 2010 and consequently free and compulsory fundamental instruction in Kenya (Constitution of Kenya, 2010). Part 4-the bill of rights, article 53 (b) of the

constitution necessitates that each Kenyan youngster be accorded freedom to obtain free and mandatory basic education.

In 2017, government of Kenya dedicated to pay Ksh 22,244 per year per each public day secondary school learner, with parents left only with duty of meeting cost for lunch meals and uniform. This made the day public secondary education totally free and compulsory. This work is geared toward accomplishing SDG 4 part of making secondary education universal. School partners comprising of head teachers, parents, leaders, local and county administrators are obliged to uphold school participation with the end goal of boosting execution of the free and compulsory secondary education strategy (Basic Education Act, 2013). Segment 28 (1) of part IV of the Act has arrangement for carrying out the right of each youngster to free and compulsory essential education. Segments 30 and 40 of part IV of the Act make parents and head teachers accountable for guaranteeing children go to school.

The independent variables identified with implementation of free and obligatory education strategy (the reliant variable) and distinguished for this examination involves charging of extra levies, school infrastructure adequacy, teaching staff adequacy and learners' entry behavior. Tomasevski (2003) clarifies that additional levies allude to other monetary payments expected of students by instruction establishments, other than those approved by government. Such payments incorporate cash for remunerating Board of Management (BOM) instructors, conducting remedial instruction, inspirational treatment of instructors, holding training days and setting up of school structures. Koya (2015) on an investigation of effect of instructive levies on schooling in Fiji, found out that burden of additional levies on students prompted the students being denied confirmation on basis that they failed to pay.

Essentially, Melara, Ayele and Blaustein (2014) examined the impact of free, compulsory, universal and basic education (FCUBE) on students' enrolment in Ghana. The examination found out that administration of Ghana sporadically dispensed assets to schools. That prompted charging of additional expenses by schools to provide funds for fundamental and

critical school tasks. This prompted 40 percent of students, who were from helpless families exiting school. Interest for additional duties by school executives prompted young girls exiting school in ghetto areas of Nairobi and Turkana Counties, Kenya (Wanzala, 2016). This prompted bringing down enrolment and completion rates, besides denying the girls chance to seek schooling. This then requires government of Kenya to initiate affirmative actions to ensure that girls remain in school.

Education infrastructure is an assortment of all facilities comprehensive of structures and furniture needed for viable execution of set educational programs (Cuesta, Glewwe & Krause, 2015). Cuesta et al (2015), on an investigation of school infrastructure and instructive results in Latin America found out that learning rooms with rooftops, dividers and floors in conducive condition further enhanced learners' learning and enrolment. This implies that inadequacy and poor state of school infrastructure negatively affect enrolment. This study was done in Latin America which is geographically and economically different from conditions in Kenya and kitui county, hence the need for the current study.

Another study by Melara, Ayele and Blaustein (2014) on instructive structures challenges in Ayawaso, Ghana, established that sufficiency and quality structures largely yielded improvement in students' enrolment, completion rates and good academic results. This implies that good infrastructure attracts learners as it gives them assurance of safety in schools. This study assessed the adequacy of school infrastructure and its relationship with transition, retention and completion rates in public day secondary schools in Kitui County, Kenya. Dilapidated structures and deficiency of lavatories brought about 90 and 60 percent of learners qualified for secondary and primary education individually being out of school in North Eastern Kenya (Denis, 2018). This suggests that deficiency and unsuitable condition of school structures adversely influence enrolment.

Teaching staff are a key component in implementation of set curriculum (Crocket & Villannueva, 2018). The teaching staff has the most direct involvement with students in classroom and outside classroom. Oakes (2002) on a study of Education Inadequacy, Inequality and Failed State in California found out that many of Californian schools were

inadequately staffed with teachers. Additionally, the study established that some of the teachers were of low qualifications. This led to teacher centered and poor teaching methods, which demotivated learners, forcing some to drop out. Titeca and Lisa (2015) researched on the impact of USE on educational attainment and performance in Uganda. The research found out that USE had led to a teacher-student ratio of 1:85 hence worsening of academic performance and decline in Net Enrolment Rate (NER).

A study on teachers' level of adequacy and their effectiveness on curriculum implementation in Kakamega South sub-county primary schools was done by Lidoro and Orodho (2014). The study found out that teaching load was 45 lessons per teacher per week instead of 27 as recommended by Teachers Service Commission (TSC). This led to low quality teaching and learning which occasioned dropping out of demotivated learners. This implies that teaching load per teacher significantly affects their delivery of curriculum content and teachers' morale. This study assessed the adequacy of teachers in Kitui County, Kenya to establish its influence on learners' retention in public day secondary schools.

Entry behavior, which is prior performance in academics, is a key determinant in entry to and performance in academics in higher institutions of learning (Amasuomo, 2014). A UNESCO report found out that most students repeated form one and others dropped out of school due to shoddy performance in formative examinations occasioned by low entry behavior of the learners (Paul, 1997). The dropping out of school reduced retention and completion rates. A study on academic performance of students with different entry behavior in Nigeria by Ogbonnaya, Okpuruka, Iheanacho and Ndu (2014) found out that there existed a significant relationship between entry qualifications and students' performance in basic schools of nursing. Shavisa, Ndiku and Musasia (2016) did a study on role of students' characteristics in dropout cases among secondary school students in Vihiga County, Kenya. The study adopted a descriptive survey research design and a sample of 200 respondents identified by use of snowball method. The study found out that students with poor entry behavior persistently performed poorly in formative examinations and eventually dropped out of school, leading to reduction in retention and completion rates. This study is different in terms of locale and sampling method. While Musasia (2016)

employed snowball sampling, this study used purposive and simple random sampling to identify respondents.

Kenyan Government established the free and obligatory education strategy with a view to achieving 100 percent changeover and finish rates in secondary schools (Constitution of Kenya, 2010). Nonetheless, the 100 percent changeover and culmination rates in public day secondary schools in Kenya has not be accomplished. This is on account that some schools continue to levy additional charges, have inadequacy of infrastructure, have inadequate teaching staff and have continued to peg form 1 admission on Kenya Certificate of Primary Education (KCPE) performance of learners. Nationally, 942021 learners sat KCPE in 2016 and out of which 748021 transited to form one in 2017. This represented a transition rate of 79.4 percent (MOE, 2021) and thus the need for the current study in Kitui County.

In 2017, KCPE candidates were 993718 nationally, but 124818 of them did not transit to form one in 2018, indicating a transition rate of 87.4 percent (MOE, 2021). A cohort of 1,060,710 KCPE candidates sat their examinations in 2018, but only 861400 of the candidates transited to form one in 2019 translating to a transition rate of 81.2 percent (MOE, 2021). The class that completed primary schooling in 2019 had 1,088,989 candidates, but 107,489 of them did not join form one in the year 2020. This indicated a transition rate of 90.1 percent. By 12th September 2021, 26564 of the 2020 KCPE candidates had not enrolled in form one out of the 1171265 learners invited to enroll in form one by MOE. This indicated a 97.7 percent transition rate. The 26564 figure, was arrived at after the education cabinet secretary concluded an exercise meant to net learners who had not reported to secondary schools for form one admission.

The below 100 percent transition and finishing rates has been attributed to lack of school fees, teenage pregnancies, early marriages and shortage of requisite school infrastructure (MOE,2021). Dropping out of school, hence failing to complete is tantamount to wastage of opportunities as well both family and government resources.

1.2 Statement of the Problem

Legislation of the free and compulsory basic education policy in Kenya was enacted to ensure rise of access to both primary and secondary education. The Government of Kenya is obliged to give more assets with a view to guaranteeing 12 years of fundamental instruction to every Kenyan child (Constitution of Kenya, 2010). Kitui County transition and completion rates have been below 100 percent for the last five years. This is from 2016 to 2020 according to data at Kitui County education office, (2020). Notably, 15 percent of the total Kitui County 2018 Kenya Certificate of Primary Education (KCPE) candidature had not joined form one by February 10th 2019. This indicated a transition rate of 85 percent according to Ministry of Education (MOE) report (MOE, 2019). Similarly, only slightly over 80 percent of the Kitui County 2019 KCPE candidature had enrolled in form 1 by February 11th 2020 as per National Education Management Information System (NEMIS) data (Ndiewo, 2020). Kitui County was not among 17 counties that had attained 100 percent transition rate by the 12th September 2021 date of conclusion of the mop up exercise.

Of the 22,607 learners enrolled in form 1 by end of February in 2014 in Kitui County, only 18,071 of the cohort sat Kenya Certificate of Secondary Education (KCSE) in 2017 resulting in a completion rate of 79.9 percent (Kitui County Education Office, 2020). Mwangi (2018) did a study on influence of educational subsidies on completion rates in public day secondary schools in Kitui County. The study found out that secondary school completion rate was low at 72.8 percent in 2018. Comparably, Kitui County admitted 23066 form ones in 2016 out of which 19,716 sat KCSE in 2019 (Kitui County Education Office, 2020). This translated to a completion rate of 85.5 percent. Similarly the Kitui County completion rate was 89.1 percent in 2020 (MOE, 2021). Other counties that have had challenges in transition, retention and completion rates since 2015 include Baringo, Garissa, Isiolo, Kilifi, Kwale, Mandera, Marsabit, Narok, Samburu, Tana River, Turkana, Wajir, West Pokot, Bungoma and informal settlements of Nairobi as indicated by a study by Nyamai (2021).

County government of Kitui runs a program in favor of poor learners and which awards bursaries to secondary school students from economically challenged families, while the National Government Affirmative Action Fund (NGAAF) gives water tanks to schools and hygienic towels to female learners. Moreover, the Kitui County National Government – Constituency Development Funds (NG-CDFs) have committed themselves to finance advancement of study rooms and other real structures in schools as well as awarding bursaries to students from financially deprived families (Kitui County Government, 2013). This determination is geared towards ensuring steady participation of students and further foster changeover, upkeep and completion rates.

Regardless of the concerted effort by both the national and Kitui County governments, retention and completion rates in secondary schools in Kitui County remain under 100 percent. Coupled with the fact that a lot has been studied on FSE, but not on relationship between institutional determinants and execution of the free and compulsory education in public day secondary schools in Kitui County, necessitated the current study: institutional determinants of implementation of free and compulsory education in public day secondary schools in Kitui County, Kenya.

1.3 Objectives of the study

1.3.1 General objective

The general objective of the study was to establish the relationship between institutional determinants and implementation of free and compulsory education in public day secondary schools in Kitui County, Kenya.

1.3.2 Specific objectives

The following specific objectives guided the study:

- i. To determine the relationship between charging of extra levies and implementation of free and compulsory education in public day secondary schools in Kitui County.
- ii. To Establish relationship between school infrastructure adequacy and implementation of free and compulsory education in public day secondary schools in Kitui County.

- iii. To establish the relationship between teaching staff adequacy and implementation of free and compulsory education in public day secondary schools in Kitui County.
- iv. To determine the relationship between learners' entry behavior and implementation of free and compulsory education in public day secondary schools in Kitui County.

1.4 Research hypotheses

The study sought to test the following hypotheses

H₀₁: There is no statistically significant relationship between charging of extra levies and implementation of free and compulsory education in public day secondary schools in Kitui County.

H₀₂: There is no statistically significant relationship between school infrastructure adequacy and implementation of free and compulsory education in public day secondary schools in Kitui County.

H₀₃: There is no statistically significant relationship between teaching staff adequacy and implementation of free and compulsory education in public day secondary schools in Kitui County.

H₀₄: There is no statistically significant relationship between learners' entry behavior and implementation of free and compulsory education in public day secondary schools in Kitui County.

1.5 Significance of the Study

The study findings could provide significant information to UNESCO Global Education Monitoring Report (GEMR) and Global Partnership for Education (GPE). Such information could be gap between Kenya's commitment to provide free and compulsory basic education and implementation of free and compulsory education as indicated by percentage of school going age children out of school. This can help the UNESCO GEMR in policy decision making, while the GPE could get well informed and hence allocate resources and initiate support programs to help Kenya in achieving SDG 4 of universalizing secondary education.

The findings of the study could also help Africa Union (AU) Continental Education Strategy for Africa (CESA) 16–25, AU agenda 2063 and AU Education Division. The findings could enable the AU CESA to make informed decision in achieving its objective number 2 of expanding access to quality education in Africa and hence fund installation of sufficient infrastructure in Kenya to accelerate transition, retention and finishing rates in secondary schools. The AU Education Division could be enabled to do proper reporting on status of public day secondary education in Kenya while the AU Agenda 2063 would advise and help Kenya make proper investment in education with a view to developing human and social capital.

Based on the study findings, the MOE would understand the current state of implementation of free and compulsory education and hence formulate policies to address the below 100 -percentage implementation rate like:

- i. Reviewing the 100% transition policy with a view to diversifying it to have KCPE graduates unable/not willing to join secondary schools enroll in vocational institutions.
- ii. Make all secondary schools public and day with a view to increasing accessibility, affordability and accommodative to more learners.

Quality Assurance and Standards Officers (QASOs) may use the findings to formulate intervention measures that could boost implementation rates like equally emphasizing on curricular and co-curricular programs to help retain learners interested in talents development. School boards and organizations could utilize the review discoveries to form feasible arrangements of paying lunch demand without encroaching on helpless students' liberties to education like paying fees in kind and in piecemeal. Discoveries of the review can extend existing body of knowledge and thus could bear some significance to research scientists and academicians who want to investigate and complete further exploration in the study realm.

1.6 Limitations of the Study

Limitations are conditions that are beyond the control of the researcher and could become impediments in making viable conclusions of a study and their application to similar other situations (Best & Kahn,2000). Head teachers and Parents' Associations (PA) chairpersons could withhold information on charging of extra levies and inadequacy of learning materials. To overcome the challenge, the researcher assured the respondents that their identity and that of their schools would remain confidential and that the information sought would only be used for purposes of the research study. To further counter that challenge the researcher triangulated the tools of data collection and hence compared responses from three categories of respondents; principals, PA chairpersons and Kitui County Director of Education (CDE), besides carrying out document review analysis at the Kitui CDE office. Geographical vastness of Kitui County hence tedious to reach all sampled schools, was overcome by use of research assistants.

1.7 Delimitations of the Study

Delimitations are boundaries set by a researcher with a view to making the study not too wide to complete within the set timeframe (Ranjit, 2011). The study was delimited to public day secondary schools in Kitui County. This is because these are the institutions where the government is meeting all levies concerning tuition and operations costs despite the that fact transition, retention and completion rates are not yet 100 percent. Besides, the review was delimited to reactions from school administrators, PA chairs and Kitui CDE for these are staff straightforwardly associated with execution of the strategy of free and obligatory education. Similarly, the exploration was restricted to institutional determinants and not any other variables that could relate with execution of free and mandatory education in public day secondary schools in Kitui County.

1.8 Assumptions of the study

The study was conducted on following assumptions. Principals, Parents' Association (PA) chairpersons and Kitui County Director of Education (CDE) would respond to the questions and statements honestly and objectively. Respondents were aware of the free and compulsory education policy (Constitution of Kenya, 2010), and how various stakeholders

participate in its implementation. Schools and Kitui CDE office keep data on transition and finishing rates at Kenya Certificate of Secondary Education (KCSE).

1.9 Operational definitions of significant Terms

Operational definition is detailed and contextual explanation of technical terms and variables as used in a study.

Adequacy of school infrastructure; refers to sufficient levels of infrastructure; physical structures and facilities that ensure learners' achievement of learning goals and teaching effectiveness in public day secondary schools in Kitui County.

Adequacy of teaching staff; refers to number of teachers that is equal to curriculum based establishment (CBE) in public day secondary schools in Kitui County.

Completion rate; refers to percentage of those learners who sit KCSE in relation to those who transited to secondary schools after KCPE in Kitui County.

Entry behavior; refers to joining grade/KCPE marks in form one admission in public day secondary schools in Kitui County.

Extra levies; refers to money charged on learners although not stipulated in the fee structure in public day secondary schools in Kitui County.

Free and Compulsory Education; refers to education paid for by the Kenyan government uniformly and is required of all school age children and adolescents to attend school.

Implementation; refers to operationalization of the free and compulsory education policy by relevant stakeholders, by ensuring that learners join and attend schools until completion in public day secondary schools in Kitui County.

Public Day Secondary School; refers to government institutions where learners attend curricular and co-curricular programs and return home at the end of each school day.

Transition rate; refers to percentage of KCPE candidates who join form 1 in public secondary schools in Kitui County.

1.10 Organization of the Study

This study is organized into six parts. Section one examined background of the study, problem statement, general and definite objectives of the review, research hypotheses, importance of the review, limitations, delimitations and assumptions of the study. Part two presents revised literature identified with chronicled viewpoints of free and compulsory education and the study variables on worldwide, regional and Kenyan points of view, gave summary, theoretical and conceptual structures. Part 3 narrated the study methodology comprehensive of research design, target populace, sampling techniques and sample size, research instruments, validity and dependability of examination instruments. Included likewise in section three were information gathering process, information analysis techniques and moral concerns. Section four shows results of the review coordinated in sub-sections based on research objectives. Part five presents discussion of study findings based on objectives of the review. Part six gives conclusions, recommendations and suggestions for further study.

CHAPTER TWO

2.0 Literature Review

2.1 Introduction

This chapter presents relevant literature reviewed on historical perspectives of free and compulsory education and relationship between institutional determinants and implementation of free and compulsory education. The researcher organized the chapter into following sections, historical perspectives of free and compulsory education, charging of additional levies and execution of free and compulsory education, school infrastructure adequacy and execution of free and compulsory education, teaching staff adequacy and execution of free and compulsory education and students' entry behavior and execution of free and compulsory education. The researcher did literature review on basis of study objectives on worldwide, regional and Kenyan viewpoints. Theoretical framework where upon the review was based as well as the conceptual framework displaying the interrelationship of the study variables were presented.

2.2 Historical perspective of free and compulsory education

Alec (2007) states that obligatory education is as old as chronicled humankind's set of experiences that began in the customary time. Regardless, requirement of compulsory education was restricted to military, royal and religious organizations. Plato who lived somewhere in the range of 424 and 348 Before Common Era (BCE) is perceived for promoting the possibility of compulsory education in Western scholarly idea. Plato's reasoning was hinged on quality education, which would bring about knowledgeable people ready to make ideal urban communities.

In Sparta, boys aged 6-7 years would be selected to military schools, whose courses were severe and remorseless. Males matured 18-20 years would persevere through an assessment comprising bodily wellness, military sharpness and initiative abilities. The people who fizzled in the test would lose citizenship and political rights. Passing was a means of changing to masculinity and nationality qualifying to become a soldier. After succeeding, one would fill in as an officer until age of 60 years when he could be pensioned off and join his family. In Judea, each parent was obligated to give casual educating to

his/her offsprings (Alec, 2007). Joshua ben Gamla, a Judean sage organized proper education in Judea in the first century AD by setting up schools in each town. He made the conventional education compulsory for children matured 6 - 8 years and who were instructed by educators referred to as Rabbis.

In the middle age Era, Aztec Triple Alliance (1428-1521) – a military and political deal governed focal Mexico. The Alliance was believed to have been the main state to execute an arrangement of obligatory education in Mexico (Alec, 2007). The Protestant Reformation founded obligatory education for youth in parts of Germany in the Early Modern Era and later in rest the of Europe and the USA. In 1524, Martin Luther forced a necessity for foundation of obligatory schooling in all areas. The goal was to empower all parishioners to concentrate on the Bible all alone. The Scotland School Establishment Act of 1616 made it obligatory for each ward to set up a school for all individuals. In the late Modern Era, Massachusetts turned into the principal US state in 1642 to enact an advanced general public education law. The law required each town's authority to build up and work a language structure school.

Attempts to enforce obligatory primary education in India and which was under British rule started in 1838 by a Christian missionary - William Adam with a view to improving vernacular education (Sharma, 2011). The attempts were done in 1838, 1852, 1858 and 1884, but all the four attempts were considered premature (Sharma, 2011). In 1870, England enforced obligatory education Act and this led to a demand for obligatory education in India and other colonies of England. In 1893, Sir SahajiRao Gaikerad-Indian prince of Baroda, introduced free compulsory education on experimental basis in Amreli Tuluk area of Baroda and extended the same to the entire state in 1896.

Compulsory education law in India was enacted on 5th February 1918 and which ushered in a decade (1917-1927) of rapid expansion of elementary education. Free and compulsory education was provided for in the 1950 Indian constitution for all children until age of 14 years, although the country was unable to do implementation for the ensuing six decades

(Sharma, 2011). Mondal (2017) notes that India legislated and enforced the right of Indian children to free and obligatory education on 27th August 2009.

Before colonization of Africa, the African social orders offered conventional preparation to their individuals that was described by arrangement of abilities to survive (Dama, 2013). Learning by individuals was through collaboration with their physical and other -worldly conditions. Information was given and obtained through nuclear families and customary schools. With the coming of colonizers, those constructions got sabotaged by the colonizers by presenting formal school frameworks and schooling. The colonizers started education oriented towards moral values and creation of honest Christian agents, brokers, bosses and translators for colonial overseers (Dama, 2013).

Lack of documentation limits knowledge about what existed in Africa before colonial invasion and hence retrieval of knowledge and skills before colonization is difficult (Dama, 2013). The pre-colonial African education was required of every young person and the trained young people had the role of teaching those younger than them (Dama, 2013). The negative consequences of colonialism resulted in loss of power by Africans, which led to disappearance of social, religious, constitutional, political and traditional education privileges (Nwanosike & Onyije, 2011). In the pre-colonial Africa, a few countries for example Egypt, Morocco and Mali had universities, which is proof that there was formal education in Africa (Nwanosike & Onyije, 2011).

Drafting of Sessional paper No. 10 of 1965 was the principal undertaking by sovereign Kenyan government (Ojiambo, 2009). The paper considered education as extensively an economic rather than social service assistance and a fundamental provider of knowledgeable and gifted local workforce (Republic of Kenya, 1965). The recommendations of UNESCO Addis Ababa get-together of 1961 set 1980 as the year by which all African states were to achieve universal primary education (UPE). This drove Kenya to submit, through Kenya National African Union (KANU) manifestoes to achieve the UPE (Ojiambo, 2009). The Simon Ominde Commission Report of 1964/1965

maintained the objective of offering UPE to every Kenya child by 1971, in light of the 1961 Addis Ababa meeting.

To help boost enrollment in economically poor districts, an official pronouncement annulled educational expenses in those regions in 1971, while a second official announcement gave free education to youngsters in classes I-IV on 12th December 1973 (Ojiambo, 2009). That prompted ascent in primary schools' enrollment from 1.8 million pupils in 1973 to 2.8 million learners in January 1974. The astronomical ascent in enrollment did not tally with accessible learning facilities. Consequently, school executives required payment of infrastructure fee. As a rule, the infrastructure reserve wound up being higher than the disposed off school charges. Because of dissatisfaction, many parents pulled out their offsprings from schools in the scope of 1-2 million, a circumstance that retrogressed the increases made previously. This historical perspective forms a basis of today's status of implementation of free and compulsory education globally, regionally and locally. It builds upon improvements that stake -holders have achieved over time and challenges that dwindle provision of education.

2.3 Charging of extra levies and implementation of free and compulsory education

Tomasevski (2003) states that additional levies are monetary commitments expected of parents by school management other than those approved by government. The levies are required to fund programs that the gathered approved dues do not cater for like yearly assessments organization, co-curricular plans, book shows, dinners and uniform and transport charges. The extra levies bring about inconsistent participation of school by oppressed students who at last exit school, for the charges become exorbitant to the helpless families. The ramification is that additional tolls represent a monetary obstacle to education for helpless families even in nations where education is mandatory and the public authority pays for the education. The consequence is low -level execution of the free and obligatory education (Tomasevski, 2003).

Administration of Fiji offers pays for educational expenses, instructors' pay rates and other help to its fundamental education establishments. Nevertheless, the establishments force

additional charges to accommodate sports, school magazines, course books, corrective instruction expense, development fund, uniform buy, and book lease expense (Koya, 2015). An enquiry by Koya (2015), on educational tolls and their effect on admission in schools in Fiji, established that children who did not pay the additional charges, due to being poor were denied entry to school and sent home to collect the extra dues. This brought about such students becoming truant and at last exiting school, which sunk enrolment, progress and accomplishment rates. This study used questionnaires and interview schedules to collect data, however the researcher conducted the study in a different geographical location from that of Koya (2015) study.

Schooling brings about both formal and additional expenses and thus family economic status is of more concern in determining admittance to schooling (Hunt, 2008). The additional expenses include outfits, transport and opportunity expenses of teaching a child. The school expenses and additional costs make youngsters from helpless households never to go to school or dropout whenever enlisted. Hunt (2008) takes note that an exploration in 2002 completed by Brown and Park in countryside China showed that monetarily crippled families had their offsprings multiple times more plausible than children from financially stable families to exit primary schooling.

Bangladesh nullified educational expenses in public primary schools in 1993. However additional tolls in the education establishments bar some students from partaking in the education acquisition (Grenzke, 2005). The additional expenses incorporate yearly testing demand, movement charges, uniform buying and corrective instruction demand for drawing in educators outside the ordinary instructing plan. The corrective instruction supplements the restricted time children communicate with instructors during true working hours (Grenzke, 2005). A 1990 United Nations Development Program (UNDP) study report demonstrated that primary school participation remained at 68 percent and 60 percent for boys and girls separately in Bangladesh. Grenzke (2005) owed this to additional tolls charged by institutions and which some parents could not meet resulting in inevitable exiting schools by their children.

Horgan (2007) asserts primary schools in Northern Ireland levy additional charges for meeting institutional suppers, attires and trips. He further asserts that the charges present strain to financially paralysed families, with results being truancy of students, recapping classes or exiting school. Horgan (2007) study, explored bearing of deficiency of family income on small children's participation of school. Two hundred and twenty children matured 4-11 years, their parents and their educators were respondents to the exploration. Fifteen rural and metropolitan schools gave out the respondents. The exploration found out that youngsters whose families were financially poor could not pay the school demands. This implied that the youngsters could not take part ideally in institutional programs like excursions and purchase of full school uniform. As a result, such youngsters became persistent absentees in institution participation, and at last exited school.

Capron (2015) states that free learning in United Kingdom (UK) is not feasible for guardians spend on normal £800 per child yearly to meet additional tolls set by schools. Such school demands are comprehensive of expenses for dinners, uniform, trips, travel, guidance and learning materials and exercises. The charging of additional tolls brings about helpless children repeating grades at school because of absenteeism, enduring shame or exiting school, with subsequent decrease in fruition rates Capron (2015). Capron (2015) carried out a research on the effect of charging of additional levies on students' fairing in academics and attending of school in UK. The research established that, of children from most unfortunate families, 20 percent had missed sports classes because of lack of the right uniform, 20 percent had missed school dinners, 30 percent had not paid for educational cost, while 33 percent of them had fallen behind in schoolwork because of absence of personal computer and web offices at home. The youngsters' families' financial inability was blamed for the above findings, consequently unable to meet the additional tolls. A definitive outcome was a few students exiting school. This is evidence that family economic background affects retention of learners in school. This study explored the correlation between charging of extra levies and learners' retention and completion rates in Kitui County.

Ngwenya (2016), takes note that while education in Zimbabwean rustic primary schools is free, it is not in metropolitan primary schools. This is in spite of the specification by the Constitution of the Republic of Zimbabwe (CRZ) in 2013 that, each resident has a privilege to fundamental and state financed education. Ngwenya (2016) investigated on the best method of gathering charges without abusing the liberties of students in Zimbabwean primary schools. The investigation found out that though educational in rural primary schools was free, charging of additional levies existed. The levies were intended for examinations administration, boarding amenities buy, compensating instructing and non-instructing staff, procurement of equipment, its upkeep and improvement. Inability to pay the additional levies prompted sending home the learners to collect fees hence exiting of school by some students. This brought down retention and accomplishment rates. This study investigated implementation of free and compulsory education in public day secondary schools in Kitui County, Kenya.

In South Africa, additional duties in education comprises of financial or in kind payments far beyond the legitimately set school expenses, expected of parents, guardians, or sponsors to pay (Pillay, 2012). The additional levies are caused when it is demanded by schools that students buy writing material and course books, reserve structures and capital hardware establishment and meet students' commuting cost. For schools that do not charge transport cost, it turns into guardians' obligation to arrange for the learner to commute privately. Helpless families incapable of effecting the payment of the additional levies have their youngsters sent home; henceforth dropping out of school (Pillay, 2002) leading to school diminished enlistment and completion rates.

Additional levies payable by parents for their children's education in senior secondary schools in Ghana, are for the most part more than the charges specified by authority (Yameda & Ampiah, 2009). Non-payment of the additional levies might bring about learners' non-enrolment or exiting of school. The additional levies cater for course books, other learning materials, lunch, dinners, transportation, water, fuel, additional classes and structures installation. A study by Yameda and Ampiah (2009) discovered that Ghanaian authority hardly supported senior secondary education henceforth the schools

extraordinarily depended on cost sharing by households. Besides, the investigation established that, the additional expenses charged on the families were 6 to multiple times the public authority formally endorsed fees to be charged on students. The study further revealed that levies charged on rustic school students were equivalent to that charged on metropolitan school students. Countryside school students who could not pay the additional charges at last exited school, thus decreasing completion rates.

Extra tolls comprehensive of assessment charge, after school training and "discretionary" parent-educator affiliation levy present grave obstructions to youngsters' education acquisition in Rwanda (William & Abbot, 2014). The expense free education in Rwanda attracts high enrolment rates in the country, yet reiteration rates stay high. This leads to low completion rates, inferable from the charging of additional tolls on students. Ampiah and Abbot (2014) did a research on the "covered up costs" of schooling with regard to Rwanda's fee free education strategy. The research utilized social context investigation, focus group and interview schedules to gather data. The research sample size was 200 respondents including local leaders, school headteachers, school -children and children attendants. The research established that the costs charged on students by schools contrarily affected students' attendance, performance in scholastics and completion rates. The current study was carried out in Kenya and used a sample size of 182. The respondents were 164 principals, 17 PA chairpersons and the Kitui County Director of Education.

During his address to principals, Kajiado Teachers Service Commission (TSC) County Director begged school Boards of Management (BOMs) to employ BOM instructors. This was premised on possibility that it might take some time before the national government recruits enough instructors in public secondary schools. Nonetheless, the TSC chief discouraged the managers from charging additional levies on learners. The policies of transition and retention disapprove of charging of additional levies on students to remunerate instructors (Masese, 2018).

Mutemi (2015) did a research on appraisal of effect of additional expenses in education on maintenance of students in secondary schools in Matinyani sub county, Kitui County. The

research embraced a blended techniques approach for both qualitative and quantitative data was gathered. Study test respondents comprised of 1 District Quality Assurance and Standards Officer, 7 Headteachers, 7 deputy Headteachers, 28 class instructors and 7 parents' association chairpersons. The research set up that schools charged additional expenses on students, comprehensive of uniform and lunch expenses and which were monetarily oppressive to parents and guardians. Inability to meet the expenses by some parents and guardians prompted irregular attendance of school by their children, with some in the end exiting school.

Ngwacho, Ayodo and Chemwei (2016) carried out a research on impacts of additional levies on changeover and accomplishment paces of students in public boarding secondary schools in Kisii County. The research utilized a descriptive survey research design and a sample of 10 percent of the head instructors and 10 percent of the schools' parents. Questionnaire and interview schedules were utilized to gather data from the headteachers and parents respectively. The research set up that albeit free primary education (FPE) being in operation since 2003, parents spent on normal Ksh 1674 for each student on additional expenses. Most parents could not meet the additional expenses and which prompted exiting school by their youngsters, thusly diminishing culmination rates. This study was carried out in public day secondary schools in Kitui County to determine if there is charging of extra levies and how it relates with implementation of free and compulsory education.

Shavanga (2015) did a study on impact of educational additional levies on students' participation in public day secondary schools in Kwanza Sub County. The study took on descriptive study research design and a sample of 1827 respondents comprising of 50 educators, 811 guardians and 966 students. The study found out that there was charging of duties for remedial instructing, co-curricular exercises and infrastructure establishment. Inability to pay the additional levies prompted sending home of concerned learners to collect the levies. This brought about truant attendance of school by some learners and sometimes dropping out. This exceptionally diminished enrolment and completion rates.

Kiage, Simatwa and Ayondo (2014) did a study on effects of school expenses and additional levies charging on enlistment of girls in boarding public secondary schools in Trans Mara sub county, Kenya. The study took on descriptive research survey and correlational designs. Data were gathered by utilizing questionnaires and interview schedules. The study respondents consisted of 6 headteachers, 1 sub county education official and 153 girl learners. The review established that installment of additional tolls were used for inspiration of instructors, outfits, lunch and improvement happened. This made expense of secondary education for Maasai girls excessively high. This prompted exiting school by some of the girls, for their parents could not afford the additional tolls. The outcome was decrease in enrollment and rate of completion.

Lwanga and Atieno (2019) noticed that schools in Magarini sub-county in County of Kilifi encountered many difficulties going from poor and deficient infrastructure to insufficiency of educators in schools. This blocked viable execution of the free and obligatory education strategy. Thus, BOMs had to force additional levies on guardians to set up structures and utilize BOM educators to overcome any barrier occasioned by failure of government to engage enough instructors. This worked towards improving education in Magarini. The schools charged on normal Ksh 200/= per pupil each month to assist with compensating the BOM educators. Parents, who neglected to pay, had their children therefore sent home. This prompted irregular attendance of school by some learners and resultantly the students would exit school. School students who exited school would take part in modest jobs, mainly fishing in water pools left after salt extraction. It was noted that 60 percent of expert fish catchers in Ngomeni fishing rural community, in Kilifi County were school dropouts. The exiting brought changeover rate from primary to secondary schools down.

Twenty percent of 2019 KCPE candidature had not joined form one by January 27th 2020 (MOE, 2020). This is in spite of the fact that education in Kenya is extensively subsidized and government day secondary schools' education should be totally free. The under 100 percent changeover rate was owing to various additional tolls the schools charged on students to maintain the schools. The levies, required by school boards of management included and not restricted to payment for uniform, lunch, stationery and buying of

curricular materials. Numerous day students came from families that were fiscally poor. Subsequently that forced additional schooling costs that caused a monetary responsibility that a considerable lot of families could not meet. A few families opted to send their children to do modest jobs. This prompted decrease in changeover and completion rates because of inability to enroll in form one and additionally exiting school by students to join child labour.

Mbalaka, Cheloti and Maithya (2021) did a study on additional levies as determinant factor in execution of free and obligatory education in government sponsored day secondary schools in Kitui County. The study set up that the schools charged additional levies to enhance pay for Board of Management instructors and care staff, giving of uniform, acquiring gear for games, remedial instruction and establishment of physical structures. The review additionally established that the charging of the additional levies represented 55.8 percent decrease in implementation of the free and compulsory education in Kitui County.

2.4 School infrastructure adequacy and implementation of free and compulsory education

Cohen and Bhatt (2017) depict school infrastructure as components of education that enhance teaching and learning and make school environment habitable. Such components include learning rooms, libraries, science experiment rooms, dining rooms, sanitation rooms and facilities, furniture, laboratory gear, and Information Communication Technology (ICT) devices. An investigation by Cuesta, Glewwe and Krause (2015) on school infrastructure and instructive results in Latin America, found out that educational infrastructure attributes affected learners' learning and enrolment. For instance, learning rooms with rooftops, partitions and floors in conducive condition enriched learners' learning. Cuesta et al (2015) further noted that enough learning rooms and establishment of new schools made more students access training, thusly further enhancing enrolment. This surmises that, school learning rooms ought to be adequate and inhabitable by having fitting ordinary light, ventilation, temperature and expansive size. Learning environments for use by students ought to be conducive, which arouses students to attend school and

classes without truancy. This study investigated adequacy of school infrastructure and its relationship with implementation of free and compulsory education in Kitui County, Kenya while Cohen and Bhatt (2017) investigated on infrastructure attributes in Latin America.

Structures, study halls, research facilities and equipment are significant educational framework components for viable instructing and learning climate in schools (Teixeira, Amoroso & Gresham, 2017). They argue that superior infrastructure has advantages of executing effective teaching, bettering learners' results and diminishing dropout rates. A UK study showed that a blend of ecological and design parts of school infrastructure prompted a 16 percent drop in primary school pupils' advancement in academics (Teixeira et al, 2017). This was referable to shoddy lighting, shoddy air quality and crowded classes. The study likewise found out that bad quality and deficiency of infrastructure were more in rustic schools and that 72 percent and 40 percent of the countryside and metropolitan schools were lacking in science rooms and latrines correspondingly. Findings of the study additionally showed that insufficiency of infrastructure and inferior learning climate, adversely influenced students' learning and which prompted high grade/class repetition and dropout rates.

Wodon (2016) asserts that satisfactory and appropriate infrastructure certainly affects learners' learning. The study was on condition of school structures and facilities in primary and secondary schools in Paraguay. The study findings established that the schools encountered shortfall of tangible structures occasioned by budget limitations of schools in Paraguay. The insufficiency was more recognizable in countryside and economically unfortunate regions. The study additionally concluded that deficiency of study halls prompted congestion in classes and which adversely influenced understanding by learners. Resultantly there was disgraceful performance in the learners' assessments. The congestion in learning rooms resulted in disappointment of some students, who consequently exited school, which decreased enrollment and consequently completion rates.

Melara, Ayele and Blaustein (2014) note that quality structures and facilities by and large, yields enhancements in students' enrolment, completion rates and learning results, other

than decreasing educator truancy. Melara et al (2014) further content that enrollment and maintenance of girls in schools augments with availability of clean water, protected, isolated and private washrooms for the girls. On a similar note, schools that have inadequate work areas, course books, science lesson rooms and audio-visual gadgets obviously compromise learners' future achievement by subverting educators' efficacy. Melara et al (2014) did a study on educational structures challenges on enlistment in East and North Ayawaso Metros, Ghana. The study found out that 10 out of 23 schools in the study region were overenrolled, and with one school having 359 learners enlisted rather than the formal limit of 160 learners. This significantly endangered learning and instructing because of tight study hall space, thus no singular regard for needier learners. This implies that learners who stay unattended to for very long may ultimately exit school because of demotivation prompting decrease in completion rates.

As per Akhiero (2011), school infrastructure are physical resources that aid in learning and instructing in schools. Such tangible resources incorporate school structures; comprehensive of instructing rooms, laboratories, libraries, theatre rooms, games fields and hardware devices such as; books, typewriters, information communication and technology devices, and games gear. The structures shield students and instructors while the hardware materials are required in cultivating manipulative abilities and enhance knowledge acquisition by students (Akhiero, 2011). Insufficiency of infrastructure in Edo state schools – Nigeria combined with disrepair of the structures, because of disregard prompts congestion in learning rooms and taking classes under trees by some students. This leads to low spiritedness among students and educators, consequently low quality education results (Akhiero, 2011).

Infrastructure is essential component of learners' environment for effective learners' achievement. Therefore, the school's infrastructure adequacy and quality determines learners' cooperation, attitude toward school, time on undertaking and school's climate. This then affects learners' attendance and achievement in academics (Amsterdam, 2010). Additionally, infrastructure related factors like adequacy, spaciousness, ventilation, light amount influence instructing and learning. Amsterdam (2010) comprehends that unfitting

furniture in South African schools causes back distress, low concentration and writing difficulties therefore reducing students' learning opportunities. The misery caused by unfit infrastructure prompts abandoning of school by some students hence diminished retention and completion rates.

In Kenya, Parnwell (2015) completed a study on impact of school infrastructure on scholarly execution in public primary schools in Ruiru area, Meru County. The study utilized descriptive survey research design and a sample of 201 respondents; 7 head educators, 14 instructors and 180 learners. The study established that deficiency of tangible infrastructure, eminently study rooms, which were also of substandard dimensions, unplastered, unfloored, uncemented and shoddily ventilated contrarily influenced scholastic execution by pupils. The aftermath was appalling performance in academics, which ultimately prompted exiting school by some pupils, thus brought down completion rates.

Katiwa (2016) focused on factors affecting students' advancement rates from primary to secondary schools in Kitui Central sub-county, Kitui County. The survey used descriptive research design and a study population portion of 198 respondents; 33 secondary schools headteachers, 24 primary schools head teachers, 140 instructors and 1 Sub County Director of Education (SCDE). The survey found that advancement from primary to secondary schools was remarkably dependent on secondary school spaces. Similarly, there was low advancement rates from primary schools to public day secondary schools within the same locality, brought about by inadequacy of learning rooms in the secondary schools. This study investigated both adequacy of school structures and facilities and their relationship with transition, retention and completion rates.

Mokaya (2013) executed a study on impact of school infrastructure on learners' achievement in academics, in public secondary schools in Kajiado County. The Study used descriptive survey research design and a sample size of 360 respondents including 53 instructors, 165 form 3 students and 142 form 4 students. The study found out that adequate and appropriate infrastructure prompted successful execution of both curricular and co-

curricular programs by students and instructors. This guaranteed learners maintenance and decreased instructors and care staff turnover, thus a continuous execution of school teaching and learning programs (Mokaya, 2013). Maintenance of the learners prompted optimum consummation rates. This study investigated adequacy of infrastructure and its relationship with transition and retention rates of learners in Kitui County public day secondary schools while the current study focused on institutional determinants in relation to transition, retention and completion rates.

While directing Chuka Igambang'ombe voting demographic education day at Chuka Girls' High School, the education Cabinet Secretary (CS) revealed that the Kenyan government would distribute about Ksh 6 Billion out of 2017/2018 budget to assist in further development of the country's schools' infrastructural facilities (Majau, 2018). Such facilities would incorporate study halls, dorms, laboratories and washrooms. The CS noted that sub county secondary schools would be given precedence in the apportionment, because of outstanding overstretched structures in the majority of the of the schools.

A speech to parliamentary education committee by the education cabinet secretary (CS) revealed that there was appreciable advancement towards accomplishing the 100 percent progress rate (Daily Nation, 2020). In any case, the CS advised that intense lack of infrastructure was a major obstruction. The CS was argued that there was need for major development of study halls, residences, research facilities, libraries and latrines in schools countrywide in order to realize the 100 percent changeover strategy to secondary schools. Ampleness of crucial amenities and assets in secondary schools is key in guaranteeing changeover of all KCPE candidates to the secondary schools and their maintenance until finishing. This is based on reality that adequacy of infrastructure and favorable climate make students find delight in their inquiry and learning. Having all qualified youngsters in schools guarantees that they do not participate in insignificant violations, lazing at the towns or being enlisted by dreadful mobs. This would make the students stay in school for the whole time of study and which supports retention and accomplishment rates. The current study was carried out in Kitui County to establish the relationship between adequacy of

school infrastructure and implementation of free and compulsory education in Kitui County.

2.5 Teaching staff adequacy and implementation of free and obligatory education

Teaching staff refers to staff utilized in implementation of set curricular programs in schools. The staff has the most direct involvement with students in curricular programs. Hence, neither school nor student can succeed without enough teaching staff. A study by Crocket and Villannueva (2018) on staffing levels in schools in United States of America (USA), found that there was higher student teacher ratio than the recommended ratio of 22:1. This led to crowded classes resulting in poor academic outcomes due to lack of individualized attention to more needy learners by teachers. The poor academic performance resulted in exiting school by some learners, hence lowering completion rate.

Shortage of qualified teachers and support personnel in lower secondary schools in England reduces schools' capacity to provide quality instruction (Micklewright, Jerrim, Vingoles & Jenkins, 2014). A Teaching and Learning International Survey (TALIS) report, by Micklewright et al (2014) shows that teaching load averages 46 hours per week per teacher. This is against the recommended teaching load of 22 lessons per teacher per week. The overworking of available teachers due to teacher shortage negatively affects quality of instruction. This makes some learners score poorly in formative and summative examinations, hence some of them dropout before completion, resulting in lowered retention and completion rates. This study examined adequacy of teachers in the entire secondary school phase of the education cycle.

In some Organization for Economic Co operation and Development (OECD) countries notably Luxembourg, Jordan, Thailand, Turkey and Shanghai-China, teacher shortage hinders effective instruction (OECD, 2013). The shortage of qualified teachers is more in public secondary schools than in private schools and the same applies to rural schools in relation to town schools. Principals in urban schools reported more teacher shortage than reported by principals of city schools. Schools with more teacher shortage have reduced individual learner attention by teachers, unlike in schools with enough teachers (1:25) ratio

of teacher-learners. The schools with greater levels of teacher shortage tend to score poorly in formative and summative examinations (OECD, 2013). Learners who continually perform poorly in formative examinations opt to drop out, thus lowering completion rates.

Oakes (2002) notes that numerous Californian students, primarily those in highly needy schools do not have adequate teachers among other troubles like insufficient instructing and learning materials and offices and crowded study rooms. The deficiency of teachers and poor training of some, makes it difficult for the learners to meet the content standards set by state and eventually pass state examinations. The state examinations are meant for grade- to- grade elevation and secondary school graduation as well as fitting the bill for cutthroat competition for college opportunities and job market vacancies. This leaves some students with no choice but exiting school.

Titeca and Lisa (2015) note that the introduction of Universal Secondary Education (USE) in Uganda in 2007 led to congested classes and low teacher morale. The two did a study on the impact of USE on educational performance and enrolment in secondary schools. The study found out that the average teacher-student ratio was 1:85 whose result was worsening of school performance in academics. Failure of Ugandan government to employ enough teachers to accommodate the large increase in secondary schools enrolment occasioned the low teacher-student ratio. This led to teacher centered teaching which demotivated learners, with some dropping out of school. Their dropping out lowered enrolment and completion rates. This study was done in public day secondary schools in Kitui County in 2021 to establish whether there is teacher sufficiency or not and how that relates with implementation of free and compulsory education.

The declaration of free and compulsory primary and secondary education in Ebonyi State of Nigeria in 1999 led to a remarkable increase in enrolment (Okorie & Okoli, 2014). As a result, the number of qualified teachers on ground became too few to match with the enrolment. This led to school Parents Teachers Associations (PTAs) employing additional teachers to fill the gap occasioned by shortage of state employed teachers. The teacher shortage was more acute in rural areas where most families are economically

disadvantaged. Families unable to pay the levy meant for remunerating the PTA teachers had their children dropout of school (Okorie & Okoli, 2014). This led to reduction in retention and completion rates. This study aimed at ascertaining how adequacy or not of teachers relates to transition and completion of learners and in public day secondary schools in Kitui County.

Chimwaza (2015) conducted a study on challenges in implementation of inclusive education in Malawi. The study adopted exploratory qualitative case study research design and a sample of 28 head teachers. The study found out that one of the main challenges was inadequacy of trained teachers. The adequacy of teachers was more important for learners with disabilities who learn and function better when they attend school with their normal peers. The study concluded that the state needed to train and post enough teachers for effective implementation of the inclusive education. That would boost enrolment and retention of disabled learners. This study examined teacher adequacy and its relationship with implementation of free and compulsory education in public day secondary schools in Kitui County. The study also employed descriptive survey research design.

Godfrey (2013) conducted a research on impacts of deficiency of teachers on educational programs execution in community secondary schools in Tanzania. The study used descriptive survey research design and 120 respondents who included 72 learners, 6 heads of schools, 24 instructors and 18 local area individuals. The study found out that deficiency of educators was a significant deterrent to execution of curricular programs. The insufficiency of educators prompted ineffective teaching in some subjects and others not instructed to any extent. Resultantly, school management utilized different methodologies to ease the deficiency of instructors. The techniques included employing form 6 leavers, engaging teachers to work part-time and doing corrective instructing (Godfrey, 2013). Not offering some subjects elicited disappointment of some learners, hence their exiting school, a circumstance that prompted decrease in enrolment and accomplishment rates. This study was done in public day secondary schools and collected data from a sample 164 principals, 17 parents' associations' chairpersons and 1 County Director of Education.

Ndege (2015) researched on impacts of free tutoring on quality education in public primary schools in Gachoka division, Mbeere South subcounty. The research utilized descriptive survey research design and a population section of 143 respondents. The study found out that the teacher-pupil ratio was very low. This resulted in teacher centric method of instruction leading to failure of individualized learner attention by teachers. Ultimate result was learner demotivation and shoddy comprehension of academic tasks. That negatively influenced performance in both formative and summative examinations, a situation that led to dropping out of some learners. The implication is that learners just do not attend school, but for worthwhile education, hence need for Kenyan government to ensure optimal staffing of schools with sufficient teachers to guarantee quality and effective teaching.

Lidoro and Orodho (2014) did a study on level of teachers' ampleness and their success in executing educational programs in public primary schools in Kakamega South sub County. The study embraced descriptive survey research design and target sample of 93 respondents, 23 head teachers, 69 individuals of school executive members and 1 sub county quality assurance and standards official (SCQASO). The study found out that Free Primary Education (FPE) presented in 2003 by the public authority prompted heightening of teaching load arriving at a high of 45 teaching periods for each teacher each week rather than the recommended limit of 27 by TSC. This resulted in learning ineffectiveness hence demotivation of some learners who would drop out of school thus lowering retention and completion rates.

Waita, Mulei, Mueni, Mutune and Kalai (2015) researched on pupil teacher ratio (PTR) and its effect on scholarly accomplishment in KCPE in Central division in Machakos County. The research utilized descriptive survey research design and 24 schools identified out of 78 public primary schools in the research region. Respondents for the review included head teachers of the identified primary schools, subject teachers, County staffing official, county assessment official and county quality assurance and standards official (CQASO). The study found out that there was high PTR, leading to teacher overload and ultimately shoddy performance in KCPE. Waita et al (2015) recommended that TSC should employ enough teachers to meet recommended PTR. Further, MoE can enact a policy to

ensure schools admit pupils based on recommended PTR. The current study was carried out in public day secondary schools in Kitui County to determine if teacher inadequacy and hence high PTR affects performance in academics in a similar manner.

Musyoka, Cheloti and Maithya (2018) did a research on influence of teacher adequacy on students' performance in KCSE in public secondary schools. The researchers conducted the research in Kathiani sub-county, Machakos County, Kenya. The study used descriptive research design and 90 respondents consisting of 9 head teachers and 81 heads of departments (HODs). The study found out that there was teacher inadequacy occasioned by lack of replacement once teachers transfer to other schools or exit service through natural attrition. The study further found out that teacher sufficiency had significant positive relationship with performance in KCSE and hence recommended that TSC should be doing immediate replacement of teachers who transfer or exit service so to maintain a steady availability of enough teachers based on recommended student-teacher ratio (STR) and curriculum based establishment (CBE).

Nituara (2014) explored on factors affecting execution of free primary education program in Mbeere North region. The exploration utilized descriptive survey research design and test size of 184 respondents comprising of 20 head teachers, 160 teachers, 3 quality assurance and standards officials and 1 Education officer. The researcher used questionnaires and interview schedules were to gather information for the exploration. The study found that there was teacher deficiency and which prompted higher teacher: pupil proportions. This brought about significantly less focus regarding individual pupils. The helpless consideration regarding individual students would ultimately prompt exiting school by some pupils, resulting in decreased of completion rates. The researcher suggested that TSC needed to recruit sufficient teachers for there to be viable execution of free primary education in Mbeere North region.

While responding to a parliamentary committee on education, the education CS was categorical that massive teacher shortage at secondary schools and which stood at 5829 was a big constraint towards achieving 100 percent transition to secondary schools

(DN,2020). The education CS further stated that many schools were operating on a 1:70 teacher: student ratio rather than the recommended 1:45 ratio by TSC. A teacher: learner ratio of 1:70 would make teachers overworked, demotivated and most likely leave the profession for other engagements with better pay and have conducive working environment. Teachers who chose to stick to the profession may have worked without an iota of dedication and resorted to usage of teaching methods that are teacher friendly like lecture method. This poses a real threat of many learners dropping out of school for lack of engagement by teachers. Dropping out of the learners diminishes completion rates. This implies that the desire and motivation of learners to attend school consistently lies with adequacy of teachers who would keep them engaged. Engaged learners find morale to study upto completion point.

The government policy of 100 percent transition in Northern Kenya experienced a huge set back after dropping out of school of 107556 pupils and 13478 students between March 2020 and January 2021 (Mwangi, 2021). The huge drop out was attributable to a serious teacher shortage. The problem of teacher inadequacy was so dire in some schools that only the head teacher was available and no pupils attended school. Mandera, Wajir and Garissa counties faced a combined shortage of 3010 teachers in primary schools while secondary schools teacher shortage stood at 1170. The acute teacher shortage was blamed on Teachers Service Commission (TSC) decision to pull out non local teachers on the basis of insecurity posed by Al-Shabaab. It was noted that some of the school drop outs had joined illegal groupings notably Al-Shabaab, further worsening the insecurity in the region. The dropping out of learners would slow down transition, retention and completion rates in secondary schools. Therefore, the Government of Kenya (GoK) needed to hire teachers through TSC to replace those who had left the region due to insecurity.

By end of 2019, Kitui County had secondary school teaching staff shortage of 2125 (Masese, 2020). This undermined the TSC's target of 40:1 learner- teacher ratio and proper teacher workload for effective curriculum delivery. The teaching overload occasioned by inadequacy of teachers led to low learner centered teaching resulting in poor learner understanding and achievement in formative and summative examinations. The poor

performance in formative examinations lowered learners' morale and hence their eventual dropping out. This study set out to establish the relationship between teacher staffing level and execution of free and obligatory education in public day secondary schools in Kitui County.

2.6 Learners' entry behavior and implementation of free and compulsory education

Amasuomo (2014) argues that entry behavior, which is prior performance in academics before joining a new level of education, is a key determinant in entry to and performance in higher education. Caliskan (2014) defines students' entry behavior as a form of pre-learning required to study a specific unit or course. A study by Caliskan (2014) investigated the effects of entry behavior on learning at higher level in Meram, Turkey. The study found out that pre-learning is a key variable regarding level of learning at higher level and that good entry behavior raised the learning level at primary and secondary education, while poor entry behavior lowered it. This means that poor performance at a given level occasioned by low entry behavior may make a learner get demotivated and dropout, regardless of the free and compulsory education.

Paul (1997) notes that a large portion of issues gone through by students who repeat form one are credited to the learners' low entry points, teachers' lack of ability in conveyance of value education and learners' challenges in the changeover from primary to secondary schools. Larger part of students who repeat form one feel embarrassed, unwise, humiliated, and miserable. This inclination aggravates when a few teachers mark the learners as such. Their being identified and compelled to repeat classes prompts their frustration, with some opting to dropout (Paul, 1997). Their dropping out lowers retention and completion rates. This therefore means that teachers should be professional enough to cultivate enthusiasm among poor learners and encourage them to soldier on. The assumption can be based on the fact that some learners perform poorly in KCPE due to other factors other than low mental ability.

Transition from primary to secondary school is a critical changeover to young learners as they move from small self-contained classrooms to large and more cosmopolitan schools.

Large cosmopolitan schools have reduced teacher support and heightened expectations of independent academic performance (Hanewald, 2013). The transition poses changes that can have positive or negative effects on students socio-emotionally and behaviorally. This then requires support from peers; teachers and parents to shape the teenagers' experiences and outcomes for them to stay in school until completion point. Lack of support to new students may result in disengagement, with potentiality of dropping out of school altogether (Hanewald, 2013). Schools should hence have effective induction program for newly admitted learners for them to find value, adapt quickly and effectively in their new schools and stay until completion.

Ogbonnaya, Okpuruka, Iheanacho & Ndu (2014), undertook a study on students' joining eligibility and scholarly execution in fundamental schools of nursing in Nigeria. The study utilized correlational study design and a population portion of 390 nursing students. The review found out that there existed huge connection between joining behavior and students' ability in scholastics. The study also found out that students who persistently performed poorly in formative examinations eventually got expelled. This resulted in reduction in enrolment and completion rates.

Limbe (2017) studied factors influencing students' performance in Certificate of Secondary Education Examination (CSEE) in Newala District, Mtwara region, Tanzania. The study used qualitative approach research design and a sample of 100 respondents; 2 educational officers, 5 heads of schools, 10 secondary school teachers, 8 parents and 75 learners. The study found out that performance was low in CSEE due to a number of factors, key being poor entry marks in forms one and three (Limbe, 2017). The study recommended that only students with high scores in primary school leaving examination should join form one. This implied that transition rate to secondary school would be diminished. This implies that the Tanzanian government needs to enact a policy on 100 % transition from primary schools to secondary schools.

Shavisa, Ndiku and Musasia (2016) did a study on the role of students' characteristics in dropout cases among secondary school students in Vihiga County, Kenya. The study

adopted a descriptive survey research design and a sample of 200 dropouts identified by use of snowball sampling method. The study found out that students' entry behavior had a significant relationship with students' dropout rate and that students who joined secondary school with low marks had more probability of dropping out of school, and which would reduce completion rates. This study recommends that learners be enrolled in form one regardless of entry behavior and performance in formative examinations not to be used as yardstick in promotion to next class, for this would boost transition, retention and completion rates.

Kenya secondary schools are officially categorised into a four rungs rank based on their catchment regions for form one admission (Kirera, 2013). KCPE results figure out which level an applicant is qualified for entry. The levels are national, extra-county, county, and sub county schools. The sub county level comprises of public day secondary schools and which solely absorb day learners, greater part of whom are from local area. Kirera (2013) executed a research on factors affecting changeover of learners from primary to secondary schools in Meru Central District, Kenya. The research utilized descriptive survey research design and a population part of 50 respondents, 25 head teachers and 25 chairpersons of school boards of managers (BOMs). The study by Kirera (2013) established that some sub county schools set a minimum KCPE score for entry to form one while others were non-selective. It was the selectivity of some of the sub county schools that led to some KCPE candidates not to get chance in form one, even when some sub county schools had chances to accommodate more form ones. This greatly reduced transition rate to secondary schools in Meru central District. Faced with pressure from stakeholders of having to produce good results for entry to higher education institutions, secondary schools principals resort to admitting students whose prospects of doing well at KCSE are quite high. This lowers transition rate to secondary schools. Teachers Service Commission and Ministry of Education hence need to devise other means of evaluating learners for entry to higher institutions of learning like talents identification and offer diplomas and degrees just as it occurs with academic institutions.

Simiyu (2015) researched on impact of institutional and learners' characteristics on scholastic achievement and finishing rates in day secondary schools in Trans Nzoia and Pokot counties. The review used ex-post facto and correlational designs and a sample of 493 respondents; 384 learners, 79 teachers and 30 head teachers. The study found out that learners with good entry behavior had evidently better academic performance and which motivated them to stay in school until completion time. The study also found out that learners with low entry ability had poor performance in academics, a situation that would discourage them, which could eventually lead to their dropping out of school.

The findings of Simiyu (2015) concur with those of a study done by Wekesa and Simatwa (2016) on student factors affecting scholastic performance of students in secondary education in Kakamega County. The study by Wekesa and Simatwa (2016), employed descriptive survey research design and a sample of 1,225 respondents, inclusive of 162 secondary school principals, 162 secondary school deputy principals, 900 form 4 students and 1 County Education Quality Assurance and Standards Officer (CEQASO). The study found out that good performance in KCPE improved performance in KCSE and students were encouraged to stay in school until completion time, while poor performance in KCPE generally led to shoddy performance in KCSE. The study further found out that some students with poor entry behavior performed poorly in formative examinations hence left school midstream, a situation that retarded retention and completion rates.

This study was carried out to establish the relationship between learners' entry behavior and implementation of free and compulsory education in public day secondary schools in Kitui County. The study sample was 182 respondents comprising of 164 principals, 17 PA chairpersons and the Kitui County Director of Education. Unlike the Wekesa and Simatwa (2016) study, which was done in Kakamega County, the researcher did this study in public day secondary schools in Kitui County and aimed at determining whether entry behavior has similar relationship with implementation of free and compulsory education as in county, extra county and national secondary schools.

2.7 Summary of Literature Review

From an historical perspective, obligatory instruction is as old as archived human history, but its enforcement was limited to royal, religious and military organizations (Alec, 2007). The objective of compulsory education was attainment of physical fitness, military acuity and leadership skills. The classical compulsory education was neither free nor formal until 1st century after death (AD) when Joshua ben Gamla established formal compulsory education in Judea. Attempts to make education free and compulsory started with the 1948 Universal Declaration of Human Rights (UDHR) whose article 26 (1) states that everyone has the right to free and compulsory education, particularly in the elementary and fundamental stages (Heyman , 2014).

Studies done globally, regionally and locally have put emphasis on the impact of free and obligatory education on transition and completion rates, but not on relationships between school based factors and execution of the free and obligatory education, hence the need for the current study. Studies by Koya (2015) in Fiji, Grenzke (2005) in Bangladesh, Horgan (2007) in Northern Ireland and Capron (2015) in United Kingdom revealed that charging of extra levies by schools on learners resulted in the learners from economically poor families unable to pay the levies. This led to their being truant and ultimately dropping out of school. Researches executed by Ngwenya (2016) in Zimbabwe, Pillay (2012) in South Africa, Yameda and Ampiah (2009) in Ghana, and William and Abbot (2014) in Rwanda, discovered that additional levies charged on students by schools adversely affected students' participation and subsequently poor performance in scholastics. This prompted exiting school by some students leading to decreased completion rates.

Studies by Omandi (2015) in Mvita Sub County, Mombasa County, Mutemi (2015) in Matinyani sub county, Kitui county, Ngwacho et al (2016) in Kisii County, Shavanga (2015) in Kwanza Sub-County and Kiage et al (2014) in Trans mara sub county, found out that charging of additional charges led to inconsistent attendance of schools by some learners. In the end, the students would exit school for the charges were restrictive to destitute families. This study set out to determine the correlation between charging of

additional levies and execution of free and obligatory education in public day secondary institutions in Kitui.

Studies by Cuesta, Glewwe and Krause (2015) in Latin America, Teixeira, Amoroso and Gresham (2017) in United Kingdom and Wodon (2016) in Paraguay on state of and adequacy of school infrastructure found out that there was insufficiency of classrooms and which led to crowded classes, negatively affecting learning. Overcrowding of classrooms and poor learning resulted in learners' dissatisfaction and hence some dropping out of school. Similarly, Melara, Ayele and Blaustein (2014) in Ghana, Akhihero (2011) in Nigeria and Amsterdam (2010) in South Africa note that education infrastructure inadequacy challenges result in exiting from school by some learners, hence reduced retention and completion rates.

Parnwell (2015), Katiwa (2016) and Mokaya (2013) carried out studies on effects of infrastructural facilities on academic performance and students' enrolment in Ruiru location, Meru County, Kitui central sub county, Kitui County and Kajiado County respectively. The Parnwell and Katiwa studies found out that inadequate and poor quality infrastructure compromised on learning, teaching, students' enrollment and completion rate while the Mokaya study found out that adequacy of infrastructure is necessary for effective implementation of curricular programs. This study established the connection between school infrastructure adequacy and execution of free and compulsory education in Kitui County public day secondary schools.

Crocket and Villanueva (2018) in USA, Micklewright, Jerrim, Vingoles and Jenkins (2014) in England, Oakes (2002) in California aver that inadequacy of teaching staff and poor qualification of some teachers lead to high learner teacher ratios, teacher centred teaching methods and poor teaching. Resultantly, learners perform poorly in formative examinations and hence some opt to drop out of school, leading to lowered retention and completion rates. Likewise, studies done by Titeca and Lisa (2015) in Uganda and Okorie and Okoli (2014) in Nigeria, found out that shortage of teachers was a major hindrance to effective execution of curriculum while studies by Chimwaza (2015) in Malawi and Godfrey (2013)

in Tanzania found that inadequacy of trained teachers likewise resulted in learner drop out. This led to some learners getting discontented and eventually dropping out of school, resultantly lowering retention and completion rates.

Lidoro and Orodho (2014) Waita et al (2015), Ndege (2015), Musyoka et al (2018) and Nituara (2014) carried out studies on influence of learner-teacher ratio on academic performance in Kakamega South Sub County, Cental division of Machakos County, Gachoka division of Mbeere South sub county, Kathiani sub county in Machakos county and Mbeere North district respectively. The studies found out that high learner-teacher ratio negatively influenced quality of education and led to truancy of learners and eventual exiting of school by some learners, hence compromising on retention and completion rates. This study investigated the relationship between teachers' adequacy and execution of free and obligatory education in Kitui County.

Caliskan (2014) in Turkey, and reports by Hanewald (2013) and Paul (1999) indicate that poor entry behavior of learners lowers transition rate for the learners are denied admission on basis that they lack eligibility. The poor entry behavior may make those lucky and hence admitted perform continuously poorly in formative examinations and hence get demotivated. Their demotivation makes some of them drop out of school, hence lowering completion rates. Studies executed by Ogbonnaya (2014) in Nigeria and Limbe (2017) in Tanzania found out that low entry behavior led to poor performance in formative examinations by some of the learners. Persistent poor performance resulted in expulsion of the learners and which would lower transition rates in schools. The Limbe (2017) study recommended that learners with poor entry behavior be barred from joining form one while this study recommends that learner entry behavior be disregarded in form one admission with a view to boosting transition.

Shavisa et al (2016), Kirera (2013), Simiyu (2015) and Wekesa and Simatwa (2016) investigated influence of learners' entry behavior on academic performance, retention and completion rates in Vihiga County, Meru central district, Trans Nzoia and Pokot Counties and Kakamega County respectively. The studies found out that low learner entry behavior

led to dropping out of some learners due to persistent poor performance in formative examinations. This led to reduction in enrolment and completion rates. This study established the relationship between learners' entry behavior and execution of the free and obligatory education policy in public day secondary schools in Kitui County.

2.8 Theoretical Framework

This research is grounded on the Liberal Educational Theory (LET) as proposed by Howe (1992). The theory recommends that every country should accord its citizens equal opportunity to obtain education without any form of discrimination. School learners have a duty to use the chances by joining in and completing schooling. On the same note, parents have the obligation to make available school prerequisites and imposing attendance and participation in school programs by the learners. LET emphasizes a guarantee to liberal principles such as tolerance, non-discrimination and non-repression. This theory best explains how factors such as charging of extra levies, inadequacy of infrastructure, inadequacy of teachers and poor learners' entry behavior bring about discrimination by denying some learners the right to education. This is despite the fact that the Kenyan Constitution (2010) envisaged a situation where all children of school going age would have equal opportunity by making education totally free and compulsory for public day secondary school learners.

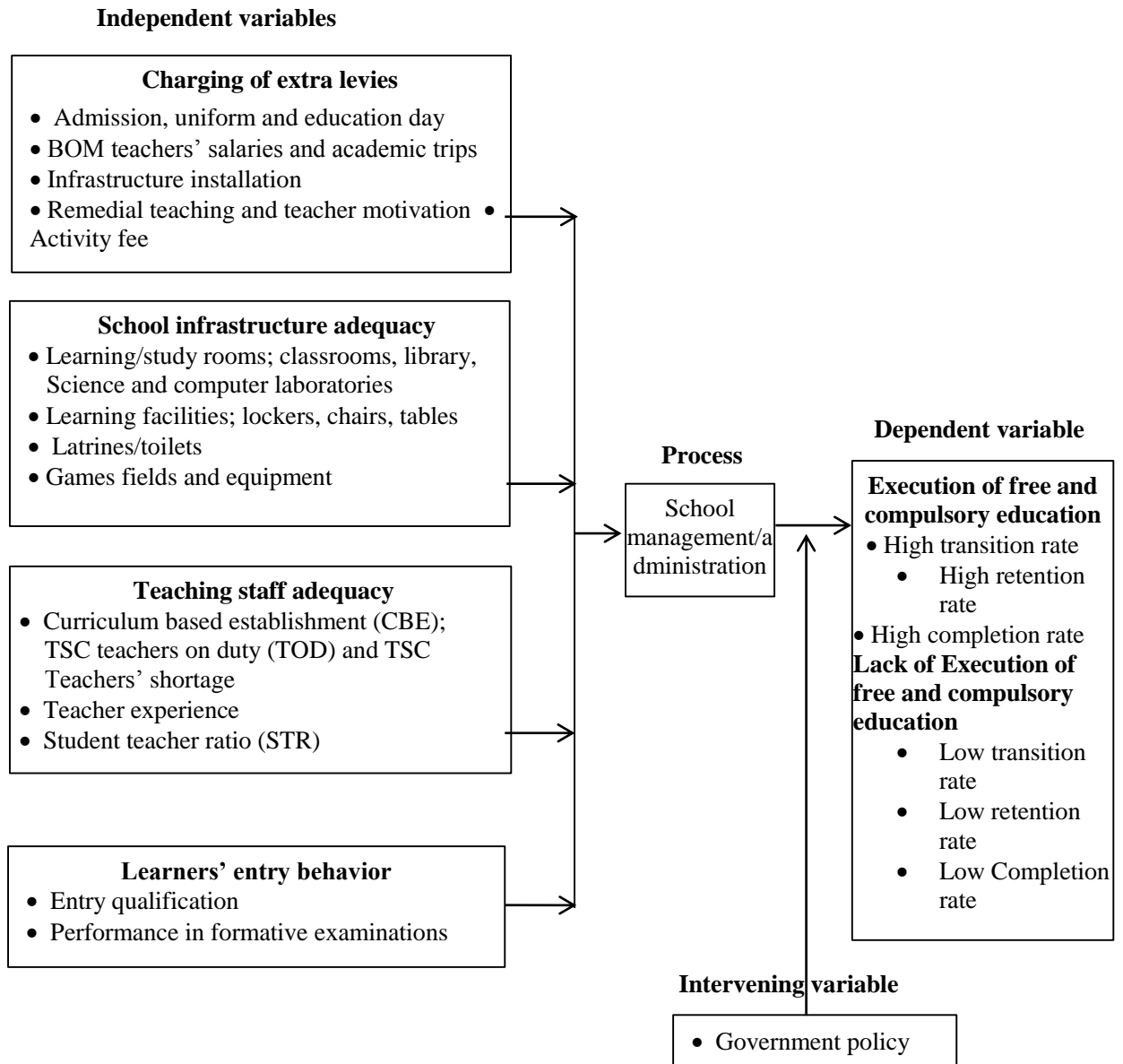
According to LET, charging of extra levies would discriminate against learners from economically challenged households who cannot afford to pay levies charged however small the amounts might be. Insufficiency of study rooms would result in schools not absorbing all potential form ones on the basis that they cannot accommodate extra learners and this would be discriminatory for some are enrolled and others not. Inadequacy of teachers would mean that schools could not introduce extra streams to accommodate more learners while students may not choose to do certain subjects if specialist teachers are not available. Learners' entry behavior if not fit according to a certain school would make a learner miss out on school admission thus the right to education is denied. Hence LET suitably explains how aspects of the independent variables of this study; charging of extra

levies, infrastructure inadequacy, teaching staff inadequacy and low learners' entry behavior can bar some potential learners chance to participate in education acquisition.

The Liberal Educational Theory has a limitation in that it advocates for removal of formal barriers to education, but does not propose mechanisms for enforcing school attendance. To enforce attendance, the government of Kenya (GoK) introduced an aspect of compulsion in 2010 (Constitution of Kenya, 2010). In particular, the Basic Education Act (2013), requires parents to ensure attendance of school by learners. The Liberal Educational theory has been used in the USA where cultural minorities; the autonomous Amish, immigrant American Chinese and caste-like African Americans and Mexican Americans are accorded equal education opportunities without having to shed their culture (Howe, 1992). Despite the limitation of this theory, this study found the theory suitable.

2.9 Conceptual Framework

Conceptual framework shows the interrelationship between the review factors. In this review, institutional determinants are the independent variables affecting execution of free and compulsory education (the dependent variable) in public day secondary schools in Kitui County as shown in Figure 2.1.



Intervening variable

- Government policy

Figure 2.1 Conceptual framework of interrelationship between the study variables

The conceptual framework shows that if schools management/administration charge extra levies such as form 1 admission fee and remedial teaching levy, then some students may fail to pay and hence not join form one and or drop out of school, leading to low rates of transition, retention and completion. However, if such levies are not charged, then most students would join form 1 and be retained in school having been financed by the free day secondary education (FDSE) fund leading to high rates of transition retention and completion. Inadequacy of school infrastructure such as classrooms would lead to low rates

of transition and completion. However, if the government and other stakeholders could install and avail the entire requisite infrastructure, then there would be high- level transition, retention and completion.

Inadequacy of teaching staff leads to low levels of transition, retention and completion. However, if the government, through TSC employs enough teachers on the basis of Curriculum Based Establishment (CBE) in all schools, there would be high level transition from primary to secondary, improved retention and high completion rates at KCSE. If entry behavior were not considered in form one admission, there would be high -level transition, retention and completion of the free and compulsory education. However, continued pegging of form one admission on predetermined KCPE marks leads to low level of transition.

Schools' management and administration execute the process of implementing the free and compulsory education policy. Hence, if principals misappropriate free day secondary education (FDSE) funds and fail to procure enough facilities and install requisite infrastructure, transition to secondary schools and completion rate at KCSE would be low. Similarly, if the public day secondary schools management and principals fail to engage BOM teachers to fill staffing gaps and fail to admit low KCPE marks candidates, then there would be further lowering of transition and completion rates.

The conceptual framework also shows that if principals and management do not charge extra levies, put up sufficient requisite infrastructure, engage BOM teachers to fill TSC staffing gaps and admit learners regardless of their KCPE marks, there would be high levels of transition, retention and completion. Similarly, if relevant stakeholders, head teachers, education officers, parents, churches and county administration implement government policies on transition, and completion, there would be high- level implementation of the free and compulsory education policy. Failure to implement the government policy by the relevant stakeholders would lead to low levels of transition, retention and completion rates.

CHAPTER THREE

3.0 Methodology

3.1 Introduction

This section presents the techniques that were utilized for the study. It consolidates the research design, target population, sampling techniques and sample size, research instruments, their validity and reliability. Encompassed in like manner is the data gathering process, data analysis techniques and ethical considerations.

3.2 Research Design

Kothari (2004) describes research plan as a scheme for gathering, measurement and examination of data. The review utilized expressive study research plan and took on a blended techniques approach where quantifiable and qualitative data were gathered. Orodho (2005) affirms that expressive review configuration is proper where a review tries to depict attributes of specific gatherings; gauge fraction of respondents who have preferred qualities and make forecasts. The design was suitable because it helped collect current data from respondents based on the study objectives. Data collected included institutional determinants; charging of extra levies, school infrastructure adequacy, teaching staff adequacy, learners' entry behavior and how they relate with implementation of free and compulsory education.

3.3 Target Population

Target population is complete gathering of people, things, items and so forth, having similar qualities and from which a researcher draws a sample for study (Best & Kahn, 2000). Kitui County has 17 sub counties and 327 public day secondary schools as per the list obtained from Kitui County Education Office and as shown in appendix XI (Kitui County Education Office, 2020). Researcher targeted all 327 public day secondary school principals, all 327 Parents' Association (PA) chairpersons of these schools and the Kitui County Director of Education (CDE) for the study. The target population hence comprised of 655 respondents.

3.4 Sampling Technique and Sample Size

A sample is a small section of a study population selected for observation and data collection and whose data analysis results are inferred to whole study population (Best & Kahn, 2000). There are 327 public day secondary schools in Kitui County distributed in 17 Sub Counties. The schools were stratified according to the sub counties. This enabled application of proportionate stratified sampling technique, which permitted an equivalent representation of schools from each sub county. The review utilized half of the principals (164), 17 PA chairpersons and the Kitui CDE as the study sample. Gall, Gall and Borg (2007) assert that a 20-50 percent sample size for a descriptive survey research design is suitable while Guest, Bunce and Johnson (2006) aver that six to twelve interviews empower attaining data saturation in both health and social sciences.

Simple random sampling technique was employed to obtain half of the schools from each sub county and hence half the number of principals. The record of public day secondary schools from Kitui County Education office as shown in appendix XI was utilized in sampling the schools. The procedure involved writing down all schools in a sub county on pieces of paper. The papers were then rolled and put in a tumbler and the tumbler shaken. The researcher then picked half the papers and which then indicated sub sample size from that particular sub county. The process was repeated for all the sub counties and eventually added all the sub samples to get the County composite sample and which totalled to 164 schools. All principals of the identified schools were purposively selected, to participate in the survey. This is because principals regulate execution of the free and mandatory instruction at school level. Kothari (2004) explains that purposive sampling is selection of respondents that fulfill specific conditions.

Similarly, the researcher carried out simple random technique to get the 17 PA chairpersons, each from each sub county. The technique was executed by noting down the name of each school on a piece of paper. The papers were then rolled, put in a tumbler and the tumbler shaken. A single paper picked from the tumbler would identify the school from which to interview a PA chairperson in a particular sub county. The Kitui CDE was purposively picked as a respondent for he/she orchestrates execution of free and mandatory

schooling in the County. The aggregate sample was subsequently 182; 164 principals, 17 PA chairpersons and the as given the Kitui CDE as presented in Table 3.1.

Table 3.1: Target population, sample size per sub county and county sample.

S.N	Sub county	Public day sec.Schools		Principals (n)	PA Chairs (n)	CDE (n)	Total (n)
		schools (N)	(n)				
1	Ikutha	25	13	13	1		14
2	Katulani	15	7	7	1		8
3	Kisasi	17	9	9	1		10
4	Kitui central	26	13	13	1		14
5	Kitui west	26	13	13	1		14
6	Kyuso	15	7	7	1		8
7	Lower Yatta	25	13	13	1		14
8	Matinyani	13	6	6	1		7
9	Mumoni	15	7	7	1		8
10	Mutitu	10	5	5	1		6
11	Mutitu north	07	3	3	1		4
12	Mutomo	24	14	14	1		15
13	Mwingi central	34	17	17	1		18
14	Mwingi east	23	12	12	1		13
15	Mwingi west	29	14	14	1		15
16	Nzambani	14	7	7	1		8
17	Tseikuru	09	4	4	1		5
Total		327	164	164	17	1	182

Source: Kitui County education office, 2020

3.5 Research Instruments

Ranjit (2011) defines a research instrument as a device used to collect data for analysis and answering research questions and or testing research hypotheses. A research instrument may yield either qualitative or quantitative data or both data types (Mugenda & Mugenda, 2008). The study used questionnaire, interview schedules and document review analysis

for data collection. Document review analysis was used to collect secondary data from the Kitui CDE's office. Usage of the three instruments enabled triangulation of the findings hence putting the study into a broader perspective.

Ranjit (2011) aver that an interview schedule is a written list of questions and or statements used by an interviewer in a person-to-person interaction. An interview schedule questions and statements could be open-ended or close-ended or both. Usage of interview schedule affords a researcher an opportunity to explain the questions and statements to respondents and respond to issues as they arise. The interview schedules were used to collect qualitative data from Kitui CDE and PA chairpersons on status of current transition and completion rates and relationship between institutional factors and execution of free and compulsory education in Kitui County.

Conversational interview has more likelihood to yield higher quality data especially if respondents think that the data being sought is very sensitive or complex (Mockovak, 2016). Usage of interview schedule for this study was hence appropriate for it helped get data on charging of extra levies which is a sensitive issue for it is illegal to charge extra levies on public day secondary schools learners. The interview schedules were administered to Kitui CDE and PA chairpersons for they are not answerable to the principals, hence would not fear telling the truth about charging of extra levies in Kitui County public day secondary schools.

Document review analysis is collection of data by systematic reviewing and analysis of existing and relevant documents (Kothari, 2004). This provides information and insight to a research problem or question. Public records showing completion rates in secondary schools in Kitui County were analyzed to get the trends for the last five years. The documents included National Education Management Information Systems (NEMIS) and Kenya National Examination Council (KNEC) registration records at county education office.

The document analysis yielded information that supplemented information that was obtained from analysis of interview schedules and questionnaires. The document review analysis was used to ascertain Kitui county transition and completion rates as shown in appendix V. Availability of requests for charging of extra levies by schools was ascertained to establish if or not schools charge the levies. The document review analysis also checked whether the requests to charge extra levies were sanctioned by the SCDE and if not, why.

Ranjit (2011) defines a questionnaire as a list of questions whose answers are recorded by respondents. Questions ought to be clear and straightforward as there is nobody to decipher the significance of the inquiries to respondents. Questionnaires enjoy a benefit of saving time, human and monetary assets, as scientist does not talk with respondents. Additionally, questionnaires enable reaching a scattered study population sample cheaply and easily, especially if mailing method is used to send them to respondents. Use of questionnaires also offers more anonymity as there is no face- to -face interaction between researcher and respondents.

The questionnaires were administered to principals by delivering them to individual schools and then collecting them back later. The questionnaire for principals (QP) contained both close-ended and open-ended questions. According to Jackson (2012), questionnaires that contain both open ended and close -ended questions and statements elicit adequate qualitative and quantitative data. The questionnaire contained sections A, B, C, D, E, F and G. Section A sought personal data about the principal, section B sourced data about the current rates of transition and completion in their schools. Sections C, D, E and F gathered data on relationship between institutional determinants and implementation of free and compulsory education policy. Section G sought recommendations and suggestions towards effective execution of free and compulsory education.

The responses made to QP were organized on a 5 point Likert scale ranging from strongly agree (SA), agree (A), undecided (U), disagree (D) strongly disagree (SD) with mathematical values of 5, 4, 3, 2 and 1 respectively as recommended by Bishop & Herron (2015). The Likert scale data in the questionnaire were analyzed using a schema, where an

equidistance of 0.8 unit in the scale was employed as proposed by Carifio & Rocco (2007). The 0.8-unit equidistance in the Likert scale gave the following scale ranges; SD = 1-1.8, D = 1.8-2.6, N =2.6-3.4, A = 3.4-4.2 and SA =4.2 -5. This 0.8 equidistance in the Likert scale enabled convert the data into interval scale. This weighting scale helped the researcher determine the level of agreement by respondents with items of each independent variable in the questionnaire Likert scale.

3.6 Validity of Research Instruments

Validity is the extent to which a method, a test or an exploration instrument estimates what it is intended to quantify (Wellington and Szczerbinski, 2011). The analyst set up content legitimacy of the examination instruments by requesting for assistance from the supervisors and other exploration specialists in the Department of Educational Administration and Planning of South Eastern Kenya University (SEKU). The supervisors and exploration specialists were requested to evaluate the importance and scope of substance of the examination instruments. Their suggestions were applied to make additions and changes in accordance with the substance of the examination instruments. Face legitimacy is a sensible connection between each question/thing on an examination instrument with an objective. Content validity is full scope inclusion of issues or attitude being determined in an instrument. The substance legitimacy of the poll was likewise determined by directing a pilot study in 14 schools, which were not part of the sampled schools, but rather had qualities like those that in the schools found in the review region.

According to Ranjit (2011), 10 percent of the total population is ideal for piloting. The piloting helped remove ambiguous items in the instruments. External validity of the questionnaire was ensured by using proportionate stratified sampling and where 50 percent of the schools to have a representative sample, hence generalizability of the research findings to the study population. The interview schedule was validated by recording the interviewing process administered to two PA chairpersons, later reviewed and discussed the recorded data with identified research experts. Their corrections ensured relevance and meaning of the interview schedule.

3.7 Reliability of the Research Instruments

Wellington and Szczerbinski (2011) define reliability as a judgement to which a test, a strategy or device gives steady outcomes under comparative conditions and whenever utilized by a scope of analysts. Test re-test technique was utilized to decide dependability of the examination instruments. This was executed by administering the questionnaires to 16 principals and the interview schedules to 2 PA chairpersons and who would not be included during the real data gathering. Their responses were scored and coded. The administration of the questionnaire and the interview schedule was repeated after two weeks to the same respondents and whose responses were then scored and coded. During the second administration of the research tools, only 14 questionnaires were returned. Table 3. 2 shows piloting tools return/response rate.

Table 3.2: Return/response rate for piloting instruments

Tool	No. administered during pre-test	No.administered during post-test	Return/response rate (%)
Questionnaire	16	14	87.5
PA interview Schedule	2	2	100

Interview schedule pre-test and post-test score codes were averaged to get their means. The means were compared for differences to determine significance and correlation using a paired samples t-test at (n-1) degrees of freedom using following formula:

$$t = \frac{\frac{(\sum d)}{n}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{n}}{(n-1)(n)}}$$

Where,

$\sum d$: summation of differences between x and y scores

n: number of scores

$\sum d^2$: summation of squares of all differences between x and y scores.

$(\sum d)^2$: square of sum of all differences between x and y scores.

Pearson Product Moment Correlation Coefficient (PPMCC) formula was used for the test-re-test to compute a test-re-test reliability coefficient for the questionnaire. The Pearson Correlation (r_{xy}) was computed using following formula:

$$r_{xy} = \frac{n\sum XY - \sum X \sum Y}{\sqrt{[n(\sum X^2) - (\sum X)^2][n(\sum Y^2) - (\sum Y)^2]}}$$

Where,

n is number of score pairs of x and y

$\sum xy$ is sum of products of x and y

$\sum x$ is sum of all x scores

$\sum y$ is sum of all y scores

$(\sum y)^2$ is sum of y scores squared

$\sum x^2$ is sum of all x 's squared

$\sum y^2$ is sum of all y 's squared

$(\sum x)^2$ is sum of x scores squared

Upon computation, the reliability obtained for the two instruments were 0.926 and 0.845 for the interview schedule and questionnaire respectively. According to Wiersma (2000), a reliability coefficient of more than 0.7 is considered ideal for the administration of an instrument. Therefore, because of this assertion, all the tools were considered highly reliable and hence were considered suitable for purposes of data collection.

3.8 Data Collection Procedure

An introductory letter was obtained from Board of Postgraduate Studies (BPS) of SEKU. The letter was used to seek permit from National Commission for Science, Technology and Innovation (NACOSTI). The permit was used to secure permission from Kitui CDE, Kitui County Commissioner and Kitui County Governor to collect data from Kitui County public day secondary schools. The researcher then made arrangements with principals on when to visit their schools to administer the questionnaires and interview schedules. The researcher then re-visited the schools for questionnaire and interview schedule administration. Similarly, the researcher booked appointment with the Kitui CDE on when to interview him/her and carry out the document review analysis. The researcher then re-visited the Kitui County Director of Education, interviewed him and carried out document review analysis.

3.9 Data Analysis Technique

Mugenda and Mugenda (2008) define data analysis as a process of bringing order, structure and meaning to the mass of data collected. The information gathered were both qualitative and quantitative. The scientist started the information examination by tidying up and clarifying the information. Bio information from head teachers' questionnaire was accounted for in stories and descriptive measurements. Qualitative data in the examination instruments were deciphered and presented in stories as indicated by topics in the review objectives. Quantitative information in the instruments were investigated utilizing frequencies, percentages and means. Quantitative information from the poll for head (QP) Likert scale were dissected utilizing Pearson's product moment correlation coefficient (r) which was tested at the .05 degree of importance.

Application of Statistical Package for Social Sciences (SPSS) version 25 was used to aid the analysis. The Pearson product moment correlation coefficient (r) was used to determine significance of connection between each of the independent variables and the dependent variable hence tested hypotheses Ho1, Ho2, Ho3 and Ho4 at (n-1) degrees of freedom and 0.05 significance level. Darius (2013) recommends alpha (α) level of 0.05 for social sciences. A value of ($p < 0.05$) indicated reaching significance hence rejection of null hypothesis and acceptance of alternative hypothesis (HA), otherwise the null hypothesis would be retained.

The Pearson coefficient of correlation was used to establish the magnitude and direction of relationship between each of the independent variables and dependent variable. The correlation coefficient (r) value ranges from negative one to positive one. The presumption associated with the application of Pearson r is that the relationship between variables is linear, one of the two variables is independent while the other is dependent and that the sample size is large and normally distributed (Kothari, 2004). The data for this study and obtained by use of questionnaires for hypotheses testing was measured in interval scale using the formula explained in sections 3.5 and 4.4.6. Besides the data was collected from a large sample of 145 respondents and both variables were normally distributed. Since the study was orrelational it was hence imperative to carry out tests for correlation statistics

assumptions. Following assumption tests were hence carried out; test for normality, test for linearity, test for multicollinearity and singularity and tests for homoscedasticity and heteroscedasticity. Final results of data analysis were shown in form of tables and figures.

3.10 Ethical Considerations

Ranjit (2011) defines ethics as a set of principles of conduct considered correct by a given profession. The researcher sought authority to carry out research in Kitui County, Kenya, by obtaining a letter of authorization from SEKU and research permit from NACOSTI. Besides, permission to collect data from Kitui County public day secondary schools was sought and granted by Kitui CDE, Kitui County Commissioner and Kitui County Governor. Informed consent was ensured by making respondents aware of data that was to be collected from them and due explanation given to them on how to participate in the study freely and voluntarily before commencement of data collection. To ensure confidentiality, respondents were requested not to indicate their names or those of their schools in the questionnaires. Honesty was ensured by avoiding plagiarism, which was achieved by proper paraphrasing, in text citation and referencing. Basing arguments and reporting on observations and reasoning, ensured objectivity of the study.

CHAPTER FOUR

4.0 Results

4.1 Introduction

This part presents the findings after of the study based on the study targets and objectives. Largely, the review purposed to establish the relationship between institutional determinants and execution of free and compulsory education in public day secondary schools in Kitui County, Kenya. The review was guided by following explicit objectives; to establish the correlation between charging of additional levies, infrastructure adequacy, teaching staff adequacy and lastly learners' entry behavior and execution of free and obligatory education in public day secondary schools in Kitui County.

The presentation of the reveiw results is in line with the aforementioned research objectives. Qualitative data from document review analysis, interview schedules and questionnaire were transcribed and reported in narratives. Quantitative data from the questionnaire for principals (QP) and interview schedule for Parents' Association (PA) chairpersons were analyzed using descriptive statistics. The descriptiyve statistics were determination of frequencies and percentages while the inferential statistics were determination of Pearson correlation coefficient and which was helped by application of Statistical Package for Social Sciences (SPSS) version 25 in order to test hypotheses of the study. Quantitative data were presented in tables in frequencies and percentages.

The study analyzed collectively the data gathered from the principals who were the main respondents, parent association chairpersons and the Kitui County Director of Education in addition to the document analysis. Therefore, this chapter is organized such that there is a section for instruments return / response rate, data screening and cleaning, tests for correlation statistics assumptions, demographic characteristics of the principals, and length of stay of respondents in their current workstations, transition and completion rates in Kitui County, analysis as per the study objectives and respondents' recommendations and suggestions.

4.2 Instruments Return/ Response Rate

Return/ response rate of instruments is the percentage of research instruments that have been returned / responded to, after being administered to respondents. In this study, questionnaires were distributed to 164 principals; interview schedules for parents' association (PA) chairpersons were administered to 17 PA chairpersons while one interview schedule for Kitui County Director of Education (CDE) was administered. Out of the distributed tools, 145 questionnaires were returned, 14 interview schedules for PA chairpersons and one interview schedule for Kitui CDE were administered. The return / response rates are shown in Tables 4.1, 4.2, 4.3 and summarized in Table

Table 4.1: Questionnaire for principals' return rate

S.N	Sub county	Expected	Returned	Rate (Percentage)
1	Ikutha	13	11	84.6
2	Katulani	7	7	100
3	Kisasi	9	7	77.8
4	Kitui central	13	10	76.9
5	Kitui west	13	11	84.6
6	Kyuso	7	5	71.4
7	Lower Yatta	13	13	100
8	Matinyani	6	6	100
9	Mumoni	7	7	100
10	Mutitu	5	5	100
11	Mutitu north	3	3	100
12	Mutomo	14	12	85.7
13	Mwingi central	17	13	76.5
14	Mwingi east	12	10	83.3
15	Mwingi west	14	14	100
16	Nzambani	7	7	100
17	Tseikuru	4	4	100
Total		164	145	88.4

From the principals questionnaire the return rate was 88.4 percent with some sub counties such as Katulani, lower Yatta, Matinyani, Mumoni, Mutitu and Mutitu North having a return rate of 100 percent as shown in Table 4.1.

Table 4.2: PA chairpersons' interview schedule response rate

S.N	Sub county	Public day sec.Schools schools (N)	(n)	Expected	No.admin istered	Response rate
1	Ikutha	25	13	1	1	100%
2	Katulani	15	7	1	1	100%
3	Kisasi	17	9	1	1	100%
4	Kitui central	26	13	1	1	100%
5	Kitui west	26	13	1	1	100%
6	Kyuso	15	7	1	0	0%
7	Lower Yatta	25	13	1	1	100%
8	Matinyani	13	6	1	1	100%
9	Mumoni	15	7	1	0	0%
10	Mutitu	10	5	1	1	100%
11	Mutitu north	07	3	1	0	0%
12	Mutomo	24	14	1	1	100%
13	Mwingi central	34	17	1	1	100%
14	Mwingi east	23	12	1	1	100%
15	Mwingi west	29	14	1	1	100%
16	Nzambani	14	7	1	1	100%
17	Tseikuru	09	4	1	1	100%
Total		327	164	17	14	82.4%

Table 4.2 shows that all the chairpersons of parents' associations responded to the interview schedules that were administered to them, except those from Kyuso, Mumoni, and Mutitu North who were not interviewed, for they remained unavailable during the entire data collection period. Overall, the response rate from the parents' association was 82.4 percent.

Table 4.3: Kitui CDE interview schedule response rate

Research instruments	Expected No.	Response rate	
		administered	(%)
Kitui CDE interview schedule	1	1	100

The researcher interviewed the Kitui County Director of Education and who was able to respond to all the questions that were asked hence the response rate was 100 percent.

Table 4.4: Summary of research instruments return/response rate

Research instrument	Expected	No. administered	Return/response rate (%)
Questionnaire for principals	164	145	88.4
PA chairpersons interview schedule	17	14	82.4
Kitui CDE interview schedule	1	1	100

Overall, the return/response rates were considered to have been very high as shown in Table 4.4. Mugenda and Mugenda (2008) aver that a return/response rate of minimum of 70 percent is good enough. The good return/response rate especially for the questionnaires in this study was attributable to usage of 16 research assistants who were assigned different sub counties in Kitui County to administer the questionnaires. This enabled ease of distribution and collection back of the questionnaires within one and half months.

4.3 Data Screening and Cleaning

This refers to examining the collected data for possible mistakes and thus rectifying the errors if any (Pallant, 2005). This was effected by looking at every factor and element in the returned survey tools for scores out of scope, finding out mistakes in the information documents and rectifying them. The information screening and cleaning was essential for it is possible to make errors when coding information. Errors made during information coding might wreck the information analysis. Errors recognized included score 3 for gender variable and whose codes were 1 for male and 2 for female. Frequencies which were more

than the total sum of the respondents were likewise detected and henceforth adjusted. Such cases included where a respondent would tick both male and female in case of gender or tick both undecided and agree or disagree in the questionnaire Likert scale.

4.4 Tests for Correlation Statistics Assumptions

Statistical assumption tests are normally carried out on the variables used in the analysis of data to ensure that the results are trustworthy and do not result in a Type I or Type II error, or over or under-estimation of the level of significance or size of effects. Type I error occurs when a null hypothesis is rejected when it is supposed to be accepted. Type II error happens when a null hypothesis is accepted where as it is supposed to be rejected. The tests are carried out to ensure that the violations of assumptions do not lead to any serious bias or whether they are of little consequence and are essential to meaningful data analysis (Angen, 2000). Since this study relied on correlation analysis for statistical testing, it was important to test the main statistical assumptions underlying correlation and regression analysis. These basic assumptions included test for normality, linearity, multicollinearity and homoscedasticity as discussed in sections 4.4.1 through 4.4.4. According to Asghar, Ghasemi, Saleh and Zahediasl (2012), violation of statistical assumptions can invalidate statistical test results.

4.4.1 Test for Normality

Correlation analysis assumes that variables have normal distributions and that data is not highly skewed or kurtotic. Substantial outliers can distort relationships (Jarque, Carlos & Bera, 1987). There are several ways the researcher can test this assumption, visual inspection of data plots, skewness, kurtosis, normal quantile-quantile (Q-Q) plots and histogram that give researchers information about normality. Kolmogorov-Smirnov tests, which provide inferential statistics on normality, can also be used. Formal approach in this was to conduct a statistical test of the Assumption of Normality to provide the shape of the sample using histogram based on the multivariate standardized residuals of the independent variables (IDVs) and the dependent variable (DV). This was done using the standard error residuals in a multivariate relationship, which resulted in the histogram based on regression-standardized residuals as shown in Figure 4.1.

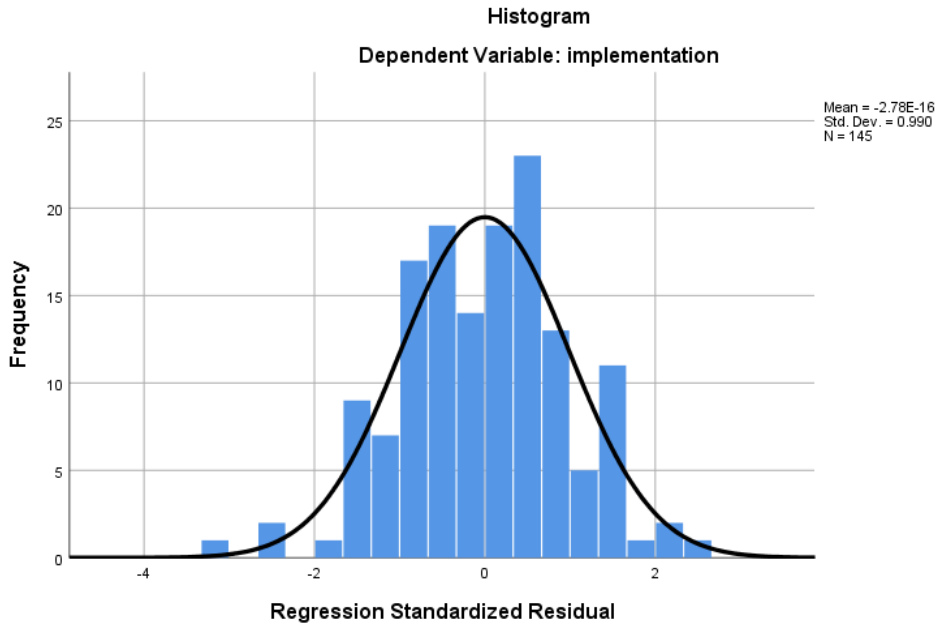


Figure 4.1: Test of Normality

From the Figure 4.1, it can be noted that, the errors between observed and predicted values of the residuals were normally distributed. This implies that the assumption of normality was not violated.

4.4.2 Test for Linearity

Linear correlation and regression requires that the relationship between the independent and dependent variables be linear. This linearity assumption is best tested using scatterplots based on the variables. In this study, this assumption was tested using the standard residuals run on the dependent variable and resulted in the normal probability-probability (P-P) plots as shown in Figure 4.2.

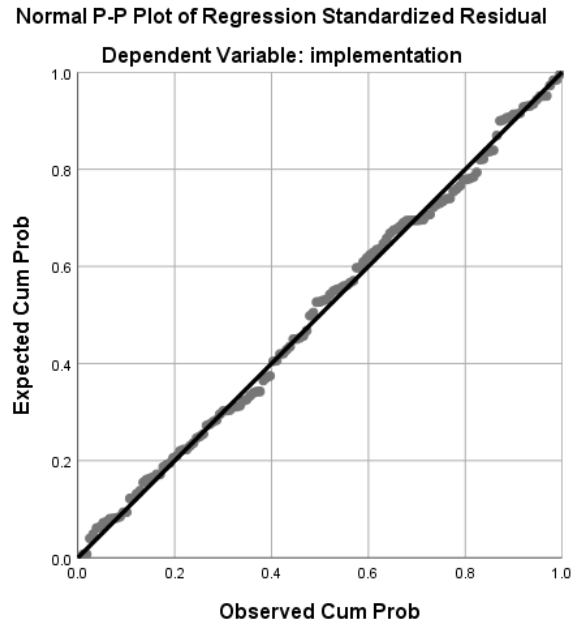


Figure 4.2: Normal probability-probability (P-P) plots for testing linearity

It should be noted from Figure 4.2 that the distribution of the scatter plots for the cumulative residuals fitted through the line of best fit. This therefore implied linearity of distribution of data among the variables under consideration.

4.4.3 Test for Multicollinearity and Singularity

Linear assumptions of singularity and multicollinearity were also determined prior to undertaking regression examination through correlations and residual values tables produced by SPSS. During information examination, singularity happens if an autonomous variable is generated from a mix of other free factors. Then again, multicollinearity is determined by analyzing the tolerance values under collinearity to guarantee that the supposition that is not violated (Murray, Leigh, Nguyen, Hien, Lee, Yu-Feng, Remmenga, Marta, Smith and David, 2012). Specifically, $1 - R^2$ values ought to be more than 0.1 suggesting low multicollinearity (Murray et al., 2012).

If two factors are wholly collinear, singularity is said to exist and a precise straight relationship exists between the two-predictor factors with a connection coefficient equivalent to 1.0 or - 1.0. Then again, Pedace (2013) contends that multicollinearity happens

when the relationship coefficient of two predictor factors is equivalent to or more than 0.7. In this review, multicollinearity was tested utilizing the variance inflation factor (VIF) and tolerance levels. A tolerance level of under 0.1 could infer presence of multicollinearity while a VIF in excess of 10 suggests multicollinearity. Table 4.5 shows the collinearity statistics for every one of the IVs in the correlation between institutional determinants and execution of free and compulsory education.

Table 4.5: Multicollinearity Statistics

Model		Unstandardized		Standardized		Collinearity	
		Coefficients		Coefficients		Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance VIF
1	(Constant)	.693	.382		1.814	.072	
	Levies	.482	0.038	0.552	12.568	.000	.737 1.357
	Infrastructure c	.637	.097	.534	6.538	.000	.697 1.435
	Teachers_c	.056	.102	.045	.546	.586	.681 1.469
	Entry behavior_c	.069	.067	.075	1.031	.304	.870 1.149

a. Dependent Variable: implementation

From Table 4.5, it can be observed in the last two columns where collinearity statistics show that tolerance levels ranged between .681 and .870. Since none of the variables had a tolerance level of less than 0.1, it was concluded that there was no multicollinearity. Similarly, the VIF values in the analysis showed that maximum value in the range was 1.469. This also implied that there was no multicollinearity. This implied therefore that the independent variables, charging extra levies, infrastructure adequacy, teaching staff adequacy level and learners' entry behavior in the model were not highly correlated with each other.

4.4.4 Tests for Homoscedasticity and Heteroscedasticity

Disperse graphs were plotted before attempting correlation examination to counter check homoscedasticity and heteroscedasticity. In statistics, a sequence of haphazard factors is homoscedastic if all irregular factors in the sequence have equal fixed variance. Albeit the presumption that homoscedasticity simplifies mathematical displaying, researchers like Wonsuk, Robert, Sejong, Karan, Qinghua, James and Lillard, (2014), contend that grave infringement in homoscedasticity might bring about misjudging the goodness of fit as estimated by the Pearson correlation coefficient, although this does not nullify regression outcomes.

In this review, homoscedasticity was determined by looking at scatterplots of the remaining parts of the predictor factors and the reliant variable to discover that the group of focuses were roughly of similar width in the residuals plots derived by SPSS (Figure 4.3). Heteroscedasticity is the lack of homoscedasticity. An assortment of irregular factors is heteroscedastic in case there are sub-populaces that have various fluctuations from others. Heteroscedasticity in regression examination can discredit statistical tests of importance that assume that the demonstrating blunders are uncorrelated and ordinarily distributed and that their differences do not change with the impacts being displayed. In Spherical-Homoscedastic Distributions, Wonsuk et al (2014) contend that the correlation and residual tables generated by SPSS that are utilized to test for collinearity can likewise be utilized to check for presence of Heteroscedasticity. In this review, the supposition was not disregarded as the standard multivariate residuals scatter plots fitted well within – three and +three standard deviations as displayed in Figure 4.3.

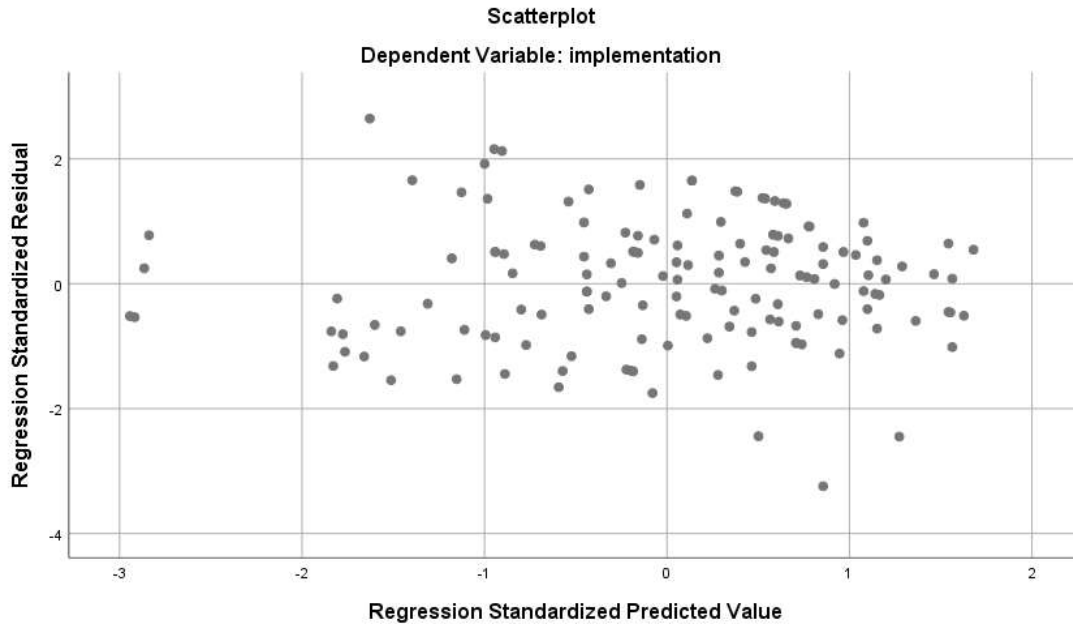


Figure 4.3: *Scatter plots for multivariate residuals for checking homoscedasticity*

4.4.5 Control of Type I Error and Type II Error

For statistical discoveries to be logical, an analyst needs to control Type I and Type II errors, which happen because of unacceptable translation of results during tests of different statistics. Type I error happens when the null hypothesis is dismissed when it should be acknowledged while Type II error happens when the null hypothesis is acknowledged when it should be dismissed (Banerjee, Chitnis, Jadhav, Bhawalkar, and Chaudhury, 2009). In this review, Type I error was limited by utilizing a confidence level of 95 percent, suggesting that the ordinary standard variate was 1.96 and the significance extent (p) was less or equivalent to 0.05. Type II error was limited by taking a huge enough sample of 145 respondents as suggested by (Banerjee et.al, 2009) sample size measure.

4.4.6 Treatment of Likert Type Data in the Principals' Questionnaire

The clarification of research outcomes by utilization of Likert Scale governs the accuracy of results. For purposes of gauging the factors as used in this research, a Likert sort of scale was devised using a range of 1-5, where by a numerical worth of 1=SD – Strongly Disagree; 2=D – Disagree; 3=N – Neutral; 4=A – Agree; and 5= SA – Strongly Agree was used as embraced by Bishop and Herron (2015). Likert sort of scales are satisfactory to

measure an ideal part where mathematical modelling is involved in data assessment, from here on out requiring joining markers of various variables. Carifio and Rocco (2007) report that during examination of Likert scale data, one ought to perceive a methodology where; strongly Disagree (SD) = $1 < SD < 1.8$; Disagree (D) = $1.8 < D < 2.6$; Neutral (N) = $2.6 < N < 3.4$; Agree (A) = $3.4 < A < 4.2$; and Strongly Agree (SA) = $4.2 < SA < 5.0$ as such keeping an equidistance of 0.8 unit in the scale. These weighting criteria of responses of Likert-type data pushed through by Carifio and Rocco (2007) was used as an explanation strategy during data examination in this research.

4.5 Demographic Characteristics of the Principals

The principals' demographic characteristics in terms of gender, age, academic qualification, and working experience were sought from the respondents. Results of this analysis are shown in Table 4.6.

Table 4.6: Demographic characteristics of principals

Variable	Values	Frequency	Percent	Cumulative percent
Gender	Male	100	69	69
	Female	45	31	100
	Total	145	100	
Age	30-39 years	10	6.9	6.9
	40-49 years	79	54.5	61.4
	50 years and above	56	38.6	100
	Total	145	100	
Academic qualification	Diploma	4	2.8	2.8
	Bachelor's degree	85	58.6	61.4
	PGDE	10	6.9	68.3
	Masters	46	31.7	100
	Total	145	100	
Working experience	Less than 5 years	46	31.7	31.7
	5-9 years	49	33.8	65.5
	10- 14 years	33	22.8	88.3
	15- 19 years	11	7.6	95.9
	20 years and above	6	4.1	100
	Total	145	100	

The gender of the principals was determined using the dichotomous values of male and female. From the analysis in Table 4.6, male principals constituted 69 percent while the female principals constituted 31 percent of the sample data. This indicates that there is gender disparity as pertains posts to posts held by principals in the public day secondary schools in Kitui County. This is contrary to TSC policy on gender balance in school

management (TSC policy on appointment and deployment of institutional administrators, 2017). On this basis; girl learners would shy away from joining such schools for fear that their learning atmosphere is not supportive. Enrollment in those schools would hence remain low.

With respect to age of the principals, estimation was done utilizing the ordinal worth scopes of under 30 years, 30-39 years, 40-49 years and 50 years or more. The outcomes show that greater part of the principals fell in the age section of 40-49 years constituting 54.5 percent while 38.6 percent were in the age of 50 years or more. Those principals falling inside the age bracket of 30-39 years comprised 6.9 percent, being minimal level of representation in terms of age classes. Larger part of the schools (54.5) percent are administered by moderately aged principals who have instructing experience of 15-25 years given that greater part of secondary school teachers begin instructing at age of 25. This meant that the principals were experienced enough to react to key education administration policy issues that were pursued by this review.

As for the academic qualification, the principals were required to indicate the highest level attained in terms of their academics. The values that were envisioned as the responses were categorized to show whether one had attained diploma, bachelor's degree, masters, PGDE and PhD qualifications. In this regard therefore, analyzed results in Table 4.6 shows that 58.6 percent of the principals, who constituted the majority, had a bachelor's degree as their highest academic qualification. Similarly, 31.7 percent of the principals had attained the level of master's degree as the highest qualification while those with PGDE qualification constituted 6.9 percent of the sample. It is also worth noting that principals with diploma qualifications were the lowest having been represented by 2.8 percent of the sampled principals. This implies that greater part of the schools (97.2 percent) are led by principals who have first degree or higher hence adequately knowledgeable in administrative skills. This enables the principals to professionally handle the issues affecting learners' transition to and completion at secondary schools.

The review also undertook to establish the working experience of the principals. In this respect, working experience was measured by the number of years worked as a principal and nominally categorized into the following values thus: less than 5 years; 5-9 years; 10-14 years; 15- 19 years and 20 years and above. Consequently, from the analysis in Table 4.6, it is observable that majority (33.8 percent) of the principals had a working experience of 5-9 years and 31.7 percent of the principals had an experience below 5 years while 22.8 percent had a working experience of between 10-14 years. Principals with higher working experience of 15-19 years and above 20 years constituted 7.6 percent and 4.1 percent respectively. We can thus conclude that majority of the principals (68.3 percent) have good experience of at least 5 years which makes them better administrators and hence able to effectively execute government policies regarding transition and completion rates.

4.6 Length of Stay of Respondents in the Current Work Station

The study delved into finding out the length of stay of the respondents in their current workstations. Period of service in a workstation is key in gaining experience pertaining to issues under consideration. This is shown in Tables 4.7 and 4.8 and as discussed in sub sections 4.6.1 through 4.6.3.

4.6.1 Principals’ average length of stay in the current station

The principals were asked to indicate their length of stay in the current station. The results are shown in Table 4.7.

Table 4.7: principals’ average length of stay in current station

	Mean	Std. D
How long have you been in the current station?	4.33	2.59

From Table 4.7, it can be observed that majority of the principals had stayed in the current station for an average of 4 years. This is considerably long enough stay to enable the principals understand well the trends of transition and completion in their schools, hence respond appropriately.

4.6.2 Parents Association (PA) Chairpersons' length of service

The PA chairpersons were asked to indicate how long they had served as chairpersons of the parents associations in their respective schools. Results of this analysis are as shown in Table 4.8

Table 4.8: Period of service in school as Parents Association (PA) chair

	N	Minimum	Maximum	Mean
For how long have you been a school PA chair in your current school?	14	1	4	3.00
Valid N (list wise)	14			

As can be observed from Table 4.8, all the PA chairs had served for a minimum period of one (1) year and a maximum period of four (4) years. On average, the length of service for the chairpersons in their current schools was three (3) years. This meant that they were well versed with the transition and completion rates in their schools and the contributory factors for the rates.

4.6.3 Length of Service of Kitui County Director of Education (CDE)

From the interviewing process, it was established that the CDE had stayed in Kitui County for 2 years. This period was therefore enough for the CDE to have interacted and got experience regarding the transition and completion trends in the County and the contributory factors there of.

4.7. Transition and Completion Rate in Kitui County

Data pertaining to the transition and finishing rates in Kitui County were obtained from analysis of principals' questionnaires, interview schedule for Kitui County Director of Education and document review. Estimates of the transition and completion rates in this study were considered as critical indicators for measuring execution of free and compulsory secondary school education. A summary of the findings is as indicated in sections 4.7.1 through 4.7.3 and shown in Tables 4.9 through 4.11.

4.7.1 Analysis of transition and completion rates from Principals' Questionnaire

The review sought to establish from principals the transition and completion rates in their schools. The average rates are indicated in Table 4.9.

Table 4.9: Average transition and completion rates in public day secondary schools in Kitui County

At what percentage of implementation of free and compulsory education is 82.72 13.97
your school? i) Transition rate/%

At what percentage of implementation of free and compulsory education is 77.34 14.04
your school? iii) Completion rate/%

From Table 4.9, it is observable that the average percentage of execution of free and compulsory education in terms of transition rates for most schools in the study area was 82.72 percent while the average completion rates were 77.34 percent. This therefore implies that the clarion call by Ministry of Education (MOE) of having 100 percent transition rates has not been achieved in the study area. A completion rate of 77.34 percent implies there are students who drop out of school, thus causing a lot of wastage in spite of the government providing free and compulsory education.

4.7.2 Analysis of Transition and Completion Rates from the Kitui County Director of Education (CDE) Interview Schedule

Regarding the percentage of execution of free and obligatory instruction in secondary schools in Kitui County, it was established that the County has a transition rate of 90 percent while the completion rate is 86%. This implies that there are cases of dropouts in the county in spite of the free and obligatory secondary education. Regarding the factors that negatively affect the execution of free and obligatory education, the CDE was of the opinion that early pregnancies, child employment as maids and “*Shamba*” boys, “*boda boda*” operators, and drug abuse were among the factors that affect transition and completion rates in Kitui County. In order to enhance transition and completion rates within the county and achieve 100 percent transition and completion rates, the CDE

retorted that they are liaising with chiefs to make sure that all school age children are in school. He also said that they are cautioning head teachers against charging unauthorized levies, which sometimes contribute to dropout rates.

4.7.3 Analysis of Transition and Completion Rates from Document Review

Analysis of various documents from the county education office regarding transition and completion rates was done in order to get a fair view of the status of the construct under consideration in the study. In this case, transition rates were determined by comparing data of students who did their KCPE and those of similar cohort who enrolled in form one in a particular year. Similarly, completion rates were obtained by comparing the cohort of students who enrolled in form one and those who enrolled for KCSE exit examination. To put the rates into perspective, a five- year trend was established for each case and the analyzed results for these scenarios are provided in Tables 4.10 and 4.11.

Table: 4.10: Transition rates from primary to secondary schools (2016-2020)

KCPE Year	KCPE Candidature	Form 1 Year	Form 1 Enrolment	Transition Rate	Marginal rate
2015	34848	2016	23066	66.2	-
2016	35215	2017	24132	68.5	2.3
2017	36940	2018	29572	80	11.5
2018	37087	2019	31499	85	5
2019	38081	2020	34212	89.9	4.9
Average				77.92	

It can be observed from table 4.10 that out of 34848 students who did their KCPE in 2015, only 23066 were enrolled in secondary schools addressing a progress pace of 66%. Essentially an aggregate of 35215 candidates did their KCPE in 2016, yet just 24132 learners joined form one in the ensuing year hence addressing a changeover pace of 68.5 percent. Additionally, an aggregate of 36940 understudies did their KCPE in 2017, yet just 29572 were selected to join form one in the subsequent year 2018, addressing a change pace of 80%. Further in 2018, a sum of 37087 pupils were enlisted to do KCPE in 2018,

however in 2019 the learners who joined from the same group were 31499 addressing a change pace of 85%.

Lastly, just 34212 students joined form in 2020 from an aggregate of 38081 pupils who sat for their KCPE in 2019, addressing a progress pace of 89.9 percent. Averagely therefore, the transition rate for the past five years in Kitui county is 77.9. It should also be observed that the rate of transition from primary to secondary was steadily increasing for the five years under consideration. This can be attributed to government interventions such as free day secondary school education among other interventions. It is noteworthy that the marginal rate of transition was highest (11.5 percent) in 2018 and which may be attributed to fact that it is the year (2017) when the government made public day secondary schools education fully free in Kenya.

Table 4.11: Completion rates at KCSE (2016-2020)

Form year	1 Enrolment	1 KCSE Year	KCSE Candidature	Completion Rate	Marginal rate
2013	21909	2016	16678	76.1	-
2014	22607	2017	18071	79.9	3.8
2015	22949	2018	16707	72.8	-7.1
2016	23066	2019	19716	85.5	12.7
2017	24132	2020	21496	89.1	3.6
			Average	80.68	

Like the transition rates, the completion rates were based on data comparison when a student joined form one up to the time, they enrolled to sit for the KCSE exit examinations. In this regard therefore, it can be observed from Table 4.11 that 16678 students enlisted to sit for KCSE in form four in 2016 from an associate of 21909 students who had enrolled in form one in 2013, subsequently addressing a fulfillment pace of 76.1 percent. In 2017, a sum of 18071 students finished their secondary schooling cycle contrasted with 22607 in a similar associate who had enrolled in form one in 2014, subsequently giving a fulfillment pace of 79.9 percent. In 2018 in any case, the fulfillment rate was 72.8 percent that was

obtained by looking at the students who sat for KCSE in 2018 and those of a similar associate who had transited to form one in 2015.

Additionally, in 2019, a sum of 19716 students finished out of the conceivable cohort of 23066 students who had entered form one in 2016 and this addressed a fulfillment pace of 85.5 percent. Lastly, the accomplishment rate for the 2017 cohort that finished examinations in 2020 was 89.1 percent. From the foregoing, it can be observed that the average completion rate for the 5 years under consideration was 80.68 percent. Generally, the rate of completion in the study area increased steadily for the five – year period with the highest marginal rate of increment (12.7 percent) registered in 2019 and which may be attributed to making public day secondary education fully free as from 2018 by the government among other factors.

4.8 Analysis as per the Study Objectives

This review sought to address four objectives thus, to establish the correlation between charging of additional levies and execution of free and obligatory education, to establish the connection between infrastructure adequacy level and execution of free and obligatory education. Further objectives were, to determine the correlation between teaching staff adequacy level and execution of free and obligatory education and to determine the relationship between learners' entry behavior and execution of free and obligatory education in public day secondary schools in Kitui County. The findings in relation to each of the formulated objectives are presented in sub sections 4.8.1 through 4.8.5. Data was analyzed through narratives, descriptive statistics and hypothesis testing.

4.8.1 Relationship between charging of extra levies and implementation of free and compulsory education

The first objective of the study was to establish the relationship between charging of additional expenses and execution of free and compulsory training in public day secondary schools in Kitui County. Data were collected by utilization of Parents' Associations (PA) bosses' interview plan, questionnaire for principals (QP), Kitui CDE interview schedule and document review analysis. The QP information was aggregated on a five-point Likert

scale and answer respects allocated scale values in which 5 = strongly agree, 4 = agree; 3= undecided; 2= disagree and 1 = strongly disagree. Measurement of this parameter was informed by the fact that schools have kept on charging additional costs paying little regard to the execution of free and compulsory education policy. In this regard, the review endeavored establish the relationship between charging of additional fees and the execution of free and obligatory schooling in public day secondary schools in Kitui County. Outcomes of this evaluation are presented in sub sub sections 4.8.1.1 through 4.8.1.4 and presented in Tables 4.12 and 4.13.

4.8.1.1 Analysis of responses from principals pertaining charging of extra levies

Questionnaire was used to gather information from principals. The survey was intended to get views identifying with various sorts of additional duties levied and their bearing on progress and completion of students. Results are displayed in Table 4.12.

Table 4.12: Responses from principals on charging of extra levies and implementation of free and compulsory education.

	SA	A	U	D	SD	Mean	Std. Deviation
Charging of extra levy for form 1 enrolment leads to below 100% transition rate for some learners unable to pay the levy never join form 1	35.9	39.3	1.4	15.2	8.3	3.79	1.30
Charging of extra levies meant for BOM teachers' remuneration, remedial teaching, teacher motivation, uniform and games equipment buy leads to learners unable to pay dropping out hence lowering completion rate.	31.0	42.1	2.1	16.6	8.3	3.71	1.29
Levies charged on students for scholarly excursions, education day and activities prompts students exiting if incapable to pay. Result is lowered retention and completion.	15.2	29.0	4.1	25.5	26.2	2.81	1.48
Charging of infrastructure funds leads to some learners exiting for parents are unable to pay. This reduces retention and completion rates	22.8	35.9	4.1	22.1	15.2	3.29	1.42
Valid N (list wise)	145						

From Table 4.12, clearly majority (75.2%) of the school administrators attested that charging of extra fee for form 1 admittance prompts below 100 percent transition rate since some students are incapable of paying the levy hence do not enroll in form one. 23.5 percent of principals stood out from the affirmation. Only 1.4 percent of the administrators were uncertain. The Mean rating for this limit was 3.79 with standard deviation of 1.3. This proposes that all around, most principals were in affirmation that charging of extra costs conflictingly impact transition from primary to secondary schools.

Besides, the review looked for the perspectives on the principals concerning the relationship between's charging of levies meant for BOM teachers' remuneration, remedial instructing, teacher inspiration, uniform and games equipment buy and finish rate. Considering the prior viewpoint, 73.1 percent of the principals responded in the confirmatory while 24.9% protested the explanation that charging of additional tolls to provide for different executive functions in the school, for example, paying BOM instructors' pay, inspiration of instructors and getting of school outfits among others pulled down finishing rates in secondary schools. On average (mean = 3.71 S d = 1.29), bigger part of the headteachers concurred that charging of additional fees of whatever kind sunk accomplishment rates. This implied that execution of free and mandatory public day secondary education was being affected by the charging of additional funds as shown by low completion rates based on the perspectives advanced by the principals.

In like manner, opinions were sought from the school administrators concerning the relationship between levies charged on learners for scholarly excursions, education day, and games activities and learners drop out rates. As to this parameter, it is observable that only 44.2 percent of the administrators affirmed that levies charged for instructive excursions prompts expanded drop out rates while 51.7 percent of the principals contradicted the statement. On average most principal ambivalence. Regarding whether charging of additional costs induced leaving school by learners, most principals voiced uncertainty (Mean = 2.81; s d = 1.48).

In conclusion, the review tried to find out whether charging of infrastructure fee prompted exiting school by some learners, for failure to pay caused decrease in finishing rate. It is apparent from the Table 4.12 that 58.7% of the principals were in conformity that the factor of charging additional tolls to foster infrastructure development prompted students exiting school while about 37.3% of them were of the clashing view. Generally, most principals concurred that additional duties charged for infrastructure advancement prompted students exiting school subsequently bringing down consummation rates (Mean = 3.29; s d = 1.42).

4.8.1.2 Analysis of responses from Parents Associations Chairpersons pertaining charging of extra levies.

Interview schedule plan that was meant to get sights from Pas on the different parameters under consideration in this study was utilized. The study sought to gather data regarding transition and completion of learners in schools. A number of these perspectives yielded both quantitative and qualitative reactions and are analysed herein. Analysis of the descriptive replies from the interview plan is as displayed in Table 4.13.

Table: 4.13: Descriptive analysis of the nominal items in PA interview schedule on charging of extra levies

Variable	Values	Frequency	Percent
Apart from lunch levy, does your school solicit other levies froml learners?	Yes	14	100
	Total	14	100
After a student pays a levy, does your school issue official receipt?	No	14	100
	Total	14	100
How does the charging of other levies upset transition, retention and completion rates among learners?	Negatively	11	78.6
	Positively	3	21.4
	Total	14	100

The Parents Associations chairpersons were asked if their schools charge other school levies from lunch levy demand where all answered in the affirmative as displayed in Table 4.13. This is indicative of the fact that notwithstanding the execution of free and compulsory secondary education, schools continue to charge additional tolls thus ignoring the Ministry of Education policies. Instances of the additional tolls charged according to the chairs of the parents affiliations include: remedial instruction, books buy, students' outings, rallies, BOM teachers' pay rates, school's structures installation and teacher inspiration fee.

Additionally, the chairpersons were asked if their schools at any point issue receipts for the additional tolls charged, of which they all reacted in the negative. This suggests that the schools do not give official receipts after charging the additional duties. The reasons given for not giving receipts were that these duties are illegally charged by schools, as they are not endorsed by the Ministry of Education (MOE). Further, the duties are not budgeted as a component of appropriation- in-aid by the MOE. Subsequently, they are collected outside the ordinary school yearly financial plan. Concerning how the charging of additional affects changeover, 78.6% of the school executives were of the view that charging of the additional duties adversely influenced changeover while 21.4 percent said charging of the additional tolls positively influenced changeover from primary schools.

4.8.1.3 Analysis of responses from Kitui County Director of Education pertaining charging of extra levies.

Pertaining to whether Kitui County public secondary schools charge additional duties, the Kitui County Director of Education (CDE) gave a consenting reaction just like the school executives. He noted that explanations behind charging of additional tolls by schools were diverse and included BOM teachers' remuneration, uniform procurement, games facilities buy, scholastic excursions and remedial instruction among others. As to whether the schools pursue official consent to charge the tolls, the CDE noted that it could either be YES or NO relying upon the prevailing situations. In this regard, the CDE noticed that there are a few events where schools' requests to charge the duties are supported dependent on the necessities of the schools upon appraisal by the concerned authorities. In certain

occasions, schools charge the tolls unlawfully for they do so such without authorization to gather such levies. Notwithstanding, the CDE was of the opinion that charging of additional tolls on students adversely influenced both progress and culmination rates.

4.8.1.4 Reasons for charging extra levies as per document review analysis

The record survey investigation corresponding to why schools charge additional tolls exposed following reasons: acquisition of school transports; paying BOM teachers; development of study rooms and dorms; remedial instructing despite the fact that solicitations for charging remedial teaching levies are never approved by the MOE. These revelation agree with the views obtained from the principals, parents' affiliation administrators and the Kitui County Director of Education that charging of additional duties inversely influences changeover, retention and consummation rates in public day secondary schools in Kitui County.

4.8.1.5 Testing of null hypothesis one (H₀₁):

The null hypothesis one (H₀₁) stated thus, There is no statistically significant relationship between charging of extra levies and implementation of free and compulsory education in public day secondary schools in Kitui County. The hypothesis was tested at .05 level of significance and results are presented in Table 4.14.

Table 4.14: Correlation coefficient between charging of extra levies and implementation of free and compulsory education

		Levies	Infrastructure	Teachers	Entry behavior	Implementation
Levies	Pearson Correlation	1	.580**	.356**	.249**	-.747**
	Sig. (2-tailed)		.000	.000	.003	.000
	N	145	145	145	145	145

** . Correlation is significant at the 0.01 level (2-tailed).

It is unquestionable from Table 4.14 that the correlation coefficient between charging of additional levies and execution of free and mandatory schooling was negative ($r = -.747$; $p \leq .01$). This interpreted that the association between charging of additional tolls and execution of free and mandatory schooling was negative and significant. The coefficient of determination ($r^2 = .558$), indicates that charging of additional fees is responsible for 55.8 percent contrast in the execution of free and obligatory education in public day secondary schools in Kitui County.

Therefore, the more the charging of additional levies, the lower the execution of free and mandatory schooling. This proposes that charging of additional commitments has probability of slowing down changeover from primary schools, retention and completion rates at secondary schools. Subsequently, this retrogressively affects the accomplishment of the free and mandatory education strategy in public day secondary schools in Kitui County. Consequently, there was rejection of the null hypothesis statement: there is no statistically significant relationship between charging of extra levies and implementation of free and mandatory schooling in public day secondary schools in Kitui County.

4.8.2 Relationship between infrastructure adequacy and implementation of free and compulsory education.

The research additionally attempted to find out the relationship between adequacy level of school infrastructure and execution of free and obligatory education in public day secondary schools in Kitui County. In such manner, the study endeavored to find out the effect of inadequacy of infrastructure (learning rooms, libraries, labs, seats, lockers, washrooms, sanitation facilities, and play fields and games equipment) on changeover and accomplishment rates. The above structures and facilities were construed as the parameters of infrastructure that enable effective teaching and learning. Data concerning the aforesaid aspects of infrastructure were gathered based on a five point Likert scale whose response groupings and standards were set as 5= Strongly Agree (SA), 4= Agree (A), 3= Undecided (U), 2= Disagree (D) and 1= Strongly Disagree (SD). Evaluation of this viewpoint is as presented in sub headings 4.8.2.1 through 4.8.2.3 and Tables 4.15 and 4.16.

4.8.2.1 Analysis of responses from principals pertaining infrastructure adequacy

Questionnaire was used to collect data from principals. The questionnaire was intended to get views relating to various aspects of sufficiency level of infrastructure and its effect on retention and completion rates of students. Results are presented in Table 4.15.

Table 4.15: School infrastructure adequacy and implementation of free and compulsory education as reported by principals

	SA	A	U	D	SD	Mean	Std. Deviation
Deficiency of learning rooms remarkably homerooms, library and research centers decreases number of students a school can enroll consequently underneath 100% changeover from primary to secondary schools	47.6	40.7	1.4	6.2	4.1	4.21	1.04
Insufficiency of learning facilities; lockers and seats limit number of students a school can admit hence low retention and completion rates.	31.7	46.9	2.1	13.8	5.5	3.86	1.17
Deficiency of sanitation facilities; lavatories/latrines might make some students dropout bringing about low level retention and completion rate	10.3	29.0	7.6	37.9	15.2	2.81	1.29
Absence of/deficiency of play fields and games equipment might make some students dropout for their interest might be in talents/games	9.0	42.1	6.9	25.5	16.6	3.01	1.31
Valid N (list wise)	145						

From Table 4.15, it is observable that 88.3 percent of the administrators agreed while 10.3% contrasted to the explanation that inadequacy of learning rooms decreases the measure of learners a school can enroll, in this way prompting under 100 percent transition rate from primary to secondary schools. On average, a big number of the administrators (Mean = 4.21; s d = 1.04) were of the view that deficit of teaching rooms affected

changeover rates inversely, accordingly influencing the execution of free and mandatory instruction. A majority (78.6%) of the principals concurred that insufficiency of learning facilities, for instance, lockers and seats limit the number of students a school can enroll therefore eliciting low changeover and accomplishment rates. Merely 19.3% of the principals went against the attestation while 2.1% of them were ambivalent. Averagely, mainstream of the principals concurred that learning facilities impact the execution of free and mandatory education (Mean = 3.86; s d = 1.17). This implied that insufficiency of learning facilities could induce low changeover and accomplishment rates, likewise indirectly affecting execution of free and obligatory education in secondary schools.

Concerning sanitation facilities, bigger part (53.1 percent) of the principals differed that deficiency of hygiene facilities as washrooms may make some students dropout leading to low level finishing rate, while 39.3% concurred with the statement. The Mean and standard deviation rating for this point was 2.81 and 1.29 respectively, inferring that the principals had a divided opinion whether insufficiency of hygiene facilities prompted dropping out of learners. Also 51.15% of the principals concurred that shortage of/lack of of play fields and games stuff might make a number of learners' dropout of school given that their interest might be in talents/games while 42.1% of them differed with the affirmation and 6.8 % of the principals were ambivalent. Overall there was bigger number of principals who concurred regarding the aspect of shortage of play fields and games facilities being a player in students dropping out of school (Mean = 3.01, s d =1.31)

4.8.2.2 Analysis of Responses by Chairpersons of Parents Associations pertaining infrastructure adequacy

Interview schedule intended to collect from Pas views with respect to the different viewpoints that were under consideration in this exploration study was utilized to gather information. Besides, the research sought to set up from the Parents Associations chairs the situation of different aspects with regard to transition and culmination rates of students in schools. Part of of the responses yielded both quantitative and qualitative information and are discussed hereunder. Breakdown of the expressive reactions from the conversation schedule is presented in Table 4.16.

Table: 4.16: Descriptive analysis of the nominal item in PA interview schedule on infrastructure adequacy

Variable	Values	Frequency	Percent
Do following factors lower or increase transition, retention and completion rates in your school? i) Inadequacy of school infrastructure	Lowers	14	100
	Total	14	100

As shown in Table 4.16 all the PA chairpersons concurred that deficiency of school infrastructure brings down changeover from primary schools and fruition rates among students in public day secondary schools.

4.8.2.3 Analysis of responses from Kitui County Director of Education pertaining infrastructure adequacy

Analysis of responses in the CDE interview schedule disclosed that deficiency of infrastructure like study halls, libraries, labs, learners' lockers; seats, tables, playfields and games amenities influenced transition, retention and fruition rates contrarily. This is on the ground that they lead to students exiting school for they cannot be accomodated fittingly.

4.8.2.4 Testing of null hypothesis two (H0₂):

The null hypothesis two (H0₂) stated thus: There is no statistically significant relationship between school infrastructure adequacy level and implementation of free and compulsory education in public day secondary schools in Kitui County. The hypothesis was tested at .05 level of significance. Test results are shown in Table 4.17 and narrated hereunder.

Table 4.17: Correlation coefficient between school infrastructure adequacy and implementation of free and compulsory education

		Levies	Infrastructure	Teachers	Entry behavior	Implementation
Infrastructure	Pearson Correlation	.580**	1	.536**	.297**	-.795**
	Sig. (2-tailed)	(2-.000		.000	.000	.000
	N	145	145	145	145	145

** . Correlation is significant at the 0.01 level (2-tailed).

Null hypothesis 2 for this examination communicated thus: There is no statistically significant relationship between school infrastructure adequacy and implementation of free and compulsory education in public day secondary schools in Kitui County. It is worth noting in Table 4.17 that the coefficient of correlation between infrastructure adequacy and execution of free and obligatory schooling was negative ($r = -.795$; $p \leq .01$). This shows that inadequacy of school infrastructure has an inverse association with the rates of changeover from primary schools and completion. The implications of this finding is that when the provision of structures and facilities in schools is insufficient, the execution of free and mandatory education is adversely impacted.

Accordingly, significant degrees of deficiency as far as infrastructural improvement in schools is concerned adds to low degrees of changeover and culmination rates at KCSE. The coefficient of determination ($r^2 = .632$) infers that deficiency of infrastructure can be liable for 63.2 percent of the variance in the exhibition of free and mandatory secondary education policy in public day secondary schools in Kitui County. Subsequently, there was dismissal of the null hypothesis that expressed that there is no statistically significant connection between school infrastructure adequacy and implementation of free and obligatory tutelage in public day secondary schools in Kitui County.

4.8.3 Relationship between teaching staff adequacy and implementation of free and compulsory education

The review endeavored to scrutinize the connection between adequacy of instructing staff and execution of free and obligatory schooling in public day secondary schools in Kitui County. This factor was assessed using a five point Likert scale whose response and gauge standards were given thus: 5 = Strongly Agree (SA), 4= Agree (A), 3= Undecided (U), 2= Disagree (D) and 1= Strongly Disagree (SD). Assessment of this parametr is shown in sub sections 4.8.3.1, 4.8.3.2 and 4.8.3.3 and in Tables 4.18 and 4.19.

4.8.3.1 Analysis of responses from principals pertaining teaching staff adequacy

Questionnaire for principals (QP) was used to collect data. The QP was designed to solicit views relating to varied aspects of inadequacy of teaching staff and its bearing with transition and completion of learners. Results are as presented in Table 4.18.

Table 4.18: Responses from principals on teaching staff adequacy and implementation of free and compulsory education.

	SA	A	U	D	SD	Mean	Std. Deviation
Shortage of TSC teachers in our school makes some KCPE candidates admitted to join our school avoid joining it hence below 100% transition	38.6	44.8	-	9.0	7.6	3.98	1.20
Overworking of available teachers due to teacher inadequacy makes some subjects go untaught leading to dissatisfied learners who then drop out hence lowering, retention and completion rates	31.7	49.7	2.1	11.0	5.5	3.91	1.13
High student teacher ratio due to teacher inadequacy makes some learners go unattended to leading to some dropping out hence reducing retention and completion rates	26.2	51.7	4.1	13.8	4.1	3.82	1.10
Inadequacy of TSC teachers leads to engagement of lowly experienced BOM teachers by our school and whose ineffective teaching leads to some dissatisfied learners dropping out hence reduced retention and completion rates	26.2	49.0	1.4	16.6	6.9	3.71	1.22
Valid N (list wise)	145						

It is imperative to notice from Table 4.18 that most (83.4 percent) of the principals accepted that deficit of TSC teachers in schools leads to some KCPE candidates failing to join the schools, thus leading to below 100% transition rate. Only 16.6 percent of the principals were of contrary view. On average (Mean = 3.98; s d = 1.20) therefore, most principals were of the view that teacher shortage can result in lower transition rates from primary to secondary schools, hence affecting the implementation of free and mandatory education in public day secondary schools. Pertaining teacher workload and its effect on completion rate, the study established that 81.4 percent of the principals were in conformity that overworking of available teachers due to teacher inadequacy makes some subjects go

untaught, leading to disgruntled learners, hence their dropping out of school, thus pulling down completion rate. Only 16.5 percent of them contradicted the statement while 2.1 percent of them were ambivalent. Overall, the principals were in agreement that increased teacher workload may lead to some subjects being left unattended to and this would lead to learners dropping out of school and therefore lower completion rates (Mean = 3.91; s d = 1.13).

Additionally, the study established that the mainstream (77.9 percent) of the principals were in agreement while 17.9 percent dissented that high student teacher ratio due to teacher inadequacy makes some learners go unattended to, thus leading them to drop out of school. In general, principals were of the view that when there is high student to teacher ratio, individual attention to learners is low and this often leads to students abandoning school attendance thus affecting completion rates (Mean = 3.82; s d = 1.1). Finally, the study established from greater part (75.2 percent) of the principals that inadequacy of TSC teachers leads to engagement of lowly experienced BOM teachers. Accordingly, these teachers have ineffective teaching skills which leads to some dissatisfied learners dropping out of school, hence reduced completion rate. Minority (23.1 percent) of the principals however, opposed the aforementioned statement while nearly 1.4 percent were ambivalent. Overall, majority of the principals were in concurrence to the statement as can be seen from the average Mean index of 3.71 and standard deviation of 1.22.

4.8.3.2 Analysis of Responses from Parents Associations (PA) chairpersons pertaining teaching staff adequacy

Interview schedule was used to collect data from the chairpersons of the Parents Associations. The interview plan was formulated to solicit views with regard to the different aspects that were under consideration in study. Further, the review sought to set up from the Parents Associations chairs the situation of various perspectives relating to changeover and finish rates of students in schools. A portion of these aspects yielded both quantitative and qualitative responses and are discussed hereunder. Examination of the expressive replies from the interview plan is accessible in as presented in Table 4.19.

Table: 4.19: Descriptive analysis of the nominal item in PA interview schedule on teaching staff adequacy

Variable	Values	Frequency	Percent
Do following factors lower or increase retention, transition and completion rates in your school? i) Inadequacy of teaching staff	Lowers	14	100
	Total	14	100

As shown in Table 4.19 all the chairpersons consented that a shortfall of teaching staff decreases rates of transition, retention and finishing amidst learners in public day secondary schools in Kitui County.

4.8.3.3 Analysis of responses from Kitui County Director of Education (CDE) pertaining teaching staff adequacy

The Kitui CDE averred that inadequacy of teaching staff affected transition, retention and completion rates negatively as they contributed to students' dropping out of school.

4.8.3.4 Testing of null hypothesis three (H₀₃):

The null hypothesis three (H₀₃) stated thus: There is no statistically significant relationship between teaching staff adequacy and implementation of free and compulsory education in public day secondary schools in Kitui County. The hypothesis was tested at .05 level of significance. Test results are shown in Table 4.20 and narrated here under.

Table 4.20: Correlation coefficient between teaching staff adequacy and implementation of free and compulsory education

		Levies	Infrastructure	Teachers	Entry behavior	Implementation
Teachers	Pearson Correlation	.356**	.536**	1	.331**	-.722**
	Sig. (2-tailed)	(2-.000	.000		.000	.000
	N	145	145	145	145	145

** . Correlation is significant at the 0.01 level (2-tailed).

Null hypothesis 3 for this review specified thus: There is no statistically significant relationship between teaching staff adequacy level and implementation of free and compulsory education in public day secondary schools in Kitui County. It is perceptible in Table 4.20 that the connection coefficient concerning execution of free and obligatory tutelage and deficiency of instructing staff was negative and substantial ($r = -.722$; $p \leq .01$). The coefficient of determination ($r^2 = .521$) suggests that a deficit of instructing staff is accountable for 52.1 percent of the variance in the execution of free and mandatory secondary education in public day secondary schools in Kitui County

4.8.4 Relationship between learners' entry behavior and implementation of free and compulsory education

Entry behavior of learner can affect the implementation of free and compulsory secondary education positively or negatively. This study set out to explore the principals' views regarding how entry behavior of learners affected the transition and completion rates in secondary schools in Kitui County. Data regarding aspects measuring the entry behavior were collected using a five-point Likert scale. The response categories and values for the various aspects were given as 5 = Strongly Agree (SA), 4= Agree (A), 3= Undecided (U), 2= Disagree (D) and 1= Strongly Disagree (SD). Analysis of this aspect is as shown in sections 4.8.4.1 to 4.8.4.3 and in Tables 4.21 and 4.22.

4.8.4.1 Analysis of responses from principals pertaining learners' entry behavior

Questionnaire for principals (QP) was used to collect data. The QP was planned to gather views regarding to diverse aspects of learner entry behavior and its relationship with transition and completion of learners. Outcomes are displayed in Table 4.21.

Table 4.21: Responses from principals on learners' entry behavior and implementation of free and compulsory education

	SA	A	U	D	SD	Mean	Std. Deviation
Some schools do not admit KCPE graduates with low marks in fear that this may lower their KCSE Mean score and which leads to below 100% transition rate	61.4	29.7	-	2.1	6.24	4.67	1.53
Continuous poor performance in formative examinations by some learners due to low entry behavior leads to some eventually dropping out, due to frustration hence lowered retention and completion rates	48.3	42.8	3.4	3.4	2.14	4.32	.86
Some teachers label learners with low entry behavior as poor learners. This discourages them hence dropout lowering retention and completion rate	22.8	55.1	2.1	12.4	6.9	3.75	1.15
Some teachers advise learners with low entry behavior to transfer to artisan courses for they are not good at academics. Their transferring lowers retention and completion rates	15.9	53.8	2.8	20.0	7.6	3.50	1.20
Valid N (list wise)	145						

In Table 4.21, it is observable that majority (91.1 percent) of the principals approved while 8.3 percent of them disapproved that some schools do not admit KCPE graduates with low marks in fear that this may lower their KCSE mean score and which leads to below 100 percent transition rate. Overall, the level of agreement among principals was very high with regard to the statement considering the Mean rating of 4.67 and standard deviation of 1.53.

It is also important to observe that greater number (91.1 percent) of the principals consented that continuous poor performance in formative examinations by some learners, due to low entry behavior leads to some eventually dropping out due to frustration, hence lowered completion rate. Only 5.5 percent of the principals were opposed to the statement while 3.4 percent of them were undecided. In general, majority of the principals were of the view that poor performance in formative examinations occasioned by learners' low entry behavior could result in them dropping out, thus lowering completion rates (Mean = 4.32, SD = .86).

Concerning labeling of learners, majority (77.9 percent) of the principals concurred while 19.3 percent of them were nonconcurrent that labelling of learners with low entry behavior as poor learners discourages them, hence leading them to drop out of school, thus lowering completion rate. This view was expressed by most principals as can be seen from the average index rates (Mean = 3.75; s d =1.15). Lastly, it is observable from Table 4.21 that mainstream (69.7 percent) of the principals concurred while 26.7 percent of them differed that some teachers advise learners with low entry behavior to transfer to artisan courses for they are not good at academics. Overall, most principals agreed that teachers advice to learners with low entry behavior to transfer to artisan courses lowers completion rates (Mean = 3.5, s d = 1.2).

4.8.4.2 Analysis of responses by chairpersons of Parents Associations pertaining learners' entry behavior

Interview schedule was used to collect data from chairpersons of Parents Associations (PAs).The interview schedule was formulated to gather views in regard to various parameters that were being considered in this research study.Moreover,the study tried to determine from the PA chairpersons the situation of various factors as to retention and finishing rates in schools. A portion of the reactions yielded quantitative and qualitative information and are reflected herein. Breakdown of the expressive feedbacks from the interview plan is as portrayed in Table 4.22.

Table: 4.22: Descriptive analysis of the nominal items in PA interview schedule on learners’ entry behavior and performance in formative examinations

Variable	Values	Frequency	Percent
Does your school have a policy on: i) admission based on learner entry behavior?	Yes	5	35.7
	No	9	64.3
	Total	14	100
Does your school have a policy on: ii) promotion to next class based on learner performance in formative examinations?	Yes	9	64.3
	No	5	35.7
	Total	14	100

The study pursued to find out from the parents’ association chairpersons whether their respective schools have policies on admission based on entry behavior of the learners and upgrading to the next class based on performance in formative examinations. As can be observed from Table 4.22, 35.7 percent of the chairpersons of the parents association confirmed that they had a policy on admission while majority (64 .3 percent) responded in the negative. This therefore means that majority of the schools did not have an admission policy based on the entry behavior of the learners. However, for the schools with admission policy in place, it was established that, should one request for form one admission and the KCPE marks turns to be below the set entry mark, different schools employed different mechanisms of which among them was denying admission to such students.

In cases where the students were admitted to school, the emphasis was on character formation and hard work as opposed to academic performance, while other schools could want such a student to make a commitment to work hard and improve on their grades. In instances where such pupils continued to perform poorly in academics, schools had different measures to deal with such cases. These measures included, inviting parents/guardians to school to discuss the performance of their children; warning the

students against continued poor performance; continuously encouraging the students to improve and advising the students to repeat or transfer to other schools.

4.8.4.3 Analysis of responses from the Kitui CDE pertaining learners' entry behavior

On responses related to learners' entry behavior, the CDE asserted that, KCPE marks affected transition and completion rates negatively. The low entry behavior resulted in most learners persistently performing poorly in formative examinations, a situation that demotivated them. This contributed to some of the students dropping out of school, consequently lowering transition and completion rates.

4.8.4.4 Testing of null hypothesis four (H0₄):

The null hypothesis four (H0₄) stated thus: There is no statistically significant relationship between learners' entry behavior and implementation of free and compulsory education in public day secondary schools in Kitui County. The hypothesis was tested at .05 level of significance. Test results are shown in Table 4.23 and narrated hereunder.

Table 4.23: Correlation coefficient between learners' entry behavior and implementation of free and compulsory education

		Levies	Infrastructure	Teachers	Entry behavior	Implementation
Entry behavior	Pearson Correlation	.249**	.297**	.331**	1	-.678**
	Sig. (2-tailed)	(2-.003)	.000	.000		.000
	N	145	145	145	145	145

** . Correlation is significant at the 0.01 level (2-tailed).

The fourth null hypothesis for this review stated thus; there is no statistically significant relationship between students' entry behavior and implementation of free and compulsory education in public day secondary schools in Kitui County. Table 4.23 demonstrates an inverse and substantial coefficient of connection ($r = -.678$; $p \leq .01$) between low entry

conduct of students and execution of free and mandatory instruction in public day secondary schools in Kitui County. The coefficient of determination ($r^2 = .460$) infers that low student joining status can account for 46 percent of the disparity in the execution of free and mandatory secondary education in public day secondary schools in Kitui County.

Subsequently, the lower the entry behavior of students, the low is the pace of execution of free and mandatory schooling. This insinuates that low admission score of students has the probability of decreasing changeover and finishing rates, thus contrarily affecting the execution of free and obligatory instruction in public day secondary schools in Kitui County. This prompted rejection of the null hypothesis that there is no statistically significant correlation between low student admission conduct and execution of free and mandatory instruction in public day secondary schools in Kitui County.

4.9 Respondents Recommendations/Suggestions towards Effective Implementation of Free and Compulsory Education

Results from this study indicated following recommendations/suggestions by the study respondents, Kitui County public day secondary schools principals, Parents Associations' chairpersons of the schools and the Kitui County Director of Education towards effective execution of the free and mandatory instruction in the public day secondary schools in Kitui County. The recommendations /suggestions are as presented in sections 4.9.1 through 4.9.3.

4.9.1 Principals' Recommendations / Suggestions

Government to commit to timely disbursement of free day secondary education (FDSE) funds to avoid incidences where schools are forced to charge levies to meet certain routine and compulsory programs like administration of formative examinations. The FDSE funds to include money for purchase of learners' uniform and meals with a view to keeping very needy learners at school through out. The principals be dissuaded from charging extra levies and instead prudently use the funds disbursed by government. Additionally, they should ensure more vibrant bursary access and increment by National Government-Constituency Development Fund (NG-CDF), County governments, Non Governmental

Organizations (NGOs) like World Vision, Child Fund and others and award the bursaries without discrimination. Government to fund schools according to individual needs and not enrolment hence take care of under-enrolled schools as pertains infrastructure development and remuneration of non- teaching staff.

Further findings recommend that curriculum be expanded to include teaching of talents and reward learners who are good at co curricular programs, for that would motivate academically poor learners to stay at school untill completion. Sensitization of parents on their role of ensuring that their children are enrolled and attend schools untill completion be done. The Ministry of Interior (MOI) chief executives and relevant assistants to enforce school attendance. More public day secondary schools to be put up to ensure all learners are within reach distances and which would boost school enrollment and attendance. Government needs to employ enough teachers to meet requirements of curriculum- based establishment (CBE), a situation that would ensure that schools do not employ Board of Management (BOM) teachers, which would lead to charging of salary levy on learners. Distribution of KCPE candidates to public secondary schools not to be pegged on KCPE marks, for this would increase probability of learners with low entry behavior to be placed in prestigious schools where they would be encouraged to stay in school untill completion time.

4.9.2 PA Chairpersons Recommendations / Suggestions

In order to increase rates of transition and completion, PA chairpersons made following recommendations; increase of FDSE fund to enable purchase of set books, dictionary, kamusi, bible, atlas, reference books, calculators, geometrical sets and uniform which are not catered for by the FDSE tuition fund. Installation of adequate physical infrastructure and establishment of more secondary schools by government to equal the number of primary schools hence reduce distance for some learners who walk long distances of up to 12km in some cases. This would make schools more accessible and hence increased transition from primary schools to secondary schools. The PA chairpersons put forth following further recommendations; sensitization of ignorant parents and adamant learners to enroll and attend school untill completion time. Provincial administration (chiefs,

assistant chiefs and headmen) to strictly aid and implement government policies of 100 percent transition and re-admission of learners who have dropped out of school by identifying dropout cases and forcing them back to school. Principals to use non-monetary gifts for motivating teachers and learners, for this would make them desist from charging motivation levy.

4.9.3 Kitui CDE Recommendations / Suggestions

Data collected indicate following recommendations from Kitui CDE; government to fund construction of school infrastructure and set more funds for engaging enough teachers, concerted sensitisation by stake holders be made on need of learners to complete schooling once enrolled. Further bursary awards to needy learners need be enhanced by bodies notably NG-CDFs, County Governments, NGOs, churches and banks and head teachers to avoid as much as possible sending learners home to collect fees, for this makes them truant and eventually drop out, compromising on retention and completion rates.

CHAPTER FIVE

5.0 Discussion

5.1 Introduction

This chapter presents discussion of the study results in line with the intentions of the review and offers elucidations of the outcomes corresponding to the literature audit as examined in chapter two. The objectives of the review were, to determine the correlation between charging of additional levies and implementation of free and compulsory instruction and to establish the relationship between school infrastructure adequacy and implementation of free and compulsory instruction. Further study objectives were, to set up the correlation between teaching staff adequacy and carrying out free and mandatory instruction and to establish the relationship between learners' entry behavior and implementation of free and mandatory tutelage in public day secondary schools in Kitui County.

5.2 Relationship between charging of extra levies and implementation of free and compulsory education

Data solicited from the principals, parents' association chairpersons, the Education Director of Kitui County and acquired from archive survey investigation verified that schools continue to charge additional levies despite the public authority's order on execution of free and mandatory secondary instruction. This is as presented in Tables 4.12 and 4.13 where it is shown that a more noteworthy number of principals and all of the PA chairpersons affirmed that schools do charge additional tolls for various reasons. This is affirmed by narration in sub segments 4.8.1.3 and 4.8.1.4 where it is confirmed by the Kitui CDE and documents examination uncovered individually that schools demand additional charges on students. Reasons set forth by the respondents safeguarding the requirement for charging of additional tolls included; instructing and non instructing personnel pay, uniform procurement, games gear buy, scholastic excursions and therapeutic teaching honorarium amidst others. Charging of additional tolls for acquisition of school transport; paying BOM teachers; installation of study rooms and residence halls are reasons unearthed by document survey investigation for charging of additional duties.

Decreased transition and completion paces of the students in secondary schools, due to requiring of additional charges by schools, was likewise affirmed by the PA chairpersons and the County Director of Education. Moreover, the reactions given by the PA chairpersons and the CDE uncovered that the schools never gave receipts to affirm payment for these levies. This demonstrated that the levies were being charged unlawfully. Null hypothesis one (H_{01}): there is no measurably substantial association between charging of extra levies and execution of free and mandatory instruction in public day secondary schools in Kitui County test result shows a negative and noteworthy relationship ($r = -.747$; $p \leq .01$) between charging of additional tolls and execution of free and compulsory education as displayed in Table 4.14. This also shows that charging of additional duties lessens retention and consummation rates. This discovery is affirmable by Liberal Educational Theory (LET) by Howe (1992) that can best explain that charging of extra fees can deny economically challenged households' learners an education by being sent home to collect fees and eventually drop out of school.

Fixated on the discoveries, this review set up that charging of additional tolls has a negative and huge relationship with the execution of free and compulsory education in public day secondary schools in Kitu County. Therefore, charging of additional tolls negatively affected execution of free and compulsory education by pulling down the progress and finishing rates in public day secondary schools inside the review region.

The findings in this review agree with those of a review on the effect of charging of additional levies on students' performance in scholastics and presence at school in United Kingdom (UK) by Capron (2015). The review discovered that 33 percent of the most unfortunate children could not manage the cost of personal computer and web offices at home, thus had fallen behind in examinations. A number of those children at last exited school and which prompted diminished enlistment and accomplishment rates. The discoveries further authenticate a report by Tomasevski, (2003) which expressed that additional tolls advance a monetary obstruction to education for financially unfortunate families and which undermines execution of the free and obligatory schooling. These discoveries likewise relate with those of an investigation by Koya (2015) on educational

tolls and their impact on enrolment in schools in Fiji. The review discovered that youngsters were being denied affirmation in schools on account that they could not afford the additional charges. This contrarily influenced their chance to proceed with their schoolwork.

An enquiry was executed by Ngwenya, (2016) on the ideal means of amassing fees without encroaching on the freedoms of students in Zimbabwean primary schools. The enquiry discovered that despite the fact that educational cost in countryside primary schools was free the charging of additional levies was a necessity. Failure to pay the additional tolls prompted exiting school by pupils unable to afford, subsequently bringing down finishing rates. Yameda and Ampiah (2009) in Ghana investigated on financing of schools by Ghanaian government. The review set up that Ghanaian government negligibly subsidized senior secondary education; hence, the schools intensely depended on cost sharing by families. The investigation additionally uncovered that rustic school students who could not pay the additional charges wound up exiting school and which would diminish finishing rates.

Additionally, William and Abbot (2014) did a study on investigation of the impact of the “hidden costs” of schooling in the context of Rwanda’s fee-free education policy. The study found out that the costs charged on learners by schools negatively impacted on the learners’ attendance, performance in academics and completion of school. The findings by Ngwenya (2016), Yameda and Ampiah (2009) and William and Abbot (2014) concur with the findings of this study.

Omandi (2015) on the other hand, did a study in Mvita sub County, Mombasa County on contribution of free day secondary education in promoting students’ completion rates in public secondary schools. The study found out that since introduction of Free Secondary Education (FSE) in 2008 in Kenya, transition from primary to secondary schools has been increasing. However, the study found that completion rate has been low for some students drop out due to inability to pay the extra levies in education. Mutemi (2015) also confirmed in his study of an assessment of effects of extra costs on the retention of learners in

secondary schools in Matinyani Sub County in Kitui County. The study by Mutemi found that charging of extra levies in education led to some learners dropping out of school for inability to pay the levies. The argument is in agreement with findings of a study by Kiage, Simatwa and Ayondo (2014) in Trans Mara sub County on effects of school fees and payment of extra levies on enrolment of girls in public boarding secondary schools. The study established that the schools did charge extra levies on learners for motivating teachers, purchase of support staff uniforms, lunch and putting up infrastructure. The result was dropping out of school by most girls, hence reduction in completion rate. Those findings were further reaffirmed by a study done by Mbalaka, Cheloti and Maithya (2021) on extra levies as determinant factor in implementation of free and compulsory education in public day secondary schools in Kitui County. The study found out that charging of the extra levies accounted for 55.8 percent reduction in implementation of the free and compulsory education in Kitui County. It is hence crucial to note from the revelations of this survey and related disclosures as expressed in the literature review that charging of extra dues prompts low enrollment, retention and completing rates among students in their quest for education.

5.3 Relationship between school infrastructure adequacy and implementation of free and compulsory education

The findings of this study show that deficiency of physical structures and facilities influenced the execution of free and mandatory secondary education in the review region. Initially, it was established from the principals' responses that insufficiency of learning rooms like study halls, library and labs lessens number of students a school can enroll, along these lines prompting lower changeover rates. Essentially, the review set up that insufficiency of learning facilities like storage spaces and seats limit number of students a school can accommodate, henceforth prompting low progress and culmination rates. Further, it was established that insufficiency of hygiene amenities; lavatories/latrines contributed by making some students exit school bringing about low level retention and completion rates. At last, the deficiency/absence of play fields and games kit prompted a number of students exiting school particularly when they were keen on games activities. These facets

of insufficiency of school structures and facilities and their negative bearing on progress and consummation rates are depicted in Table 4.15).

The previously mentioned interpretation was confirmed by the County Director of Education who asserted that absence of structures and facilities like instruction rooms, libraries, labs, learners' storage spaces, and seats, tables, playfields and games kits influenced changeover and finish rates adversely as they added to students exiting school as described in sub segment 4.8.2.3. The chairpersons of parents' affiliations likewise verified the findings by asserting that absence of structures and curricular equipment pulled down both changeover rate and consummation rate in schools as displayed in Table 4.16. The finding is also asserted by Liberal Educational Theory (LET) by Howe (1992), which explains that inadequate infrastructure can discriminate against some learners by making them drop out of school due to lack of furniture. These discoveries are additionally affirmed by null hypothesis two (H₀₂): there is no measurably enormous relationship between school infrastructure adequacy and execution of free and obligatory education in public day secondary schools in Kitui County test result ($r = -.795$; $p \leq .01$) as portrayed in Table 4.17. The test outcome shows that inadequacy of educational infrastructure has a negative and substantial relationship with execution of free and mandatory education in public day secondary schools in Kitui County.

Largely, the overview established that the association between inadequacy of school infrastructure and execution of free and compulsory schooling was negative. This infers there was a counter relationship between absence and or inadequacy of school structures and facilities and execution of free and required instruction. As needs be, it was determined that the more there is deficiency of school infrastructure, the lower the transition and completion rates in schools, consequently upsetting execution of free and compulsory education.

The study outcomes are in likeness with those of Cuesta, Glewwe and Krause (2015) on an evaluation of school infrastructure and instructive outcomes in Latin America, which found that school infrastructure ascribes impact on learners' learning and enrolment.

Correspondingly, Cuesta et al (2015) argued that enough learning rooms and development of new schools make more learners access training, furthermore enhancing enrolment. The finding by Cuesta et al (2015) is confirmed by a UK study done by Teixeira, Amoroso and Gresham (2017) on impact of quality worth infrasteucture on learners' outcome and completion rates. The audit found that terrible quality and insufficiency of structures and facilities was more in countryside schools and that 72 percent and 40 percent of the rural and metropolitan schools were missing science rooms and latrines separately. The Cuesta et al (2015) and Teixeira et al (2017) divulgences endorsed by an inquiry done by Wodon (2016) in Paraguay on state of physical structures and facilities for primary and secondary schools. The inquiry found that the schools encountered shortage of certified structures. This resulted in overcrowding in classrooms hence discontented students with some dropping out, dwarfing retention and completion rates.

Melara, Ayele and Blaustein (2014) did a research on difficulties of instruction structure on enrolment in East and North Ayawaso Metros in Ghana. The research concluded that, 10 out of 23 schools in the research area were congested and where one school had 359 learners enrolled rather than the formal capacity of 160 learners. The Melara et al (2014) study findings concur with Akhihiero (2011) who admit that lack of structures and facilities in Edo state – Nigeria together with ramshackle state of the infrastructure, due to negligence resulted in having lessons under trees by some students. This triggered low morale among the learners and instructors hence frail schooling results, which induced school drop out by some learners (Akhihiero, 2011).

Katiwa (2016) study on factors influencing transition pace of pupils from primary to secondary schools in Kitui Central Sub county by and large concluded that transition rates from elementary schools to public day secondary schools was negatively influenced by shortage of study rooms in the secondary schools. Additionally, Mokaya (2013) in an investigation of effect of school structures and facilities on learners' performance in public secondary schools in Kajiado County found that enough and appropriate infrastructure instigated enhanced completion rates among learners, other than effective execution of both curricular and co-curricular activities by learners and educators. These divulgences

are confirmed by results of a study by Parnwell (2015) on effect of school structures and facilities on academic execution in public primary schools in Ruiru region, Meru County. The review found that deficiency of physical infrastructure, remarkably instruction rooms inversely influenced academic execution of learners. This at last incited leaving school midstream by a couple of pupils, thus cutting down retention and finishing rates.

It is imperative to note from the preceding that school physical structures and facilities play a basic function in execution of the free and obligatory secondary education. Without satisfactory infrastructure, accommodative capacity of schools is brought down henceforth progress from primary to secondary schools will not be high. Moreover, fruition rates in secondary schools are likely to be affected negatively as insinuated by the different respondents in this review

5.4 Relationship between teaching staff adequacy and implementation of free and compulsory education

Findings from this study indicate that there was insufficiency of teaching staff in the study area. This negatively related with the execution of free and mandatory secondary education. In particular, it was established that a greater number of the principals agreed that shortage of TSC teachers in schools made some KCPE candidates admitted to join the schools avoid joining them, thus leading to low changeover. Similarly, the overworking of available teachers due to teacher inadequacy made some subjects go untaught leading to dissatisfied learners who then dropped out hence lowering completion rate. In addition, it was established that high student teacher ratio due to teacher inadequacy made some learners go unattended to, thus led to some learners dropping out, and which reduced completion rate.

Finally, the study established that inadequacy of TSC teachers led to engagement of lowly experienced BOM teachers in schools and whose ineffective teaching led to some learners getting dissatisfied and hence dropping out. This led to reduced retention and completion rates. The negative effects of the above discussed aspects of teaching staff inadequacy are summarized in Table 4.18. The chairpersons of the parents' associations also corroborated

these findings by saying that inadequacy of teachers in schools led to reduction of retention, transition and completion rates in schools. That contrarily influenced the execution of free and compulsory secondary education as displayed in Table 4.19. The County Director of Education likewise affirmed that insufficiency of teachers in schools prompted students exiting school for being unattended to as described in sub areas 4.8.3.3. Null hypothesis three (H03) stated thus: there is no statistically significant connection between teaching staff adequacy and execution of free and compulsory education in public day secondary schools in Kitui County test result ($r = -.722$; $p \leq .01$) showed a negative and huge relationship as shown in Table 4.20. The test outcome demonstrates that deficiency of teaching staff has a negative and major relationship with execution of free and compulsory education in public day secondary schools in Kitui County. This finding is further affirmed by LET by Howe (1992) which explain that inadequacy of teaching staff can be discriminatory. This is in way of denying learners an education when they drop out due to being unattended to and due to high learner teacher ratios.

It was found that that the association between insufficiency of teaching staff and execution of free and mandatory instructions was inverse. That implied that there was a negative correlation between insufficiency of teaching staff and execution of free and mandatory instruction in public day secondary schools in Kitui County. These findings are further confirmed by those of Crocket and Villannueva (2018) study on staffing levels in schools in United States of America (USA). The study found that there was higher student teacher ratio, thus leading to learners dropping out of school because of overcrowding. Similarly, Micklewright, Jerrim, Vingoles and Jenkins (2014) Teaching and Learning International survey (TALIs) report indicated that shortage of qualified teachers and support personnel in lower secondary schools in England reduces schools' capacity to provide quality instruction. This leads to some learners dropping out of school, thus affecting completion rates. Titeca and Lisa (2015) carried out a study on impact of universal secondary education (USE) on enrolment and educational outcomes in secondary schools in Uganda. The study found out that USE in Uganda led to increased students to teacher ratios, which led to teacher centric methods of teaching. The outcome was demotivated learners leading to high dropout rates from schools resulting in reduction in retention and completion.

In Kenya, Lidoro and Orodho (2014) did a study on level of teachers' adequacy and their effectiveness in executing curriculum in public primary schools in Kakamega South sub County. The study established that inadequacy of teachers led to learning ineffectiveness, which, discouraged some learners and hence dropped out, thus lowering completion rate. On the same note, Waita, Mulei, Mueni, Mutune and Kalai (2015) did a study on pupil-teacher ratio (PTR) and its impact on academic performance in central division of Machakos County. Besides, Musyoka, Cheloti and Maithya (2018) carried out a study on influence of teacher adequacy level on students' performance in KCSE in public secondary schools in Kathiani sub County, Machakos County. The Waita et al (2015) and Musyoka et al (2018) studies' findings showed that teacher inadequacy negatively affected the application of free and compulsory secondary education. This was owed to the fact that the teacher inadequacy led to teacher centred methods of teaching which demotivated learners resulting in some of them dropping out of schools which negatively affected retention and completion rates.

From the foregoing discussion, it is crucial to observe that this study findings coupled with the findings that have been established by studies done elsewhere as expressed herein the literature, shortage of teaching staff leads to dropping out of some learners, hence reduction in transition, retention and completion rates. Without sufficient number of teachers in public day secondary schools, transition from primary schools and completion at KCSE will remain low.

5.5 Relationship between learners' entry behavior and implementation of free and compulsory education

The findings of this study show that low entry behavior of learners had an effect on transition and completion rates among learners in secondary schools in Kitui County. The low entry behavior was construed based on the marks scored during KCPE. In this respect, principals were of the view that some schools do not admit KCPE graduates with low marks (marks below their set cut off marks for form one admission) in fear that this may lower their KCSE mean score and which leads to below 100 percent transition rate. Secondly, it was found that continuous poor performance in formative examinations by some learners

due to low entry behavior leads to some eventually dropping out. The dropping out owed to frustration, lowered completion rate. Similarly, labeling of learners with low entry behavior as poor learners by some teachers discouraged them, thus leading to their dropout hence lowering completion rate. Finally, it was established that some teachers advise learners with low entry behavior to transfer to artisan courses, for they are not good at academics. Their transferring lowers completion rate. These findings are shown in Table 4.21.

The chairpersons of parents' associations also corroborated the findings in which case they confirmed that schools' admissions depend heavily on the marks scored at KCPE level. Upon admission, it was established that some schools have a policy on repetition or asking students to transfer to other schools based on poor performance. This, in effect has a potential to affect retention, transition and completion rates thus affecting free and mandatory instruction implementation as indicated in Table 4.22. This finding is further confirmed by the Kitui CDE who affirmed that low entry behavior negatively affected transition and finishing rates as narrated in sub section 4.8.4.3. The finding further concurs with Liberal Educational Theory (LET) by Howe (1992) that explains that low learner entry behavior can discriminate against learners by not giving learners chance to join form one or progressing to next class. The null hypothesis four (H_{04}): there is no statistically significant relationship between learners' entry behavior and application of free and mandatory instruction in public day secondary schools in Kitui County test result ($r = -.678$; $p \leq .01$) further confirms that low learner entry behavior diminishes retention, transition and completion rates. This is shown in Table 4.23.

Altogether, it was established that the relationship between learner entry behavior and implementation of free and compulsory education was inverse. This means there was a negative relationship between low learner entry behavior and execution of free and required schooling. Subsequently, it was deduced that the more the low student admission conduct, the lower the retention and accomplishment rates in schools, hence influencing execution of free and compulsory secondary tutelage in public day secondary schools in Kitui County.

These findings are in conformity with a study by Caliskan (2014) which investigated the effects of entry behavior on learning at higher level in Meram, Turkey. The study found out that good entry behavior raises the learning level at primary and secondary education, while poor entry behavior lowers it. This means that poor performance at a given level occasioned by low entry behavior may make a learner get demotivated and dropout, thus lowering completion rate. The findings herein are further confirmed by Paul (1997) who asserts that when learners are forced to repeat a class, they are also likely to drop out of school due to the stigma associated with them being labeled as poor learners. Hanewald, (2013) also avers that lack of clear structures of transition from primary to secondary school can lead to learner disengagement, with potentiality of dropping out of school.

A study done by Ogonnaya, Okpuruka, Iheanacho and Ndu (2014) on students' entry qualifications and academic performance in basic schools of nursing in Nigeria additionally confirm the aforementioned findings. The study found out that there existed significant relationship between entry qualifications and students' performance in academics and that those students who persistently performed poorly in formative examinations eventually were expelled. This resulted in reduction in enrolment and completion rates. This finding is affirmed by results of a study by Limbe (2017) in Tanzania on factors influencing students' performance in Certificate of Secondary Education Examination (CSEE). The study established that performance was low in CSEE due to a number of factors, key being poor entry marks in forms one and three. The study recommended that only students with high scores in primary school leaving examination should join form one. This implied that transition rate to secondary school would be diminished.

Shavisa, Ndiku and Musasia (2016) on a study on the influence of students' characteristics in dropping out of school among secondary school students in Vihiga County found out that students' entry behavior has a significant relationship with students' dropout rate. The study further found out that students who joined secondary school with low marks had more probability of dropping out of the schools that reduced completion rates. Kirera (2013) on the other hand executed a study on factors influencing transition of pupils from primary to secondary schools in Meru central District, Kenya. The study found out that

selectivity of students in joining form one as a result of setting entry marks into joining form one led to decreased transition rates from primary to secondary schools in Kenya. The findings also agree with those of Simiyu (2015) research findings on the influence of institutional and learners' characteristics on academic achievement and completion rates in day secondary schools in Trans Nzoia and Pokot counties. The research established that learners with good entry behavior had evidently better academic performance in formative examinations that motivated them to stay in school until completion time.

In summary therefore, the study findings herein show that charging of extra levies, school infrastructure inadequacy, teaching staff inadequacy and low learners' entry behavior lower transition, retention and completion rates in public day secondary schools. Consequently, these factors negatively affect the execution of free and compulsory education in Kenya and in particular Kitui County public day secondary schools.

CHAPTER SIX

6.0 Conclusions and Recommendations

6.1 Introduction

This chapter presents conclusions and recommendations based on the formulated research objectives.

6.2 Study Conclusions

The conclusions of this study are in line with the study objectives that were formulated for the advancement of the overall study objective. The specific objectives were to establish the correlation between charging of extra levies, school infrastructure adequacy, teaching staff adequacy and learners' entry behavior and the implementation of free and compulsory education in public day secondary schools in Kitui County. From the study findings, it has been established that charging of extra levies, school infrastructure inadequacy, teaching staff inadequacy and low learners' entry behavior have an indirect relationship with the carrying out of free and compulsory secondary education in public day secondary schools in Kitui County. The study therefore draws conclusions based on the aforementioned findings as follows:

6.2.1 Relationship between charging of extra levies and the implementation of free and compulsory education

Extra fees, which are additional costs charged on learners by schools are an inhibition towards the execution of free and mandatory tutelage in Kenya and specifically, in Kitui County. A contrary relationship was set up between charging of extra dues and execution of free and required secondary schooling by this review. The implications is that the higher and the more the costs charged, the lower the paces of retention and finish. Considering this finding, the null hypothesis that conferred that there is no statistically fundamental connection between charging of extra costs and execution of free and obligatory education in public day secondary schools tutoring in Kitui County was rejected. Therefore, the alternative hypothesis was upheld and conclusion reached that charging of extra levies on the other hand significantly and inversely affects the execution of free and mandatory education in Kenya and Kitui County specifically. This is for the reason that levying extra

dues on learners results in reduction of rates of transition, and completion rates at KCSE as found out by this study.

6.2.2 Relationship between school infrastructure adequacy and the implementation of free and compulsory education

School infrastructure assumes a focal and basic role in educational programs execution. Credible learning results are pegged on adequate physical structures, facilities and the school- learning environment. The revelations from this survey have shown that there is a negative, yet significant association between inadequate school infrastructure and application of free and mandatory tutelage in public day secondary schools in Kitui County. The consequences is that shortfall of school infrastructure has the likelihood of pulling down both changeover and finish rates. Considering these revelations, there was rejection of the null hypothesis that stated that there is no statistically significant correlation between school infrastructure adequacy and execution of free and obligatory learning. This led to conclusion that school infrastructure adequacy can heightten the execution of free and mandatory training in secondary schools in Kenya and Kitui County specifically.

6.2.3 Relationship between teaching staff adequacy and the implementation of free and compulsory education

Success of any curriculum implementation depends on the adequacy of well trained and skilled teachers who understand the art and science of teaching. This study therefore undertook to establish how adequacy of teachers influenced the execution of free and compulsory education. From the study findings, it was concluded that there was a negative and significant correlation between teacher deficiency and the execution of free and compulsory education. Accordingly, the third null hypothesis, which expressed that there was no statistically significant connection between adequacy of teaching staff and execution of free and mandatory education in public day secondary schools in Kitui County was rejected. Thus, conclusion was made that the execution of free and mandatory education in public day secondary schools depends on the adequacy of all round trained teachers without whom, free and compulsory education will be adversely influenced in

public day secondary schools in Kenya overall and in Kitui County specifically as set up by this review.

6.2.4 Relationship between learners' entry behavior and the implementation of free and compulsory education

The literature reviewed herein indicates that learners' entry behavior is a significant factor for effective transition and completion of education at KCSE. This study found out that there is a negative and significant relationship between learners' low entry behavior and execution of free and obligatory education. The implication is that learners with low entry behavior experienced low transition and completion rate thus explaining the inverse relationship.

Consequently, this led to rejection of the null hypothesis that indicated that there was no statistically significant relationship between learners' entry behavior and execution of free and compulsory education in public day secondary schools. The researcher therefore concluded that effective application of free and compulsory education significantly relied on the entry behavior of the learners. This therefore means that continuous admission of learners with low KCPE marks to secondary schools will ultimately affect their transition and completion rates in secondary schools in Kenya and Kitui County in particular due to midstream dropping out of school by some learners occasioned by their poor performance in formative examinations.

6.3 Recommendations

The study makes the following recommendations based on the findings and conclusions:- On the relationship between charging of extra levies and execution of free and mandatory education, the study recommends that,

- i. The Ministry of Education (MOE) should enforce the policy barring head teachers from charging any other levies other than those approved by government.
- ii. To enhance compliance, the government needs to publish in the media and other government papers all approved levies the headteachers of schools can charge

learners. This will bar principals from charging unauthorized levies as and when they wish.

- iii. The Government should reintroduce the school feeding program to cater for relief food to schools with vulnerable children and in food insecure communities such as those in arid and semi- arid lands (ASALs). This will mitigate the issue of charging of lunch levy, which leads to an increase in the cost of education and further compromise the implementation of free and compulsory education.
- iv. Principals need to execute judicious monetary administration for that would guarantee adequacy of available financial assets, thus needless to charge additional levies, which might make economically poor students exit school.
- v. Principals to initiate income generating projects at school, with a view to generating funds and create alternative resource mobilisation strategies other than excessive charging of levies. Such strategies would include engaging foundations, corporates, alumni and philanthropic community members to fund infrastructure installation and sponsor learners. This will mitigate against shortfall in government funding.

Regarding the adequacy of school infrastructure, the study recommends that:

- i. The government needs to fund schools on need basis and not on learners' enrolment. This will help curb situation where principals levy development fund particularly in small schools, which get less funding because of the low student population.
- ii. Ministry of Education (MOE) to credit infrastructure fund directly to designated school accounts and Quality Assurance and Standards Officers (QASOs) to strictly monitor and evaluate infrastructure development projects. This would guard against cases of misappropriation of the funds by principals.
- iii. The principals of public day secondary schools could use different structures in schools like dining halls, recreation lobbies, theater lobbies and worship lobbies to relieve infrastructural difficulties of study rooms' insufficiency.

Regarding teaching staff adequacy, the study recommends that:

- i. TSC should employ adequate teachers, a situation that would also reduce the burden of charging salary levy on learners to engage BOM teachers.
- ii. TSC should ensure quick replacement of the teachers who leave the profession through natural attrition to ensure effective unperturbed execution of the free and mandatory education in public secondary schools.

With regard to learners' entry behavior, the study recommends that:

- i. Ministry of Education to formulate a policy on even and random admission of students to secondary schools regardless of marks scored in KCPE examination.
- ii. Ministry of Education to enforce the policy on promotion to next class, regardless of performance in previous formative examinations.
- iii. Government to enforce the policy of abolishment of ranking of schools and learners upon undertaking examinations. This would encourage learners to join any secondary school invited to, hence boost transition rate.
- iv. Principals to have policy on timely coverage of syllabuses and remedial teaching of weak learners, for it would motivate such learners to stay at school until completion.

6.4 Suggestions for Further Study

The current study was limited to school based factors and public day secondary schools, thus generalizing to other factors and other school categories is implausible. It is therefore proposed that:

- A study to be undertaken on non school related factors influencing implementation of free and mandatory education in public day secondary schools
- A comparative study could be undertaken on application of free and obligatory education in national and extra county schools against sub county schools to ascertain if the same factors affect the transition and completion rates in a similar manner.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Mutia Peter Mbalaka

South Eastern Kenya University

Department of Educational Administration and Planning

P. O. Box 170 – 90200, Kitui

The Principal, _____school

Dear Sir/Madam,

RE: PERMISSION TO COLLECT DATA

I am a student at South Eastern Kenya University and currently doing a research study to fulfil requirements for award of a PhD degree in educational administration. My study is on; **“Institutional Determinants of Implementation of Free and Compulsory Education in Public Day Secondary Schools in Kitui County, Kenya”**. Respondents for this study are Principals, Parent Association Chairpersons and Kitui County Director of Education (CDE). The purpose of this letter is to request your permission and participation in the study; hence I shall immensely appreciate if you assist me in responding to all questions in the attached questionnaire as completely, honestly and objectively as possible. Your responses will be treated with utmost confidentiality and will be used for the purpose of this study only. To further enhance the confidentiality and anonymity, please do not write down your name and that of your school on the questionnaire. No reference will be made to any individual(s) or school(s) in the report. There is no wrong answer hence all information given will therefore be useful.

Thanks you in advance for your cooperation and participation.

Yours faithfully,

Mutia Peter M.

Contact: 0717406079

APPENDIX II: QUESTIONNAIRE FOR PRINCIPALS (QP)

This questionnaire is intended to collect data on institutional determinants of implementation of free and compulsory education in public day secondary schools in Kitui County, Kenya.

Any information you give will be solely used for purposes of this research. Your identity and that of your school, will be treated with utmost confidentiality and anonymity. Please respond to following questions and statements and where applicable, mark all the relevant boxes with a tick (✓). The questionnaire contains 7 sections; A, B, C, D, E, F and G.

Section A: Personal Information

Please indicate your gender a) Male [] b) Female []

What is your age bracket?

a) Below 30 years [] b) 30-39 years [] c) 40-49 years [] d) 50 years and above

What is your highest academic qualification?

a) Diploma [] b) Bachelor's degree [] c) PGDE []
d) Master's degree [] PhD [] Others _____

For how long have you been working as a principal? a) Less than 5 years []

b) 5 - 9 years [] c) 10 -14 years [] d) 15 - 19 e) 20 years and above []

How long have you been in the current station? _____

Section B: Transition and completion rates

At what percentage of implementation of free and compulsory education is your school?

i) Transition rate/% _____ ii) Completion rate/% _____

Following sections; C, D, E, F and G contain statements that relate to relationship between institutional determinants: charging of extra levies, school infrastructure adequacy, teaching staff adequacy and learners' entry behaviour and implementation of

free and compulsory education in public day secondary schools in Kitui County. Indicate by tick (✓) whether you strongly agree (SA), agree (A), undecided (U), disagree (D) or strongly disagree (SD) with the relationship.

Section C: Relationship between charging of extra levies in schools and implementation of free and compulsory education.

Charging of extra levies	SA A U D SD
Charging of extra levy for form 1 admission leads to below 100% transition rate for some learners are unable to pay the levy.	
Charging of extra levies meant for BOM teachers' salary, remedial teaching, teacher motivation, uniform and games equipment leads to learners unable to pay dropping out hence lowered retention and completion rates.	
Funds charged on students for academic trips, education day and activities leads to some students dropping out if unable to pay	
Charging of infrastructure funds leads to some learners dropping out for are unable to pay and which reduces retention and completion rate	

Section D: Relationship between school infrastructure adequacy and implementation of free and compulsory education.

Adequacy level of school infrastructure	SA A U D SD
Inadequacy of learning rooms notably classrooms, library and laboratories reduces number of learners a school can admit hence below 100% transition rate from primary to secondary schools	
Inadequacy of learning facilities; lockers and chairs limit number of learners a school can admit hence low transition,retention and completion rates.	
Inadequacy of sanitation facilities; latrines/toilets may make some learners dropout resulting in low level retention and completion rate	
Lack of /shortage of play fields and games equipment may make some learners dropout for their interest may be in talents/games	

Section E: Relationship between teaching staff adequacy and implementation of free and compulsory education.

Inadequacy of teaching staff	SA A U D SD
------------------------------	-------------

Shortage of TSC teachers in our school makes some KCPE candidates admitted to join our school avoid joining it hence below 100% transition

Overworking of available teachers due to teacher inadequacy makes some subjects go untaught leading to dissatisfied learners who then drop out hence lowering retention and completion rates.

High students teacher ratio due to teacher inadequacy makes some learners go unattended to leading to some dropping out hence reducing retention and completion rates.

Inadequacy of TSC teachers leads to engagement of lowly experienced BOM teachers by our school and whose ineffective teaching leads to some dissatisfied learners dropping out hence reduced completion rate

Section F: Relationship between learners' entry behavior and implementation of free and compulsory education.

Learners' entry behavior	SA A U D SD
--------------------------	-------------

Some schools do not admit KCPE graduates with low marks in fear that this may lower their KCSE mean score and which leads to below 100% transition rate

Continuous poor performance in formative examinations by some learners, due to low entry behavior leads to some eventually dropping out due to frustration hence lowered retention and completion rates.

Some teachers label learners with low entry behavior as poor learners. This discourages them hence dropout lowering retention and completion rates.

Some teachers advise learners with low entry behavior to transfer to artisan courses for they are not good at academics. Their transferring lowers retention and completion rates

Section G

7. Please give your recommendations/suggestions towards effective implementation of the free and compulsory education in public day secondary schools.

Thank you for your time and responses.

APPENDIX III:

INTERVIEW SCHEDULE FOR PARENTS ASSOCIATION(PA)

INTERVIEW SCHEDULE FOR PARENTS ASSOCIATION(PA)

This interview schedule is meant to collect data on institutional determinants of implementation of free and compulsory education in public day secondary schools in Kitui County. The information collected is to be used for academic purpose only.

1. For how long have you been a school PA chair?
2. Does your school charge other levies apart from lunch levy Yes [] b) No []
3. If yes in 2 (a) above give examples of such levies
4. Does your school give official receipt(s) after a student pays the levies? And if not why?

5. How does the charging of other levies affect transition, retention and completion rates among students? a) Negatively [] b) Positively []
6. Do following factors lower or increase transition, retention and completion rates in your school?
 - i) Inadequacy of school infrastructure a) Lowers [] b) Increases []
 - ii) Inadequacy of teaching staff a) Lowers [] b) Increases []
7. Does your school have a policy on:
 - i) Admission based on learner entry behaviour a) Yes [] b) No []
 - ii) Promotion to next class based on learner performance a) Yes [] b) No [].
8. If yes in 7 i) and ii) above, what happens to those who:
 - i) Request for form 1 admission chance and have KCPE marks below your set entry mark? _____
 - ii) Continuously perform poorly in formative examinations _____
9. In your opinion, what should be done to increase transition, retention and completion rates in public day secondary schools in Kenya? _____

Thank you for your responses

APPENDIX IV:
INTERVIEW SCHEDULE FOR KITUI COUNTY DIRECTOR OF EDUCATION
(CDE)

This interview schedule is meant to collect data on institutional determinants of implementation of free and compulsory education in public day secondary schools in Kitui County. The information collected is to be used for academic purpose only.

1. For how long have you been the Kitui CDE? _____
2. At what percentage of implementation of free and compulsory education in secondary schools is Kitui County? i) Transition _____ ii) Completion _____
3. Do public day secondary schools in Kitui County charge extra levies for remunerating BOM teachers, uniform provision, games equipment purchase, academic trips and remedial teaching? a) Yes [] b) No []
4. If yes in 3 above, do the schools get official permission from your office before they charge the extra levies? a) Yes [] b) No []
5. If no in 3 above, why _____
6. If yes in 3 above, how does it affect transition, retention and completion rates?
Positively [] b) Negatively []
7. How do following factors relate with transition, retention and completion rates in public day secondary schools in Kitui County?
 - i) Inadequacy of school infrastructure; classrooms, libraries, laboratories, students' lockers and chairs, tables, playfields and games facilities.
Positively [] b) Negatively []
 - ii) Inadequacy of teaching staff. a) Positively [] b) Negatively []
 - iii) Low learners' entry behaviour (KCPE marks) a) Positively [] b) Negatively []
8. What other factors do you think negatively affect implementation of free and compulsory education in public day secondary schools in Kitui County?_____

9. What is Kitui County Education Office doing to enhance transition, retention and completion rates especially in public day secondary schools towards 100 percent? _____

10. May you give your suggestions/recommendations towards 100% transition, retention and completion rates in public day secondary schools in Kitui County _____

Thank you for your responses

APPENDIX V:

DOCUMENT REVIEW ANALYSIS

Transition rate

KCPE Year	KCPE candidature	Year	Form 1 enrolment	Transition rate (%)	Marginal rate
2015		2016			
2016		2017			
2017		2018			
2018		2019			
2019		2020			

Year	Form 1 enrolment	Year	KCSE candidature	Completion rate (%)	Marginal rate
2013		2016			
2014		2017			
2015		2018			
2016		2019			
2017		2020			

Analysis of requests for charging of extra levies by schools

APPENDIX VI: SEKU PERMISSION FOR DATA COLLECTION



**SOUTH EASTERN KENYA UNIVERSITY
OFFICE OF THE DIRECTOR
BOARD OF POST GRADUATE STUDIES**

P.O. BOX 170-90200
KITUI, KENYA
Email: info@seku.ac.ke

TEL: 020-4213850 (KITUI)
Email: directorbps@seku.ac.ke

Our Ref: E70/MAC/30123/2016

DATE: 14th October, 2020

Mutia Peter Mbalaka
PhD in Educational Administration and Planning
C/O Dean, School of Education, Humanities and Social Sciences

Dear Mutia

RE: PERMISSION TO PROCEED FOR DATA COLLECTION

This is to acknowledge receipt of your Doctor of Philosophy in Educational Administration and Planning, proposal document entitled, *"Institutional Determinants and Implementation of Free and Compulsory Education: Case of Public Day Secondary Schools in Kitui County, Kenya"*.

Following a successful presentation of your PhD. Proposal, the School of Education, Humanities and Social Sciences in conjunction with the Directorate, Board of Post graduate Studies (BPS) have recommended that you proceed on and carry out research data collection in accordance with your approved proposal.

During the research exercise, you will be closely supervised by Dr. Selpher Cheloti and Dr. Redempta Maithya. You should ensure that you liaise with your supervisors at all times. In addition, you are required to fill in a Progress Report (*SEKU/ARSA/BPS/F-02*) which can be downloaded from the University Website.

The Board of Postgraduate Studies wishes you well and a successful research data collection as a critical stage in your PhD in Educational Administration and Planning.

Prof. David M. Malonza
Director, Board of Postgraduate Studies

Copy to: Deputy Vice Chancellor, Academic, Research and Students Affairs
Dean, School of Education, Humanities and Social Sciences
Chairman, Department of Educational Administration and Planning
Dr. Selpher Cheloti
Dr. Redempta Maithya
BPS Office - To file

AIM TO GREEN



ISO 9001: 2015 CERTIFIED



TRANSFORMING LIVES

APPENDIX VII: NACOSTI RESEARCH LICENSE



REPUBLIC OF KENYA
National Commission for Science, Technology and Innovation

RafNo: 941187



**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Date of Issue: 23/October/2020

RESEARCH LICENSE



This is to Certify that Mr. Peter Mbalaka Mutia of South Eastern Kenya University, has been licensed to conduct research in Kitui on the topic: INSTITUTIONAL DETERMINANTS AND IMPLEMENTATION OF FREE AND COMPULSORY EDUCATION: CASE OF PUBLIC DAY SECONDARY SCHOOLS IN KITUI COUNTY, KENYA for the period ending: 23/October/2021.

License No: NACOSTI/P/20/7265

941187

Applicant Identification Number



**Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION**

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The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

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1. The License is valid for the proposed research, location and specified period
2. The License and rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
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5. The License does not give authority to transfer research materials
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7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one year of completion of the research
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National Commission for Science, Technology and Innovation
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Mobile: 0713 788 787 / 0735 404 245
E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke
Website: www.nacosti.go.ke

APPENDIX VIII: MOE RESEARCH AUTHORIZATION

MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY
State Department for Basic Education

Telegrams "EDUCATION"
Kitui
Telephone: Kitui 22759
Fax :04444-22103
E-Mail :
cde.kitui@gmail.com


REPUBLIC OF KENYA

COUNTY EDUCATION OFFICE
KITUI COUNTY
P.O BOX 1557-90200
KITUI

Wakati wa kujibu, tafadhali ipitike

Ref. No: KTIC/ED/Res/Vol. 1/22/108 Date: 26th October 2020

Mutia Peter Mbalika
South Eastern Kenya University
Department of Educational
Administration and Planning
P.O. Box 129-90200
KITUI

RE: RESEARCH AUTHORIZATION

Following your application for authority to conduct a research on "Institutional Determinants and Implementation of Free and Compulsory Education: Case of Public Day Secondary Schools in Kitui County", I am pleased to inform you that permission has been granted to you to undertake research in Kitui County for the period ending 23rd October 2020.

You are advised to liaise with the respective Sub-County Directors of Education before embarking on the exercise and a copy of the research report should be forwarded to this office.


COUNTY DIRECTOR OF EDUCATION
KITUI
P. O. Box 1557, KITUI

Nkonge J.E
For: County Director of Education
Kitui County



APPENDIX IX: COUNTY COMMISSIONER RESEARCH AUTHORIZATION



THE PRESIDENCY
MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT

Telegrams.....
E-mail: ccs@kcc.gov.ke
When replying please quote Ref. and date

OFFICE OF THE
COUNTY COMMISSIONER
P.O. BOX 1-90200
KITUI

K.C.603/116/20 26th October 2020

Mr. Peter Mbalaka Mutia
South Eastern Kenya University
Department of Educational
Administrative and Planning
P.O. BOX 170-90200
KITUI

RESEARCH AUTHORIZATION

Reference is made to your License No. NACOSTI/P/20/7265 from the National Commission for Science, Technology and Innovation dated 23rd October 2020 on the above subject.

You are hereby authorized to carry out research on "Institutional Determinants and Implementation of free and compulsory Education: case of Public Day Secondary Schools in Kitui County" for a period ending 23rd October 2021.


J.M. KIHARA
FOR COUNTY COMMISSIONER
KITUI COUNTY

CC
All Deputy County Commissioners
Kitui County

APPENDIX X: COUNTY GOVERNMENT RESEARCH AUTHORIZATION



APPENDIX XI: KITUI COUNTY PUBLIC DAY SECONDARY SCHOOLS

	<u>SUB COUNTY</u>	<u>NAME OF SCHOOL</u>
1	IKUTHA	KITUTI SECONDARY
2	IKUTHA	KASAALA SECONDARY
3	IKUTHA	MONGUNI SECONDARY
4	IKUTHA	KYANDULA SECONDARY
5	IKUTHA	ATHI MIXED SECONDARY
6	IKUTHA	KYOANI SECONDARY
7	IKUTHA	ILENGI SEC
8	IKUTHA	MALUMA SECONDARY
9	IKUTHA	KALIVU SECONDARY
10	IKUTHA	KIANGU SECONDARY
11	IKUTHA	JAMES NDONYI MEMORIAL SEC
12	IKUTHA	ABC KIMWELI SECONDARY
13	IKUTHA	NGWATE SECONDARY
14	IKUTHA	MUTONYA SECONDARY
15	IKUTHA	KILAWA SECONDARY
16	IKUTHA	NZAINI SECONDARY
17	IKUTHA	KAMUTEI SECONDARY
18	IKUTHA	MWAATHE SEC

19	IKUTHA	CBM TIMBONI SEC
20	IKUTHA	BISHOP WILLIAM DUNNE MUTHUE
21	IKUTHA	KANZIKO SECONDARY
22	IKUTHA	SIMISI SECONDARY
23	IKUTHA	MWANIANGA SECONDARY
24	IKUTHA	VUTU SECONDARY
25	IKUTHA	MWANGALA SEC
26	KATULANI	MALUNGU
27	KATULANI	KAVUTA
28	KATULANI	YAKALIA
29	KATULANI	ST.PATRICK ITHIMANI
30	KATULANI	KALUKI NGILU GIRLS
31	KATULANI	YUMBISYE
32	KATULANI	KYAMBITI
33	KATULANI	KANGALU
34	KATULANI	KYANGUNGA
35	KATULANI	WII
36	KATULANI	KAUMBA
37	KATULANI	KATHUNGI
38	KATULANI	IKAVE
39	KATULANI	MAVINDINI SEC.

40	KATULANI	KATHUNGU GIRLS
41	KISASI	KISASI MIXED
42	KISASI	KITUNGATI MIXED
43	KISASI	NGILUNI SECONDARY
44	KISASI	NGANGANI MIXED
45	KISASI	MUKAMENI MIXED
46	KISASI	NGUUNI SECONDARY
47	KISASI	KILINYAA SECONDARY
48	KISASI	UNGAATU SECONDARY
49	KISASI	MBITINI MIXED
50	KISASI	MOSA SECONDARY
51	KISASI	KATWALA SECONDARY
52	KISASI	KANZAU MIXED
53	KISASI	KIMUUNI SECONDARY
54	KISASI	KIVUUNI SECONDARY
55	KISASI	MBITINI COMPLEX
56	KISASI	MAANGANI SECONDARY
57	KISASI	HON. NYAMAI MIXED KASEVI
58	KITUI CENTRAL	KWA NGINDU SECONDARY SCHOOL
59	KITUI CENTRAL	TIVA SECONDARY SCHOOL
60	KITUI CENTRAL	IVAINI SECONDARY SCHOOL

61	KITUI CENTRAL	KWA UKUNGU SECONDARY SCHOOL
62	KITUI CENTRAL	ST MARY'S SEC - MIAMBANI
63	KITUI CENTRAL	ENGINEER NGILU MIXED SEC
64	KITUI CENTRAL	MUTUKYA SECONDARY SCHOOL
65	KITUI CENTRAL	ST.PAUL'S KASYALA SECONDARY SCHOOL
66	KITUI CENTRAL	ST PATRICKS SEC SCH - MUTUNE
67	KITUI CENTRAL	ST.MARK'S MUTENDEA MIXED DAY SEC
68	KITUI CENTRAL	KYAMATHYAKA MIXED SEC. SCHOOL
69	KITUI CENTRAL	KABAA SECONDARY SCHOOL
70	KITUI CENTRAL	KAMANDIO MIXED DAY SEC
71	KITUI CENTRAL	MUSLIM SECONDARY SCHOOL
72	KITUI CENTRAL	KALIAKAKYA SEC
73	KITUI CENTRAL	MUTULUKUNI MIXED DAY SEC
74	KITUI CENTRAL	KATYETHOKA MIXED SEC.
75	KITUI CENTRAL	KWA MUEMA SECONDARY SCHOOL
76	KITUI CENTRAL	ITHIANI SECONDARY SCHOOL
77	KITUI CENTRAL	MBUSYANI MIXED DAY SEC SCHOOL
78	KITUI CENTRAL	ST.PAUL MUTULA
79	KITUI CENTRAL	AIC MIAMBANI
80	KITUI CENTRAL	VINDA SECONDARY
81	KITUI CENTRAL	OUR LADY OF PROTECTION MUSEVE
82	KITUI CENTRAL	KIVIU SECONDARY

83	KITUI CENTRAL	ST. STEPHENS KAVETA
84	KITUI WEST	KAKEANI SECONDARY SCHOOL
85	KITUI WEST	MUSENGO SECONDARY
86	KITUI WEST	ILAKO MUTUTA SECONDARY
87	KITUI WEST	MUTINI SECONDARY SCHOOL
88	KITUI WEST	KASUE SECONDARY SCHOOL
89	KITUI WEST	MUTHAMO SECONDARY SCHOOL
90	KITUI WEST	KAUWI DAY AND BOARDING SEC SCH
91	KITUI WEST	MUTHALE MIXED DAY SECONDARY
92	KITUI WEST	KIAMANI MIXED DAY SEC. SCH.
93	KITUI WEST	KALINDITI MIXED DAY SECONDARY
94	KITUI WEST	KANGUNGI MIXED DAY SEC. SCHOOL
95	KITUI WEST	MUTANDA MIXED DAY SEC. SCH.
96	KITUI WEST	IIANI MIXED DAY SECONDARY SCHOOL
97	KITUI WEST	KAKUMUTI MIXED DAY SEC. SCH.
98	KITUI WEST	KITAMWIKI MIXED DAY SECONDARY
99	KITUI WEST	EMIVIA MIXED DAY SECONDARY SCH.
100	KITUI WEST	USIANI MIXED DAY SECONDARY SCHOOL
101	KITUI WEST	KWA MWAMBI MIXED DAY SEC
102	KITUI WEST	KIVANI MIXED DAY SEC. SCH.
103	KITUI WEST	KYONDONI MIXED DAY SEC. SCH
104	KITUI WEST	A.I.C UTOO MIXED DAY SEC. SCH

105	KITUI WEST	A.I.C YALATANI MIXED DAY SEC. SCH.
106	KITUI WEST	ST AUGUSTINE KASAKINI MIXED DAY SEC.
107	KITUI WEST	KANGII MIXED DAY SEC. SCH.
108	KITUI WEST	ST. MARY'S' KAVALO SEC. SCH.
109	KITUI WEST	BISHOP LELE-MANG'ELU SEC. DAY
110	KYUSO	KALONZO SECONDARY
111	KYUSO	GAI MIXED DAY
112	KYUSO	MATOONI SECONDARY
113	KYUSO	KWAKATILE MIXED
114	KYUSO	MANDALA MIXED
115	KYUSO	KANDWIA SECONDARY
116	KYUSO	KAMUWONGO MIXED DAY
117	KYUSO	ITIVANZOU MIXED DAY
118	KYUSO	MIVUKONI SECONDARY
119	KYUSO	MATAKA SECONDARY
120	KYUSO	TWIMYUA SECONDARY
121	KYUSO	NGOMENI SECONDARY
122	KYUSO	NDATANI SECONDARY
123	KYUSO	MITAMISYI MIXED DAY
124	KYUSO	IKIME SECONDARY
125	LOWER YATTA	IIANI MIXED
126	LOWER YATTA	ST AUGUSTINE KANYANGI BOYS

127	LOWER YATTA	KAWONGO MIXED
128	LOWER YATTA	NYANYAA MIXED
129	LOWER YATTA	ST PAULS KWA VONZA MIXED
130	LOWER YATTA	ILIKA MIXED
131	LOWER YATTA	KANYANGI GIRLS
132	LOWER YATTA	HON C NYAMAI MUVITHA
133	LOWER YATTA	KYAITHANI MIXED
134	LOWER YATTA	MANDONGOI MIXED
135	LOWER YATTA	KISEUNI MIXED
136	LOWER YATTA	SHOJ-KANYONGONYO
137	LOWER YATTA	MAMOLE MIXED
138	LOWER YATTA	MASAANI MIXED
139	LOWER YATTA	TANGANYIKA
140	LOWER YATTA	KATHOME MIXED
141	LOWER YATTA	ACK ST JAMES MATULANI
142	LOWER YATTA	ST PETERS -KALULINI
143	LOWER YATTA	MATU SECONDARY
144	LOWER YATTA	LOWER YATTA GIRLS NTHILANI
145	LOWER YATTA	NZAMBIA
146	LOWER YATTA	KWA KILUI MIXED
147	LOWER YATTA	MWAKINI M
148	LOWER YATTA	MUSELELE MIXED

149	LOWER YATTA	KAVUMBUNI MIXED
150	MATINYANI	ST.JOHN'S KWA MULUNGU
151	MATINYANI	ST.BENEDICT MUTONGA
152	MATINYANI	KITHUMULA
153	MATINYANI	MATINYANI MIXED
154	MATINYANI	NZAKAME
155	MATINYANI	KYENI
156	MATINYANI	ST JOSEPHS MUSOSYA
157	MATINYANI	MIKUYUMIKYA
158	MATINYANI	MITHIKWANI
159	MATINYANI	KATHEUNI
160	MATINYANI	ST FRANCIS OF ASSISI
161	MATINYANI	ST.MICHAEL KAVUMBU
162	MATINYANI	KITUNDUNI
163	MUMONI	KAMATHIITU
164	MUMONI	PB. NTHANGANI
165	MUMONI	KALIWA
166	MUMONI	KAUNDU MIXED
167	MUMONI	KAMBUSU
168	MUMONI	KASYALANI
169	MUMONI	NGUNGANI
170	MUMONI	MUSOSYA

172	MUMONI	KATHIANI
173	MUMONI	MUKEKENI
174	MUMONI	KAMAYAGI
175	MUMONI	KATUUNI
176	MUMONI	KATAMA MIXED SEC
177	MUMONI	NGAANI MIXED
178	MUTITU	KYAMATU MIXED SEC
179	MUTITU	KAVAANI SEC
180	MUTITU	KAWEA MIXED SEC
181	MUTITU	NGUNGI MIXED SEC
182	MUTITU	ZOMBE MIXED SEC
183	MUTITU	MALALANI MIXED SEC
184	MUTITU	MUTHUNGUE SEC
185	MUTITU	ST. IGNITIOUS SEC
186	MUTITU	MAKONGO MIXED SEC
187	MUTITU	MWITIKA MIXED SEC
188	MUTITU NORTH	KALIKU MIXED
189	MUTITU NORTH	MIKUYUNI MIXED
190	MUTITU NORTH	MANYOENI MIXED
191	MUTITU NORTH	ITIKO MIXED
192	MUTITU NORTH	MUTITO MIXED
193	MUTITU NORTH	UWU

194	MUTITU NORTH	ST. MATHIAS KWA TUNDU MIXED
195	MUTOMO	KIBWEA
196	MUTOMO	ENZOU
197	MUTOMO	ST. PETERS NDUUNDUNE
198	MUTOMO	KISAYANI
199	MUTOMO	KITOO
200	MUTOMO	KAWELU
201	MUTOMO	UAE
202	MUTOMO	SYUNGUNI
203	MUTOMO	NZUNGUNI
204	MUTOMO	NDATANI
205	MUTOMO	MUAMBA
206	MUTOMO	ST. JOSEPH'S KIIMANI
207	MUTOMO	KIANGWA
208	MUTOMO	KYAMUTHWA
209	MUTOMO	CHIEF MAKAU
210	MUTOMO	KENZE
211	MUTOMO	MAKELE
212	MUTOMO	MUTHA
213	MUTOMO	ST. LOUIS MATHIMA
214	MUTOMO	KYAANGO
215	MUTOMO	NZOANI

216	MUTOMO	KAATENE
217	MUTOMO	MWALIMU MUTUA
218	MUTOMO	KALIANI
219	MWINGI CENTRAL	SYUNGII SEC SCHOOL
220	MWINGI CENTRAL	ITENDEU SEC SC H
221	MWINGI CENTRAL	KYETHANI SEC SCH
222	MWINGI CENTRAL	SYOMIKUKU SEC SCH
223	MWINGI CENTRAL	KIVOU SEC SCH
224	MWINGI CENTRAL	KASEVI GIRLS SEC SCH
225	MWINGI CENTRAL	KALISASI SEC. SCHOOL
226	MWINGI CENTRAL	WIKITHUKI SEC. SCHOOL
227	MWINGI CENTRAL	KATHONZWENI SEC. SCHOOL
228	MWINGI CENTRAL	ITHUMBI SEC. SCHOOL
229	MWINGI CENTRAL	KANZUI SEC SCH
230	MWINGI CENTRAL	KYANIKA SEC SCH
231	MWINGI CENTRAL	MUKUTHU SEC SCHOOL
232	MWINGI CENTRAL	ABC MUUNGUU SEC SCH
233	MWINGI CENTRAL	KYULUNGWA SEC SCH
234	MWINGI CENTRAL	MUTWANGOMBE SEC SCH
235	MWINGI CENTRAL	YUMBE SEC SCH
236	MWINGI CENTRAL	NYAANYAA SEC. SCHOOL
237	MWINGI CENTRAL	NDITHI SEC. SCHOOL

238	MWINGI CENTRAL	KIVIU SEC SCH
239	MWINGI CENTRAL	KAUNGUNI SEC. SCHOOL
240	MWINGI CENTRAL	MWAMBUI SEC SCH
241	MWINGI CENTRAL	MALIONI SEC SCH
242	MWINGI CENTRAL	PRECIOUS BLOOD TYAA SEC.
243	MWINGI CENTRAL	KIOMO SEC SCH
244	MWINGI CENTRAL	KAIRUNGU SEC SCH
245	MWINGI CENTRAL	KAKONGO SEC SCHOOL
246	MWINGI CENTRAL	ABC KISOVO SEC SCH
247	MWINGI CENTRAL	AIC KATALWA SEC SCH
248	MWINGI CENTRAL	MUMBUNI SEC SCH
249	MWINGI CENTRAL	MUNYANGE SEC SCH
250	MWINGI CENTRAL	IPC MATHUMA SEC. SCH
251	MWINGI CENTRAL	MUTWAATHI SEC SCHOOL
252	MWINGI CENTRAL	MAKUTANO SEC SCH
253	MWINGI EAST	MATHUKI SEC
254	MWINGI EAST	A.I.C MUNYUNI MIXED DAY SEC
255	MWINGI EAST	AIC YUMBU MIXED DAY
256	MWINGI EAST	ST.MICHEAL NGUNGI MIXED DAY
257	MWINGI EAST	LUNDI MIXED DAY SEC
258	MWINGI EAST	MUTHUKA SECONDARY SCH
259	MWINGI EAST	WAMAIYU SEC SCHOOL

260	MWINGI EAST	MASAVI BOYS DAY
261	MWINGI EAST	UKASI BOYS DAY
262	MWINGI EAST	MATHYAKANI MIXED SEC
263	MWINGI EAST	KALANGA MIXED DAY
264	MWINGI EAST	KAVISU MIXED DAY
265	MWINGI EAST	NDIAMUMO
266	MWINGI EAST	NGILUNI MBUVU MIXED DAY
267	MWINGI EAST	AIC MWASUMA
268	MWINGI EAST	MWAMBIU MIXED DAY SEC
269	MWINGI EAST	WINGEMI SEC SCH
270	MWINGI EAST	MUANGENI MIXED DAY SEC
271	MWINGI EAST	MUTYANGOME MIXED DAY SEC
272	MWINGI EAST	KAVINDU MIXED DAY SEC
273	MWINGI EAST	NYAANI SEC SCHOOL
274	MWINGI EAST	NGAANI MIXED SEC SCH
275	MWINGI EAST	NGIENI MIXED DAY
276	MWINGI WEST	KEA SEC
277	MWINGI WEST	THOKOA SEC
278	MWINGI WEST	ITHAMBWANGAO SEC
279	MWINGI WEST	KALILUNI SEC
280	MWINGI WEST	KIKIINI SEC
281	MWINGI WEST	KANGUUTHENI SEC

282	MWINGI WEST	KASAVANI HIGHLAND
283	MWINGI WEST	ITOLONI MIXED SEC
284	MWINGI WEST	NGUUNI HILL SEC
285	MWINGI WEST	KAVILO SEC
286	MWINGI WEST	AIC MBAU SEC
287	MWINGI WEST	KITUMBI SEC
288	MWINGI WEST	KATOTENI SEC
289	MWINGI WEST	NZULI SEC
290	MWINGI WEST	KITULANI SEC
291	MWINGI WEST	KAVAINI SEC
292	MWINGI WEST	YENZUVA SEC
293	MWINGI WEST	NZALAE SEC
294	MWINGI WEST	KASANGA DEB SEC
295	MWINGI WEST	ST. MARY'S - NGONGONI
296	MWINGI WEST	WINZYEEI SEC
297	MWINGI WEST	MUTHIONI SEC
298	MWINGI WEST	KATUYU SEC
299	MWINGI WEST	KAKULULO SEC
300	MWINGI WEST	ST. PATRICK'S NZAWA SEC
301	MWINGI WEST	ILALAMBYU SEC
302	MWINGI WEST	NZATANI SEC
303	MWINGI WEST	KANYUUNI SEC

304	MWINGI WEST	KILUNGU SEC
305	NZAMBANI	KYANIKA SEC.
306	NZAMBANI	KILONZO SEC
307	NZAMBANI	IKUYUNI SEC.
308	NZAMBANI	KAVIA SEC.
309	NZAMBANI	MAJOR MULUVI- KANGWENI
310	NZAMBANI	KALUVA SEC
311	NZAMBANI	KANDUTI SEC.
312	NZAMBANI	KANZAU`WU SEC.
313	NZAMBANI	KIVUMBUNI SEC.
314	NZAMBANI	A.I.C UTWIINI SEC
315	NZAMBANI	KIVUTINI SEC
316	NZAMBANI	KATUMBU SEC
317	NZAMBANI	THUA SEC
318	NZAMBANI	KANGUU SEC.
319	TSEIKURU	MWANGEA MIXED DAY
320	TSEIKURU	KALIMBUI MIXED DAY
321	TSEIKURU	NGALANGE MIXED DAY
322	TSEIKURU	NZANZENI MIXED DAY
323	TSEIKURU	KANINGO MIXED DAY
324	TSEIKURU	MUSAVANI MIXED DAY
325	TSEIKURU	MASYUNGWA MIXED DAY
326	TSEIKURU	MULANGONI MIXED DAY
327	TSEIKURU	KATUMBI MIXED DAY
