

**ANALYSIS OF TEACHING-LEARNING RESOURCES AND HIDDEN EDUCATIONAL  
COST ON HUNDRED PERCENT TRANSITION TO SECONDARY SCHOOLS: A CASE  
OF WESTLANDS SUB COUNTY, KENYA.**

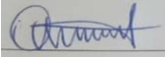
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UNIVERSITY**

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## DECLARATION

I declare that this dissertation is my original work and has not been presented to any other University/Institution for consideration. This dissertation has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited following the anti-plagiarism regulations.

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## **ACRONYMS AND ABBREVIATIONS**

<b>APHRC</b>	African Population and Health Research Centre
<b>EFA</b>	Education for All
<b>EMIS</b>	Education Management Information System
<b>FDSE</b>	Free Day Secondary School
<b>GER</b>	Gross Enrolment Ratio
<b>GOK</b>	Government of Kenya
<b>ICT</b>	Information Communication Technology
<b>KCPE</b>	Kenya Certificate of Primary Education
<b>KCSE</b>	Kenya Certificate of Secondary Education
<b>MDG</b>	Millennium Development Goals
<b>MOEST</b>	Ministry of Education, Science and Technology
<b>NACOSTI</b>	National Commission for Science Technology and Innovation
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>QASO</b>	Quality Assurance and Standards Officer
<b>SCDE</b>	Sub County Director of Education
<b>SCQASO</b>	Sub County Quality Assurance and Standards Officer
<b>SEIA</b>	Secondary Education in Africa
<b>TSC</b>	Teachers Service Commission
<b>UK</b>	United Kingdom
<b>UN</b>	United Nations
<b>UNESCO</b>	United Nations Educational Scientific and Cultural Organization
<b>UBE</b>	Universal Basic Education

## ABSTRACT

In spite of the hundred percent transition policy being in existence for the past four years, some learners do not access secondary education. The study sought to analyze the effect of physical infrastructure, teaching and instruction materials and hidden education cost on a hundred percent transition to secondary school in Wetlands Sub County, Kenya. The specific objectives of the study were to; examine the effect of school infrastructural facilities on a hundred percent transition to secondary school, determine the relationship between the availability of teaching and learning resources and one hundred percent transition to secondary school and to establish the effect of hidden educational costs on a hundred percent transition to secondary school. The study was guided by the Classical Liberal Theory. The study adopted a descriptive survey research design. The target population for the study was all the 14 public secondary schools, 14 secondary school principals, 649 teachers, and 4411 secondary school students in Wetlands Sub County. Purposive sampling was used to sample the principals while simple random sampling was used to sample the teachers and students. The sample size for the study consisted of all the principals, 247 teachers and 367 students. The main data collection tools were questionnaires. Data collection instruments were piloted in 5 schools in Langata Sub County, part of the larger Nairobi County. Test re-test technique was used to ascertain the reliability of the research instruments. The validity of the instruments was ascertained by the experts in Educational Leadership and Management in the School of Education at KCA University. Data was analyzed using SPSS version 25. Data was analyzed using descriptive statistics, namely; frequencies, percentages, mean, standard deviation and inferential statistics. Chi square test was used to test the hypothesis. Findings of the study were presented using frequency tables, bar graphs and pie chart. The study revealed that there was a statistically significant relationship between school infrastructural facilities, teaching and learning resources, hidden costs and a hundred percent transition to secondary schools in Westlands sub-county, Kenya. The study recommended that to improve a hundred percent transition to secondary schools; school infrastructure, teaching and learning resources and hidden educational costs should be put into consideration. The government ought to allocate more funds for infrastructural development and provision of adequate teaching and learning resources.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Overview**

This section presents the background to the study, the statement of the problem, the purpose of the study, research objectives, and research questions, significance of the study, limitations and delimitation of the study. The section also covers the assumptions of the study, theoretical framework, conceptual framework, and operational definition of terms.

### **1.1 Background to the Study**

Education is generally considered as basic human right. Thus, the inability of a government to provide education to its citizens is against the law. Education is also viewed as a powerful tool to drive the country's economy and foster social development. Through it, a country or individual can eliminate poverty, improve health, promote gender equity, and promote stability and peace (World Bank, 2018). Individuals' development and also reduction of poverty largely depend on the number of skills and knowledge acquired by the person and not the years they spend in class (World Bank, 2017).

The Sustainable Development Goal (SDG) No. 4 aims to ensure that all boys and girls complete basic education by 2030. This therefore calls for all countries to increase access to education. In an attempt to achieve this goal, many countries have introduced policies that will ensure all their citizens access education. Two major policies adopted by most nations include free basic education and one hundred percent transition policy. One hundred percent transition

policy is a global campaign aimed at giving children 12 years in school learning and acts as a sign of government commitment to respect the right to education.

At the heart of any education system are its quality and affordability. Quality determines enrolment, retention and academic achievement of learners. As the world moves towards increasing access to education, there is a need to improve the quality of education through improved infrastructure and provision of adequate teaching and learning resources and also make it affordable to all. School infrastructure consists of classrooms, laboratories, libraries, boarding and sports facilities. Poor infrastructure in schools leads to almost 90 percent of learners eligible for secondary school education being out of school in North Eastern Kenya (Denis, 2018). Teaching and Instructional resources ensure successful teaching and learning process in the classroom. They include textbooks, laboratory equipment and reagents and teaching aids. Teachers can improve students' achievements with better instructional materials (Boateng, 2020). Studies have shown that inadequate teaching and instructional resources lead high rate of absenteeism and low academic achievement.

Transition rate in education refers to the percentage of learners who advance from one academic level to the next (Hadad, 2017). However, there is an indication that a large percentage of graduates from primary school do not proceed to secondary school. According to Bashir et al. (2018), countries in Asia, Europe, and America invest many resources in education. The UNESCO (2007) report states that apart from countries in South and West Asia like India, Bangladesh, and Pakistan, which have a Net Enrolment Ratios of between 20% and 24%, most developed nations of the world have a transition rate of above 90 percent (Bashir et al., 2018).

Brazil leads with the highest transition ratio from primary to secondary at almost 100% in Latin America. The lowest is Guatemala, with as little as 51 percent of students going beyond primary education (Rose, 2019).

The low rates of transition may be attributed to various barriers, including insufficient infrastructure, teaching materials, and insufficient playing field space for the high enrollment of students. Valenzuela and Montecinos (2017) note that structural reforms and equity in Chilean schools experience different barriers in primary to secondary school transition, including the lack of funding, complex admission process, and the poor quality of education in secondary schools. Other barriers include the cost of education, children's home background status, low level of parent's education, and household vulnerability leads to academic disengagement and repetition at school, which affects the rate of transition (Li and Qiu, 2018).

Transition rates have been low in Africa over the years. Sub-Saharan Africa has the highest rate of children who fall victim to educational exclusion compared to other regions in Africa and worldwide. Most of the children in sub-Saharan Africa do not manage to join secondary school. The percentage of students who failed to transit to lower secondary and upper secondary stands at 37 percent and 58 percent, respectively (UNESCO-UIS (2018)). Countries that lead with the highest rate of children not joining secondary school include Djibouti (41%), Sudan (44%), Equatorial Guinea (56%), Eritrea (57%), Liberia (62%), and South Sudan (68%) (UNESCO-UIS, 2018). As stated in Millennium Development Goals (MDGs), the relevance of the right to education, where all children should be able to complete basic education, has been one source of pressure in Africa, especially sub-Saharan Africa (SSA) countries. This pressure

further relies on the fact that there is a need to increase the professional labour force (World Bank, 2018).

The low transition rate in Africa has been linked to high poverty levels and the high cost of education. Rosen (2017) notes that the transition to secondary school is very low in rural areas characterized by high-level poverty. Statistics show that villages have as low as 12% of children joining secondary schools. A 2020 Global Education Monitoring Report shows that in low and middle-income nations, there is four times less likelihood of the poorest children getting to school than the richest, and even more alarming because their possibility of completing primary school is five times the richest. To manage this, most African countries have pushed to offer free education. Data from a world development report by World Bank (2018) shows that by 2018, 42 out of the 53 African countries had legally abolished primary school fees. Furthermore, to increase the transition and completion rate, 100% transition to secondary schools, 17 countries, including three Arab States (Sudan, Egypt, and Mauritania in Africa have moved to abolish fees at the secondary school level.

According to Humble and Dixon (2017), as the level of education increases, the fall-out ratio reduces, with the transition to secondary having the most significant payoff in reducing the gap. Over the years, Kenya has tried to bridge the gap between different levels of education with current attention on ensuring 100% transition (Kaviti, 2018). Many initiatives have been put in place, but the main target is to increase enrollment in secondary schools. The journey towards achieving this started in 2008 with the birth of free Day Secondary and the standardization of school fees to an affordable rate. According to a report by the Ministry of Education, Science,

and Technology (MOEST, 2008), FDSE was meant to address the high cost of education, low completion rates, and low quality of education, in the end, fostering lifelong learning and being in line with the United Nations fourth SDGs of offering quality education aimed at eradication of poverty and also foster upward mobility (Malechwani, 2020).

In the Constitution of Kenya 2010, offering basic education is a fundamental right. In particular, article 53 1(b) states that "children have the right to free and compulsory basic education"; thus, offering the same is a government obligation. To operationalize this right, the basic education act 2013 was enacted. It states clearly that any Kenyan parent who resides in Kenya must enroll the child in primary and secondary school (Law, 2018). In support of this, different counties have tried to apply different means, including arresting parents against these provisions. These efforts were further cemented in 2019 when the president of Kenya introduced a 100 percent transition policy through the ministry of education to ensure that all pupils who sat for KCPE in 2018 transit to secondary school in 2019 (MOEST, 2019). Any parent who fails to enroll their children in school would face prosecution.

This policy was a significant step in helping learners access secondary education despite their economic status. It is a significant way of dealing with inequality and giving the Kenyan children hope of accessing basic education as stated in the Basic Education Act. After introducing and implementing this act, Kenya has registered tremendous growth in students enrolling in public secondary schools. Data from the Ministry of Education shows that enrollment in secondary schools has grown from 2.6 million students in 2017 to 3.26 million



students in 2019, which stands for over 660,000 students, which is over a 25% increase in just two years.

According to the KNBS 2019 Economic Survey, students' transition to secondary has increased from 83.93% in 2018 through 92% in 2019 to 95% by the first quarter (Q1) of the year 2020 since the rollout of the transition policy. According to a report by the ministry of education in 2019, Muranga county has the highest rate at 135 percent, showing that students moved from other counties to the region (Ministry of Education, 2019). Nyandarua is another county that registered among the highest transition rates at over 97 percent. Nairobi had the lowest, with a transition rate of below 47 percent. Other counties with low transition rates include Mombasa, Lamu, Tana River, and Isiolo, which are below 70 percent.

However, even with all the efforts, the transition has not been entirely successful. Viluti (2019) identifies the cost factor as one reason for the low transition rate. Still, other factors like parental education, gender discrimination, and secondary space availability largely contributed. Other findings have been inclined towards infrastructure and teaching and learning resources. As the Kenyan government continues to implement a one hundred percent transition policy, stakeholders should also look at how it will affect the quality of teaching and learning. Education stakeholders identify the need for more teachers, classrooms, chairs, desks, dormitories, dining halls, laboratories, bathrooms, and toilets.

The study analyzed teaching and learning resources, hidden educational cost on one hundred percent transition to secondary schools. The study objective was to determine the extent

to which adequacy of infrastructure, teaching and instructional materials influence one hundred percent transition to secondary school. It further investigated to what extent hidden educational costs had influenced one hundred percent transition to secondary schools.

## **1.2 Statement of the Problem**

Many scholars agree that education plays a prominent role in the society. In today's world it has become one single most important factor in development of society, cultivation of healthy individuals and building strong economies. Yet, while most education measures show impressive improvements in Kenya over the recent decades, there remains a heartbreaking gap in access to quality secondary education in some parts of the country. This is partly because, while investment in education has increased, transition from primary to secondary school remains low. And many stakeholders in education have claimed that policies by national government to raise transition rates seem to face setbacks.

It is within this context that this study investigates the hundred percent transition policy enacted by the government of Kenya. In 2019, the government of Kenya enacted the hundred percent transition policy so as to increase enrolment in secondary schools. While most research evidence in Kenya indicate remarkable increase in transition to secondary education, there still seems to be a wide disparity across different regions in the country. And research has also pointed to decreasing trends in transition rates even in regions where the figures were initially reported to be high. This probably suggests existence of inherent obstacles in the process of accessing secondary education. Given that school infrastructure, teaching and learning resources and hidden cost could have negative effect on

implementation of 100% transition policy this study sought to analyze the influence of school factors on a hundred percent transition to secondary school in Westlands sub-county, Kenya.

### **1.3 Purpose of the Study**

The study sought to analyze school infrastructure, teaching and learning resources and hidden education cost on a hundred percent transition to secondary school in Westlands Sub County, Kenya.

### **1.4 Research Objectives**

The specific objectives of the study were;

1. To examine the effect of school infrastructural facilities on a hundred percent transition to secondary school in Westlands Sub County, Kenya.
2. To determine the relationship between teaching and learning resources availability and hundred percent transition to secondary school in Westland Sub County, Kenya.
3. To establish the effect of hidden educational costs on a hundred percent transition to secondary school in Westlands Sub County, Kenya.

### **1.5 Research Hypothesis**

The following research hypothesis guided the study;

**H01:** There is no statistically significant relationship between school infrastructural facilities and one hundred percent transition to secondary school in Westland Sub County, Kenya.

**H02:** There is no statistically significant relationship between teaching and learning resources and one hundred percent transition to secondary school in Westland Sub County, Kenya.

**H03:** Hidden educational cost has no statistically significant influence on one hundred percent transition to secondary school in Westlands Sub County, Kenya.

### **1.6 Justification and Significance of the Study**

The hundred percent transition was meant to ensure all learners in Kenya complete basic education. While it was seen as a means to reduce education wastage, some studies show that it cannot be successful if school factors like infrastructure and teaching and learning resources are not improved. Few studies have looked into the determinants of transition. Yet, low transition to secondary school signifies educational wastage.

The findings of this study are expected to address the causes of low transition rates in Westlands Sub County, Kenya. The findings will be important to Educational Planners and Policymakers, secondary school principals, teachers, parents, and national and county government leaders. Education planners and policymakers will use the findings and recommendations of the study to plan for school infrastructure and teaching and learning resources to implement the hundred percent transition policy successfully. National government and County government officials may also use the study's findings when making decisions regarding the financing of secondary education. The study will contribute to intellectual knowledge and academic advancement in implementing a one hundred percent transition policy. The study will also recommend policies that the government and other organizations can adopt to support the implementation of a one hundred percent transition policy.

### **1.7 Scope of the Study**

The study was confined to Westlands Sub County, Nairobi County-Kenya. Fourteen public schools participated in the study while all private schools were left out since they are not funded by the government. The respondents included students, teachers, and principals of public schools in Westland Sub-county. Other stakeholders in education like parents were not included since they may not paint the correct picture of the situation of these factors in schools. The study focused on school factors and the transition of primary school students to secondary schools in Westlands Sub County, Kenya. On school factors, the study looked at the availability of teaching and learning resources, school infrastructural facilities and hidden educational costs. The study was concerned with the transition of primary school students to secondary schools in 2019, 2020, 2021 and 2022.

### **1.8 Limitation of the Study**

One hundred percent transition from primary school to secondary schools is a new policy in Kenya which has gained momentum after the free and compulsory basic education policy. The available literature on the new policy was limited. The study suffered from the current covid-19 restrictions, affecting the data collection process. However, the researcher overcame this challenge by following the World Health Organization (WHO) Covid-19 protocols. Lastly, some participants were not willing to give all information required to address the study's objectives. But this limitation was overcome by assuring the participants that the study was being carried out for academic purposes only and that the information provided will be kept confidential.

## **1.9 Assumptions of the Study**

The study was based on the following assumptions;

- i) Not all students who graduated from primary school in Westlands Sub County transitioned to secondary education.
- ii) That availability of school infrastructure, hidden educational costs, and teaching and learning resources related to the transition of primary school students to secondary schools in Westlands Sub County.
- iii) That the data collected was measurable and suitable for analysis.
- iv) That respondents gave reliable and accurate data that was used to address the research questions.

## **1.10 Theoretical Framework**

The study was guided by the Classical Liberal Theory of equal opportunities advanced by Sherman and Wood (1982). The theory asserts that all people are born with some given amount of abilities and capacity. According to this theory, systems of Education need to be designed to remove economic, geographical, gender and other school based barriers as they may prevent a person from developing their inborn talents. There is a need to advance from primary to secondary levels through merit and not on social backgrounds. Educational opportunities should be available in equal measure to all and their access be according to motivation and one's desire and should not be left to a few individuals. This theory can also explain why in 2019, the Government of Kenya realized that the transition rate was still low even with the day Secondary School Education being free. Therefore, the government introduced a one hundred percent transition policy to ensure all students who sit for KCPE are enrolled in form 1.

The Classical Liberal Theory was relevant for this study because it emphasized the need for removing barriers to educational opportunities. Improved infrastructure and adequate teaching and learning resources enhance pupils' good performance and this eventually serves as an incentive for the transition from primary to secondary school. The school-based factors such as infrastructure, teaching and learning resources and hidden educational cost affect learners' performance and transition from primary to secondary schools. Children from poor families may lack even the very basic needs for schooling like exercise books. Inadequate infrastructure may also cause overcrowding and lower performance. When these barriers in education are removed transition from primary to secondary will increase. The theory will be very important in studying the influence of teaching-learning resources and hidden education cost on a hundred percent transition to secondary school in Westlands Sub-County, Kenya.

### **1.11 Conceptual Framework**

This section explains different variables based on the research topic and objectives. It relies on the intervening, dependent, and independent variables. The independent variables included school infrastructure, consisting of classrooms, boarding facilities, sporting facilities, laboratories, and playing fields. Teaching and learning resources included books, lab equipment, instructional materials, and hidden education costs such as uniforms, teacher motivation, stationery, and school transport costs.

The three school factors directly influence one hundred percent of transition to secondary school. Infrastructure can influence transition either positively or negatively. With the adequate infrastructure in place, schools are able to admit many learners leading to high transition rates. In

contrast, limited infrastructure in secondary schools hindered transition since from one admission was pegged on the availability of learning spaces like the classrooms. The researcher was able to see how school infrastructure will influence transition. On the other hand, the availability of adequate teaching and learning resources is important in ensuring a smooth teaching and learning process in schools, ensuring the smooth implementation of a one hundred percent transition policy.

The study analyzed how their adequacy or inadequacy influenced one hundred percent transition to secondary. Finally, hidden costs have also become a hindrance to implementing a one hundred percent transition policy, especially where some parents cannot meet such costs. However, children whose parents have high incomes may not be affected. The intervening variables were used to explain how school infrastructure, teaching and learning resources, and hidden charges have influenced one hundred percent transition to secondary school from 2019 to 2022. Specifically, parental income and motivation toward education will be considered. Where parents have high income and motivation levels, children will successfully transition to secondary school. They can afford schools with good infrastructure and adequate teaching and learning resources. Finally, the dependent variable was transition rates between 2019 and 2022. The study established how selected school factors influenced one hundred percent transition to secondary schools between 2019 and 2022.



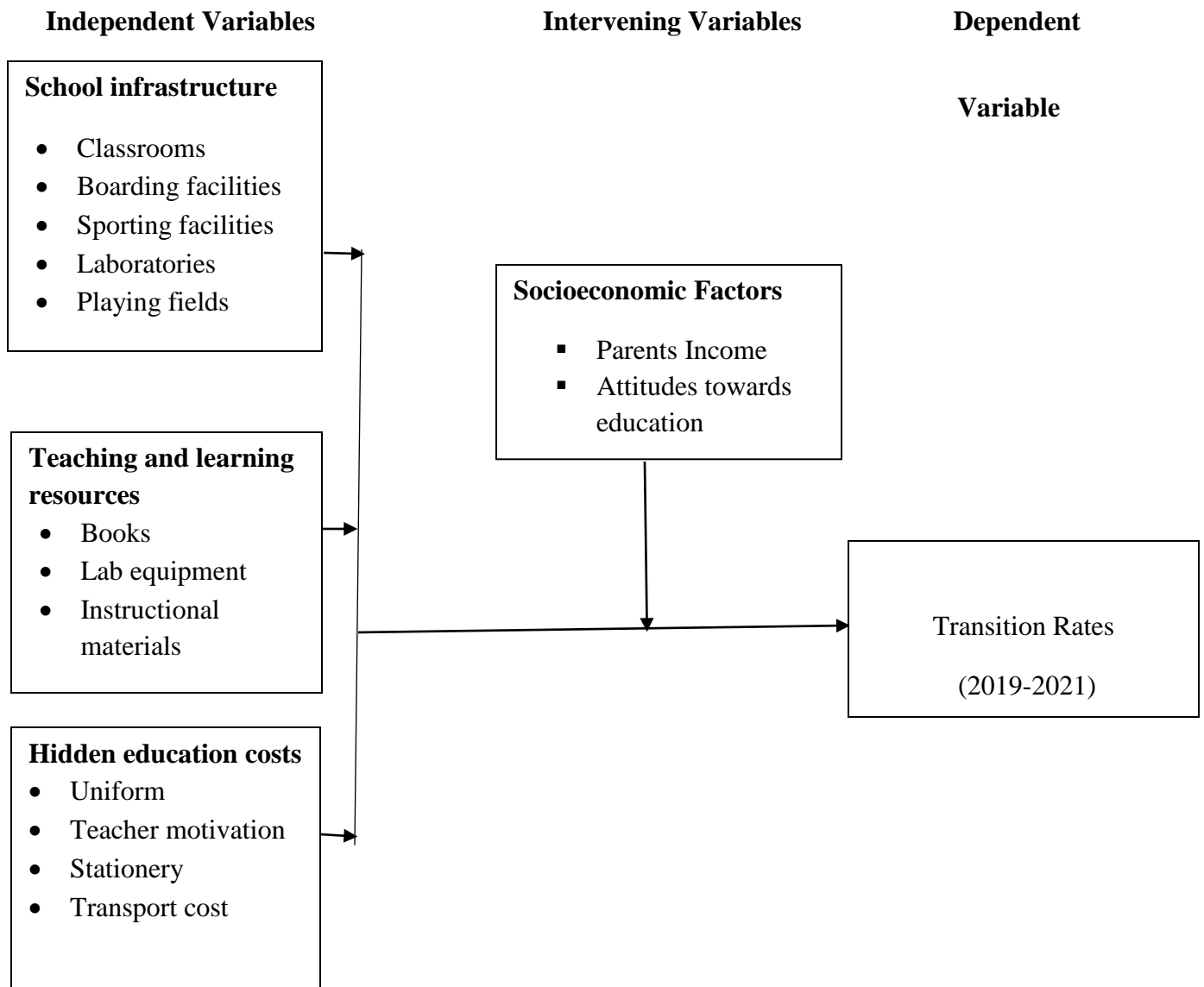


Figure 1.1: Conceptual Framework

## **1.12 Operational Definition of Terms**

**Transition:** Refers to students moving from primary to secondary

**Low transition:** Refers to a few students who complete primary education joining secondary

**Policy:** Refers to a course of action as directed by the Ministry of Education in Kenya

**Hundred Percent transition:** Refers to all students graduating from primary school in a given year and enrolling in Form One in the subsequent year.

**Public Secondary Schools:** Refers to schools that receive public funding

**Teaching and also learning resources:** Refers to books, lab equipment and instructional materials.

**Hidden educational costs:** Refers to levies charged for uniform, stationery and teacher motivation and school transport fees for day scholars.

**School infrastructure:** Refers to classrooms, boarding facilities, sporting facilities and playing fields.

**Socioeconomic factors:** Refers to parents' income and attitudes towards education.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.0 Introduction**

This chapter deals with review of literature from different countries, focusing on transition. The chapter covers both theoretical literature and empirical literature. Literature is reviewed based on the objectives of the study. Literature was extracted from various sources including; books, theses, journal articles, grey literature, newspapers and government policy documents,

#### **2.1 Review of Available Literature**

This section presents the review literature related to hundred percent transition policy, school infrastructure, educational resources and hidden costs.

##### **2.1.1 Transition to Secondary Schools and school infrastructure**

For there to be a smooth transition to secondary school by students, the environment needs to be conducive because, according to Evans et al. (2018), in their review on the academic and also mental impact of the transition to the young adolescent, one of the most stressing events is the transition process to secondary school. When the environment is not conducive, the stress is higher, leading to poor performance, school dropout or even total failure to join. Coelho and Romão (2017) state that without providing a conducive environment that mainly involves providing the right physical facilities for education, students may fail to reach their maximum academic potential since it will add to their stress. School infrastructure is one major area of concern in several studies on transition as it is considered to have a great influence on

transition. Table 1.1 show that transition to secondary schools in Westlands Sub County has been declining from 2019 to 2021.

Table 1.1: Wetlands Sub County Transition rate from 2019-2021

Academic Year	Number of Pupils who Sat for KCPE the previous year	Number of Students Enrolled in Form 1 in the current year	Transition Rate
2019	3358	3109	92.58
2020	4288	3794	88.48
2021	5634	4411	78.29

Source: Wetlands Sub County Director of Education’s Office (2022)

Anagün (2018) researched Teachers' Perceptions about the relationship between 21st Century skills and managing constructivist learning in Eskisehir province. This study was conducted employing structural equation modelling (SEM). It was done on 184 female and 88 male teachers in Eskisehir province to identify teachers' perceptions concerning managing constructivist learning environments. Explanatory factor analysis (EFA) and confirmatory factor analysis (CFA) were used. The author identifies three elements that contribute to a good learning environment. They were the physical, psychosocial, and service delivery elements. The physical elements included well-equipped modern buildings, clean water supply, enough instructional materials, stable supply of electricity, equipped library and laboratory furniture, and space availability. The different physical resources identified though relevant, may not all be relevant to my current area of research and thus the need to research what affects my area. Despite this, there is a general agreement that the government must heavily invest in improving physical and human resources in Schools (Fillardo and Jeffrey, 2017).

Ruhyana and Aeni (2019, April) conducted research in Sumedang in Indonesia. This research sought to determine the effects of infrastructure and Educational Facilities in Primary Schools on Students' Learning outcomes. The casual comparative relationship between the dependent and independent variables was identified using the quantitative method. Five hundred ninety-nine different primary schools located in Sumedang Dapodik District were used as the research population. The data used was from 2017 Dapodik data. The Education Office of Sumedang Regency collected this data. Logistic regression, a quantitative data analysis technique, was employed. The research found out that one of the infrastructures affecting students' learning in classrooms. The study recommended that school infrastructure, mainly the classrooms and education facilities, needed to be improved to improve the learning outcome of students in primary schools and reduce school dropouts and repeaters. Whereas the study aimed at identifying how infrastructure and education facilities affect learning outcomes, it is different from the current study, which will analyze school infrastructure and implementation of a one hundred per cent transition policy. In addition, the current study will also analyze both teaching and learning resources and socioeconomic factors, which is not in the study by Ruhyana and Aeni (2019). The study was also conducted in Indonesia, which has a great difference in education funding, technological development, and even the education system, hence the current study's need.

Odey (2018) conducted a study to find out the level of different physical facilities available in junior secondary schools in Ebonyi State, Nigeria and how they affect Universal Basic Education implementation. Data was collected from 221 secondary schools in the estate. Three experts, two from the education office and one from the measurement and evaluation

office, validated the checklist, which was used to find the physical facilities available in the schools. Data were analyzed using the descriptive analysis technique and presented in the form of simple ratio and frequency. The Chi-square test was used in testing the hypothesis. The research study found out that there were insufficient physical facilities in the area except for the staffrooms, thus the low transition. In addition, his finding showed that rural schools had fewer facilities than those in urban and the same applied to transition rates. This hindered the successful implementation of Universal Basic Education, which ensured that all students transitioned to Secondary Junior School. The researcher concludes by saying that any school which aims to offer quality education in an environment where learners will have the opportunity for competitive and supportive learning must invest in modern physical facilities like well-equipped libraries, laboratories, computer rooms and sports facilities.

Despite these findings, there is a gap in the methodology used, including checklists and the sample population being schools and not the principals, teachers, or students in the schools. This study will use a different methodology. Specifically, the target population where data will be collected from teachers, principals and Sub-County Director of education using interview schedules and questionnaires and is expected to give more reliable and accurate data since using a checklist can miss out on some points like the specific data on the number of physical facilities available, in comparison to the students available and the transition rate.

Katiwa (2016) conducted a study in Kitui Central Sub-County, Kenya, on factors influencing pupils' transition rates from primary to secondary schools. Her study aimed to investigate the factors that influence the rate of transition to secondary from primary schools. A

descriptive survey was employed as a research design. It targeted 101 school heads from public primary schools and also secondary schools. In addition, 468 primary and secondary school teachers and the Director of Education in the Sub-County were included. Using the stratified sampling technique, 24 primary school headteachers, all the 33 school principals and the Director of Education in the Sub-County were sampled. One major finding indicated that spaces in secondary schools were inadequate, which was represented by 91% of the respondents. This adversely influenced the rate of transition to secondary school. The study's findings suggested that the lack of infrastructure in secondary schools lowered the transition rate. However, these findings may not apply to Westlands Sub County, a metropolitan Sub County, unlike Kitui Sub County, which is purely a rural Sub County. Thus, it is relevant to conduct a study to establish whether infrastructure equally affects transition in Westlands Sub County.

Njenga (2019) carried out a study on Institutional determinants of implementation of the one hundred per cent transition policy in public secondary schools in Nyandarua Central Sub-County Kenya. It used a descriptive survey design. The study targeted 1,400 forms one students, 134 class teachers, 34 public school principals and finally, the Director of Education in the Sub County. In addition, all the 34 chairpersons of BOM were also included giving a target population of 1,603. From these, a sample size of 201 respondents was picked. Data were collected using questionnaires, interview schedules and an observation guide. Open-ended questions and personal interviews were used to collect qualitative data, which was analyzed through content analysis. Then the analyzed data was organized into patterns and themes that corresponded to the research questions. The analyzed data was presented using descriptive statistics. The study found out that in Nyandarua County, teaching and learning resources were

inadequate and affected students' learning. She further specifically spotted the insufficiency of games facilities and equipment, which negatively affected co-curricular activities and insufficient sanitation facilities, which led to time wastage.

Whereas the study by Njenga (2019) is almost similar to the current study, it differs because of the location since the current one is carried out in Westlands sub-county, which is an urban sub-county, while the former study was in Nyandarua central sub-county which was a rural county. The study is also different from the current study. By the time it was conducted, a 100% transition policy had just been introduced, and its impact on learning institutions was yet to be felt. The data collected from the study may not paint the real picture of the situation three years into implementing this new policy. The current study is being conducted when the policy has been in place for three years, and the researcher believes that the data that will be collected will be more accurate and reveal the situation on the ground.

Other Studies also supported the findings above by identifying different infrastructures necessary for academic success. Menudo (2021) states that Schools with a library that is well equipped and run by a certified librarian and reliable support staff significantly contribute to student academic success. Changwe and Mulenga (2020) also identifies the availability of adequate learning space at all levels to contribute to student academic success. According to Fillardo and Jeffrey (2017), availability and effective use of these resources by relevant people helps to promote Student motivation, creativity, Evoke prior knowledge, Encourage the understanding process, help students to decode, organize and synthesize the educational content, promote logical reasoning and to think, facilitate communication and interaction between



students and teachers and also among students and finally contribute to the development of different skills among teachers and students as well as the retention of desirable skills, attitude and knowledge relevant for personal growth. (Giovetti, 2019). These studies focus on one or two infrastructures that may not be sufficient to use in my area of study, which focuses on infrastructure in general and focuses on almost all infrastructure and is not limited to one or two.

### **2.1.2 Teaching and Learning Resources and Transition to Secondary School**

The role of instructional materials in enhancing quality education cannot be overlooked. When teachers have better instructional materials, they can improve students' achievements (Boateng, 2020). A book by the National Academies of Sciences, Engineering, and Medicine (2018) affirms that instructional materials facilitate the learning of concepts by helping to cement ideas and stimulating the imagination of learners. They further increase participation in learning while reducing teachers' centeredness, which reduces the wastage of their energy.

Javier and Marcella (2011) did a study which focused on finding out if school resources and infrastructure matter in primary schools in Latin America. The aim was to find out the impact of school resources and infrastructure on performance in primary education. Random stratified sampling of conglomerates was used to select schools from 16 countries based on management, geographical area and size. From the 16 countries, a sample size of 4,271 schools, all primary, 3,903 classrooms for grade 3 and all their students who were 95,053 in total, 3,903 classrooms for grade 6 and all their students who were 91,223 were used in the study. A census form was used to obtain data on facilities and resources from the principals. The researcher used a four-level model, and then an evaluation which presented the weight of each given variable by

country was made. The findings showed that the adequacy of revision books and textbooks greatly affected student performance. School facilities like computers and libraries affect students' achievement. The study concludes that the quality of school infrastructure and educational resources like books should be the main focus of a school or education system for a healthy learning environment.

The study by Javier and Marcela (2011) agrees with other studies reviewed below that schools cannot do without adequate teaching and learning resources and will be relevant to the researcher, especially in analyzing the second objective of this study. However, there is a gap in the methodology used, including the use of census forms and sample population, not including teachers and education officers. This study will use a different methodology, specifically the target population. Data will be collected from teachers, headteachers and Sub-County Director of education using interview schedules and questionnaires to give more reliable and accurate data. Students will also be excluded from the study since they may not have adequate information on teaching and learning resources in a school due to some ethical considerations.

Secondly, the former study is different in that it was conducted in Latin American countries, which have more advanced education systems with more resources and funding as compared to my study location, which is Kenya, where schools have insufficient resources for teaching and learning and low funding in education hence, the need for this study. While the current study will analyze the influence of resources for teaching and learning on one hundred per cent transition policy in public secondary schools in Westlands Sub-County, Kenya, the former study looked at how resources impact on academic performance of primary education.

Therefore, the current study is necessary as it will focus on transition while the former study was on performance.

Olayinka (2016) conducted a study on how instruction materials contribute to the academic achievements of social studies in secondary schools available in Ekiti State, Nigeria. The target population was all junior secondary school students. The sample size was 180 students. The study used a multiple-choice Social Studies Achievement Test (SSAT) consisting of 30 questions to collect data. This instrument was validated by specialists in Measurement and Educational Management and Social Studies Test. To determine the instrument's reliability, estimation of internal consistency and the Test-re-test method was used. The study generated four hypotheses, and data were analyzed using ANCOVA and ANOVA statistical tools. According to the finding, there was a big difference between the post-test and pre-test of students.

Another finding was that there was no statistical significance of gender effect on social studies performance. Using his findings, the researcher concluded that students taught without using instructional materials performed poorer than those taught using them. Thus, recommendations for using this material where applicable to improve students' performance. He also recommends that it is important for parents, schools, and the government to provide adequate necessary and important instructional materials to aid teachers. These studies will be of great importance to the researcher since their objective was to establish the importance of instructional resources in education. Still, there exist gaps to be filled or improved. The researcher will improve on this objective by looking at how instructional resources influence one

hundred per cent Transition Policy and not just a single subject performance. In addition, despite its relevance, the researcher's methodology greatly varies with the once for this study, including questionnaires and interview schedules in my research, which can give clearer or even different findings. Another gap exists because the study only focused on one subject when mine will focus on general and the fact that it was in Nigeria. Not all the findings will apply to my geographical location. It doesn't mention the specific instructional materials used when this study will focus on different instructional materials to get a general conclusion.

Asiago (2018) researched administrative factors affecting public schools' education quality within Kisii, Kitui and Nairobi Counties. One objective was to establish the effect of the availability of materials for teaching and learning on the quality of education in the three counties. Based on general system theory, a correlational research design was used. The targeted population consisted of 8617 teachers of public primary schools and 783 principals of public secondary schools, all employed by TSC. Schools were sampled using stratified sampling where 205 sub-county schools, 40 schools in the county category, 11 extra counties and four from the national level. Observation guides and questionnaires were used to collect data. Data were then analyzed using frequencies, percentages, T-test, means and regression analysis. The study found the availability of teaching and learning resources as the highest influencer of education quality at 23.2 per cent, followed by a distance by school physical facility at 9.4 per cent and teacher motivation at 8.7 per cent. Availability of teaching and learning resources was the main factor affecting the transition rate to the next class.

Orodho, Waweru, Ndichu and Nthinguri (2013) all agree with the findings by Asiago by indicating that the challenge of inadequate learning resources affect the effectiveness of teachers negatively when focusing on individual learners and also in the use of teaching methods. Despite this intense research, the researcher failed to mention the specific teaching and learning resources and presented a general overview. Also, the wide-area coverage of three counties consisting of over 200 schools with different economic balances compromises the accuracy of the findings concerning its application to my current study location. It is only located in Nairobi County and thus the need for my research. Lastly, the above research supports the argument that instructional resources are key in enhancing quality education. However, the researcher failed to show the impact of these resources on the transition from primary to secondary schools and provides a general transition to the next class. The researcher will, in this study, determine the influence of instructional resources on one hundred per cent transition to secondary school.

Yara and Otieno (2010) studied the relationship between teaching/learning resources and performance in academics in secondary schools within Bondo district, Kenya. It aimed to determine the predictors of academic accomplishment of mathematics learners within secondary schools concerning tutoring and apprehension using the available teaching and learning resources. The research used a descriptive survey study design. A target population of 405 forms four students from 24 schools were targeted for the study. From the population, using a random sampling technique, nine schools were selected, and from this, a sample size of 242 from four students was chosen. Data was collected using a questionnaire validated on performance (SPQ). Multiple regression analysis was used to analyze the collected data. The study found eight independent variables to have a positive correlation with mathematics performance.

Among the eight variables, labs/classes and the ratio of books to students were among the main resources that could be utilized to anticipate academic accomplishment in mathematics. Despite being relevant in terms of factors that affect academic success, it's least relevant to my study, which focuses on 100 per cent transition policy. This is because it only focuses on what affects performance and not transition. In addition, the study used multiple regression analysis to analyze data that is different from the one for the current study, which will be descriptive statistics analysis. Another gap is that the researchers only focused on mathematics when we have other subjects that could be affected by the same factors. Thus, the need for my study will focus on general academic performance and not on a single subject.

In conclusion, Ezumah (2020) conducted research on the state of the African Education Systems and discovered that, on average, four students in Equatorial Guinea share the same textbook, 5 in both Chad and South Sudan, and Cameroon has 14 students sharing a book. In general, they discovered that in Sub Sahara, there is an average of 2 students per reading book, and it's even worse in mathematics, with an average of 1 mathematics book for every Student. The study findings show clearly that the ratio of students per given book varies in different countries. This means the findings may not be necessarily applied in my country and specifically Westlands Sub-County hence the existence of a gap to be filled, which informs the need for my research.

### **2.1.3 Hidden Educational Costs and Transition to Secondary School**

Hidden costs are financial contributions made by parents to schools apart from those authored by the government (Tomasevski, 2003). They include admission fees, co-curricular activities,

remedial, meals, book, transport and uniform (Tuwei, 2013). In another definition, Mohamed (2015) defines the hidden cost of education as opportunity costs like transport costs, remedial, lunch levies and school tours, while direct costs are costs that must be met for the school to run like school levies, activity and examination fees, development funds, school uniform and books. Mugiraneza (2018) presents hidden costs as not directly linked to school fees, including transport costs, costs of uniforms, remedial, and other costs. Kabiru (2018) and North (2012) identify these costs with another name which is school levies, and still indicate that they affect the transition rate. Despite this agreement, they do not directly agree on what makes up hidden costs. Different studies have been done on this issue, and most of them are from Kenya, but they do not fully address the issue of hidden cost and their relation to 100 per cent transition to secondary school.

Mugiraneza (2018) conducted research to identify the hidden costs and how they affect the participation of students in Rwanda's basic education in the Kirehe and Kicukiro districts. The objectives included finding the effect of home-based costs on students' intake rate to secondary school, the effect of home-based costs on student's transition rate in Rwanda, examining the impact of school-based costs on the rate of intake, and finally examining the impact of school-based costs on transition rate of students in basic education in Rwanda. Education Production Function was used as the Model for the study. The study design was the convergent parallel mixed method. The study targeted 30 head teachers of 12YBE and 31445 parents, and from this, a sample size of all the 12 head teachers and 394 parents was selected. Different tools were used to collect data. Questionnaires were used to collect data from parents, while both interview guides and school document checklists were used to collect data from head

teachers. The research tools were tested for the validity of the content using lecturers' and supervisors' input.

Quantitative data were analyzed using multiple regression analysis, while themes were used to analyze qualitative data, which was then presented in the form of a narrative. 52233. Findings reveal that home-based costs, including uniforms, transport, home coaching, and school materials, had a significant effect on the intake rate. In contrast, home-based costs such as school materials, uniforms and transport had a significant effect on the transition rate of students at the O' level. School-based costs like school activities support and cost of examinations had a higher impact on students' intake rate than co-curricular activities costs and school feeding costs. Finally, school-based costs like examinations and school activities participation costs contributed to some variation rate of transition. From these findings, the researcher concluded that hidden costs, either school-based or home-based, contributed to variation in transition rate and rate of intake.

This research clearly shows that different hidden cost costs affect transition rates, and their effects vary. This variation in the different costs may differ in how they affect the transition rate in Westland Sub-County since Westlands is generally an urban town with most people living here being above the poverty level, so some hidden costs may vary. There may also be other costs that this research will discover, like supporting the construction of school infrastructure, which is not discussed in the research by Mugiraneza. The study is also different from this one since it looked into hidden costs in general, while this study will look at school-based hidden costs and their effect on transition.



Mbalaka et al. (2021) did a study to find out the extra levies and how they act as determinants in implementing free and compulsory education in public day secondary schools in Kenya. The research had four objectives which included establishing the effect of admission fee levies and the salary of BOM teachers; finding out the influence of infrastructure installation levies, the effect of remedial teaching and finally, the effect of levies on teachers' motivation on implementation of free and compulsory education in Kitui County. A descriptive survey research design was used. A sample size of 164 principals of schools, 17 chairpersons of the Parents' Association (PA) and Kitui County Director of Education (CDE). A questionnaire collected data from the school principals, while interview schedules were used to collect data from the CDE and PA chairpersons. Document review analysis was also used where relevant documents from CDE and principals' offices were reviewed. Analysis of quantitative data was based on themes emerging from the study's objectives.

Analysis of Quantitative data was done using Descriptive statistics, and results from this analysis were presented in the form of tables. The study found a significantly negative relationship between the extra levies that were charged and completion rates and transition rates ( $r = -.747$ ;  $p \leq .01$ ). The research findings concluded a significant relationship between the extra hidden levies and the implementation of free public day school education in Kitui County because the results showed that the transition rate decreased when levies increased. This research was able to find out that different extra levies affected the implementation of compulsory and free public day secondary education in Kenya. Despite being targeted to be applicable in Kenya, the area where the study was conducted is majorly a rural County and thus, the findings may not be wholly applicable in Westlands Sub County, which is a metropolitan Sub County with

different poverty levels and thus, the existence of the need to find out how the different factors affect transit rate in Westlands Sub- County. In addition, the main research focus, which is on the implementation of free and compulsory public day secondary schools' education in Kenya, is different from my current study, which focuses on the implementation of a hundred per cent transition rate policy and thus part of the findings is not relevant to this study and thus the need for my study.

Kabiru et al. (2018) conducted a study to establish whether school levies affected pupils' transition from primary to secondary school in Nyandarua North Sub-County, Kenya. The study used an Ex-post-facto research design. The study targeted 66 primary schools and 2904 pupils in Nyandarua North Sub-County. Selection of sample size was done using Stratified sampling technique where 56 primary school head teachers and 396 class eight pupils were selected from the target population. Descriptive analysis was used to analyze data, and it involved the use of frequencies, percentages and means and inferentially where linear regression was used. An alpha level of .05 was used to test the hypothesis. The results from the study showed that school levies influence to a large extent transition of pupils from primary to secondary in the sub-county. This study indicates that school levies charged affect transition. Despite this, there exist some gaps, mainly in the methodology used. One of them is that this research targets pupils in primary schools who may not have accurate information about the different hidden levies and how they affect the transition rate because they don't actively participate in paying them. Thus, the information they provide may not be fully reliable. In addition, the fact that it targeted primary schools and not secondary schools may not be applicable in secondary schools since different levies are charged in secondary schools. Thus, using the secondary school population as a target

group was more relevant. The finding also presents a general agreement that the extra levies affect but do not mention specifically these levies and how they affect. This identified gap informs the need for my research.

Shaving (2015) carried out a study to determine the effect of extra educational levies on the participation of the students in public day secondary schools in Kwanza Sub-County, and it was guided by Human Capital Theory (HCT). Different objectives guided the study, which included: determining tuition levels that affect the participation of students in day public secondary schools, determining how remedial revenue influences the supply of resources used in learning, finding out how lunch levies affect participation and finally finding out whether school improvement levies contribute to learner's dropout. The descriptive survey research method was used to do the research. The research targeted all the 42-day public schools, 504 teachers from these schools, 9663 students and finally, 8114 parents. Sampling was done using a simple random technique to select each category of participants since it gave each subject an equal chance of being selected. Using this method, 21 schools, 50 teachers, 811parents and 966 learners were selected. Different data collection tools were used. The questionnaire collected data from teachers, interview schedules from parents, and focus group discussions collected data from learners. Data were analyzed using descriptive statistics.

The findings showed that despite free secondary education, there existed extra levies that parents had to meet, which included uniform, remedial teaching, stationery, sports and clubs' levies for school activities, educational tours, development funds, and examination fees, and also salaries for BOM teachers. Further findings showed that these students are sent home to look for

funds for the extra levies, making them skip schools and participate in child labour to get money for the extra levies. When money cannot be found to cater to these levies, students drop out of school because education is not free in a real sense.

Despite this research identifying different hidden costs and their effect on the participation of students in public day secondary schools, the extent of the effect of the different costs identified may vary from that of Westlands Sub-County since Kwanza Sub-County is a rural area with a majority of people living below the poverty level. At the same time, Westlands Sub-County is a metropolitan sub-county with most people living above the poverty level. In addition, this research focused on the effects of these costs on the participation of students in public day secondary schools. In contrast, my current research will focus on its effect on transition rate. And thus, the need to fill the gaps through conducting this research.

Ngwacho (2015) conducted a study to establish how hidden costs in the provision of free primary and secondary education affect transition and completion rates in public boarding schools in Kisii County, Kenya. The study's objectives were to find out the hidden costs in the provision of free secondary education and their effect on transition and completion rates. The study used Sherman and Woods's Classical Liberal Theory of Equal opportunities, discovered in 1982. This theory believes that each child has inborn talents, which push them to social promotion. Thus, all education systems should have equal opportunities and should not be any barrier that can prevent children from taking advantage of their talent. A correlational research design was used. All Head Teachers of the 60 public boarding secondary schools in Kisii County, 641 class teachers, and 240 PTA representatives formed the target population. Stratified

and simple random sampling was used to get a sample size of 52 Head Teachers, 234 class teachers and 148 PTA representatives.

Data collection was done using interview schedules and questionnaires. All quantitative data collected was then analyzed using frequencies, regression analysis, averages and percentages and presented using bar graphs, tables and pie charts. Qualitative data, on the other hand, was analyzed using thematic analysis. After the analysis, the degree of relationship was measured using Pearson's correlation, With Statistical tests being done at  $\alpha=0.05$ . The findings show a significant positive relationship between hidden costs and student completion and transition rate.

According to the research, the findings mean that despite the introduction of free education in secondary schools, hidden costs still affect learners' transition and completion rates. Despite these findings, the study doesn't mention the hidden costs but gives a general overview. It doesn't also provide the extent to which these costs affect transition and completion rate. Also, the costs identified in his area of study can vary from those in Westlands Sub County because of different factors like the economic structure, the size and the location of the study area. These existing gaps are the reason for my current research.

## **2.2 Summary of Literature Review**

This section reviewed the literature on the three factors that influence one hundred percent transition from primary to secondary schools. The main focus was on infrastructure, teaching and learning resources and hidden education costs. Anagün (2018), Ruhyana and Aeni (2019), Odey

(2018), Katiwa (2016), and Njenga (2019) agree that lack of infrastructure in secondary school affected learning and lowered transition. On teaching and learning resources Javier and Marcella (2011), Oloayinka (2016), Asiago (2018) and Yara and Otieno (2010) all agree that teaching and learning should be the main focus of an education system as they influence the quality of the education provided. Oloayinka (2016) finds that students taught without instructional materials performed poorer than those with them. Finally, Mugiraneza (2018), Mbalaka et al. (2021), Kabiru, et al. (2018), Shaving, J.M. (2015) and Ngwacho (2015) in their studies finds that hidden education costs still affect the transition and completion rates of learners.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter presents the research methodology, target population, sampling procedure, sample size, sampling techniques, data collection procedure, research instruments, piloting of the instruments, validity and reliability, data analysis and ethical issues.

#### **3.1 Research Design**

The research used a descriptive research design, adopting a mixed-method approach for both quantitative and qualitative data will to be collected. According to Lambert and Lambert (2012), the approach deals with practices, conditions, structures, and processes that show the existing trend or opinion held. Creswell and Creswell (2017) states that by using this design, questionnaires and interview schedules may be used to collect data from respondents. The design is specifically concerned with practices that prevail, points of view, attitudes that are held, processes that are going on, effects that are being felt, or trends that are developing; hence it will be suitable for analyzing selected factors on the implementation of one hundred per cent transition policy. The method allowed the research to be conducted in the respondent's natural environment, and thus, high-quality and honest data was collected. Through the questionnaires, a lot of information was collected faster and cheaply.

#### **3.2 Location of the Study**

The study was done in Westland Sub-County, Nairobi County, Kenya. The sub-county was formerly Westlands District. In the 1963 elections, it was known as Nairobi Northeast

Constituency but was renamed Parklands Constituency in 1988. Since then, it has been known as Westlands Constituency. The Sub-County spans an area of 72.4 within Nairobi County. It is located 3km North-West of Nairobi CBD. Specifically, there are 33 secondary schools, with 14 being public and 19 private, primary schools are 84, 27 are public, and 57 are private institutions. The sub-county also has five colleges. The area also has all categories of secondary schools; National, Extra County, and County schools, with some being boarding and others day schools.



Figure 3.1: Map of Westlands Sub-County

Source: Google Map



### 3.3 Target Population

The target population was principals, teachers and students in Westlands Sub-County. 14 principals in 14 public secondary schools, 649 teachers and 4411 form one students in the sub-county will be targeted.

### 3.4 Sampling Techniques

The study used different sampling approaches. Nairobi County was selected since it has the lowest transition rates at 47%. Westlands Sub-County was randomly selected under the assumption that it represents the county's picture. Purposive sampling was used to sample the principals while simple random sampling will sample the teachers and students.

### 3.5 Sample Size

The sample size will be determined using a formula forwarded by Yamane's (1967, p. 886). For a sample to be representative of the target population, the sample size calculation should take into account the population (N), confidence level of 95% and margin of error of 5. The formula used is below

$$n = \frac{N}{1+N(e^2)}$$

n= Sample size      N = Population size      e = Sampling error (0.05)

Table 3.1: Sample Size

<b>Category</b>	<b>Target Population</b>	<b>Sample Size</b>
Principals	14	14
Teachers	649	247
Students	4411	367
<b>Total</b>	<b>5074</b>	<b>628</b>

Source: Field Data (2022)

### **3.6 Research Instruments**

Questionnaires were used in the study to collect data from students, teachers and principals. Principal's questionnaires had four sections, while those for students and teachers had three sections. Section A contained background information like gender, age, level of education, teaching or leadership experience and years of stay at the current station. Section B was on school infrastructure and was based on a Likert scale where respondents answered questions on the adequacy of various infrastructural facilities on a scale of 1-5. Section C contained questions on the adequacy of teaching and learning resources in a school and was measured on a Likert scale of 1-5. Section D contained questions on hidden charges. The questionnaires for principals contained both open-ended and closed-ended questions.

### **3.7 Validity of the Research Instruments**

The validity of the research tools was checked to ensure that it addressed various aspects which could have affected the data collection process and the credibility of the research findings. According to Hayashi et al. (2019), validity is the quality of measurement procedure that

provides accuracy and respectability. The process involved a thorough training of research assistants on topic introduction to the study participants, asking questions, and probing for answers. The researcher also checked internal validity by seeking expert opinion to link the study variables with the research questions in the questionnaires and the key informant interview guide.

### **3.8 Reliability of the Research Instruments**

Reliability of research tools was done to ensure that it allowed consistency of the research data. The process entailed a test-retest technique where questionnaires were administered repeatedly to the same group. Data was collected and then analyzed using the Social Program for Social Sciences (SPSS) software. Reliability of the questionnaire was measured using the Cronbach Alpha reliability coefficient. The results of the reliability of the questionnaire yielded an Alpha coefficient of 0.75. This was considered suitable, therefore implying that the instruments could be used for the actual study.

### **3.9 Piloting of the Study**

A pilot study was done before actual data collection with the aim to test the accuracy of the study Environment. The process is defined as the trial administration of a research instrument to identify faults or flaws in a research tool so that correction can be done before being used in the actual study (Lowe, 2019). The study was at Mary Leakey Girls Secondary School, a boarding public secondary school in Kabete Sub-County that borders Westland Sub-County. The choice was done under the assumption that the schools in this area have similar characteristics regarding the transition of pupils from primary to secondary schools. Data collection tools (questionnaires

and interview schedule) were tested among selected respondents (10%) of the sample size. The findings from pretests were used to identify potential challenges during the study and weaknesses of the tools so that necessary adjustments can be made to increase the reliability of the data collection tools.

### **3.10 Data Collection Procedures**

The study was conducted after have met all the necessary requirements. First, approval from the KCA University Graduate School was acquired to allow the study to apply for a research permit. With the approval from the University, the researcher proceeded to apply for the permit from National Council for Science, Technology, and Innovation (NACOSTI). The researcher then used the permit to get clearance from the County Director of Education and the County Commissioner, Nairobi County. The researcher approached the principals of the schools that had been sampled to participate in the study, first to build rapport with them and then explain the purpose of the study and seek consent to involve them and the teachers in the study.

### **3.11 Data Analysis Techniques**

Data analysis brings order, structure, and meaning to the mass of collected information (Mugenda and Mugenda, 2003). Data was collected, coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 25. Quantitative data gathered from closed-ended questions were post-coded, analyzed, tabulated and presented using descriptive statistics. Qualitative data gathered from open-ended questions were also coded and tallied. Frequency counts were made of all responses making similar responses. School infrastructure and implementation of one hundred per cent transition policy was analyzed using chi-square test of

significance to see any statistical significance with one hundred per cent transition policy. Chi-square test was also done on the results of teaching and learning resources and hidden educational cost to see any statistical significance.

### **3.12 Ethical Considerations**

The study put into consideration at each stage of its implementation all the ethical issues involved in research, and the ethical principles for research involving humans as follows: First, a research permit was sought from relevant authorities in Kenya. Secondly, clearance letter was sought from the KCA University to introduce the researcher to the responsible authorities for the provision of research permit. This was done by the country's institutional organ, National Commission for Science Technology and Innovation (NACOSTI). Thirdly, the study sought for consent to involve participants in the proposed project. Prior to their involvement, the potential participants were well informed about the project purpose, potential risks and benefits. Further to this, all participants were asked to sign an Informed Consent Form (or use either thumb-print or witness signatures in cases where literacy may be a challenge). Fourth, the study ensured that there was fairness and equity in research participation taking into account the scope and objectives of the study. In this case, the study ensured inclusivity in selecting participants. No individual was excluded from the opportunity to participate in the research on the basis of attributes such as culture, religion, language, race, disability, ethnicity, gender unless there is a valid reason for doing so. Fifth, the study guaranteed privacy and confidentiality of the participants' information. The participants were assured that the information provided for the study would be treated confidential. Thus, anonymity was carefully observed by not disclosing the participants' names and/or identities. Sixth, the study acknowledged other

people's/researcher's ideas such as theories, models and any other information. This was done through citations/references. And lastly, avoidance of fabrication and falsification of the information when reporting the research finding of this project was done by selecting the research procedures/processes and materials appropriately, as well as by recording and presenting the real results/findings of the research.

**CHAPTER FOUR**  
**DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION OF**  
**FINDINGS**

**4.1 Introduction**

This chapter is concerned with data analysis, presentation, interpretation and discussion of findings. The findings of the study are organized based on the three objectives of the study. The findings are presented using tables, figures and thematic discussion. The objectives of the study were; to examine the effect of school infrastructural facilities on a hundred percent transition to secondary school, determine the relationship between the availability of teaching and learning resources and one hundred percent transition to secondary school and to establish the effect of hidden educational costs on a hundred percent transition to secondary school.

**4.2 Questionnaire Response Rate**

This section presents the response rate based on the questionnaires administered to the principals, teachers and students. Table 4.1 shows a summary of questionnaire return rate. The results presented in Table 4.1 reveal that out of the 14 questionnaires administered to the school principals, 12 (75%) were duly filled and returned. And out of the 247 questionnaires administered to the teachers, 199 (80.6%) were filled and returned. For the students' questionnaires, 282 out of the 367 administered were duly filled and returned.

Table 4.1: Questionnaires Return Rate

Respondent	Questionnaires issued	Returned questionnaires	Percentage
Principals	14	<b>12</b>	85.7%
Teachers	247	<b>199</b>	80.6%
Students	367	<b>282</b>	76.8%

Source: Field Data (2022)

### **4.3 Demographic Characteristic of the Respondents**

This section summarized the demographic characteristics of the respondents. The demographic characteristics of the respondents considered in the study included; sex, age, educational level, work experience and years of service at current station. Other characteristics of interest were the current class/form of the student, class size, category, type of school, enrolment and staffing.

#### **4.3.1 Demographic Characteristics of Principals**

The first section of the principal's questionnaire sought to gather information on demographic characteristics. The information was analyzed and summarized in Table 4.2. The results show that out of the 12 principals who participated in the study, 7 (58.3%) were male. This probably suggests that there was notable gender disparity in favor of male principals. However, the margin seemed to be narrow, probably suggesting that the Teachers Service Commission (TSC) had strived to achieve the two third gender rule in promotion of teachers to leadership position as required by Constitution of Kenya (2010).

Table 4.2 also show that 5 (41.7%) of the principals were aged 40-50 years while 7 (58.3%) were above 50 years. On educational qualification, the study found that 3 (25%) principals had attained Masters of Education degree, 5 (41.7%) had attained Masters of Arts or Masters of Science degree, 3 (25%) had Bachelor of Education degree and 1 (8.3%) had attained a diploma in Education. The results indicate that 7 out of the 12 principals had attained the current minimum qualification for the position set by the Teachers Service Commission (TSC). Principals are responsible for the implementation of education policies, plans and programme in their schools and should be knowledgeable and well informed.



Regarding the work experience, the study revealed that 41.7% of the principals had served for 5 years, 33.3% for 7 years and 25% for 3 years. 41.7% of the schools in the study area were County schools. Another 33.3% of the schools were classified as extra county while 25% of the schools were listed as Sub County schools.

Table 4.2: Demographic Characteristics of Principals

<b>Demographic Characteristics</b>		<b>Frequency</b>	<b>Percent</b>
Gender	Male	7	58.3
	Female	5	41.7
Age	40-50 years	5	41.7
	Above 50 years	7	58.3
Education	M.Ed.	3	25.0
	MA/MSc	5	41.7
	Bed	3	25.0
Service Years	Dip	1	8.3
	6	3	25.0
	12	4	33.3
	15	5	41.7
Years of Experience	1	3	25.0
	5	5	41.7
	7	4	33.3
Category of school	Extra County	4	33.3
	County	5	41.7
	Sub County	3	25.0

Source: Field Data (2022)

### **4.3.2 Demographic Characteristics of Teachers**

The first section of the teachers' questionnaire sought to gather information concerning the demographic characteristics of the respondents. Table 4.3 show that out of the 199 teachers who participated in the study, 71 (35.7%) were male. The findings also indicated that 139 (68.9 %) of the teachers were below 40 years of age, 35 (17.6%) were between 40-50 years while 25 (12.6%) were above 50 years of age. Regarding the academic qualifications of the teachers, the study found that 161(80.9%) of the respondents had attained a Bachelor of Education degree, 21 (10.6%) Masters of Education degree, 6 (3 %) Bachelor of Arts or Science degree and a Post Graduate Diploma in Education while 11 (5.5%) had attained a diploma in education.

As for work experience, the study found that out of the 199 teachers interviewed, 98 (49.2%) had worked for between 1 to 5 years, 29 (14.6%) for 6 to 10 years, 21(10.6%) for 11 to 15 years, 19 (9.5%) for 16 to 20 years and (32) 16.1% for 20 to 30 years. Majority of the teachers had worked in their current station for between 1 to 3 years (62.3%), 4 to 6 years (15.6%), 7 to 10 years (11.6%), and 11 to 13 years (10.6%).

Table 4.3: Demographic Characteristics of Teachers

<b>Demographic Characteristics</b>		<b>Frequency</b>	<b>Percent</b>
Gender	Male	71	35.7
	Female	128	64.3
Age	Below 40 years	139	69.8
	40-50 years	35	17.6
	Above 50 years	25	12.6
Education	Med	21	10.6
	Bed	161	80.9
	BA and BSc with PGDE	6	3.0
	Dip	11	5.5
Years of Experience	1 - 5	98	49.2
	6 -10	29	14.6
	11- 15	21	10.6
	16 -20	19	9.5
	20 -30	32	16.1
Years of Service	1 - 3	124	62.3
	4 - 6	31	15.6
	7 -10	23	11.6
	11-13	21	10.6
Average number of students	20- 30	5	3
	30- 40	12.0	6
	40 -50	76	38
	50- 60	98	49
	60- 70	8	4

Source: Field Data (2022)

### 4.3.3 Demographic Characteristics of Students

This section presents demographic characteristics of the students. The findings are summarized in Table 4.4. The findings summarized in Table 4.4 indicate that, out of the 282 students who participated in the study, 84 (29.8%) were male while 198 (70.2%) were female. The study findings showed that most students are between 13 and 16 years of age 251(89%) while 31(11%) are between 17 and 18 years of age. The study also revealed that 106 students who participated in the study were in form 1 (37.6%) while 176 of them were in form 2 (62.4%).

Table 4.4: Demographic Characteristics of Students

<b>Demographic Characteristics</b>		<b>Frequency</b>	<b>Percentage</b>
Gender	Male	84	29.8
	Female	198	70.2
Age	13	4	1.4
	14	13	4.6
	15	123	43.6
	16	111	39.4
	17	29	10.3
	18	2	0.7
Class	Form 1	106	37.6
	Form 2	176	62.4

Source: Field Data (2022)

#### **4.4 Effect of School Infrastructural Facilities on a Hundred Percent Transition to Secondary School in Westlands Sub County, Kenya**

School infrastructure is a key component for effective teaching and learning in schools. School infrastructure in secondary school education should enhance school attendance, access, retention staff motivation and improve academic achievements of students. School infrastructure includes classrooms, laboratories, halls, open fields, games equipment, dormitories and sanitation facilities. It is in the classrooms that the day to day formal teaching and learning take place. In the libraries, learners get the opportunity to conduct their own personal studies and carry out research. In addition, learners and teachers need to be housed in the school and at the same time need sanitation facilities like toilets, waste disposal services and clean water.

School infrastructure is therefore an important component in ensuring successful education. On this backdrop, this section sought to establish the effect of school infrastructure on hundred percent transition in Westland Sub County, Kenya. The study gathered data from the students, principals and teachers regarding their experiences on adequacy of classrooms, laboratories, library facilities, boarding facilities, sanitation facilities, sports facilities and hundred percent transition in the respective schools. The data obtained was analyzed using frequencies and percentages and presented using tables and figures.

Figure 4.1 presents the responses of students on adequacy of laboratories, libraries, boarding facilities, sanitation and sports facilities in secondary schools in Westlands Sub County, Kenya.

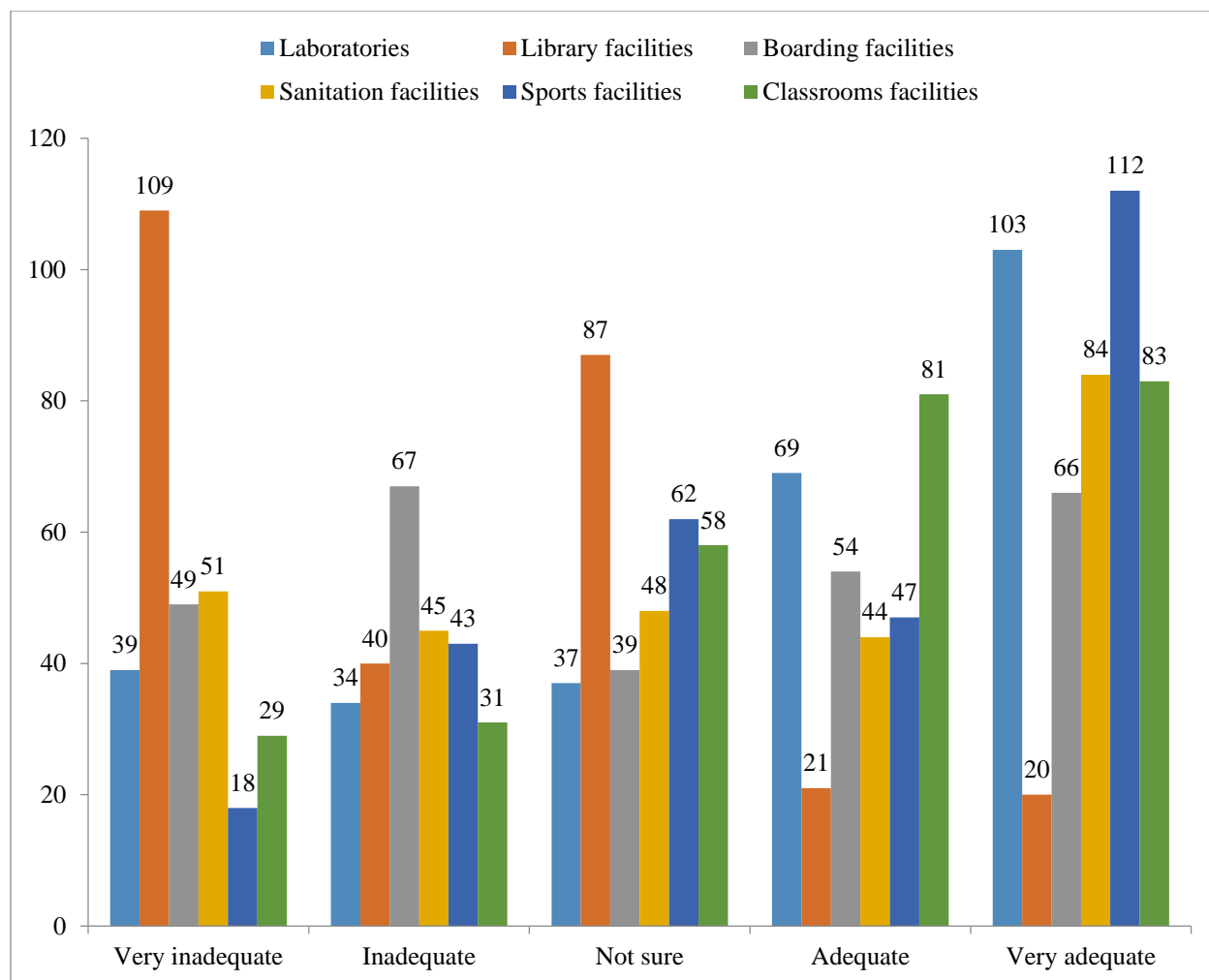


Figure 4.1: Adequacy of School Infrastructural Facilities in Westlands Sub County, Kenya

Source: Field Data (2022)

The findings presented in Figure 4.1 showed that on library facilities 109 (39%) of the respondents said they were very inadequate, 40 (14%) said they were inadequate, 92 (33%) indicated they were not sure, 21 (7%) said they were adequate while 20 (7%) indicated they are very adequate. On laboratories, 39 (14%) respondents indicated they are very inadequate, 34 (12%) said they are inadequate, 37 (13%) were not sure, 69 (24%) indicated they are adequate while 103 (37%) respondents indicated they are very adequate. At the same time on sports

facilities, 112 (40%) respondents indicated that they were very adequate while 18 (6%) indicate they were very inadequate. The study also looked at sanitation facilities with 51 (18%) respondents indicating they are very inadequate, 45 (16%) respondents said they are inadequate, 48 (17%) were not sure, 44 (16%) indicated they are adequate while, 81 (29%) indicated they are very adequate. Concerning boarding facilities, 49 (18%) indicated they were very inadequate, 67 (25%) said they were inadequate, 39 (14%) were not sure, 54 (19%) said they are adequate while 66 (24%) said they are very adequate. Finally on classrooms, 29 (10%) indicated they were very inadequate, 31 (11%) said they were inadequate, 58 (21%) were not sure, 81 (29%) said they are adequate while 83 (29%) said they are very adequate.

The findings show that library facilities are very inadequate in the study area. This agrees with Ahiauzu and Emmanuel (2018) who found that 68 schools out of 200 in River State, Nigeria had no libraries at all. The government of Kenya allocates funds for infrastructural development every academic year. One would therefore wonder why most schools in the study area did not have adequate library facilities. On sports facilities, the study agrees with Njenga (2019) who also found that 40% of schools in Nyandarua Central Sub County had adequate sports facilities which meant they were prepared to deal with the increased enrolment.

The study also sought the responses of principals on the adequacy of school infrastructural facilities in their schools. Table 4.5 presents the responses of principals on adequacy of laboratories, libraries, boarding facilities, sanitation and sports facilities in secondary schools in Westlands Sub County, Kenya.

Table 4.5: Principals Responses on Adequacy of Infrastructural Facilities

<b>School Infrastructure</b>	<b>Very inadequate</b>	<b>Inadequate</b>	<b>Not sure</b>	<b>Adequate</b>	<b>Very adequate</b>
Laboratories	2	1	2	3	4
Library facilities	5	2	4	1	1
Boarding facilities	2	4	2	2	2
Sanitation facilities	3	3	2	2	2
Sports facilities	1	2	3	2	4
Classroom facilities	2	3	2	3	2

When the principals in Westlands Sub county Schools were asked to rate the adequacy of school laboratories, 2(16.7%) said they were very inadequate, 1 (8.3%) principal indicated they are inadequate, 2 (16.7%) were not sure, 3 (25%) indicated they are adequate while the remaining 4 (33.3%) said they are very adequate. On library facilities 5 (41.7%) principals indicate they were are inadequate, 2 (16.7%) principals indicated they are inadequate, 4 (33.3%) were not sure, 1 (8.3%) indicated they are adequate while 1 (8.3%) principal said they were very adequate. Similarly on boarding facilities 2(16.7%) principals said they are very inadequate, 4 (33.3%) principals indicated they are inadequate, 2 (16.7%) were not sure, 2 (16.7%) indicated they are adequate while the remaining 2 (16.7 %) said they are very adequate. Sanitation facilities were also considered of which 3 (25%) principals said they are very inadequate, 3 (25%) principals indicated they are inadequate, 2 (16.7%) were not sure, 2 (16.7%) indicated they are adequate while 2 (16.7%) principals said they are very adequate. On sports facilities, 1(8.3%) principal said they are very inadequate, 2 (16.7%) principals indicated they are inadequate, 3 (25%) were not sure, 2 (16.7%) indicated they are adequate while the remaining 4



(33.3%) said they were very adequate. Finally on classroom 2 (16.7%) principals indicated they are very inadequate, 3 (25%) principals said they are adequate, 2 (16.7%) were not sure, 3 (25%) indicated they are adequate while the remaining 2 (16.7%) agree that they are very adequate.

From the results of the study, library facilities very inadequate in the study area. Most of the schools in the study area did not have a functional library. Other infrastructural facilities which were inadequate in the study are included sanitation facilities, boarding facilities and classrooms. This could be attributed to the increased enrolment in the respective schools causing congestion on the available facilities. On the contrary, sports facilities and laboratories were found to be adequate. The study agrees with Jean (2021) who found that there were no libraries in all secondary schools in Nyamasheke District-Rwanda. There was also significant positive correlation between library facilities and academic performance.

Teachers in the selected schools were also asked to rate the level of adequacy of infrastructural facilities in the study area. Figure 4.2 presents the responses of teachers on adequacy of laboratories, libraries, boarding facilities, sanitation and sports facilities in secondary schools in Westlands Sub County, Kenya.

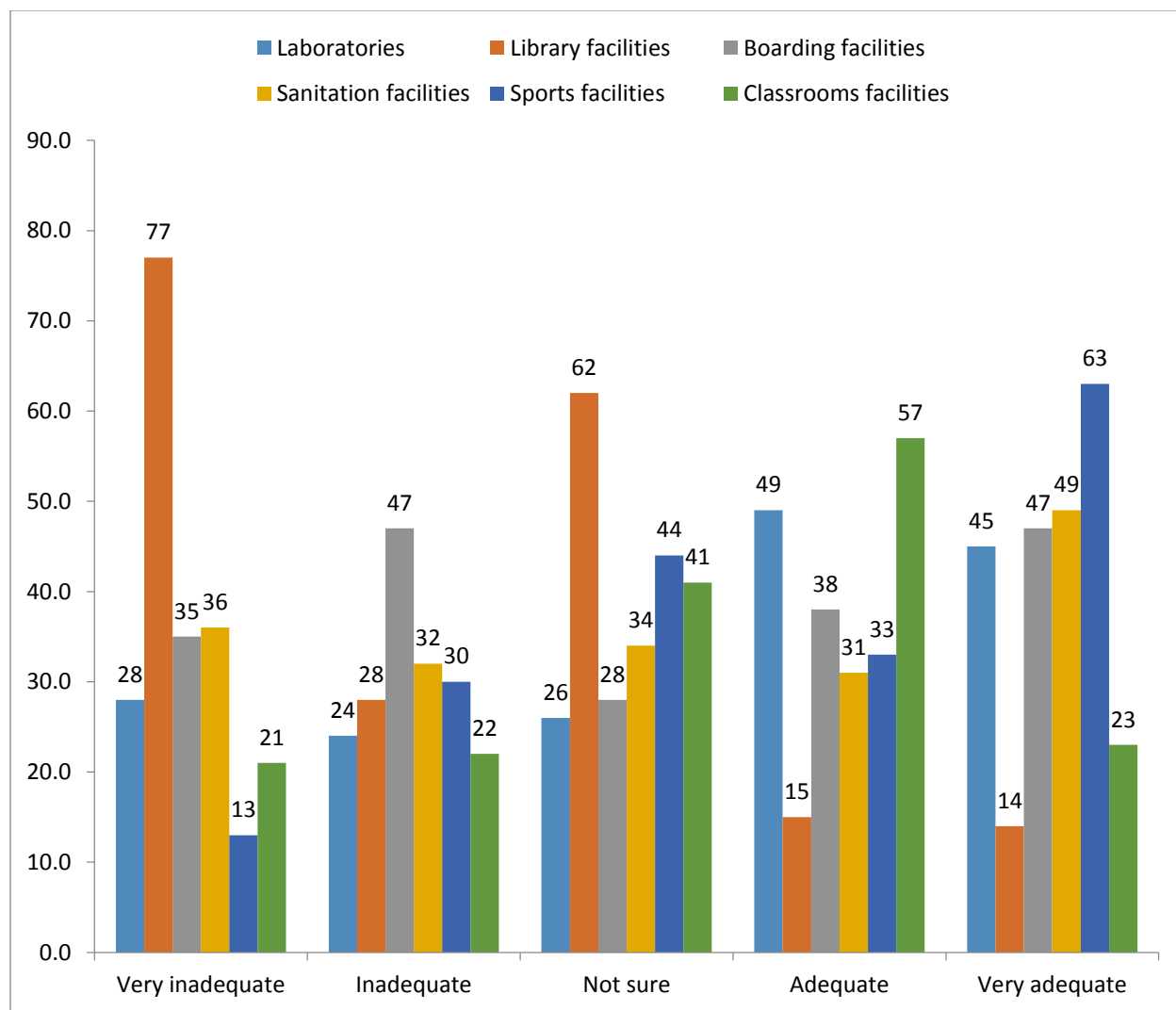


Figure 4.2: Adequacy of school infrastructural facilities in Westlands Sub County, Kenya

Source: Field Data (2022)

The findings presented in Figure 4.2 showed that on laboratories 28 (16.3%) of teachers said they were very inadequate, 24 (14 %) said they were inadequate, 26 (15.1%) indicated they were not sure, 49 (28.4%) said they were adequate while 45 (26.2%) indicated they are very adequate. On library facilities, 77 (39.2%) respondents indicated they are very inadequate, 28(14.2%) said they are inadequate, 62 (31.6%) were not sure, 15 (7.6 %) indicated they are

adequate while 14 (7.1%) respondents indicated they are very adequate. For the boarding facilities, 35(17.9%) respondents indicated that they were very adequate, 47 (24.1 %) indicated they are inadequate, 28 (14.3%) were not sure, 38 (19.5%) said they are adequate while 47(24.1%) indicate they were very inadequate. Sanitation facilities were also considered with 36 (19.8%) respondents indicating they are very inadequate, 32(17.6 %) respondents said they are inadequate, 34 (18.7%) were not sure, 31 (17.0%) indicated they are adequate while, 49 (26.9 %) indicated they are very adequate. On sports facilities, 13 (7.1%) indicated they were very inadequate, 30 (16.4%) said they were inadequate, 44 (24.0%) were not sure, 33(18.0%) said they are adequate while 63(34.4%) said they are very adequate. Lastly on classrooms, 21 (12.8%) indicated they were very inadequate, 22 (13.4%) said they were inadequate, 41 (25%) were not sure, 57(34.8%) said they are adequate while 14(29%) said they are very adequate.

From the results library facilities, boarding facilities and sanitation facilities are very inadequate in schools in the study area while sports facilities are adequate. A study by Odey (2018) found similar results in Ebonyi. The research study found out that there were insufficient physical facilities in the area except for the staffrooms. The government ought to improve funding of infrastructure in in schools as a way to deal with increased enrolment.

The study went further to establish the effect of the facilities on hundred percent transition. Table 4.6 presents the results on effect of classroom on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.6: Chi-Square Test on Classrooms and a Hundred Percent Transition to Secondary Schools

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	54.126 <sup>a</sup>	8	0.000
Likelihood Ratio	58.344	8	0.000
N of Valid Cases	282		

a. 2 cells (13.3%) have expected count less than 5. The minimum expected count is 4.42.

Source: Field Data (2022)

The Chi-square test on the effects of availability of classrooms on transition found a statistically significant relationship between classrooms and 100% transition ( $X^2= 54.126$ ;  $p<0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$ : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

This finding probably meant that inadequacy of classrooms would inhibit transition to secondary school education. This was consistent with what is already known that lack of classrooms was a major setback to transition (Ruhyana and Aeni, 2019). Education Cabinet Secretary George Magoha has also admitted that the available Competency Based Curriculum classes are not enough to accommodate students. The Cabinet Secretary noted that the infrastructural challenge is expected to be majorly felt in top national schools. Another study by Katiwa (2016) showed that availability of secondary school spaces had significant effect on transition of pupils“ from primary to secondary school.

The government must therefore allocate more funds for building of classrooms to ensure smooth implementation of a hundred percent transition in Westland Sub County, Kenya. It is anticipated that the double intake as the first CBC class joins Junior Secondary in January 2023 will create a crisis if the government does not improve the current infrastructure in secondary schools. The current classes in secondary schools in the study area are very few considering the current class 8 class will also be joining form one.

Table 4.7 presents the Chi-square test results on effect of laboratories on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.7: Chi-Square Test on Laboratories and a Hundred Percent Transition to Secondary Schools

**Chi-Square Tests**

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.461 <sup>a</sup>	8	0.000
Likelihood Ratio	39.672	8	0.000
N of Valid Cases	282		

a. 0 cells (0.0%) have expected count less than 5.  
The minimum expected count is 5.18.

Source: Field Data (2022)

The Chi-square test on the effect of laboratories on transition revealed a statistically significant relationship ( $X^2 = 36.461$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis,  $H_0$ , which stated that there is no statistically significant relationship between school infrastructural facilities and one hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings mean that laborites hinder transition to secondary school. This was consistent with Odey (2018) study which found a statistical relationship between laboratories and implementation of Universal Basic Education. The researcher attributed this to the government's underestimation of the increased enrolment due the free and compulsory UBE programme in the State. The government ought to have proportionately improved the physical facilities in schools to manage the increased enrolment. For Kenya's vision 2030 to be realized the government ought to emphasize science subjects. The biggest challenge is learning science theoretically without doing practicals as was observed in most schools in the study area. Education CS George Magoha in May 2022 signed a regulation requiring schools to increase additional labs if streams are added. Lack of adequate laboratories negatively influenced implementation of a hundred percent transition in Westland Sub County, Kenya.

Table 4.8 presents the Chi-square test results on effect of library facilities on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.8: Chi-Square Test on Library Facilities and 100% Transition to Secondary Schools

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	56.586 <sup>a</sup>	10	0.000
Likelihood Ratio	54.932	10	0.000
N of Valid Cases	282		

a. 5 cells (27.8%) have expected count less than 5.  
The minimum expected count is .76.

Source: Field Data (2022)

The Chi-square test on the effect of library facilities on transition revealed a statistically significant relationship ( $X^2 = 56.586$ ;  $p < 0.05$ ). The study rejected the null hypothesis,  $H_0$ , which stated that there is no statistically significant relationship between school infrastructural facilities and one hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings show that library facilities probably influenced transition to secondary schools which contradicts previous studies which suggested that library facilities did not affect learning outcomes and grade retention (Ruhyana and Aeni, 2019). Even in schools where libraries were available other factors like inadequate collection of books and access to information on the internet could lead to decreased usage of library facilities among students. Schools with equipped library run by a certified librarian significantly contribute to student academic success (Menudo 2021).

Table 4.9 presents findings on effect of boarding facilities on hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.9: Chi-Square Test on Boarding Facilities and 100% Transition to Secondary Schools

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.325 <sup>a</sup>	10	0.000
Likelihood Ratio	39.531	10	0.000
N of Valid Cases	282		

a. 3 cells (16.7%) have expected count less than 5.  
The minimum expected count is 1.07.

Source: Field Data (2022)

The Chi-square test on the effect of boarding facilities on transition revealed a statistically significant relationship ( $X^2 = 36.325$ ;  $p < 0.05$ ). With these results, the study rejected the null hypothesis,  $H_0$ : which stated that there is no statistically significant relationship between school infrastructural facilities and one hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings agree with earlier studies by Mokaya, Z. M. (2013) who found that in Kajiado County Schools, the spacing of beds in the dormitories was not very convenient for the students due to congestion. Both students and teachers who were interviewed were of the view that boarding facilities like dormitory and dining halls were inadequate. The study found that adequacy of boarding infrastructure in the schools was associated with improved academic performance. The current study found a similar situation in boarding schools in the study area. In some schools students were taking their meals in shifts and a worst case scenario is where some unused buildings were being used as dormitories. These results are evident enough that boarding facilities have significant relationship with transition. Improved boarding facilities leads to higher transition rates. Where boarding facilities are inadequate, student intakes tend to be low which negatively affect transition to secondary schools.

Table 4.10 presents findings on effect of sanitation facilities on hundred percent transition to secondary schools in Westlands Sub County, Kenya.



Table 4.10: Chi-Square Test on Effect of Sanitation Facilities and a Hundred Percent Transition to Secondary Schools

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	56.887 <sup>a</sup>	10	0.000
Likelihood Ratio	67.873	10	0.000
N of Valid Cases	282		

a. 2 cells (11.1%) have expected count less than 5. The minimum expected count is 1.52.

Source: Field Data (2022)

The Chi-square test on the effect of sanitation facilities on transition revealed a statistically significant relationship ( $X^2 = 56.887$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis,  $H_0$ : which stated that there is no statistically significant relationship between school infrastructural facilities and one hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings meant that to increase transition facilities to secondary schools, sanitation facilities must be adequate. Njenga (2019) concurs that sanitation facilities have statistically significant relationship with access to education. The study found insufficient sanitation facilities in public secondary schools in Nyandarua Central Sub-County, Kenya which led to a lot time wastage. In addition, a study by Mokaya, Z. M. (2013) opined that adequate sanitation facilities leads to improved academic performance. His study found that in schools where water supply was adequate students performed better. Schools which few toilets had experienced delays and time wasting at the toilets. Most of the schools in the study area were also found to have

inadequate toilets, bathrooms and water points. Students complained of long queues in bathrooms and toilets due to increased enrolment as a result of one hundred percent transition. The study area needs improved sanitation facilities to increase transition to secondary.

Table 4.11 presents findings on effect of sports facilities on a hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.11: Chi-Square Test on Effect of Sports Facilities and a Hundred Percent Transition to Secondary Schools

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.506 <sup>a</sup>	8	0.000
Likelihood Ratio	37.330	8	0.000
N of Valid Cases	282		

a. 1 cells (6.7%) have expected count less than 5. The minimum expected count is 2.74.

Source: Field Data (2022)

The Chi-square test on the effect of sports facilities on transition revealed a statistically significant relationship ( $X^2 = 36.506$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis,  $H_0$ , which stated that there is no statistically significant relationship between school infrastructural facilities and one hundred percent transition to secondary school in Westland Sub County, Kenya.

This is in line with Odey (2018) findings which revealed that sports facilities in schools in Ebonyi State Nigeria, were not adequate for the implementation of UBE programme. With the

anticipated double intake of Grade 7 and Form 1 students in secondary schools in Kenya, the current sports facilities will have to be improved to manage the increased enrolment. Abasa (2015) opines that without sports, education is incomplete and that when children embrace sports, they become disciplined, friendly and healthier. Sports facilities therefore is a basic requirement for establishment of a school. Finally, Njenga (2019) revealed that 40% of schools in Nyandarua Central Sub County had adequate games facilities which could increase transition.

#### **4.5 Relationship between Teaching and Learning Resources Availability and Hundred Percent Transition**

This section presents the findings on the second objective. The objective sought to establish relationship between teaching-learning resources availability and 100% transition. Teaching and learning resources are materials that both teachers and learner require for a successful teaching and learning. The resources should provide an engaging learning program where learner's individual differences are met. They include furniture, textbooks, laboratory equipment and teaching aids.

Furniture are key elements of the learning environment. Learners sit in the classroom for long hours hence they need to have well designed chairs and desks that give them comfort. Textbooks are integral part of teaching and learning as they contain the content that the learner should be taught. The Government of Kenya provides text books for all learners in public schools. However parents have to meet the cost of other supplementary books like dictionaries, set books and all revision books. Laboratory equipment facilitate practical lessons when teaching science subjects. As Kenya strive towards realization of vision 2030, teaching and learning of

science subjects like chemistry should be emphasized through provision of adequate laboratory equipment. Finally teaching Aids may include charts, models, video clips, objects and computer games. They present information in an exciting way making learners attentive therefore increasing retention. Based on this, this section sought to establish the effect of teaching and learning resources on hundred percent transition in Westland Sub County, Kenya. The study gathered data from the teachers and principals regarding their level of agreement with how furniture, textbooks, laboratory equipment and teaching aids affect hundred percent transition in the respective schools. The data obtained was analyzed using frequencies and percentages and presented using tables and figures.

Figure 4.3 presents the students responses on adequacy of teaching and learning resources in Westlands Sub County, Kenya

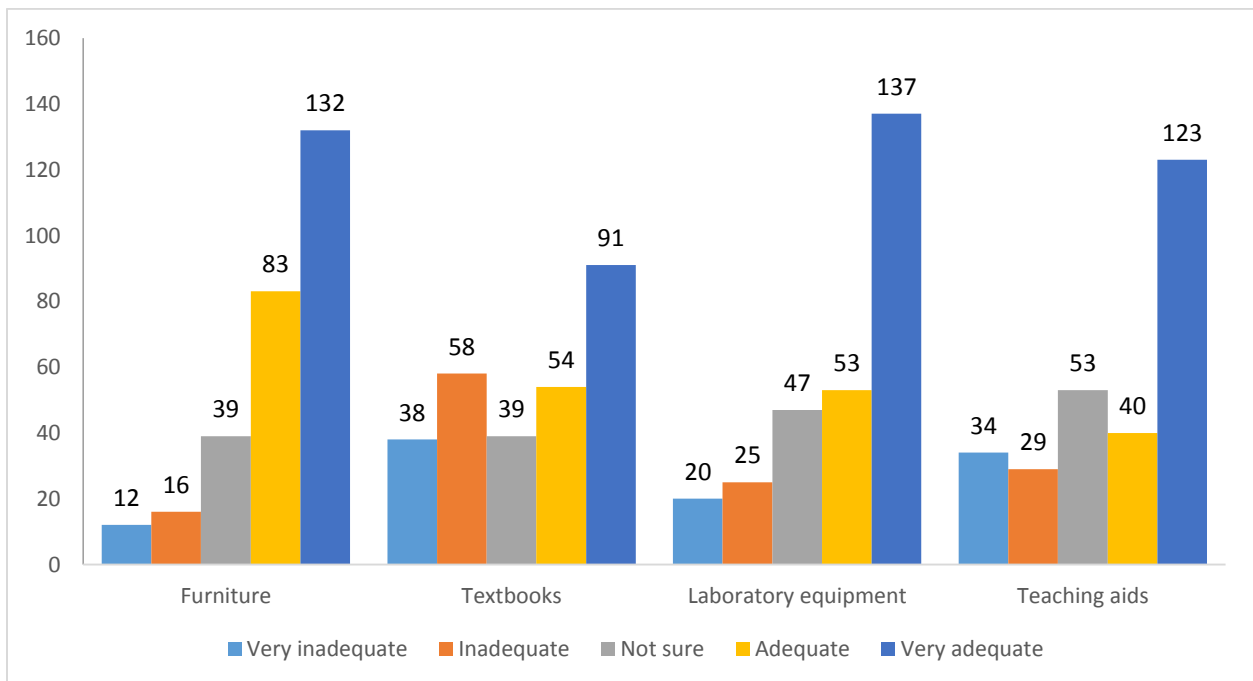


Figure 4.3: Adequacy of Teaching and Learning Resources in Secondary School in Westlands Sub County, Kenya

Source: Field Data (2022)

The findings from the results show that 12(4%) said furniture are very adequate,16 (6%) indicated they are adequate, 39 (14%) were not sure, 83 (29%) indicated they are inadequate while 132 (47%) said they are very Inadequate. On text books 38(13%) said they are very adequate, 58 (21%) indicated they are adequate, 39 (14%) were not sure, 54 (19%) indicated they are inadequate while 91 (32%) said they are very Inadequate. The students also responded on adequacy of laboratory equipment with 20(7%) indicating they are very adequate, 25 (8%) indicated they are adequate, 47 (17%) were not sure, 53 (19%) indicated they are inadequate while 137 (49%) said they are very Inadequate. Finally on teaching aid 34(12) said they are very adequate, 29 (10%) indicated they are adequate, 53 (19%) were not sure, 40 (14%) indicated they are inadequate while 123 (44%) said they are very Inadequate.

The findings agree with Muthima (2015) who found that the quality of teaching and learning materials in Ndaragwa Division, Nyandarua County, Kenya were inadequate. Reference books were found to be very inadequate. The findings in the study area leaves everyone wondering the cause of the situation since the government of Kenya buys text books in all public secondary schools. On the other hand, the government allocates funds for building and equipping laboratories in schools in Kenya.

Teachers were asked to indicate their levels of agreement on whether teaching and learning resources affected transition. Table 4.12 presents teachers' responses on teaching and learning resources and one hundred percent transition to secondary school in Wetlands Sub County, Kenya.

Table 4.12: Teachers Responses on Teaching and Learning Resources and a Hundred Percent Transition to Secondary School

			Teachers Responses				
			Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
Furniture affects 100% transition			99	50	20	12	18
Textbooks affects 100% transition			50	68	39	30	12
Laboratory equipment affects 100% transition			110	47	10	18	14
Teaching aids affects 100% transition			123	29	8	17	22

Source: Field Data (2022)

The findings from the results showed that 99 (50%) respondents strongly agree that furniture affects 100% transition to secondary, 50 (25%) indicated that they agree, 20 (10%) were not sure, 12 (6%) disagreed while 18 (9%) said they strongly disagree. On text books, 50 (25%) respondents strongly agreed that text books affected a hundred percent transition, 68 (34%) said that they agree, 39 (20%) were not sure, 30 (15%) disagreed while 12 (6%) indicate they strongly disagree. Laboratory equipments were also considered and 110 (55%) teachers strongly agree that furniture affected 100% transition to secondary, 47 (24%) agreed, 10 (5%) were not sure, 18 (9%) disagreed while 14 (7%) said they strongly disagreed. Finally on teaching aids 123 (62%) teachers strongly agreed that they affected transition, 29 (15%) agreed, 8 (4%) were not sure, 17 (9%) disagreed while 22 (11%) said they strongly disagree.

Majority of the teachers strongly agree that laboratory equipments and teaching aids affect transition to secondary in the study area. Asiago (2018) agrees with the finding by stating that the availability of teaching and learning resources was the main factor affecting the

transition rate to the next class. As a government policy, building and equipping school laboratories should be a priority of the ministry of education. Lack of enough laboratory equipment and reagents has led to the decline in performance in the science subjects. Teaching aids is also inadequate in the study area. This could probably mean teachers and students are only relying on teaching aids which are bought by schools and not improvising from local materials. To bridge this gap teachers and learners should be encouraged to improvise where necessary.

Principals were also asked to indicate their levels of agreement on whether teaching and learning resources affected transition. Figure 4.4 presents principals responses on teaching and learning resources and one hundred percent transition to secondary school in Wetlands Sub County, Kenya.

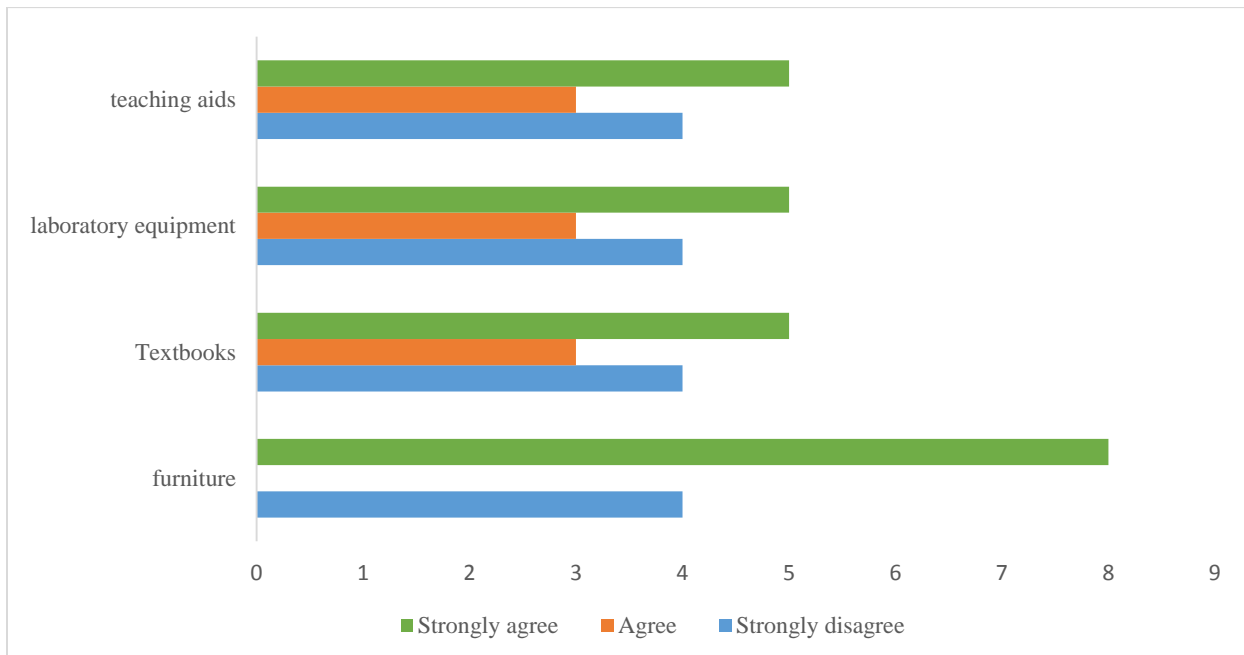


Figure 4.4: Principals Responses on Effect of Teaching and Learning Resources on a Hundred Percent Transition

Source: Field Data (2022)

The results showed that 4 (33%) principals strongly agree that teaching and learning resources affects 100% transition to secondary schools, none indicated that they agree while 8 (10%) said they strongly agree. On text books 3 (25%) strongly disagree, 4 (33%) said they disagree while 5 (42%) strongly agree that it affects. Questions on laboratory equipment were also asked and 4 (33%) of the principals indicated they affected a hundred percent transition to secondary, 3 (25%) said that they agree while 5 (42%) strongly agree. Lastly, 4 (33%) principals strongly disagree that teaching aid affect transition 3 (25%) disagreed while 5 (42%) strongly agree.

The study went further to establish the effect of teaching and learning resources on hundred percent transition. Table 4.13 presents the Chi-square test results on effect of furniture on hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.13: Chi-Square Test on Effect of Furniture and a Hundred Percent Transition to Secondary Schools

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	24.370 <sup>a</sup>	8	0.002
Likelihood Ratio	22.979	8	0.003
N of Valid Cases	282		

a. 3 cells (20.0%) have expected count less than 5. The minimum expected count is 1.83.

Source: Field Data (2022)

The Chi-square test on the effects of furniture on transition found a statistically significant relationship between furniture and 100% transition ( $X^2 = 24.370$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$ : that there is no statistically significant



relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

Chairs and desks are key elements of the learning environment. Learners sit in the classroom for long hours hence they need to have well designed chairs and desks that give them comfort. During the study it was found that most schools had poor quality furniture which were also inadequate due to high enrolment. A study by Njenga (2019) agrees with the findings that there is a statistically significant relationship between availability of furniture and 100% transition. However her study found that 86.9 percent of the schools sampled had adequate desks and chairs for use by students. This revealed that most schools were prepared to manage the increased enrolment as a result of a hundred percent transition.

Table 4.14 presents the Chi-square test results on effect text books and one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.14: Chi-Square Test on Effect of Textbooks on a Hundred Percent Transition to Secondary Schools

<b>Chi-Square Tests</b>	<b>Value</b>	<b>df</b>	<b>Asymptotic Significance (2-sided)</b>
Pearson Chi-Square	44.180 <sup>a</sup>	10	0.000
Likelihood Ratio	42.507	10	0.000
N of Valid Cases	282		

a. 3 cells (16.7%) have expected count less than 5. The minimum expected count is .30.

Source: Field Data (2022)

The Chi-square test on the effects of text books on transition found a statistically significant relationship between text books and 100% transition ( $X^2= 44.180$ ;  $p<0.05$ ). With this

results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

Despite, the study conducted by Javier and Marcella (2011) not focusing on transition, the study affirms the findings by concluding that the quality of school infrastructure and educational resources like books should be the main focus of a school or education system for a healthy learning environment. Inadequacy of the above therefore hinders transition. Furthermore, Olayinka (2016) in his study found that students taught without using instructional materials performed poorer than those taught using them. His study cements the argument that for one hundred percent transition to be achieved there must be adequate teaching and learning resources in schools.

Table 4.15 presents the Chi-square test results on effect of laboratory equipment on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.15: Chi-Square Test on Effect of Laboratory Equipment on a Hundred Percent Transition to Secondary Schools

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.741 <sup>a</sup>	8	0.011
Likelihood Ratio	19.555	8	0.012
N of Valid Cases	282		

a. 2 cells (13.3%) have expected count less than 5. The minimum expected count is 3.05.

Source: Field Data (2022)

The Chi-square test on the effects of laboratory equipment on transition found a statistically significant relationship between laboratory equipment and 100% transition ( $X^2=19.741$ ;  $p<0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

Laboratory equipment are the tools that facilitate practical lessons when teaching science subjects. Their inadequacy leads to poor performance in sciences hindering a hundred percent transition policy implementation. The findings of the study is affirmed by a similar study by (Denis, 2018). The study found that almost 90 percent of learners in North Eastern Kenya learners are out of school due poor infrastructural facilities in schools. Teaching and Instructional resources ensure successful teaching and learning process in the classroom. They include textbooks, laboratory equipment and reagents and teaching aids. Teachers can improve students' achievements with better instructional materials (Boateng, 2020). Studies have shown that inadequate teaching and instructional resources lead to high rate of absenteeism and low academic achievement hence low transition.

Table 4.16 presents the Chi-square test results on effect of teaching aids on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.16: Chi-Square test on effect of teaching aids on 100% transition to Secondary Schools

**Chi-Square Tests**

	<b>Value</b>	<b>df</b>	Asymptotic Significance (2-sided)
Pearson Chi-Square	42.816 <sup>a</sup>	10	0.000
Likelihood Ratio	36.947	10	0.000
N of Valid Cases	282		

a. 4 cells (22.2%) have expected count less than 5. The minimum expected count is .46.

Source: Field Data (2022)

The Chi-square test on the effects of teaching aids on transition found a statistically significant relationship between teaching aids and hundred percent transition ( $X^2= 42.816$ ;  $p<0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$ : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings of this study are consistent with the study by Esu, Erukoha and Umoren (2004) which found that a successful instructional delivery in schools relies heavily on the effective use of teaching aids. They enable students to acquire better knowledge and skills. Asiago (2018) agrees with the finding by stating that the availability of teaching and learning resources was the main factor affecting the transition rate to the next class. In the twenty-first century, teaching aids have become basic tools which teachers cannot do without. Teaching aids in the classroom extracts the attention of the learners by making them motivated to learn. They are able to combine both hearing and seeing abilities leading to high academic achievement.

#### 4.6 Relationship between Hidden Educational Costs and Hundred Percent Transition

Hidden cost are indirect costs of education incurred by parents or guardians besides the direct costs of education as indicated in the fees structure approved by the Ministry of Education. The indirect costs charged in schools often vary from one school to another. However, the common examples of hidden educational costs are; costs of school meals, Parents Teachers Association (PTA) levies, cost of school uniform and opportunity costs – often not measured by actually monetary expenditure but the alternative opportunity foregone when scarce resources are invested in education.

This study sought to establish the type and amount of hidden educational costs charged by schools in Westlands Sub County, Kenya. The study further sought to determine the effect of hidden educational cost on a hundred percent transition. The data was collected, analyzed and presented in tables and figures.

Table 4.17 presents a summary of students responses on hidden educational costs that were charged by secondary schools in Wetlands Sub County, Kenya

Table 4.17: Hidden Educational Costs and the Charges in Different Schools

	No charges	Less than Kshs 1000	Kshs to 5000	1000 Kshs to 10000	Kshs 5001 Kshs Above 10000
Admission fees	76	31	37	30	108
Remedial charges	129	52	70	3	28
Books	181	38	28	16	19
Lunch	-	34	16	170	62
Transport	177	48	43	8	6
Co-curricular fees	164	46	29	15	28
Uniform	None	5	45	48	145

Source: Field Data (2022)

The findings on admission fees showed that 76 (27%) students said they were not charged admission fees, 31 (11%) were charged less than Ksh 1000, 37 (13%) were charged between Ksh 1000 and Ksh 5000, 30 (11%) students were charged between Ksh 5001 and Ksh 10000 while 108 (38%) were charged above Ksh 10000. On remedial, 129 (46%) students were not charged admission fees, 52 (18%) were charged less than Ksh 1000, 70 (25%) were charged between Ksh 1000 and Ksh 5000, 3 (1%) students were charged between Ksh 5001 and Ksh 10000 while 28 (10%) were charged above Ksh 10000. On books, 181 (64%) students were not charged admission fees, 38 (13%) were charged less than Ksh 1000, 28 (10%) were charged between Ksh 1000 and Ksh 5000, 16 (6%) students were charged between Ksh 5001 and Ksh 10000 while 19 (7%) were charged above Ksh 10000. Concerning lunch fees, 34 (13%) were charged less than Ksh 1000, 16 (6%) were charged between Ksh 1000 and Ksh 5000, 170 (60%) students were charged between Ksh 5001 and Ksh 10000 while 62 (22%) were charged above Ksh 10000. On transport, 177 (63%) students were not charged, 48 (17%) were charged less than Ksh 1000, 43 (15%) were charged between Ksh 1000 and Ksh 5000, 8 (3%) students were charged between Ksh 5001 and Ksh 10000 while 6 (2%) were charged above Ksh 10000. Respondents were also asked how much they were charged on uniform and 5 ( ) indicated they were charged less than Ksh 1000, 45 ( ) were charged between Ksh 1000 and Ksh 5000, 48 (17%) students were charged between Ksh 5001 and Ksh 10000 while 145 (51%) were charged above Ksh 10000.

The study agrees with a similar study by Ngwacho (2015) in Kisii County boarding schools which established that there were several hidden education costs charged in the schools. He identified costs such as school bus levies, trips levies, development and activity fee, BOM

teachers' salaries, award levies, caution money and supplementary textbooks levies. He concludes that hidden education charges hinders transition to the next class as learners are sent away to look for money making them miss school. Despite the government's commitment to free and compulsory education, several schools in the study area have imposed several hidden charges which may hinder a hundred percent transition. The ministry of Education ought to enforce its policy of free and compulsory basic education. The study further sought responses from teachers on how much in Kenya Shillings say per year, a student was expected to pay for the different hidden costs in the schools where they taught. Figure 4.4 presents teachers' responses on hidden educational cost charged at secondary schools in Westlands Sub County, Kenya.

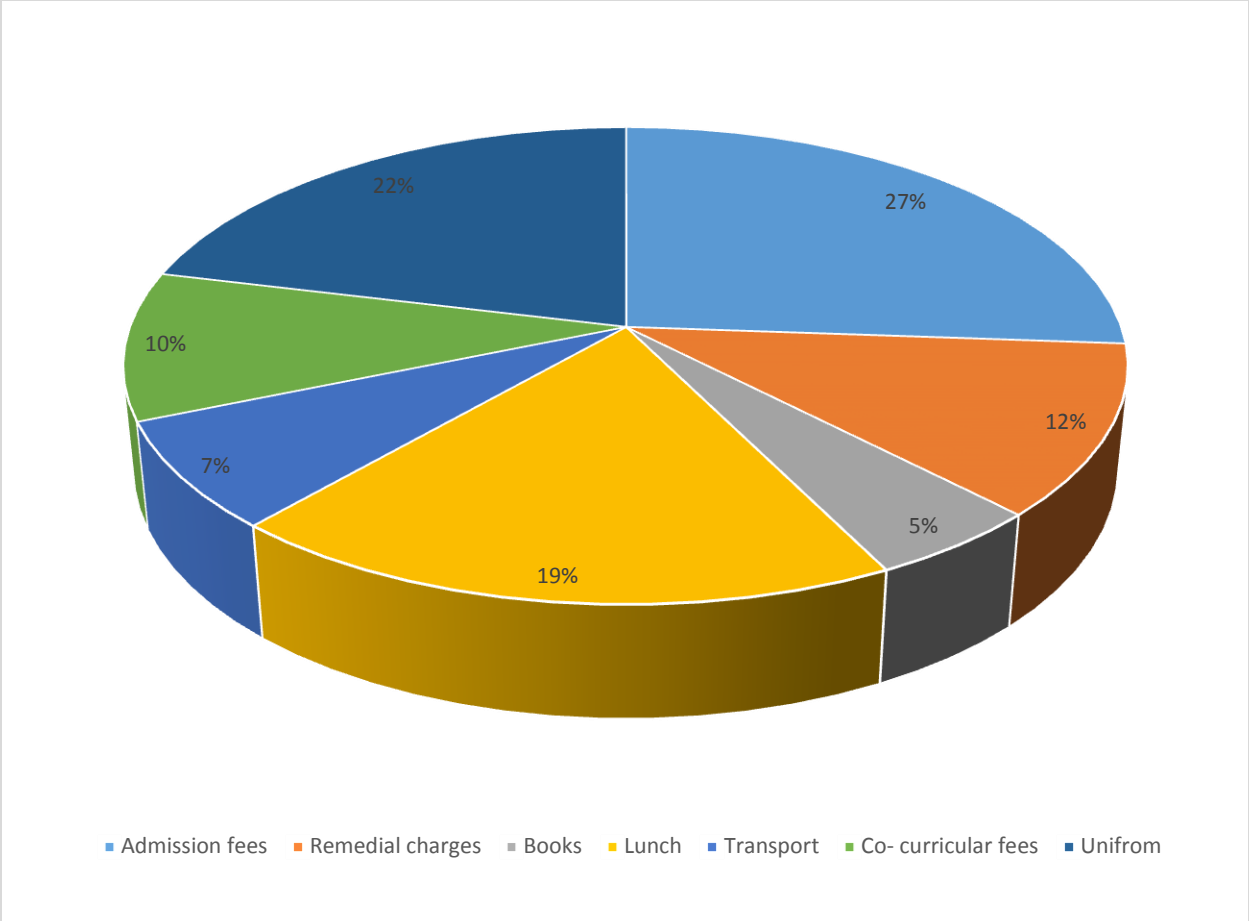


Figure 4.5: Teachers Responses on Hidden Educational Costs Charged in Secondary Schools in Westlands Sub County

Source: Field Data (2022)

The results indicates that admission fee had the highest charges at 27%.Uniform closely follow at 22% while lunch was 19%. Remedial charges was at 12%,co-curriculum activities at 10%,transport at 7% and finally books having the least at 5%.The lowest percentage of books could probably be attributed to the government policy of buying text books for learners in all public secondary schools. A study by Shaving (2015) similarly identifies Uniform and remedial charges as some of the main hidden costs charged in schools in Kwanza Sub-County. Most



teachers in school in the study area argued that remedial classes were helping them to cover the syllabus especially after time was lost due to the Covid-19 Pandemic.

The study also sought responses from principals on how much in Kenya Shillings year, a student was expected to pay for the different hidden costs in their schools. Figure 4.19 presents teachers' responses on hidden educational cost charged at secondary schools in Westlands Sub County, Kenya.

Table 4.18 presents the principals responses on hidden educational cost in various public secondary schools in Westland Sub County.

Table 4.18: Hidden Educational and Hundred Percent Transition to Secondary School (Principals' Responses)

Hidden Education Costs	Nil	Less than Kshs 1000	Kshs 1000 to Kshs 5000	Kshs 5001 to Kshs 10000	Above Kshs 10000
Admission fees	2	5	2	1	2
Remedial charges	3	5	3	0	1
Books	5	3	1	2	1
Lunch	0	0	6	4	2
Transport	5	4	3	0	0
Co-curricular fees	5	4	1	1	1
Uniform	0	0	5	2	6

Source: Field Data (2022)

From the findings, only 2 (16.7%) respondents indicated they don't charge admission fees, 5 (41.7%) charges less than Kshs 1000, 2 (16.7%) indicated they charge between Kshs 1000 and Kshs 5000, 1 (8.3%) sad they charge between Kshs 5000 and Kshs 10000 while 2 (16.7%)

indicated they charge above Kshs10000. Charges on books were also considered. From the respondents, 5 (41.7) schools did not ask learners to pay for books with only one respondent indicating they charged above Kshs 10000. On remedial classes, only 3 (25%) principals indicated there are no charges, 5 (41.7%) said they charge less than Kshs 1000, 3 (25%) indicated they charge between Kshs 1000 and Kshs 5000, no school charged between Kshs 5000 and Kshs 10000 while 1 (8.3%) principal indicated the school charges .When asked what they were charging on lunch, 6 (50%) principals indicated they charge between Kshs 1000 and Kshs 5000, 4 (33.3%) charged between Ksh 5001 and Kshs 10000 while 2 (16.7%) were charging above Kshs 10000. On transport, 5 (41.7%) respondents indicated they don't charge, 4 (33.3%) indicated they charge less than 1000 while 3 (25%) charges between Kshs 1000 and Kshs 5000. Co-curriculum activities was also considered with only 5 (41.7%) principals indicated there are no charges, 4 (33.3%) said they charge less than Kshs 1000, 1 (8.3%) indicated they charge between Kshs1000 and Kshs 5000, 1 (8.3%) charged between Kshs 5001 and Kshs 10000 while 1 (8.3%) principal also indicated the school charges above Ksh 10000. Finally on transport, 5 (41.7%) indicated they charge between Kshs 1000 and Kshs 5000, 2 (16.7%) charged between Kshs 5001 and Kshs10000 while 6 (50%) principals said they charge above Ksh 10000.

The study went further to establish the effect of hidden education cost on hundred percent transition. Chi-square tests were carried out on various costs including admission fees, remedial charges, books, lunch, transport, co-curriculum activity and uniform.

Table 4.19 presents the results on effect of Admission fee on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.19: Chi-Square Test on Effect of Admission Fee on Hundred Percent Transitions to Secondary Schools

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	25.286 <sup>a</sup>	8	0.001
Likelihood Ratio	36.063	8	0.000
N of Valid Cases	264		

a. 2 cells (13.3%) have expected count less than 5. The minimum expected count is 4.66.

Source: Field Data (2022)

The Chi-square test on the effects of admission fee on transition found a statistically significant relationship between admission fees and 100% transition ( $X^2 = 25.286$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

The study is in line with Mbalaka et al. (2021) who reported that admission fee levies had a significant relationship with the implementation of free public day school education in Kitui County. The results showed that the transition rate decreased when levies increased. This research was able to find out that different extra levies affected the implementation of compulsory and free public day secondary education in Kenya. In addition Mbalaka et al. (2021) found that different extra levies affected the implementation of compulsory and free public day secondary education in Kenya.

Table 4.20 presents results on effect of remedial class charges on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.20: Chi-Square Test on Effect of Remedial Charges on a Hundred Percent Transition to Secondary Schools

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	33.250 <sup>a</sup>	8	0.000
Likelihood Ratio	44.272	8	0.000
N of Valid Cases	258		

a. 4 cells (26.7%) have expected count less than 5. The minimum expected count is .48.

Source: Field Data (2022)

The Chi-square test on the effects of remedial fee on transition found a statistically significant relationship between remedial fees and 100% transition ( $X^2= 33.250$ ;  $p<0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings are consistent with the study by Kabiru et al. (2018) which also found a significant statistical relationship between hidden charges and transition. The results from the study showed that school levies influence to a large extent transition of pupils from primary to secondary in Nyandarua North Sub-County, Kenya. The study indicated that school levies charged affected transition.

Table 4.21 Gives the results on effect of book levies on hundred percent transition in Westlands Sub County, Kenya.

Table 4.21: Chi-Square test on books levies and a Hundred Percent Transition to Secondary Schools

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	46.339 <sup>a</sup>	8	0.000
Likelihood Ratio	62.407	8	0.000
N of Valid Cases	248		

a. 3 cells (20.0%) have expected count less than 5. The minimum expected count is 2.65.

Source: Field Data (2022)

The Chi-square tests on the effects of book levies on transition found a statistically significant relationship between book levies and 100% transition ( $X^2 = 46.339$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings is in agreement with Shaving (2015) which found that students are sent home to look for funds for the extra levies, making them skip schools and participate in child labour to get money for the extra levies. When money cannot be found to cater for these levies, students drop out of school because education is not free in a real sense. School dropouts is one of the major factors that has negatively affected transition to secondary schools in Sub-Saharan Africa. Since the introduction of a hundred percent transition, the government of Kenya has been providing text books to public secondary schools however this is not adequate since parents are still expected to buy set books, dictionaries, Kamusi and other revision books. Many students from humble backgrounds still cannot afford to buy such books affecting their transition.

Table 4.22 presents results on effect of Lunch fees on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.22: Chi-Square Test on Effect of Lunch fees on Hundred Percent Transition to Secondary Schools

<b>Chi-Square Tests</b>			
Lunch	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	52.313 <sup>a</sup>	8	0.000
Likelihood Ratio	57.569	8	0.000
N of Valid Cases	243		

a. 1 cells (6.7%) have expected count less than 5. The minimum expected count is 2.87.

Source: Field Data (2022)

The Chi-square test on the effects of Lunch fee on transition found a statistically significant relationship between admission fees and 100% transition ( $X^2= 52.313$ ;  $p<0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

The findings is contrary to Mugiraneza (2018) who reported that school-based costs like school feeding cost and co-curricular activities costs had less impact on students' intake rate compared to activities support and cost of examinations. The study adds that school-based costs like examinations and school activities participation costs contributed to some variation rate of transition.

Table 4.23 presents the results on effect of transport on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.23: Chi-Square Test on Transport and a Hundred Percent Transition to Secondary Schools

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	37.603 <sup>a</sup>	8	0.000
Likelihood Ratio	45.874	8	0.000
N of Valid Cases	260		

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is .95.

Source: Field Data (2022)

The Chi-square test on the effects of transport charges on transition found a statistically significant relationship between transport and 100% transition ( $X^2 = 37.603$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$ : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

The study is in agreement with the opinion of Ngwacho (2015) which showed a significant positive relationship between hidden costs like transport and student completion and transition rate. According to the research, the findings mean that despite the introduction of free education in secondary schools, hidden costs still affect learners' transition and completion rates. Some students especially day scholars have to travel long distances to go to school. In cases where the students have to board matatus to school, some may miss school due to lack of transport money.

Table 4.24 presents test results on effect of co-curricular activity on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.

Table 4.24: Chi-Square Test on Co-curricular Activity fee and a Hundred Percent Transition to Secondary Schools

<b>Chi-Square Tests</b>			
Co-curricular fees	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	60.490 <sup>a</sup>	8	0.000
Likelihood Ratio	71.609	8	0.000
N of Valid Cases	260		

a. 3 cells (20.0%) have expected count less than 5. The minimum expected count is 2.37.

Source: Field Data (2022)

The Chi-square test on the effects of co-curriculum activities on transition found a statistically significant relationship between co-curriculum activities and 100% transition ( $X^2=60.490$ ;  $p<0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

Mugiraneza (2018) holds a contrary opinion that co-curricular activities costs had less impact on students' intake rate as compared to activities support and cost of examinations. However, the study adds that school-based costs like examinations and school activities participation costs contributed to some variation rate of transition.

Table 4.25 presents the results on effect of uniform on one hundred percent transition to secondary schools in Westlands Sub County, Kenya.



Table 4.25: Chi-Square Test on Effect of Uniform costs and a Hundred Percent Transition to Secondary Schools

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.699 <sup>a</sup>	8	0.012
Likelihood Ratio	21.584	8	0.006
N of Valid Cases	261		

a. 4 cells (26.7%) have expected count less than 5. The minimum expected count is .79.

Source: Field Data (2022)

The Chi-square test on the effects of uniform costs on transition found a statistically significant relationship between uniform costs and 100% transition ( $X^2 = 19.699$ ;  $p < 0.05$ ). With this results, the study rejected the null hypothesis;  $H_0$  : that there is no statistically significant relationship between school infrastructural facilities and a hundred percent transition to secondary school in Westland Sub County, Kenya.

A study by Mutege, R. G. (2018) established that the cost of uniform for girls is 12% higher than that of boys. It found that students in boarding schools spend more on school uniform compared to those in day schools at Ksh 4,779 and Ksh 4,143 respectively. The study also established that, there is a relationship between the cost of school uniform and access to secondary education.

We therefore rejects the null hypothesis and accept the alternative that there exists a statistically significant relationship of hidden educational costs hindering 100% transition to secondary school in Westlands Sub County, Kenya. In addition, lunch costs are univariately associated with hindering 100% transition. The association is statically significant ( $p < 0.05$ ).

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter deals with the summary, conclusions and recommendations arising from the study findings.

#### **5.2 Summary of findings**

The purpose of the study was to examine the influence of school infrastructural facilities, teaching and learning resources and hidden educational cost on a hundred percent transition to secondary schools in Westlands Sub County, Kenya. The first specific objective of the study was to examine the effect of school infrastructural facilities on a hundred percent transition to secondary school in Westlands Sub County, Kenya. This was attained by running Chi-Square tests on sanitation facilities, library facilities, classrooms, laboratories, boarding and sports facilities.

The results indicate that school infrastructural facilities affect transition to secondary schools. Library facilities, sanitation facilities and availability of classrooms affects transition to secondary schools more. Infrastructure facilities with less effect on transition are laboratories and sports facilities. The results were significant at 10 percent confidence interval. With Majority of students being females, this could explain why sanitation facilities affects transition more compared to other factors. The researcher also noted that the increase in enrolment could explain why classrooms and library facilities hinders a hundred percent transition to secondary school.

The second specific objective of the study was to determine the relationship between teaching and learning resources availability and hundred percent transition to secondary school in Westland Sub County, Kenya and was achieved by subjecting data to descriptive analysis where cross tabulations for teaching and learning resources was estimated. The teaching and learning resources under study were further analyzed by running Chi-Square tests. The results showed that transition to secondary school is highly affected by textbooks and teaching aids. Majority of the respondents indicated they were very inadequate. The results also showed that laboratory equipment and furniture had the least effect on transition.

The third objective was to establish the effect of hidden educational costs on a hundred percent transition to secondary school in Westlands Sub County, Kenya and was attained by running Chi-Square tests on admission fees, remedial charges, books, lunch, transport, co-curricular activity fees and uniform. Co-curricular activity fees, lunch and books are significant determinants of transition while admission fees are the least determinants. Hidden costs such as lunch and co-curricular activities that affect transition are not necessary directly related to learning but are more related to the operations and running of the school. The results were significant at 10 percent confidence interval.

### **5.3 Conclusion**

Based on the findings of the study, several conclusions were made. From the findings of the study it was concluded that; there was statistically significant relationship between school infrastructural facilities and one hundred percent transition to secondary school in Westland Sub County, Kenya with library and classrooms facilities significantly determining transition to

secondary school while laboratories and sports facilities are the least determinants. Hidden educational cost had a statistically significant influence on one hundred percent transition to secondary school in Westlands Sub County, Kenya ( $p < 0.05$ ). Co-curricular activity fees, lunch and books are the highest determinants of 100% transition.

#### **5.4 Policy Recommendations**

Guided by the study findings, to improve a hundred percent transition to secondary schools; school infrastructure, teaching and learning resources in the school and hidden educational costs should be put into consideration. The government ought to allocate more funds for infrastructural development and provision of adequate teaching and learning resources. Among the school infrastructure facilities to be greatly considered should include library, classroom facilities and dormitories. The government should also expand and equip the existing science laboratories. In addition, since hidden education costs such as co-curricular activity fees, lunch and books highly determine 100% transition, the study recommends that they be given greater attention. Where possible the government should eliminate such costs to ensure success of a hundred percent transition.

#### **5.5 Recommendations for Further Research**

- I. For purposes of replication, there is need for researchers to carry out further research to establish the Influence of school infrastructure, teaching and learning resources and hidden educational cost on one hundred percent transition to secondary schools in a variety of contexts. This is important for theorization, which is currently one of the main limiting factors in effective use of school infrastructure, teaching and learning resources and hidden

educational cost on one hundred percent transition to secondary schools.

- II. It is also necessary that a similar study to the current one be undertaken on a larger scale in order to establish the Influence of school infrastructure, teaching and learning resources and hidden educational cost on one hundred percent transition to secondary schools. This will give incentive to the government to develop a policy that enhances one hundred percent transition to secondary schools and further refine a hundred percent transition to secondary schools strategies accordingly.

## REFERENCES

- Ahiau, B. E., & Emmanuel, V. (2018). Availability and use of school library by teachers and students of secondary schools in Rivers State, Nigeria.
- Anagün, S. S. (2018). Teachers' Perceptions about the Relationship between 21st Century Skills and Managing Constructivist Learning Environments. *International Journal of Instruction*, 11(4), 825-840.
- Asiago, D. (2018). *Administrative factors influencing the quality of education in public secondary schools in Kitui, Kisii and Nairobi counties, Kenya* (Doctoral dissertation, University of Nairobi).
- Boateng, V. (2020). *Usage of instructional materials and its challenges in lesson delivery in the Akropong circuit of the Atwima Nwabiagya district* (Doctoral dissertation, University of Education, Winneba).
- Changwe, R., and Mulenga, C. L. (2020). Teaching and learning resources and teachers for the implementation of computer studies curriculum in selected public primary schools in Ndola District of Zambia. *European Journal of Education Studies*, 7(10).
- Cochran, W. G. (2007). *Sampling techniques*. John Wiley and Sons.
- Coelho, V. A., and Romão, A. M. (2017). The impact of secondary school transition on self-concept and self-esteem. *Revista de Psicodidáctica (English ed.)*, 22(2), 85-92.
- Creswell, J. W., and Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methapproachches*. Sage publications.
- Evans, D., Borriello, G. A., and Field, A. P. (2018). A review of the academic and psychological impact of the transition to secondary education. *Frontiers in psychology*, 9, 1482.
- Ezumah, B. A. (2020). An Overview of the African Education Systems. *Critical Perspectives of Educational Technology in Africa*, 15-48.
- F. Javier Murillo and Marcela Román (2011). School infrastructure and resources do matter: analysis of the incidence of school resources on the performance of Latin American students, *School Effectiveness and School Improvement*, 22:1, 29-50.
- Fillardo, M., and Jeffrey, M. (2017). Adequate and equitable US PK-12 infrastructure: *Priority actions for systematic reform*. Washington D.C 21st century school fund, centre for city schools, and centre for green schools.

- Giovetti O (2019). When enrollment is high, but literacy is low. Retrieved from <https://www.concernusa.org/story/education-in-niger/Goal.Pans>.
- Hadad, Shahrazad. (2017). Knowledge economy: Characteristics and dimensions. *Management dynamics in the Knowledge economy* 5.2, 203-225.
- Hayashi Jr, P., Abib, G., and Hoppen, N. (2019). Validity in qualitative research: A processual approach. *The Qualitative Report*, 24(1), 98-112.
- Jean, B. (2021). School Library Facilities and Students Academic Performance in Secondary Schools in Nyamasheke District-Rwanda. *Journal of Education*, 4(1).
- Kabiru, D. M., Ngugi, M. N., and Kaboro, P. G. (2018). Influence of school levies on pupils 'transition from primary to secondary schools in Nyandarua North Sub-County, Kenya. *Journal of Education and Practices ISSN 2617-5444 (Online) and ISSN 2617-6874 (Print)*, 1(1), 12-12.
- Katiwa, A. K. (2016). Factors influencing pupils' transition rates from primary to secondary schools in Kitui Central Sub-County Kitui County, Kenya (Doctoral dissertation, University of Nairobi).
- Kaviti, L. (2018). The New Curriculum of Education in Kenya: a Linguistic and Education Paradigm Shift. University of Nairobi.
- Lambert, V. A., and Lambert, C. E. (2012). Qualitative descriptive research: An acceptable design. *Pacific Rim International Journal of Nursing Research*, 16(4), 255-256.
- Law, K. (2018). Laws of Kenya: Constitution of Kenya, 2010.
- Li, Z., and Qiu, Z. (2018). How does family background affect children's educational achievement? Evidence from Contemporary China. *The Journal of Chinese Sociology*, 5(1),1-21.
- Lowe, N. K. (2019). What is a pilot study?. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 48(2), 117-118.
- Malechwani, J. (2020). Influence of Free Day Secondary Education Policy on Academic Performance of Rural Public Day Secondary Schools in Kilifi County.
- Mbalaka, P. M., and Cheloti, S. K. (2021). Implementing free and compulsory education policy; assessing the role of school infrastructure in public day secondary schools in Kitui county-Kenya.

- Menudo, J. M. (2021). Pablo Montesino's Exile and the Basis of the Liberal Education Project. In *The Hispanic-Anglosphere from the Eighteenth to the Twentieth Century* (pp. 176-187). Routledge.
- Mohamed, D. A. (2015). Influence of direct and hidden costs of education on access and retention of learners in primary schools in Garissa County, Kenya.
- Mokaya, Z. M. (2013). *Influence of school infrastructure on students' performance in public secondary schools in Kajiado County, Kenya* (Doctoral dissertation, University of Nairobi,).
- Mugenda, O. (2003). and Mugenda A. (2003). *Research methods: quantitative and qualitative approaches*.
- Mugenda, O., and Mugenda, A. (2019). Research Methods; Qualitative and Quantitative and mixed methods approaches. Mutegi, R. G. (2017). The influence of transport cost differentials on access to secondary education in Kenya.
- Muthima, N. W. (2015). *Adequacy and quality of teaching and learning resources in public primary schools in Ndaragwa Division, Nyandarua County, Kenya* (Doctoral dissertation, Egerton University).
- National Academies of Sciences, Engineering, and Medicine. (2018). *Design, selection, and implementation of instructional materials for the next generation science standards: Proceedings of a workshop*. National Academies Press.
- Ngwacho, G. A. (2015). *Effects of hidden costs in free secondary education on transition and completion rates in public boarding schools in Kisii County, Kenya* (Doctoral dissertation, Kabarak University).
- Njenga, M. M. (2019). *Institutional Determinants Of Implementation Of The 100 Percent Transition Policy In Public Secondary Schools In Nyandarua Central Sub County, Kenya* (Doctoral dissertation, University of Nairobi). *Pedagogical Journal*, 5(2).
- Odey, B. N. (2018). Availability of physical facilities for implementation of universal basic education in junior secondary school of Ebonyi State, Nigeria. *The Online Journal of New Horizons in Education-October*, 8(4).
- OECD., K. (2018). *OECD Science, Technology and Innovation Outlook 2018*. Paris: OECD Publishing.
- Olayinka, A. R. B. (2016). Effects of Instructional Materials on Secondary Schools Students' Academic Achievement in Social Studies in Ekiti State, Nigeria. *World Journal of Education*, 6(1), 32-39.



- Orodho, J. A., Waweru, P. N., Ndichu, M., and Nthinguri, R. (2013). Basic education in Kenya: Focus on strategies applied to cope with school-based challenges inhibiting effective implementation of curriculum. *International Journal of Education and Research*, 1(11), 1-20.
- Rose, R. N. R. (2019). *The Role of Secondary Education in Promoting Sustainable Development in the Caribbean and Latin America*. Seton Hall University.
- Rosen, S. (2017). New directions in secondary education. In *Contemporary chinese education* (pp. 65-241). Routledge.
- Ruhyana, N. F., and Aeni, A. N. (2019, April). Effect of Educational Facilities and Infrastructure in Primary Schools on Students' Learning Outcomes. In *Elementary School Forum (Mimbar Sekolah Dasar)* (Vol. 6, No. 1, pp. 43-54). Indonesia University of Education.
- Tuwei, E. K. (2013). *Effects of hidden costs on students' grade to grade transition rates in secondary schools in Nandi County, Kenya* (Doctoral dissertation, University of Nairobi).
- UNESCO. (2001). General Secondary School Education in the Twenty-First Century: *Trends, Challenges, and Priorities*. Beijing, China: UNESCO International Expert Meeting on Secondary Schooling.
- UNESCO. (2020). Global Education Monitoring Report 2020: Inclusion and education: All means all.
- UNESCO-UIS, O. E. C. D. (2018). EUROSTAT, 'UOE Data Collection on Formal Education. *Manual on Concepts, Definitions and Classification*.
- Valenzuela, J. P., and Montecinos, C. (2017). Structural reforms and equity in Chilean schools. In *Oxford Research Encyclopedia of Education*.
- Viluti, O. A. M. (2019). *Influence of Socioeconomic Factors on Pupils' Transition Rate to Secondary Schools in Kibra Sub County, Nairobi City County, Kenya* (Doctoral dissertation).
- World Bank. (2017). *World development report 2018: Learning to realize education's promise*. The World Bank.
- World Bank. (2018). World development report 2019: The changing nature of work.
- World Bank. (2018). *The World Bank Annual Report 2018*. The World Bank.

Yara P.O. and Otieno K.O. (2010). Teaching/Learning Resources and Academic Performance in Mathematics in Secondary Schools in Bondo District of Kenyan. Asian Social Science Vol. 6, No. 12.

## APPENDICES

### APPENDIX I: LETTER OF INTRODUCTION

Odhiambo Peter

P.O. Box 14538-00800

Nairobi.

**26<sup>th</sup> October 2020.**

The Principal

\_\_\_\_\_Secondary School.

Dear, Sir/Madam,

**REF: PERMISSION TO CONDUCT RESEARCH IN YOUR SCHOOL**

I am a postgraduate student at KCA University in the Department of Educational Leadership and Management. I am researching in public secondary schools in Westlands Sub County and your school has been chosen to take part. The purpose of this research is to collect data on “analysis of selected factors on the implementation of 100% transition policy public secondary schools in Westland's sub-county, Kenya.” I, therefore, seek your permission to allow me to research your school. The information obtained from your school will be used purposely for academic purposes and your identity will be confidential.

Your cooperation is highly appreciated.

Yours faithfully,

Odhiambo Peter.

## APPENDIX II: QUESTIONNAIRE FOR STUDENTS

Dear Respondent,

My name is Peter Odhiambo. I am a postgraduate student at KCA University. I am carrying out academic research on the topic entitled; **“Influence of School Infrastructure, Teaching and learning resources and Hidden Educational cost on hundred percent transition to secondary schools: A case of Westlands Sub County, Kenya”**. You have been identified as a respondent. This research is purely academic and any information provided shall be treated with confidentiality. Your contribution is highly appreciated.

### Instructions

1. Tick appropriately in the brackets or fill in the space provided.
2. You are free to share any relevant information, not in the questionnaire.
3. Do not write any name or identification on this questionnaire.

### SECTION A: Background Information

Please tick as appropriate

1. Gender:

Male		Female	
------	--	--------	--

2. Kindly indicate your age? .....
3. In which form/class are you? .....
4. How many are you in your class? .....

**SECTION B: School Infrastructure**

How adequate are the following infrastructural facilities in the school? Please rate them as

below: Very adequate (5) Adequate (4) Not sure (3) Inadequate (2) Very inadequate (1)

Infrastructure	Level of Adequacy				
	1	2	3	4	5
Classrooms					
Laboratories					
Library Facilities					
Boarding Facilities					
Sanitation Facilities					
Sports Facilities					

**SECTION C: Teaching and Learning Resources in the School**

How adequate are the following teaching and learning in the school? Please rate them as below:

Very adequate (5) Adequate (4) Not sure (3) Inadequate (2) Very inadequate (1)

Teaching and learning resources	Level of Adequacy				
	1	2	3	4	5
Furniture					
Textbooks					
Laboratory equipment.					
Teaching aids.					

**SECTION D: Hidden Educational Costs**

On average indicate how much in Kenya Shilling you pay for the following hidden education costs if any? Please tick as appropriate: Nil (1) less than 1000 (2) Ksh 1000 to Ksh 5000 (3) Ksh 5001 to ksh10000 (4) Above Ksh 10000 (5)

Hidden educational costs	1	2	3	4	5
Admission fees					
Remedial Charges					
Books (exercise and textbooks)					
Lunch					
Transport					
Co-curricular activity fees					
Uniform					

Have you had a member of your family or friend fail to proceed to secondary school because of hidden educational charges involved? Tick one

Often ( )                      Rarely ( )    Not at all ( )

If so state the reasons why

.....

**Thank you Very Much for your cooperation.**

### APPENDIX III: QUESTIONNAIRE FOR TEACHERS

Dear Respondent,

My name is Peter Odhiambo. I am a postgraduate student at KCA University. I am carrying out demic research on the topic entitled; **“Influence of School Infrastructure, Teaching and learning resources and Hidden Educational cost on hundred percent transition to secondary schools: A case of Westlands Sub County, Kenya”** You have been identified as a respondent. This research is purely academic and any information provided shall be treated with confidentiality.

Your contribution is highly appreciated.

#### Instructions

1. Tick appropriately in the brackets or fill in the space provided.
2. You are free to share any relevant information, not in the questionnaire.
3. Do not write any name or identification on this questionnaire

#### SECTION A: Background Information

Please tick as appropriate

1. Gender:

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
------	--------------------------	--------	--------------------------

2. Kindly indicate your age.....

3. Educational level:

PhD	<input type="checkbox"/>	Med	<input type="checkbox"/>	MA/MSc	<input type="checkbox"/>	Bed	<input type="checkbox"/>	BA/BSc with PGDE	<input type="checkbox"/>	Dip	<input type="checkbox"/>
-----	--------------------------	-----	--------------------------	--------	--------------------------	-----	--------------------------	------------------	--------------------------	-----	--------------------------

3. Years of service as a teacher

How many years have you served as a teacher? ..... years

4. Years of experience in the current station

How long have you been a teacher in your current station? ..... years

5. On average how many students are in the classes you teach? .....

**SECTION B: School Infrastructure**

On a scale of 1 to 5, where Strongly Agree (5) Agree (4) Not sure (3) Disagree (2) strongly disagree (1), Please indicate your level of agreement on whether infrastructural facilities in this school have hindered 100% transition

Infrastructure	Your level of agreement				
	1	2	3	4	5
Classrooms					
Laboratories					
Library Facilities					
Boarding Facilities					
Sanitation Facilities					
Sports facilities					

**SECTION C: Teaching and Learning Resources in the School**

On a scale of 1 to 5, where Strongly Agree (5) Agree (4) Not sure (3) Disagree (2) strongly disagree (1), Please indicate your level of agreement on whether teaching and learning resources in this school have hindered 100% transition.



Teaching and learning resources	1	2	3	4	5
Furniture					
Text books					
Laboratory equipment.					
Teaching aids.					

**SECTION D: Hidden Educational Costs**

How much in Kenya Shillings say per year, is a student expected to pay for each of the items listed below?

<b>Extra Educational Costs</b>	<b>Amount</b>
Admission fees	
Remedial charges	
Books (exercise and textbooks)	
Lunch	
Transport	
Co-curricular activity fees	
Uniform	

On average, how many students would be absent in this school say in a week because of;

- a) Admission fee .....
- b) Remedial charges .....
- c) Books (exercise and textbooks) .....

- d) Lunch levies .....
- e) Transport .....
- f) Co-curricular levies .....
- g) Uniform .....

**Thank you Very Much for your cooperation.**

**APPENDIX IV: QUESTIONNAIRE FOR PRINCIPALS**

**Dear Respondent,**

My name is Peter Odhiambo. I am a postgraduate student at KCA University. I am carrying out academic research on the topic entitled; **“Influence of Infrastructure, Teaching and learning resources and Hidden Educational cost on hundred percent transition to secondary schools: A case of Westlands Sub County, Kenya”** You have been identified as a respondent. This research is purely academic and any information provided shall be treated with confidentiality.

Your contribution is highly appreciated.

**Instructions**

1. Tick appropriately in the brackets or fill in the space provided.
2. You are free to share any relevant information not in the questionnaire.
3. Do not write any name or identification on this questionnaire.

**SECTION A: Background Information**

Please tick as appropriate

1. Gender:

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
------	--------------------------	--------	--------------------------

2. Kindly indicate your age.....

3. Educational level:

PhD	<input type="checkbox"/>	Med	<input type="checkbox"/>	MA/MSc	<input type="checkbox"/>	Bed	<input type="checkbox"/>	BA/BSc with PGDE	<input type="checkbox"/>	Dip	<input type="checkbox"/>
-----	--------------------------	-----	--------------------------	--------	--------------------------	-----	--------------------------	------------------	--------------------------	-----	--------------------------

4. Years of service as a principal

How many years have you served as a principal? ..... years

5. Years of experience in the current station:

How long have you been a principal in your current station? ..... years

6. What is the category of the School? Tick appropriately

National		Extra-county		County		Sub-county	
----------	--	--------------	--	--------	--	------------	--

7. What is the type of school? Tick Appropriately

Girls Boarding		Boys Boarding		Mixed day		Girls Day		Boys Day	
----------------	--	---------------	--	-----------	--	-----------	--	----------	--

8. What is the current enrolment in your school?

Class	Girls	Boys
Form 1		
Form 2		
Form 3		
Form 4		
Total		

9. Please indicate form one enrolments from 2018 to 2022 in the table below.

	Form 1 2018	Form 1 2019	Form 1 2020	Form 1 2021	Form 1 2022
Enrolment					

10. What might have contributed to the change in enrolment indicated above, if any?

.....

11. What are the measures in place to deal with the change in enrolment indicated above?

.....

.....

12. Please indicate the staffing level in your school

	Male	Female
Number of Teachers		

What is the teacher to student ratio in your school?

.....

How has it influenced 100% transition to secondary school in your school?

.....

.....

### SECTION B: School Infrastructure

On a scale of 1 to 5, where Strongly Agree (5) Agree (4) Not sure (3) Disagree (2) strongly disagree (1), Please indicate your level of agreement on whether infrastructural facilities in this school have hindered 100% transition

Infrastructure	Your level of agreement				
	1	2	3	4	5
Classrooms					
Laboratories					
Library Facilities					
Boarding Facilities					
Sanitation Facilities					
Sports Facilities					

### SECTION C: Teaching and Learning Resources in the School

On a scale of 1 to 5, where Strongly Agree (5) Agree (4) Not sure (3) Disagree (2) strongly disagree (1), Please indicate your level of agreement on whether teaching and learning resources in this school have hindered 100% transition

Teaching and learning resources	5	4	3	2	1
Furniture					
Textbooks					
Laboratory equipment.					
Teaching aids.					

### SECTION D: Hidden Educational Costs

How much in Kenya Shillings say per year, is a student expected to pay for each of the items listed below?

Extra Educational Costs	Amount
Admission fees	
Remedial charges	
Books (exercise and textbooks)	
Lunch	
Transport	
Co-curricular activity fees	
Uniform	

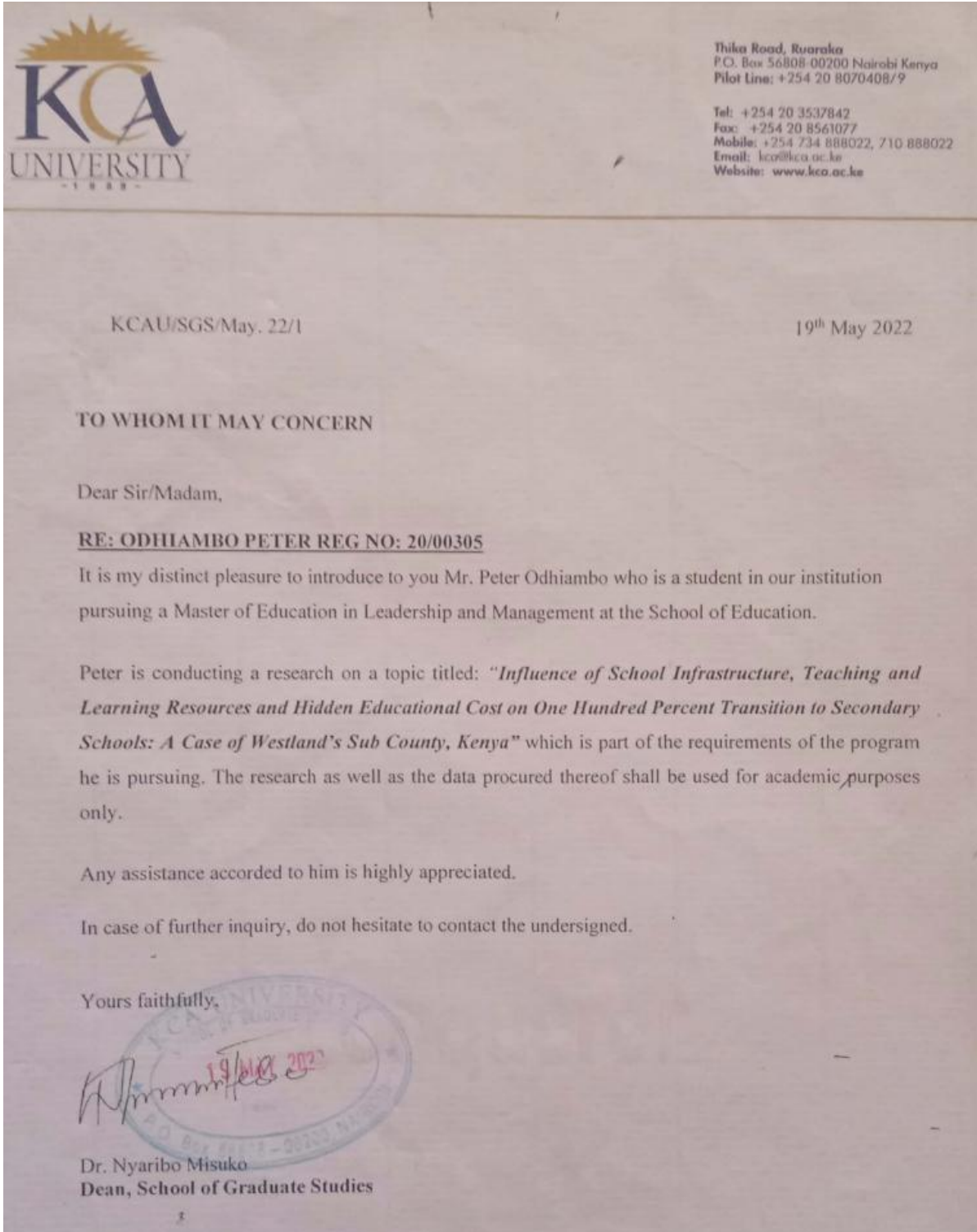
How many students can this school admit at full capacity? .....

On average, how many students would be absent in this school say in a week because of;

- h) Admission fee .....
- i) Remedial charges .....
- j) Books (exercise and textbooks) .....
- k) Lunch levies .....
- l) Transport .....
- m) Co-curricular levies .....
- n) Uniform .....


**Thanks for your time and cooperation**

## APPENDIX VI: UNIVERSITY INTRODUCTORY LETTER





## APPENDIX VII: RESEARCH AUTHORIZATION

  
Republic of Kenya  
**MINISTRY OF EDUCATION**  
**STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION**

Telegrams: "SCHOOLING", Nairobi  
Telephone: Nairobi 020 2453699  
Email: rcenairobi@gmail.com  
cdenairobi@gmail.com

REGIONAL DIRECTOR OF EDUCATION  
NAIROBI REGION  
NYAYO HOUSE  
P.O. Box 74629 - 00200  
NAIROBI

When replying please quote


Ref: RDE/NRB/RESEARCH/1/65 Vol.1                      Date: 26<sup>th</sup> May, 2022


Mr. Peter Odhiambo Otieno  
KCA University

**RE: RESEARCH AUTHORIZATION**


We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on the topic: **"Influence of School Infrastructure, Teaching and Learning Resources and Hidden Educational Cost on One Hundred Percent Transition to Secondary Schools: A case of Westlands sub County, Kenya."**

This office has no objection and authority is hereby granted for a period, ending **25<sup>th</sup> May, 2023** as indicated in the request letter.


  
**SAMUEL KARIITHI**  
FOR: REGIONAL DIRECTOR OF EDUCATION  
NAIROBI.




Copy to:     Director General/CEO  
              National Commission for Science, Technology and Innovation  
              **NAIROBI.**




**APPENDIX VIII: NACOSTI RESEARCH PERMIT**

  
REPUBLIC OF KENYA

  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 702183 Date of Issue: 25/May/2022

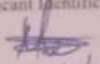
**RESEARCH LICENSE**




This is to Certify that Mr. Peter Odhiambo Otiemo of KCA University, has been licensed to conduct research in Nairobi on the topic: INFLUENCE OF SCHOOL INFRASTRUCTURE, TEACHING AND LEARNING RESOURCES AND HIDDEN EDUCATIONAL COST ON ONE HUNDRED PERCENT TRANSITION TO SECONDARY SCHOOLS: A CASE OF WESTLANDS SUB COUNTY, KENYA. for the period ending : 25/May/2023.

License No: NACOSTI/P/22/17859


702183  
Applicant Identification Number

  
26/5/2022  
RECOMMENDED

COUNTY COMMISSION  
NAIROBI COUNTY  
P.O. BOX 30124-00100  
TEL: 341666

  
Director General  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION

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