

**RELATIONSHIP BETWEEN SCHOOL PREPAREDNESS AND EFFECTIVE  
IMPLEMENTATION OF THE COMPETENCY BASED CURRICULUM: A STUDY OF  
TEACHER'S KNOWLEDGE IN NAIROBI COUNTY**

**BY  
ANNRITA WAMBUI KURIA  
T51/12262/2018**

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UNIVERSITY OF NAIROBI

DECLARATION OF ORIGINALITY FORM

Name of Student	KURIA ANNRITA WAMBUI
Registration Number	T51216122018
Department	OF ECONOMICS AND DEVELOPMENT STUDIES
Faculty/School/Institute	OF ARTS AND SOCIAL SCIENCES
Course Name	RESEARCH PROJECT
Title of Work	RELATIONSHIP BETWEEN SCHOOL PREPAREDNESS AND EFFECTIVE IMPLEMENTATION OF THE COMPETENCY BASED CURRICULUM: A STUDY OF TEACHER'S KNOWLEDGE IN NAIROBI COUNTY

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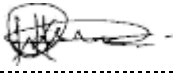


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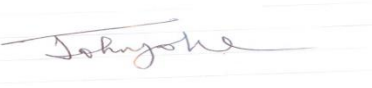
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Annrita Wambui Kuria

T51/12262/2018

This research project has been submitted for examination with my approval as the university supervisor.



Signature: ..... Date: 23/11/2022.....

John Njoka

Institute for Development Studies

University of Nairobi

## **DEDICATION**

This Research project is dedicated to my parents and son for giving me humble time to carry out this research, my friends for their encouragement and above all to the almighty God for His care throughout my study.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

APA	American Psychological Association
CBC	Competency-Based Curriculum
CBET	Competency-Based Education and Training
ECDE	Early Childhood Development and Education
ICT	Information Communication Technologies
KICD	Kenya Institute of Curriculum Development
KNUT	Kenya National Union of Teachers
MOEVT	Ministry of Education and Vocational Training
MoGE	Ministry of General Education
NACOSTI	National Commission for Science Technology and Innovation
OECD	Organisation for Economic Co-operation and Development
REB	Rwanda Educational Board
SDGs	Sustainable Development Goals
SES	Socioeconomic Status
SPSS	Statistical Package for Social Science
UME	Undergraduate Medical Education
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America

## **ABSTRACT**

Competency-based curriculum was put in place at the same time that Kenya was working hard to reach its Vision 2030 goals, which require a skilled workforce. The goal of the study was to figure out how school readiness affects how well the CBC is put into place. The human capital theory was the basis for the study. The research design was a descriptive survey. The study was done in Nairobi, Kenya. Teachers, education managers, and headteachers were the people this study was meant for. The researcher chose six teachers, one education manager, and one headteacher from 10 schools that were meant to be representative. There were a total of 80 questionnaires sent out, and 65 were filled out and sent back. This is an 81% response rate. Questionnaires were sent to key informants, parents, and teachers in the selected schools to get the needed information. The people who answered the questions were given both structured and unstructured questions with clear instructions. First, all of the field data was checked to make sure it was complete and free of mistakes. Then, the questionnaires were put in order, coded, and put into the computer using Statistical Package for Social Science (SPSS). The data was then analyzed. The study made the following conclusion; curriculum development practices adversely affected the effective implementation of CBC because of its inherent inadequacies especially inadequate training of teachers on the appropriate teaching methods and CBC contents. Another conclusion was that physical infrastructure was a challenge to the effective implementation of CBC in Kenyan primary schools. The study also concluded that human capacity negatively affects the effective implementation of CBC because important areas of human capacity that support the implementation of the curriculum were inadequate. Finally, the study concluded that some aspects of implementation techniques promoted the effective implementation of CBC

while some other aspects derailed the effective implementation process. The study made the following recommendations based on the findings of the study; there is need for thorough review of the implementation requirements of CBC to ensure the curriculum is well implemented by all stakeholders particularly teachers, parents and students. The study further recommends the swift provision of the requisite resources in all schools especially the public schools which are mainly government funded. Another recommendation is the need for provision of sufficient infrastructure, including telecommunication, internet, lighting, and security to schools to ensure the efficient implementation of the curriculum.

# CHAPTER 1: INTRODUCTION

## 1.1 Background of the Research

Education is a fundamental element of growth and development. The human mind actualizes every development achievement, from agricultural innovations, advances in health, growth of the private sector, and efficiency in the public sector. Every nation seeking to reap the full benefits of development has to harness the human mind's potential through education. According to Leicht, Heiss, & Byun (2018), exposure to education, whether formal or informal, enables human beings to live and behave as rational and sound human beings. This implies that education enables human beings to operate productively and as full members in a functioning society.

The formal educational systems are faced with the task of re-designing the existing curricula, teaching methodology, textbooks, and children's literature to meet the development demands of the twenty first century. Education curriculum is a useful tool used by nations globally for equipping the public with the values, knowledge, attitudes and skills, and needed for economic and social engagement, for attainment of national aspirations, and personal development (Stabback, 2016). Curriculum development is required to respond to change, so it's a continuous process anchored on quality.

A good curriculum must align with international developments of rapid knowledge advancement, expanding information and communication technologies, and constant change in the skills learners need to fit in the global environment and for self-development. Youth and children need critical and analytical thinking, capabilities, and attitudes to be flexible and innovative in the face of national and global crises (Rieckmann, 2018). O'Flaherty & Liddy (2018) found that competency-based education emphasizes active learning (questioning and investigating topics), which fosters creativity and learning motivation.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) describes a CBC as one that focuses on what students should be able to do instead of what they should know. Learners should get and use knowledge, values, skills, and attitudes to solve problems that they will face every day. This means that increased student engagement and taking charge of the learning process are two of the best results of CBC. CBC encourages learning on an individual basis and works with different learning styles to make each experience unique. The CBC learning outcomes focus on how knowledge is used and made, as well as on skills and attitudes.

Competency-based education started in the United States in 1957 as a response to the Soviet Union's first satellite launch (Hodge, 2007). The CBC was made in the US to get teachers to talk about their teaching goals in terms of what they could see students doing (Gardner, 2017). Sotco and Mwandanji (2015) said that CBC moved from the United States to Europe because the traditional education system was criticized for producing graduates with few skills, which led to a lot of young people being out of work. British Columbia used CBC as part of its K-12 innovation strategy to make learning more flexible so that teachers can come up with new ways to teach and make learning more personal (Momentum schools, 2017). K-12innovation is a term for all elementary and secondary education, from kindergarten to the end of high school (12th Grade).

Because of the exponential growth of information and communication technology and the ever-evolving nature of the skills students need to succeed in today's global economy, it is imperative that curricula keep pace with these advancements.

The CBC Curriculum for Excellence in Scotland prioritizes formative assessment by having students clearly articulate their learning goals and how they will be assessed (Organisation for Economic Co-operation and Development-OECD, 2017). The CBC recast the Indonesian teacher's position from that of leader to that of educator. The role of the educator is to guide students in the establishment of learning objectives, the cultivation of critical thinking skills, and the development of strategies for the acquisition and retention of knowledge.

The first African nation to implement a CBC was South Africa in 1998. The objective was to prepare the pupils for the modern world by altering their outlook and equipping them with relevant skills (Mulenga & Kabombwe, 2019). It was praised that the CBC in Rwanda, which began in April 2015, was less academic and more practical, skills-based, and work- and life-oriented (Rwanda Educational Board-REB, 2015).

In 2013, Zambia made the shift from a knowledge-based to a skills-based curriculum. The purpose of this was to help students become more career-ready (Ministry of General Education-MoGE, 2013; Zulu, 2015). Cameroon developed CBC with the goal of equipping high school dropouts with the education they lack to become productive members of society and the economy (Esongo, 2017).

As a result of these developments, Kenya is shifting its curriculum from the current 8-4-4 system to a new 2-6-3-3-3 approach. The 2-6-3-3-3 educational model consists of two years of preschool, six years of elementary school (three years each of lower and upper elementary), twelve years of high school (six years each of junior and senior high school), and three years of college (Ministry of Devolution and Planning, 2017). The goal of the Kenya Vision 2030 is to have Kenya be an industrializing middle-income country by the year 2030. Many Canadians hope that the CBC will devote more resources to covering scientific discoveries, innovative policies, and technological developments that will allow the country to break out of the middle class.

As a UN member, Kenya supports the fourth Sustainable Development Goal, which aims to provide access to quality education for everyone (UNDP-Kenya, n.d.). The other goals, including "no poverty" (SDG 1), "excellent health and well-being" (SDG 3), "gender equality" (SDG 5), "decent work and economic growth" (SDG 8), "less inequality" (SDG 10), "responsible consumption and production" (SDG 12), and "peace, justice, and strong institutions," all rely on it (SDG 16). (SDG 16). (SDG16). This can only occur if SDG 2 is achieved, which calls for ending poverty and hunger, achieving gender parity, and forming partnerships to achieve the SDGs (SDG 17). (SDG Fund, n.d).

Just when the curriculum is revised at the school, district, or even national level doesn't guarantee that teachers will necessarily implement such changes in their classrooms. Years of practice have proven that variations are to be expected. Although not the first attempt to radically revamp Kenya's educational system, the new CBC is among the boldest reforms to yet. There have been numerous attempts to improve the educational system since the Ominde Commission's report in 1963. The 7423 system was developed by the Ominde Commission to replace the European-inspired colonial education system. The 7-4-2-3 approach gradually came under fire for being overly theoretical and removed from practical concerns on the job (Kingori, 2019).

In 1976, the Gachathi Report stated, "The situation (of unemployment) is made worse by the number of school dropouts, whose numbers keep on rising since education is growing better." There was a need for a revised curriculum that reflected the economic and social realities of the country. As a result, in 1985, the 8-4-4 system was implemented to prepare students for the commercial world and the informal economy, which had been neglected by the 7-4-2-3 system.



The 8-4-4 method was criticized for being too demanding on educators and pupils, as well as too costly to implement (Kingori, 2019).

The current system was too inflexible and didn't provide students with enough opportunities to make the connection between their pre-professional education and their future goals, interests, and talents (Warrio, 2019; KICD, 2017). The 8-4-4 system was unpopular because it failed to address the educational goals of Vision 2030, Kenya's national development strategy.

There is a wide variety of determinants that influence whether or not a curriculum change is successful. It's important to consider the interplay between policies (such as goals, targets, and tools), individuals (such as those who create and utilize the curriculum), and contexts (such as where the curriculum is used) (Honig, 2006). Implementation with honesty is possible if teachers stay true to the curriculum while making necessary adjustments for their students' contexts. As an added note, educators should either modify the curriculum to fit their classroom's current methods or abandon it altogether (Berman & McLaughlin, 1976; Tichnor-Wagner et al., 2018). (Tichnor-Wagner et al., 2018; Berman & McLaughlin, 1976) Having a strategy for implementing curriculum reform is crucial for effectively planning and implementing the necessary changes.

In 2012, a report was published by the Task Force on the Re-alignment of the Education Sector to the Constitution of Kenya 2010 that is crucial to the rollout of CBC in Kenya (RoK, 2012). If Kenya is to be economically successful and competitive on a global scale, it must have an education system that reflects national goals and aspirations. As a result, the Task Force prioritized training and education at the local, state, national, and international levels. The CBC is only now being adopted in Kenya. It began as a test program in 2017 and then fully implemented for K-3 in 2019. (KICD, 2018). It is now possible to conduct an in-depth analysis of the CBC curriculum's effectiveness as a key driver of national goals and development because it has been piloted and implemented for some time and sufficient data regarding its use exists. With this context in mind, this study sought to establish the relationship between school preparedness and effective implementation of the CBC: a study of teacher's knowledge in Nairobi County.

## **1.2 Problem Statement**

The implementation of the CBC, which started in 2018 was undertaken under a barrage of skeptical views expressed by the Kenya National Union of Teachers (KNUT) and several education stakeholders. The process was reported to have been rushed and the education

managers, teachers and parents had been inadequately prepared for the change. Two national conferences were held to obtain the buy in of critical stakeholders. Stakeholders have noted that the involvement and participation of primary stakeholders such teachers has been inadequate. Effective teachers' preparation participation was important as they play a key role in the successive implementation of the curriculum.

Competency-based curriculum is introduced as Kenya pursues vision 2030, which requires qualified workers (KICD, 2018). Even though the formal education system curriculum is being reformed and regenerated, equality of opportunity and the new curriculum's legitimacy are being considered. Studies on the implementation of the CBC in primary schools (Sossion, 2017; Ondimu, 2018; Sifuna & Obonyo, 2019; Koskei & Chepchumba, 2020) suggest severe faults in its roll out.

School readiness is especially questioned on the basis of teacher's knowledge because, the majority of teachers have not been effectively trained on CBC content and teaching methods, among other faults (Sossion, 2017). Sifuna and Obonyo (2019) argue that infrastructure and material demands have not been adequately invested. Ondimu (2018) adds that most pre-primary and grades 1–3 teachers have no training. Koskei and Chepchumba (2020) discovered that teacher training was short and ineffective.

Moreover, trainers and facilitators reportedly undertrained workshop teachers. Both teachers, their trainers/facilitators, education managers, and quality assurance teams lacked suitable and relevant instructional materials. Before the system's introduction, teachers didn't receive relevant instructional materials (Sossion, 2017). This impeded teachers' capacity to create, assess, and evaluate classes and student results.

These difficulties could limit CBC implementation however, failure to implement CBC may prevent Kenya from achieving Vision 2030's industrialization target, which requires primary school education. It also fails to satisfy Sustainable Development Goal 4, to encourage inclusive and equitable quality education and lifelong learning. Past research on CBC implementation lack evidence on the relationship between school readiness and effective implementation. Teachers are crucial in implementing the CBC curriculum as partners and co-educators. This study investigated the relationship between school preparedness and effective implementation of the CBC: a teacher's knowledge study in Nairobi County.

### **1.3 Research Questions**

The main research question of the study was; what is the relationship between school preparedness and effective implementation of the CBC: a study of teacher's knowledge in Nairobi County?

The study was guided by the following specific research question:-

- i. Is there a relationship between curriculum development practices and the effective implementation of CBC in Kenyan primary schools?
- ii. How does the school's physical infrastructure influence effective implementation of CBC in Kenyan primary schools?
- iii. What role does human capacity play in the effective implementation of CBC in Kenyan primary schools?
- iv. How do implementation techniques influence the effective implementation of CBC in Kenyan primary schools?

### **1.4 Research Objectives**

The purpose of the study was to examine the relationship between school preparedness and effective implementation of the CBC: a study of teacher's knowledge in Nairobi County.

The specific objectives were:-

1. To explore the relationship between curriculum development practices and the effective implementation of CBC in Kenyan primary schools.
2. To determine the relationship between physical infrastructure and the effective implementation of CBC in Kenyan primary schools.
3. To assess the relationship between human capacity and the effective implementation of CBC in Kenyan primary schools.
4. To establish the relationship between implementation techniques and the effective implementation of CBC in Kenyan primary schools.

### **1.5 Justification of Study**

Education is the greatest tool for any society to develop. It is the means to a society that is able to harness its factors of production to bring about a harmonious and peaceful environment. Education is also a goal for development hence the curriculum development and implementation of a society is the pivot for the values, skills and competencies required for development to

occur. In Kenya it is important to look at the CBC as an agent of change and development. This study is therefore significant to a number of stakeholders.

First, this study may help school managers integrate CBC for Kenya's local and international development goals. The findings may help quality assurance departments improve CBC implementation. Environment influences education as an economic and human development investment. Technological advances, labor market shifts, and the global environment require educational policy solutions. The 21st century has a highly inquisitive, innovative society (Rieckmann, 2017). The aspects of change and continuity in the education sphere are perpetual hence the society is obliged to determine how best to keep up with the pace and direction of education investment forged.

Second, it may help policy and educational decision makers understand sustainable development through education changes. Implementing a curriculum is crucial to achieving its intended results (McLaughlin, 1990). The listed difficulties may inform present and future education reform content, methods, and tactics.

Parents can be encouraged to become curriculum partners in schools and assist streamline school quality to improve implementation. The rationale for the revised education system was to align education system with local and international development goals such as the Kenya Vision 2030, Sustainable Development Goals (SDGs), and African Union's Agenda 2063 (Ministry of Devolution and Planning, 2017). Building a middle-income industrial country demands social and technical skills. The 8-4-4 system trained students for traditional jobs like medicine, law, engineering, and teaching. CBC emphasizes talent-oriented disciplines like athletics and non-traditional vocations that demand distinct skill-sets (Kingori, 2019).

This study's concerns may lead to more investigation from different angles. This study may provide a deeper knowledge of parents-teacher factors in curriculum creation and implementation for sustainable development in the content area.

## **CHAPTER 2: LITERATURE REVIEW**

There are four main parts to this chapter. The first part is a review of the empirical literature on how CBC has been used in the past to help achieve sustainable development. The studies are organized by topic based on the specific goals of each study. The section concludes by providing a summary of the past studies reviewed in the section. The second section is a theoretical review which discusses the theory relevant to the issue under study. The study is based on the human-capital theory, which is based on the idea that formal education is very helpful and necessary to increase a population's ability to produce. In the third section, the study's theoretical framework is explained. In the fourth and final section, the conceptual framework is shown. This shows how the study variables are related to each other.

### **2.1 Literature Review**

This section presents a detailed description of past studies on the implementation of CBC for the achievement of sustainable development. The studies are presented thematically according to the specific objectives of the research.

#### **2.1.1 The Relationship between Curriculum development practices and the Effective Implementation of CBC**

Insufficient teacher training makes CBC ineffective. Many instructors are trained in Competence-based Curriculum teaching methods like demonstration, group discussions, and reporting and presentation. Some teachers aren't fully taught on the CBC because training was mostly in the form of short lectures (Mokoro, 2020). This study examined the role of teacher training in Kenya's CBC implementation.

CBC implementation in Kenya uses learner-centered pedagogy, formative, authentic assessment, and real-world application of knowledge. The implementation was not planned and implemented methodically, and most instructors received inadequate training on its contents and instructional methods, hindering their application of critical curriculum knowledge and skills (Sifuna & Obonyo, 2019). Kenya lacks certified textbooks for instructors and students and CBC implementation resources.

Parental and public involvement in the CBC curriculum revision process was lacking. Without prompt action, the new curriculum's success is in jeopardy (Sifuna and Obonyo, 2019). The current study attempts to examine parents' and teachers' attitudes on CBC planning and implementation, teacher training, training topics and teaching techniques, and absence of

approved textbooks for instructors and learners. The study analyzed parents' and teachers' perspectives on public participation in curriculum change.

Adopting CBC in Africa can help the next generation gain job-market skills. States should utilize CBC to strengthen curriculum goals (Ruth, & Ramadas, 2019). The current study evaluated CBC implementation based on instructors' understanding of whether appropriate preparation was made.

CBC teaching approaches don't ensure middle school science goals in Kuwait. No significant statistical difference ( $= 0.05$ ) occurs in middle school students' attitudes toward science in Kuwait owing to Competencies-based curriculum (Almanea, 2018). This survey asked parents and teachers about the impact of teaching methods on Kenya's CBC curriculum.

Curriculum implementation depends on instructors' training. Teachers unfamiliar with the CLT curriculum find it difficult to understand the materials, even though most of them were borrowed from the western environment. Bangladeshi instructors just received training. However, rural instructors questioned the training's adequacy and usefulness (Rahman, Pandian, & Kaur, 2018). The adequacy and professionalism of Kenyan teachers' training was studied to determine CBC's effectiveness.

Teacher training is another component in curriculum implementation readiness. Ineffective training of teachers, principals, and supervisors hampered schools' readiness to apply the 2013 curriculum. Due to a lack of necessary abilities, teaching, learning, and assessment activities cannot be successfully implemented (Suyanto, 2017). This study examined parents' and teachers' impressions of CBC teaching, learning, and evaluation activities.

Most Tanzanian secondary school teachers lack the knowledge to administer a competence-based curriculum. Adopting a competence-based curriculum to improve secondary education in Tanzania hasn't improved quality. Teachers lacked knowledge and abilities to execute competence-based curriculum successfully. The Ministry of Education and Vocational Training (MOEVT) should do quick and frequent in-service training for teachers to give them the knowledge and skills they need to implement competence-based curriculum efficiently and effectively (Makunja, 2015). Since 2005, when Tanzania's secondary schools started using a CBC, there was no evidence that the University of Dar es Salaam's teacher education program had changed to meet new needs.

Effective chemistry teaching in Riau, Indonesia, depends on teacher qualifications. All areas of teacher competency, including lesson design, planning, implementation, and evaluation, are average (Kobridi, 2014). Moreover, teachers' inadequate preparedness was due to the absence of a supportive CBC training curriculum (Paulo, 2014). The current study investigated the link between adequate teachers' training on the CBC curriculum and its effects on CBC implementation for sustainable development.

Effective chemistry teaching in Riau, Indonesia, depends on teacher qualifications. All areas of teacher competency, including lesson design, planning, implementation, and evaluation, are average (Kobridi, 2014). This study examined how teachers' qualifications were deemed to affect CBC implementation for sustainable development.

CBC curriculum development seems to have not been all inclusive for parents especially in relation to the level of input that will be required. According to the KTNNews documentary, there was a common theme occurring amongst parents that unlike 844 system where learners would work on their homework with minimal or no assistance from their parents, the CBC is quite the contrary. Parents are required to heavily participate in their children's schoolwork and for some his is quite demanding due to the nature of their jobs. Moreover, teachers raised the issue of learners no being at par with each other especially in relation to the homework done whenever parents were unable to assist their children with the same (KTN News, 2021).

### **2.1.2 The Relationship between Physical Infrastructure and the Effective Implementation of CBC**

Teacher-parent nexus in Kenya's CBC performance equation shows insufficient CBC school readiness. Parents are reluctant to co-educate with teachers and supply learning materials for practical sessions. Teachers applaud CBC's ongoing desire in learning but cite problems such shortage of materials, curriculum structure, time, parental support, and class size (Amunga, Were, & Ashioya, 2020). This study asked teachers how prepared schools were for CBC.

Environment affects student achievement. Physical environment affects student success. Redesigning school facilities requires cost-effectively renovating aging facilities, limiting physical growth around educational facilities and improving school grounds (Mwaniki, & Aloyo, 2020). This survey asked instructors how school environment affects CBC implementation for sustainable development.

Teachers' lack of readiness for the new curriculum and school infrastructures hampered CBC implementation in Kenya. The administration rushed to introduce CBC in schools without addressing understaffing, inadequate teaching materials, and unfavorable learning environments (Muasya, & Waweru, 2019). This study wanted to understand teachers' awareness of schools' preparedness for CBC implementation in terms of infrastructures, teaching and learning materials and environment.

Teachers were not fully prepared for the new curriculum and needed a technology-supported, ongoing distance learning professional development plan including inquiry teaching methodologies. Online OER would supplement deficient teaching-learning resources (Kisirkoi & Kamanga, 2018). This study analyzed teachers' perspectives on school preparedness in technology support, continual distance learning professional development, and online open educational resources.

In Kenya's Nguu division, a teacher shortage affected curriculum implementation. Most schools in Nguu Division lacked proper teaching and learning resources, which impacted curriculum implementation. For example, most schools had 3-5 students per textbook. Textbooks, charts, practice books, libraries, and computers were also absent. Most schools lacked classrooms, tables, and bathrooms, and poor administrative administration hampered curriculum delivery (Muthoka, 2017). This study examined teachers' CBC facility knowledge.

In Homa Bay County, Kenya, school-based issues affected Kiswahili curriculum implementation. None of the schools fulfilled the 1:1 pupil-to-textbook ratio. Primary school teachers were trained and competent, yet they taught more than 35 lessons every week. 1:50 teacher-to-student ratio demanded more teachers (Onyango, 2017). This study examined how learning materials, pupil/text book ratio, and teacher/pupil ratio effected CBC implementation in Kenya.

The primary school's readiness to apply the new grade 3 curriculum in Zimbabwe was impacted by insufficient teacher development training and facilitators unfamiliar with the new curriculum. Teachers lacked texts and internet despite the new curriculum requiring it (Hwande & Mpofu, 2017). Effective CBC implementation requires schools to have appropriate textbooks and internet, so this study examined teachers' understanding of the two resources.

Teachers in Tanzania's Arusha Region didn't fully understand the CBC, but they were happy with their jobs. The main problems with CBC were a lack of involvement in making and



implementing the curriculum, a lack of good textbooks, and a lack of motivation to use it (Muneja, 2015). This study also examined teachers' understanding of CBC textbook quality and its impact on sustainable development.

Competency-based teaching is not successfully implemented in Tanzanian schools, and tutors and principals require more training. Pre-service teachers believed they understood and could adopt competency-based teaching techniques, although interviews suggested they had trouble expressing some ideas. Therefore (Kafyulilo, Rugambuka, & Moses, 2013). This study also examined how teachers' and principals' comprehension of the CBC affects sustainable development implementation.

Some schools lack the physical facilities to adopt CBC. Paka Hills Primary school in Baringo County lacks ICTs. The community hasn't been informed about the new curriculum. In locations where CBC was adopted, additional classrooms were not created to accommodate the large number of students per class, especially in public schools. However, CBC is learner-intensive, requiring teachers to focus more on each student for its effective implementation.

### **2.1.3 The Relationship between Human Capacity and the Effective Implementation of CBC**

Parental participation in Kenya's CBC implementation promotes homeschool collaboration. Parents had trouble working with schools because they didn't have enough time, resources, or training on how to help their children (Mwarari, Githui, & Mwenje, 2020). This study examined how teachers' understanding of parental dynamics affected CBC implementation.

The Kenyan government hasn't trained teachers on ICT for CBC. Government should invest in ICT infrastructure and teacher training. With Kenya's curriculum shift, this problem is immediate (Ndiritu & Gatoto, 2020). ICT training costs money. This study investigated if ICT rainfall affected CBC implementation.

History instructors' awareness of competency-based or outcome-based curriculum affects the adoption of competency-based teaching methodologies in Lusaka. The lack of knowledge and skills prevents some secondary school history instructors from adopting competency-based or outcomes-based approaches. The Ministry of General Education (MoGE) should strengthen in-service training and CPD sessions in schools and zones to aid in the rollout of the CBC (Kabombwe, & Mulenga, 2019). Again, the study underlined the necessity for in-service teacher training, which adds to CBC implementation costs. This study examined teachers' knowledge of in-service training as a CBC cost.

Teachers must be fully prepared for the new curriculum to be put into place, and the school infrastructure must be good enough for the CBC to work. The administration hurried to implement CBC in schools without addressing fundamental issues including insufficient staffing, a lack of resources, and an unwelcoming atmosphere. If the Ministry of Education is serious about improving teachers' attitudes toward their work, it must prioritize teacher training and involve educators in efforts to update curricula (Muasya, and Waweru, 2019). The study noted that CBC adoption adds costs. This study asked teachers about CBC's cost.

Early childhood education centers in Mwingi West Sub County using CBC face inadequate teaching and learning resources, minimal parental involvement, and a lack of support staff. To overcome obstacles, ECDE centers need teaching and learning materials for competency-based curricula. Insufficient government resources contribute to CBC implementation costs (Kilile, Mwalw'a, & Nduku, 2019). Teachers were asked how CBC costs affected curriculum implementation.

In Dagoretti North Sub-County, instructors were prepared to apply CBC in private pre-schools. Teachers were not exposed to ICT and most lacked technological abilities. There were many obstacles to the successful implementation of the CBC, including a lack of in-service trainings, inadequate learning materials, a large number of records to keep, a significant burden, a shortage of ICT skills among teachers, and a lack of support from parents (Ondimu, 2018). The findings highlight to CBC's extra expenditures and implementation. This study assessed teachers' understanding of CBC implementation costs and their impact.

CBET application in Tanzanian technical institutions faces many hurdles. Low comprehension of CBET, lack of support facilities and resources, huge numbers of students in classes, bad working conditions for some teachers, and low student collaboration are problems. Opportunities include providing CBET pedagogy training to teachers to increase their comprehension and execution (Tambwe, 2017).

Kenyan schools are based on a family's socioeconomic standing (SES). Parents with more money can send their kids to private schools, while those with less money send them to public schools. Due to daily problems, low-SES families may be misunderstood as not caring about their children's education. Instead of lack of interest, lack of resources may be at blame (Njeru, 2015). Low-SES families are less likely to have the financial resources or time to give academic

help, according to the APA (American Psychological Association, n.d.). This study asked teachers how parents' SES affects CBC implementation.

Implementing a curriculum based on demonstrated competencies requires extensive forethought, planning, and dedication over time. Developing a curriculum based on student competencies allows us to keep standards high while giving students more say in their education. Adopting quality control and giving up control will be required to keep undergraduate medical education (UME) at a high standard (Albanese, Mejicano, and Anderson, 2010). This study examined teachers' awareness of quality control institution costs and CBC implementation.

According to a KTN News documentary, there are several gaps in reaching CBC goals, which shifted from a performance-based 844 system to one that prioritizes innovativeness, skill, and creativity. CBC understands that children have diverse talents and can flourish in strong capability areas. Therefore, teachers are expected to use creative instructional strategies. Paka Hills Primary School in Baringo County has only two instructors available to administer the curriculum, and only one of them is registered with the TSC. Inequalities continue to hamper CBC's effective implementation (KTN News, 2021).

#### **2.1.4 The Relationship between Implementation Techniques and the Effective Implementation of CBC**

Teachers' perceptions of CBC implementation in secondary schools in Arumeru District, Tanzania, were low because they were not taught in problem-solving, debates, technical skills, case analysis, web searches and library searches (Mokoro, 2020). The current study evaluated CBC teaching approaches in Kenya.

Bomet East Sub-County early grade primary school teachers' CBC knowledge hinders delivery and evaluation. KICD and the ministry of education should arrange more training sessions to fill pedagogy, assessment, and teaching document gaps. According to Momanyi and Rop (2020), the CBC implementation technique was unsatisfactory, hence this study asked teachers about it.

CBC in Kenya depends on teachers' skills. Facilitators and trainers need adequate and effective training, then teachers need ongoing training and retraining to deliver the curriculum effectively (Koskei, & Chepchumba, 2020). The study advises stakeholders build a framework for teacher training programs on the change from teaching to learning.

Large-scale curriculum reform initiatives improve development and minimize stress. Top-down–bottom-up implementation is associated to school impact, collective proactive strategies, and

reduced stress. Proactive tactics reduce stress and boost school impact. The top-down–bottom-up implementation model promotes sustainable school change by boosting collective and cumulative learning and decreasing burdens (Tikkanen, Pyhältö, Pietarinen, & Soini, 2019). This study examined how schools implemented CBC.

MTE policy implementation is likely to fail without thorough implementation tactics that include teacher training, the formation of learning/ teaching materials, and changing parents' attitudes toward indigenous languages. To develop a successful MTE system in Kenya, more resources, teacher training on L1 techniques, a change in attitude, political will, and clearer policy objectives are needed (Mandillah, 2019).

Competency-based education and training is growing rapidly. In Kenya, the idea has been brought into basic education, and in a few years, it will be brought into higher education as well. The core and general engineering skills and knowledge of CBET have not been emphasized. The curriculum is based on studies of the job market and different jobs. Results from school don't help with personal, professional, community, or sector advancement or getting a job (Ondieki, Kimani, & Tanui, 2018). This study asked teachers about CBC implementation flaws.

Many education systems now use competency-based teaching and learning. It's an educational style that focuses on mastering knowledge and skills rather than teaching content. It's used to improve education quality. Therefore, teachers require the abilities for effective implementation (Mkonongwa, 2018). The current study asked teachers whether traditional content-based teaching and learning may be transformed into knowledge and skill mastery.

In Mount Fletcher, Eastern Cape, lack of resources, inadequate training, and enormous workloads hinder curriculum implementation. Limiting implementation problems was suggested as a way to help SMTs and teachers manage and use the curriculum more effectively. SMTs and teachers try to do their jobs and fulfill their duties to make sure the curriculum is implemented well, but they need training and help all the time to do so (Mandukwini, 2016).

Many school-based factors affect Kiswahili instruction in pre-schools in Kasipul Division, Rachuonyo South sub-county. Teachers use question-and-answer, group work, and lectures. Fieldwork is underutilized. Teachers have trouble communicating in Swahili, thus they blend Kiswahili, English, and sometimes mother tongue during teaching, which impairs students' Kiswahili performance (Omollo, Odongo, & Raburu, 2016).

Education institutions' CBC implementation approaches are problematic. Some teachers weren't taught on the new curriculum, so they execute it using their own creativity and understanding. Parents weren't trained on the necessary implementation skills, therefore they must follow their children's homework directions. Some say there isn't enough information on the program's foundation, which explains why parents are confused and dissatisfied with the new curriculum (NTV Kenya, 2021).

### **2.1.5 Summary of the Literature**

The literature we looked at shows that there are many things that affect how a curriculum is put into place. Some of the most important ones are the resources and facilities, the teacher's knowledge and skills, the school environment, instructional supervision, and assessment. No matter how well teachers know how to teach, they can't do a good job if they aren't involved in planning or changing the curriculum. Unfortunately, teachers aren't involved at this stage of the curriculum process (Mokoro, 2020; Sifuna & Obonyo, 2019; Rahman et al., 2018; Makunja, 2015). The literature review also showed that the quality of the teachers is the most important factor in making sure that education meets the stated goals of any country. This can be done best if teachers are fully involved in planning the curriculum and other curriculum processes, not just in teaching in the classroom.

Researchers also found that providing and distributing materials and making sure schools have the right facilities will make it easier to reach teaching and learning goals. Textbooks, lesson plans, desks, and other school supplies fall into this category (Amunga et al., 2020; Mwaniki & Aloyo, 2020; Ndiritu & Gatoto, 2020; Muasya, & Waweru, 2019; Muthoka, 2017). This is because, in order for the curriculum to be used effectively at any stage of the education system, there should be some materials to support the activities of the teacher in the classroom. This is so that the curriculum can be used effectively in the classrooms of any of the educational programs. Sometimes the curriculum is taught without these tools, which makes it hard for students to understand what they are learning.

Parents are also very important to the implementation of the curriculum because they give their children the tools they need to learn. So, parents can improve or limit how a curriculum is put into place. Parents' influence on curriculum implementation is based on a number of things, such as the costs and resources involved (Mwarari et al., 2020) and their involvement in the development, planning, and implementation of the curriculum (Kilile et al., 2019; Njeru, 2015).

The literature review showed that, as far as the researcher knows, no study has looked at the link between school readiness and the successful implementation of the CBC: a study of teachers' knowledge in Nairobi County. This study filled the research gap that had been found.

## **2.2 Theoretical Framework**

This study used the human capital theory that Becker and Rosen came up with in 1962 and 1976. The framework is based on the idea that each worker has a set of skills or abilities that can be improved or added to through education and training. In 1960, when he was president of the American Economic Association, the American economist Theodore Schultz gave a speech called "Investment in Human Capital." This was the first time that people heard about the human-capital theory. This idea says that education is not a way that the government spends a lot of money on consumption. Instead, it is a financial outlay that boosts national productivity and economic competitiveness by increasing the value of its people. As a result, governments invest in education because it ultimately strengthens their nations. When money is spent on education, it is used for both physical and human resources. When money is put into education, both physical and human resources are used.

Human capital is the unique set of skills and abilities that each person brings to the job market. Individuals' human capital stock contains several different components such as knowledge, skills, intelligence, judgment etc., which are all accumulated over time through different types of investments. The most significant parts of individuals' human capital stock are accumulated through educational attainment and work experience (Boreas, 2013). The human capital theory implies that earnings are positively related to the proportion of investments in human capital. High skilled workers (having high human capital levels) are according to the theory suggested to be more productive than low-skilled workers (having low human capital levels) and thus have relatively higher wages (Mincer, 1970; Becker, 1993).

Becker, Mincer, and Schultz argued in 1970 that investing in education and training creates a stock of skills and abilities (called capital) in the population that can support national economies and fuel economic growth. A lot of people have talked about how important it is to invest in human capital as a key factor in long-term economic growth. Harbison (1987) adds to the discussion by saying that human resources are the ultimate source of a country's wealth. In contrast, he argued, people are the active agents who use passive instruments of production like

financial capital and natural resources to create economic, social, and political institutions that contribute to national growth.

In policy circles, most people agree that better education and training will always lead to economic success (Ashton and Green, 1996). They say that modern technologies that are mostly "knowledge-based," that is, that require a lot of conceptual skills, are making international competition more intense. Their conversation is about how the education and training system can be made better and skills can be raised. In other words, if you invest in more and better skills, prosperity will follow. Mincer (1981) adds to this argument by saying that the same way that building up personal human capital leads to individual economic growth (increased income), the same is true for the social aggregates. At the national level, human capital and physical capital can be seen as factors of production that work together. Human capital analysis looks at the skills and knowledge that people have gained through formal and informal education at school and at home, as well as on the job through training, experience, and the ability to move from one job to another. It also looks at other types of knowledge and qualifications.

Any effective plan for implementation needs to be based on a clear vision and a robust theory of change. Policymakers and curriculum designers use a theory of change, or a collection of actions and techniques for ensuring that a planned curriculum leads to the desired results, to guide their work (OECD, 2019). According to Fullan's (2006) argument, successful theories of change "must focus on transforming both the people and the culture or system in which they work at the same time" (p. 7). It requires more than just a shift in pedagogy to get students to acquire the new knowledge, skills, values, and attitudes that are the basis of a successful curriculum overhaul. It calls for systemic, concerted shifts in the way instruction, pedagogy, and policy are all approached.

Indirectly, all of these factors affect what students learn, how teachers instruct, and the outcomes of their classroom interactions (OECD, 2019). The Ministry of Education, for instance, has been known to provide brief in-service training sessions to educators over the summer break so that they can better implement CBC in the classroom. Since then, according to Muraya (2019), 1,165 curriculum support officers in both mainstream and special education and 1,320 CBC champions have been trained by a team of 181 master trainers. After completing the course, educators should be well-equipped to successfully apply CBC in their classrooms. They should also be able

to apply novel instructional strategies and models, demonstrate expertise in assessment, and demonstrate qualities of reflecting, growing, and encouraging students.

Additionally, education organizations can win over crucial stakeholders, particularly parents, to a new curriculum's cause. The participation and support of parents is crucial to the success of CBC because it fosters a conducive learning environment for students. Parents are also responsible for helping their children develop to their fullest potential by insisting that they complete all assignments and chores. Parents play a critical part as well by ensuring their children have access to the resources they need to complete hands-on activities, as well as by requesting and submitting evidence that their children have completed assignments provided by teachers (Gitahi, 2019).

Therefore, if the curriculum is implemented properly, the aims of education for sustainable development will be achieved. More people can benefit from a healthy and prosperous society thanks to a strong educational system. It promotes economic expansion, which in turn can expedite and improve said outcomes (OECD, 2017; 2019). Moreover, education equips individuals with the knowledge and abilities necessary to thrive in the emerging sustainable economy. This includes fields such as renewable energy, intelligent agriculture, forest rehabilitation, the planning of cities that minimize waste and maximize efficiency, and the proper administration of balanced ecosystems. As significantly, education has the power to alter how people view the world, treat one another, and take care of their shared and global obligations (OECD, 2017; 2019). To stimulate new modes of production and consumption, we need financial incentives, targeted laws, and technological innovation; but, these factors cannot alter people's attitudes to the point where they enthusiastically support and promote sustainable development.

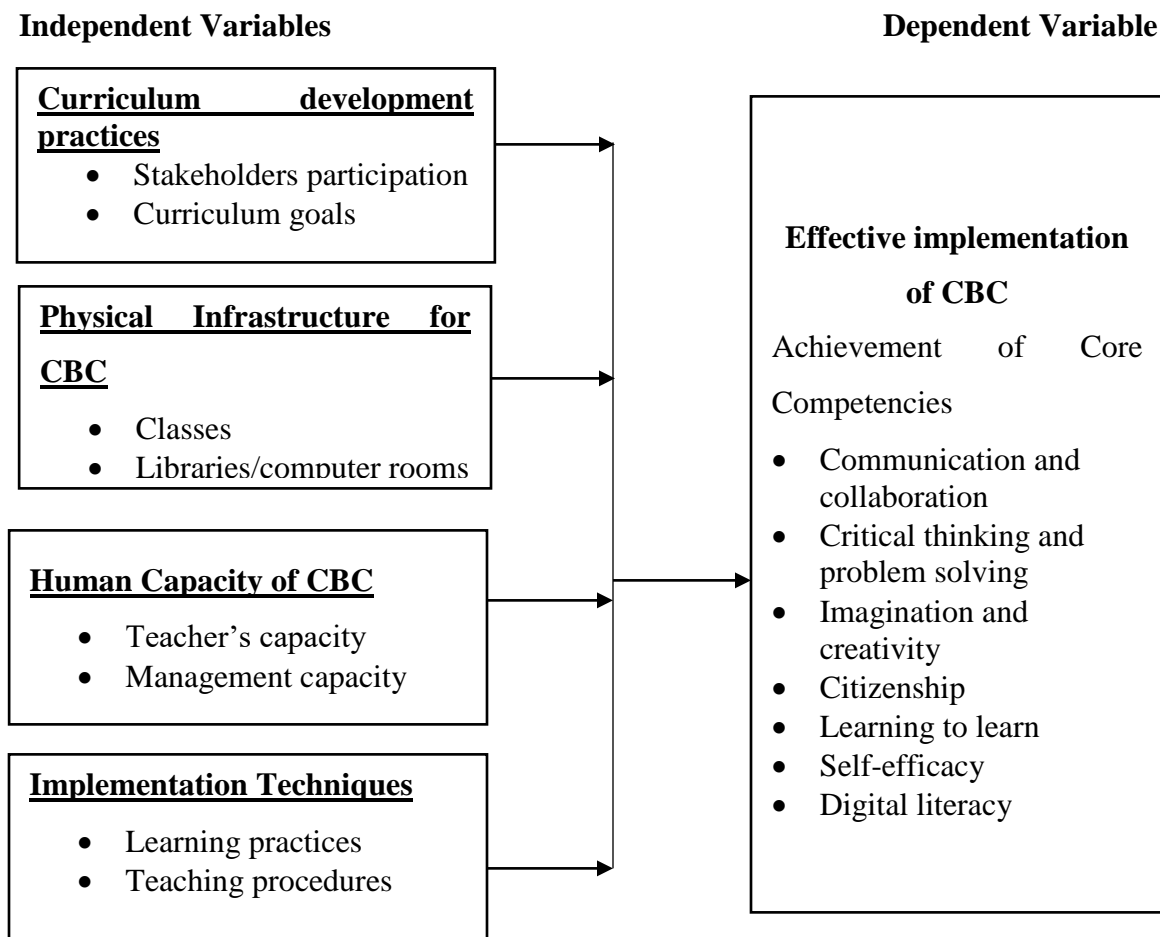
Human capital theory, then, postulates that educating a people formally is crucial to that group's eventual rise in productivity. According to human capital theory, a worker's productivity and efficiency can be increased through education by increasing their "cognitive stock" of economically useful human capabilities. Stock in trade consists of innate talent and the time and money spent developing it. Proponents of the notion argue that formal education is an investment in human capital that is as valuable as or more valuable than physical capital. This means that effective educational systems initiate preparatory measures for students from a young age, adapt to new circumstances, and make use of data to enhance instruction and enforce responsibility.



### 2.3 Conceptual Framework

A conceptual framework is a short explanation of the subject being studied, shown as a picture of the most important parts of the study. Odhiambo and Waiganjo (2014) say that the way variables are thought of in academic research is important because it helps test hypotheses and come up with generalizations about the study's results. For this study the conceptual framework looked at the relationship between perceptions of teachers and parents towards the implementation of CBC in primary schools in Kenya for the achievement of sustainable development.

**Figure 2.1: Conceptual Framework**



**Figure 2.1 Conceptual Framework**

Helping the learner gain knowledge or experience is part of the curriculum implementation process. Implementation happens as the learner gets the intended experiences, knowledge, skills, ideas, and attitudes that will help him or her work well in a society. So, putting the curriculum into action requires an implementing agent and key success factors, such as how well it works,

how ready the school is, how much it costs to implement, and how to implement it. The school readiness has to do with how each school is set up. Schools in rich economic environments and those with enough human capacity and infrastructure to use can implement the curriculum in ways that schools in poor economic environments would find hard or impossible to do. People think that learning can only happen in places that are good for it, like classrooms with lots of space and good ventilation and seats. There shouldn't be any kind of distraction or noise, and there shouldn't be anything that would get in the way of learning. If all of these things are missing from a school, it will be hard to implement the curriculum, and the teacher in question won't be able to do his or her job well and efficiently.

Without good materials that are also affordable, teaching and learning can't be done in a meaningful way. This is also true for putting together a curriculum. The government or Ministry of Education should provide schools with the necessary resources, including textbooks, teaching aids, and paper, to ensure a smooth rollout of the official curriculum and ensure that teachers and students have everything they need to succeed in their roles as implementers and beneficiaries of the curriculum. It has been proposed that in order to implement the curriculum, the federal government should also fund physical facilities like as classrooms, laboratories, workshops, libraries, and sports fields. This would be an ideal setting for implementing the curriculum. The quality and quantity of accessible resources, as well as the presence of suitable facilities, have significant bearing on the design of the curriculum.

Curriculum implementation cannot happen unless the school head's role as a supervisor makes it possible. The principal achieves this through enhancing human capacity by allocating resources, prioritizing the subjects taught, stocking the classroom with resources, and fostering an atmosphere conducive to learning. Human capacity ensure the allocation of resources, prioritizing the subjects taught, stocking the classroom with resources, and monitoring and supervising curriculum implementation by ensuring that work plans, lesson plans, and grades are made periodically," as stated in the program's guiding document.

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1 Introduction**

The procedures that were followed to complete the research were detailed in this section. Research methods, populations of interest, samples, sampling techniques, tools, and validity as well as reliability are described herein.

### **3.2 Research Design**

A descriptive survey was deemed the best way to study the link between school readiness and the successful implementation of the CBC: a study of teachers' knowledge in Nairobi County (Pearson, 2010). Questionnaires and interviews are used in survey research to find out about people's attitudes, beliefs, feelings, behaviors, and ways of living. Since this part of CBC is still in its infancy phase, the researcher chose this design so as to get first-hand information from respondents.

### **3.3 Study Site**

The study was undertaken in Nairobi. According to a key informant from KICD, CBC was piloted in all schools in the 47 counties in Kenya. The researcher therefore chooses Nairobi County due to time and resource limitations. Moreover, the COVID-19 pandemic resulted in the institution of measures that limit travel to all regions in Kenya.

### **3.4 Population and Sampling**

Mugenda and Mugenda (2003) say that a researcher's "target population" is the group of people from which they want to draw general conclusions.

#### **3.4.1 Sampling Primary Schools**

In this study, the units of analysis were public and private primary schools in Nairobi, and the respondents were teachers, education managers, and headteachers. Because of limited time and resources, as well as Covid-19 restrictions, a purposeful sampling method was used. In this case, teachers, education managers, and headteachers from both public and private primary schools in Nairobi who met the set criteria and used CBC in grades 1-3 were interviewed if they were available and willing to take part in the study. Face-to-face interviews were done until the goal of 80 respondents was reached and the responses were completed.

### 3.4.2 Sampling of Key Informants

Ten key informants were chosen because they knew a lot about the thing that was being studied. With the help of purposeful sampling, respondents were chosen who knew a lot about CBC implementation because of their background and experience with the curriculum. The researcher set up face-to-face interviews with the key informants by making appointments with them. As expected, all the ten (10) key informants participated in the study.

### 3.4.3 Summary of the Sample Size

Teachers, education managers, and headteachers were purposively selected and categorized into their respective strata for this study as depicted in Table 3.1. The researcher purposively selected six teachers, 1 education manager, and 1 headteacher from 10 representative schools.

**Table 3.1: Population and Sampling**

Category	Sample
Teachers	60
Education managers	10
Headteachers	10
<b>Total</b>	<b>80</b>

There were a total of 80 questionnaires sent out, and 65 were filled out and sent back. This is an 81% response rate. This response was great, and it was a good representation of the population. According to Mugenda and Mugenda (2013), an excellent response rate is 70% or more.

### 3.5 Data Collection Methods

The required data was collected using questionnaire for key informants, parents and teachers in the selected schools. Teachers and education managers in the primary schools were given both structured and unstructured questions with clear instructions to find out how they felt about the implementation of CBC in primary schools for the sake of sustainable development. There was a five-point Likert scale that went with the matrix questions. The scores ranged from 1 to 5, and respondents were asked to circle the answer that best reflected their opinion. The researcher went to the sample schools to make observations and hand out questionnaires in person.

### **3.6 Data analysis**

Data analysis is the process of putting together and making sense of all the information that has been gathered. This is done to make the information as simple and clear as possible so that it can be understood and used. First, all of the field data was checked to make sure it was complete and free of mistakes. Then, the questionnaires were put in order, coded, and put into the computer using Statistical Package for Social Science (SPSS). The data was then analyzed. By filling in frequencies and percentages in tables, charts, and graphs, descriptive statistics was used to look at large amounts of data. The answers to open-ended questions and observations were put into groups, themes, and patterns, which were then analyzed and interpreted (Mugenda & Mugenda, 2013).

### **3.7 Challenges Encountered During Data Collection**

Accessing the list of the 10 piloted schools was impossible and it turned out that all schools were piloted. Moreover, the COVID 19 Pandemic made it difficult to do in-person questionnaire deliveries and this slowed down the response rate and eventually delay the research. The researcher mitigated the aforementioned challenges by observing the Ministry of Health's guideline on the prevention and spread of the virus.

### **3.8 Ethical Considerations**

The researcher obtained permission to undertake the field study from the National Commission for Science, Technology hence the study exercise was backed up by the law. The document gave the researcher permission to do the study in the primary schools in Embakasi Central that had been chosen. The researcher made it very clear that respondents could choose not to take part, that the research was only for academic purposes, and that participants' privacy would be protected.

## CHAPTER FOUR: RESULTS AND FINDINGS

### 4.1 Introduction

This chapter shows the results and conclusions of the research data that was collected in the field. The goal of the study was to find out how school readiness affects how well the CBC is used: a study of teachers' knowledge in Nairobi County. The goals of the study were to find out what relationship there was between curriculum development practices and the successful implementation of CBC in Kenyan primary schools, what relationship there was between physical infrastructure and the successful implementation of CBC in Kenyan primary schools, what relationship there was between human capacity and the successful implementation of CBC in Kenyan primary schools, and what relationship there was between implementation techniques and the successful implementation of CBC in Kenyan primary schools. As research tools, only questionnaires and interview guides were used to collect the data. The research questions of the study were taken into account when making the questionnaire.

### 4.2 Response Rate

There were a total of 80 questionnaires sent out, with 65 returned for a response rate of 81%. According to the criteria laid out by Mugenda and Mugenda (2013), a response rate of 70% or over is considered excellent, hence this turnout was both high quality and representative of the population. The findings are shown in Table 4.3.

**Table 4.2: Response Rate**

<b>Number of questionnaires administered</b>	<b>Number of questionnaires filled and returned</b>	<b>Response rate</b>
80	Private	49
	Public	16
	<b>Sub-Total</b>	<b>65</b>

**Source: Researcher (2021)**

### 4.3 Demographic Information

The study began with a preliminary review of crucial background information in order to build a framework for later inferences before diving into the data on specific objective areas. Specific information collected included respondent's age, years of teaching experience, school category, and class/grade.

**Table 4.3: Demographic Information**

		What category of school are you currently teaching in		Total
		Private	Public	
What is your age bracket	20-30	27	4	31
	31-40	20	7	27
	41-50	2	0	2
	51 – 60	0	5	5
How many years have you been a teacher in primary school	0-5	16	5	21
	6-10	23	5	28
	Over 10 years	10	6	16
Which class/grade to do you teach	One	8	1	9
	Two	5	3	8
	Three	9	4	13
	Four	4	4	8
	Three - Five	2	2	4
	One & Two	1	0	1
	Four - Eight	5	1	6
	One - Five	1	0	1
	Four and Five	5	0	5
One- Four	1	0	1	
Pre-school	7	0	7	
Six	1	1	2	

Table 4.4 illustrates on the background information of the respondents. According to the age of the respondents those who were between 20-30, 27 were from the private schools and 4 were from the public school totaling to 31. Those who were between 31-40, 20 respondents were from the private and 7 were from the public schools, between 41-50 only 2 respondents were from the private schools and none was from the public and between 51 – 60, none was from the private and 5 were from the public school. This implies that majority of the respondents were

drawn from the age of 20 – 30 years old are from the private schools thereby providing relevant and reliable information for the study.

As per the number of years the respondents have been teachers in primary school majority indicated 6-10 whereby 23 were from the private schools and only 5 were from the public school totaling to 28. This was then followed by 0-5 years where 16 respondents were from the private schools and 5 from the public schools making a total of 21. Those who were over 10 years were 16 respondents whereby 10 were from the private schools and 6 respondents were from the public schools. This shows that the findings were relevant and reliable in ascertaining school preparedness and effective Implementation of the CBC since the respondents had been teachers for a considerable period of time.

Regarding the class/grade the teachers were teaching 8 indicated grade two where 5 were from the private and 3 were from the public. 13 indicated grade three where 9 were from the private and 4 from the public. 4 respondents indicated grade four and were from the private schools. 8 respondents were teaching in grade four 4 from private and public each. 4 respondents were teaching in three – five where 2 from private and 2 from the public schools. 1 respondent was teaching grades one & two and was from the private school. 6 respondents were teaching grades four – eight where 5 were from the private and 1 from the public. 1 teacher was teaching grade one – five and was from the private school 5, 1 and 7 respondents were teaching grades four & five, one- four and pre-school respectively and were from the private schools. The remaining 1 was teaching class six and was from the private school. The study reveals that's even though private schools respondents were the majority, responses emanated from both private/public schools and from all grades and classes, therefore giving a good representation for the study.

#### **4.4 School Preparedness and Effective Implementation of the CBC**

The main goal of the study was to look at how school readiness affects how well the CBC is put into place. It was also a study of teachers' knowledge in Nairobi County. In this part, the results of the study are described. The respondents who answered were asked for information about the four parts of school readiness (curriculum development practices, physical infrastructure, and human capacity and implementation techniques) and effective implementation.

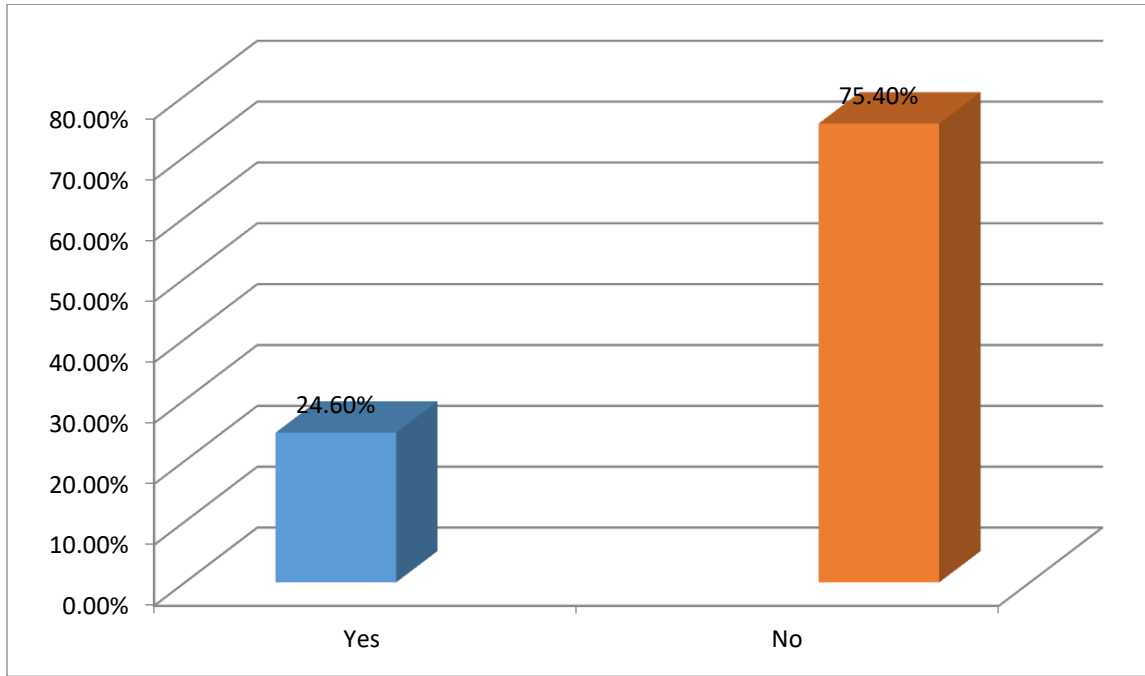
##### **4.4.1 Curriculum development practices and the Effective Implementation of CBC**

The study's first aim was to investigate how CBC implementation in Kenyan primary schools is affected by curriculum development procedures. The respondents were asked to give their



opinion as per whether the curriculum development process was well-executed in Kenyan primary schools and the results are illustrated in Figure 4.2

**Figure 4.2: Curriculum Development Process Was Well-Executed**



According to the response on whether the curriculum development process was well-executed in Kenyan primary schools majority, 49(75.40%) indicated that it was not well-executed while 16(24.6%) indicated that it was well-executed. This shows that the respondents were not satisfied with the execution of the curriculum development process for primary schools in Kenya.

Before looking at data on specific goals, the study did a preliminary analysis of important background information to help draw conclusions later.

Respondents were also asked to rate how much they agreed with statements about the connection between curriculum development practices and the successful implementation of CBC in Kenyan primary schools on a scale from 1 to 5, with 1 representing strongly disagreeing and 5 representing strongly agreeing. A positive median on the Likert scale, as suggested by Kothari (2004) and Sekaran (2006), is defined as being greater than 60%. A score of 60%, which corresponds to a median of 3 on this scale, was seen as a favorable outcome, whereas a score of 60% or less was interpreted as a negative result. From the answers, the mean, standard deviation (SD), and percentage of responses were used to make the results easier to understand and more general.

**Table 4.4: Relationship between Curriculum development practices and the Effective Implementation of CBC**

<b>What category of school are you currently teaching in * CDP Crosstabulation</b>									
<b>Statements</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Total</b>	<b>Mean</b>	<b>Std Dev.</b>
Teachers were adequately trained in the recommended teaching methods	Private	13	16	7	11	2	49	2.449	1.226
	Public	2	9	1	4	0	16	2.438	1.031
Teachers were adequately trained on the CBC contents	Private	10	20	8	8	3	49	2.469	1.174
	Public	3	7	2	4	0	16	2.438	1.094
Teacher training was undertaken for sufficient periods	Private	12	23	11	3	0	49	2.102	0.848
	Public	3	7	3	3	0	16	2.375	1.025
Parents as education stakeholders' were adequately involved and participated in the curriculum reform process	Private	23	17	8	0	1	49	1.755	0.879
	Public	8	4	1	2	1	16	2.000	1.317
Parents work as co-educators with teachers	Private	11	12	12	11	3	49	2.653	1.234
	Public	0	7	3	4	2	16	3.063	1.124
Parents provide learning materials for practical sessions	Private	5	12	12	16	4	49	3.041	1.154
	Public	0	9	1	6	0	16	2.813	0.981
Implementing inquiry-based learning strategies into existing curricula is supported by a continuing professional development programme delivered via remote learning.	Private	11	13	12	7	6	49	2.674	1.313
	Public	1	7	3	5	0	16	2.750	1.000
Parents have adequate skills and knowledge to assist their children	Private	16	27	5	0	1	49	1.837	0.773
	Public	5	6	3	1	1	16	2.188	1.167
Parents have adequate time to assist their children	Private	18	26	4	0	1	49	1.776	0.771
	Public	7	6	2	0	1	16	1.875	1.088
<b>Aggregate Mean</b>								<b>2.372</b>	<b>1.067</b>

The findings in Table 4.5 show that, out of 65 respondents 49 were from the private schools and 16 were from the public schools. According to the aggregate mean of 2.372, it was clear that the respondents disagreed that the CBC curriculum development practices resulted in its effective implementation. The responses for the specific statements were as follows; majority of the respondents from both the private schools and public schools disagreed that teachers were adequately trained in the recommended teaching methods, 13 (from private schools and 2 from public schools strongly disagreed, 16 (from private schools) and 9 from public schools disagreed, 7 (from private schools) and 1 (from public schools) were not sure. However, 11 (from private schools) and 4 (from public schools) agreed and 2 (from private schools) strongly agreed. The mean scores also showed that the respondents from both the public (2.438) and private (2.449) schools did not agree with the statements.

The second statement was teachers were adequately trained on the CBC contents. The response from the private school was 10 strongly disagreed, 20 disagreed, 8 were not sure and agreed each and 3 strongly disagreed. Additionally, the response from the public school was 3 strongly disagreed, 7 disagreed, 2 and 4 were not sure and agreed respectively. The second item had a mean score of 2.469 from private schools and 2.438 from public schools. This implies that the respondents strongly disagreed that were adequately trained on the CBC contents in both private and public schools.

The third statement was that teacher training was undertaken for sufficient periods. The responses from the private school teachers were as follows; 12 indicated strongly disagree, 23 indicated disagree, 11 indicated not sure, 3 indicated agree and none indicated strongly agree while the mean score was 2.102 with a SD of 0.848. The responses from the public school teachers were as follows; 3 indicated strongly disagree, 7 indicated disagree, 3 indicated not sure and agree each while the mean generated was 2.375 and its SD 1.025. This shows that respondents from both the private and public sector disagreed that teacher training was undertaken for sufficient periods.

The fourth statement investigated whether parents as education stakeholders' were adequately involved and participated in the curriculum reform process. Responses from the private schools generated a mean of 1.755 and its SD of 0.879 while responses from the public schools generated a mean of 2.000 and a SD of 1.317. Further results were that, from the private sector 23 strongly disagreed, 17 disagreed 8 were not sure, and 1 strongly agreed with the statement. From the public

schools 8 strongly disagreed, 4disagreed, 1were not sure and strongly agreed each and, 2agreed. Based on the statistics, it can be concluded that the CBC curriculum reform process did not adequately involve parents as education stakeholders.

Respondents were also asked whether parents work as co-educators with teachers. Private teachers responded as follows 11(strongly disagreed and agreed each, 12disagreed and were not sure each, and 3strongly agreed. The responses generated a mean of 2.653 and its SD of 1.234. Public teachers responses were; 7disagreed, 3were not sure, 4and 2agreed and strongly agreed respectively. Their responses generated a mean of 3.063 and its SD 1.124. The study implies that parents do not work as co-educators with teachers which is depicted by the low mean score of the response.

The study further enquired whether parents provide learning materials for practical sessions. Responses from the private school teachers were; 5strongly disagreed, 12disagreed and not sure each, 16 agreed and 4strongly disagreed. This generated a mean of 3.041 and its SD of 1.154. Response from the public school teachers were 9disagreed, 1were not sure and 6agreed. The statement's mean score was 2.813 and its SD 0.981. This shows that parents did not provide learning materials for practical sessions.

The study also investigated whether there is implementation of inquiry-based learning strategies into existing curricula is supported by a continuing professional development programme delivered via remote learning. Responses from the private school teachers were; 11strongly disagreed, 13disagreed, 12were not sure, 7 agreed and 6strongly agreed. The resulting mean was 2.674 and its SD was 1.313. Responses from the public school teachers were; 1strongly disagreed, 7disagreed, 3were not sure and 5agreed. The statement's mean was 2.750 and its SD 1.000. This indicates that according to the respondents, there is no implementation of inquiry-based learning strategies into existing curricula is supported by a continuing professional development programme delivered via remote learning.

The respondents were asked whether parents have adequate skills and knowledge to assist their children. Responses from the private school teacher were; 16strongly disagreed, 27disagreed, 5were not sure, and 1strongly agreed. The statement's mean was of 1.837 and a SD of 0.773. Results from the public teachers were; 5strongly disagreed, 6disagreed, 3were not sure, 1agreed and 1 strongly agreed. The statement's mean was of 2.188 and its SD 1.167. This statement indicates that parents have inadequate skills and knowledge to assist their children.

The last statement concerned whether parents have adequate time to assist their children. Responses from the private school teachers were; 18strongly disagreed, 26disagreed, 4were not sure, and 1strongly agreed. The statement's mean was of 1.776 and a SD of 0.771. Results from the public teachers were; 7strongly disagreed, 6disagreed, 2were not sure, and 1 strongly agreed. The statement's mean was of 1.875 and its SD 1.088. This statement indicates that parents have inadequate time to assist their children.

The findings imply that curriculum development practices adversely affected the effective implementation of CBC because of its inherent inadequacies. The curriculum development practices were not done satisfactorily in the following aspects, adequate training of teachers on the appropriate teaching methods and CBC contents. The curriculum development practices also failed to provide for sufficient time for training teachers in addition to ensuring they receive continuous training for their professional development in relation to CBC. Moreover, the participation of parents who are key players in the education reforms was inadequate and thus limited the effective implementation of CBC since they did not work as a team with teachers in addition to providing the requisite learning materials to their children. Furthermore, lack of adequate involvement of parents in the development process adversely affected its effective implementation because the parents lacked the necessary skills and time needed to assist their children the CBC activities.

The human capital theory says that each worker has a set of skills or abilities that they can add to or improve through education and training. The theory also says that education is not a way that the government spends a lot of money on consumption. Instead, it is an investment that raises the economic value of individuals (such as human capital) and improves a country's overall economic productivity and competitiveness. So, governments support education because, in the long run, it makes their countries stronger. So, the results of this study go against the theory of human capital because teachers don't get enough training and parents don't have enough say in how the curriculum is made.

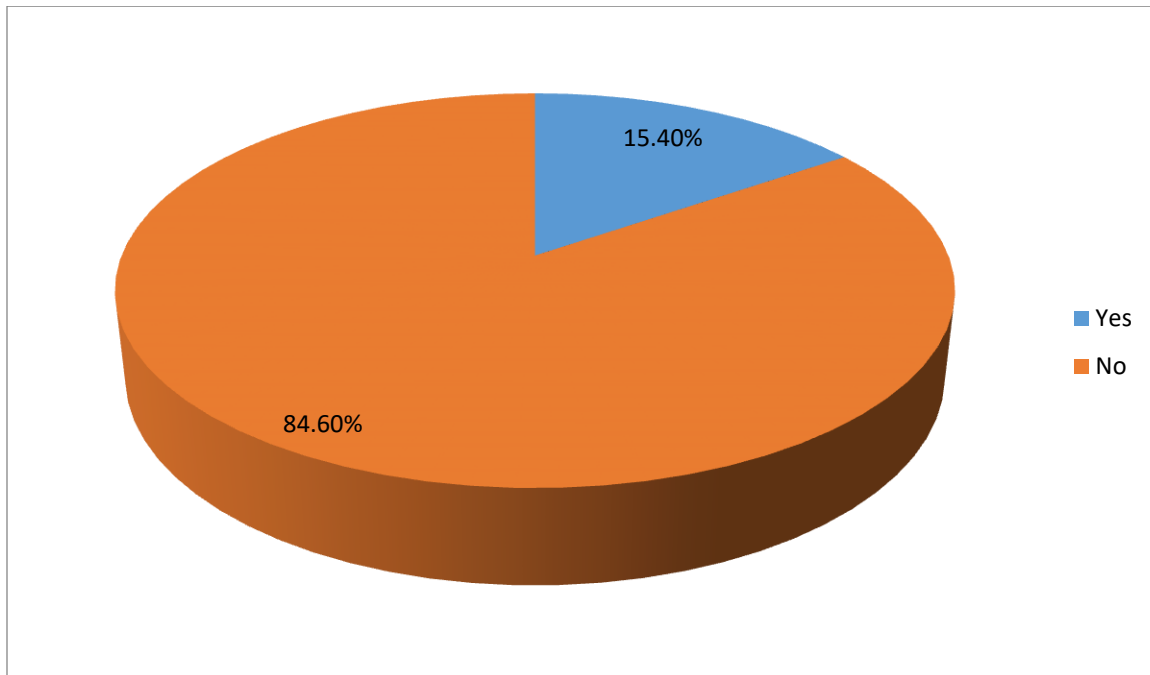
Correspondingly, the results of this study agree with what other researchers have said about how the curriculum for CBC in Kenya is made. According to Sifuna and Obonyo (2019), the CBC wasn't planned and put into place in a systematic way, and most teachers didn't get much training on its contents and teaching methods. This makes it hard for teachers to teach the most important knowledge and skills in the curriculum. Also, according to KTN news documentary, there was a

common theme occurring amongst parents that unlike 844 system where learners would work on their homework with minimal or no assistance from their parents, the CBC is quite the contrary. Parents are required to heavily participate in their children’s schoolwork and for some this is quite demanding due to the nature of their jobs.

#### 4.4.2 Physical Infrastructure and the Effective Implementation of CBC

Second, the researcher investigated how school's physical facilities affected CBC's effective implementation in Kenyan primary classrooms. The respondents were asked if the schools have adequate physical infrastructure to implement CBC in Kenya. The findings are shown in figure 4.3 below.

**Figure 4.3: Adequacy of Physical Infrastructure to Implement CBC**



As shown in Figure 4.3 most 55(84.60%) indicated no whereas only 10(15.4%) indicated yes. The study implies that public and private schools in Kenya have inadequate physical infrastructure to implement CBC.

Consequently, the respondents were required to indicate the level they agree or disagree with the statements concerning physical infrastructure and effective implementation of CBC in Kenyan primary schools on a scale from 1 to 5, with 1 representing strongly disagreeing and 5

representing strongly agreeing. A positive median on the Likert scale, as suggested by Kothari (2004) and Sekaran (2006), is defined as being greater than 60%. A score of 60%, which corresponds to a median of 3 on this scale, was seen as a favorable outcome, whereas a score of 60% or less was interpreted as a negative result. Percentage, frequency, mean, and SD were employed to facilitate understanding and extrapolation of the results.

**Table 4.5: Physical Infrastructure and Effective Implementation of CBC**

What category of school are you currently teaching in * PI Crosstabulation								Mean	Std Dev
		5	4	3	2	1	Total		
		There is adequate approved instructional materials for teachers	Private	12	16	15	5	1	49
Public	1		3	7	3	2	16	3.125	1.088
There is adequate approved learning materials for learners	Private	15	20	8	4	2	49	3.347	6.002
	Public	1	2	6	6	1	16	3.250	1.000
School facilities were upgraded to cater for the CBC requirements such as computer labs, library, and internet	Private	17	20	6	5	1	49	2.143	1.080
	Public	5	6	3	2	0	16	2.125	1.025
Schools have sufficient ICT infrastructure such as computers, smartphones	Private	20	17	7	4	1	49	2.041	1.040
	Public	3	5	4	3	1	16	2.625	1.204
Parents have adequate ICT resources to cater for CBC resource requirements	Private	11	20	5	8	5	49	1.959	1.040
	Public	5	6	2	2	1	16	2.250	1.238
The schools have sufficient classrooms and desks	Private	18	17	7	3	4	49	2.510	1.293
	Public	4	6	2	4	0	16	2.375	1.147
Schools provide teachers with online open educational resources to enhance their competencies in CBC	Private	8	18	8	14	1	49	2.143	1.225
	Public	3	3	6	4	0	16	2.688	1.078
Fields for physical educational activities	Private	9	18	10	11	1	49	2.633	1.131
	Public	1	4	4	7	0	16	3.063	0.998
Co-curricular infrastructure e.g. agriculture clubs, scouting	Private	1	11	10	18	8	49	3.633	7.568
	Public	0	5	7	4	0	16	2.938	0.772

<b>Aggregate Score</b>								<b>2.621</b>	<b>1.720</b>
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Nine statements were developed concerning physical infrastructure and effective implementation of CBC and out of 65 respondents 49 were from the private schools and 16 were from the public schools. The first statement asked whether there is adequate approved instructional materials for teachers. Results from the private schools was 12 strongly disagreed, 16 disagreed, 15 were not sure, 5 agreed and 1 strongly agreed. The statement's mean was of 2.327 and a SD of 1.029. Results from the public school teachers were; 1 strongly disagreed, 3 disagreed and agreed each, 7 were not sure, and 2 strongly agreed. This the statement's mean was 3.125 and its SD 1.088. This implies there are inadequate approved instructional materials for teachers. Concerning whether there is adequate approved learning materials for learners, responses from the private school teachers were; 15 strongly disagreed, 20 disagreed, 8 were not sure, 4 agreed and 1 strongly agreed. The statement's mean was of 3.347 and a SD of 6.002. Results from the public teachers were; 1 strongly disagreed, 2 disagreed, 6 were not sure, 6 agreed and 1 strongly agreed. The statement's mean was of 3.250 and its SD 1.000. Therefore, there was inadequate approved learning materials for learners.

The study asked whether school facilities were upgraded to cater for the CBC requirements such as computer labs, library, and internet. Responses from the private school teachers were; 17 strongly disagreed, 20 disagreed, 6 were not sure, 5 agreed and 1 strongly agreed. The statement's mean was of 2.143 and a SD of 1.080. Results from the public teachers were; 5 strongly disagreed, 6 disagreed, 3 were not sure, and 2 agreed. The statement's mean was of 2.125 and its SD 1.025. Thus school facilities were not upgraded to cater for the CBC requirements such as computer labs, library, and internet.

About schools having sufficient ICT infrastructure such as computers, smartphones results from private school teachers were; 20 strongly disagreed, 17 disagreed, 7 were not sure, 4 agreed, and 1 strongly agreed. Findings from the public were 1 indicated strongly disagree and strongly agree each, 2 indicated disagree, 6 indicated not sure and agree each. The statement's mean was of 2.13 and its SD 1.058. From the response the statement shows that the respondents disagreed with the statement.

The respondents were asked whether parents have adequate ICT resources to cater for CBC resource requirements. Responses from private school teachers were; 11 strongly disagreed,



20 disagreed, 5 were not sure, 8 agreed, and 1 strongly agreed. Findings from the public were 5 indicated strongly disagreed, 6 disagreed, 2 were not sure, 2 agreed and 1 strongly agreed. The statement's mean was of 1.959 and its SD 1.040 for private school respondents and a mean of 2.250 and its SD 1.238 for public school respondents. From the response the statement shows that the respondents disagreed with the statement.

The study enquired whether schools have sufficient classrooms and desks. Responses from private school teachers were; 18 strongly disagreed, 17 disagreed, 7 were not sure, 3 agreed, and 4 strongly agreed. Findings from the public were 4 strongly disagreed, 6 disagreed, 2 were not sure, and 4 strongly agreed. The statement's mean was of 2.51 and its SD 1.293 for private school respondents and a mean of 2.375 and its SD 1.147 for public school respondents. From the response the statement shows that the respondents disagreed with the statement.

Schools provide teachers with online open educational resources to enhance their competencies in CBC from the private sector 8 strongly disagreed, 18 disagreed, 8 were not sure, 14 agreed and 1 strongly agreed. Findings from the public sector 3 strongly disagreed, 3 disagreed, 6 were not sure and 4 strongly agreed. The statement's mean was 2.143 and its SD 1.225 for private school respondents and a mean of 2.688 and its SD 1.078 for public school respondents. The findings shows that schools do not provide teachers with online open educational resources to enhance their competencies in CBC

The findings for the statement about existence of fields for physical educational activities in private schools were; 9 strongly disagreed, 18 disagreed, 10 not sure, 11 agreed and 1 strongly agreed. Responses from the public schools were; 1 strongly disagreed, 4 disagreed, 4 not sure and 7 agreed. The statement's mean was of 2.633 and its SD 1.131 for private school respondents and a mean of 3.063 and its SD 0.998 for public school respondents.

The aggregate mean for respondents level of agreement or disagreement with the statements concerning physical infrastructure and effective implementation of CBC in Kenyan primary schools was 2.621, implying that physical infrastructure was a challenge to the effective implementation of CBC in Kenyan primary schools. For both public and private schools the main shortcoming of physical infrastructure in the effective implementation of CBC in Kenyan primary schools was inadequate instructional materials for teachers, failure to upgrade school facilities, insufficient ICT infrastructure, parents having inadequate ICT resources, schools

having insufficient classrooms and desks, and schools failing to provide teachers with online open educational resources.

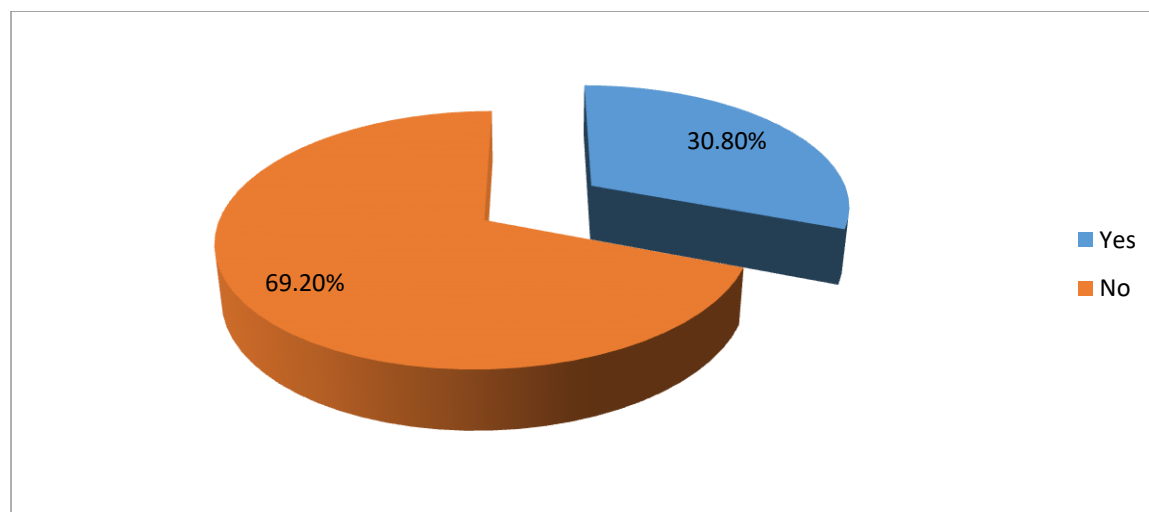
These results agree with what other researchers have found: that teachers like how CBC keeps students interested in learning, but that there are many problems, such as a parental support, lack of materials, curriculum structure, time, and class size (Amunga, Were, & Ashioya, 2020). The main school factor that affected the CBC's implementation in Kenya was that teachers weren't fully ready for the new curriculum. The infrastructure in schools was also a factor. Teachers were not well-prepared for implementing the new curriculum, and they needed technology, continuous distance learning, and a professional development program that included inquiry-based teaching methods. Online Open Educational Resources would also make up for a lack of teaching and learning materials (Kisirkoi and Kamanga, 2018).

The results don't match up with what Fullan (2006) added to the human capital theory. He said that changing teaching and learning outputs isn't enough to get the desired results of a curriculum reform (students developing and using knowledge, values, skills, and attitudes). It requires coordinated, multifaceted changes in the classroom, the school, and the policies.

#### 4.4.3 Human Capacity and the Effective Implementation of CBC

Third, the researcher sought to examine how human capacity contribute to the effective implementation of CBC in Kenyan primary classrooms. First the study set to find out if schools have adequate human capacity to implement CBC in Kenya and the results is represented in the figure below.

**Figure 4.4: Adequacy of Human Capacity to Implement CBC in Kenya**



As per the figure above, majority of the respondents 45(69.20%) indicated no whereas only 20(69.20%) indicated yes. From the analysis the study concludes human capacity has not been implemented well to make CBC effective in both private and public schools in Kenya.

**Table 4.6: Human Capacity and the Effective Implementation of CBC**

What category of school are you currently teaching in * HC									
Crosstabulation									
							Total	Mean	Std Dev
		5	4	3	2	1			
Parents have adequate knowledge and skills to assist their children with CBC requirements	Private	15	25	7	2	0	49	1.918	0.786
	Public	6	6	2	1	1	16	2.063	1.181
Teachers receive frequent in-service training to ensure they have the tools they need to successfully administer a competence-based curriculum.	Private	9	19	10	7	4	49	2.551	1.191
	Public	2	6	3	5	0	16	2.688	1.078
Teachers have sufficient ICT skills	Private	12	23	7	7	0	49	2.184	0.972
	Public	2	6	4	4	0	16	2.625	1.025
The schools have sufficient teacher/pupil ratio	Private	22	10	11	3	3	49	2.082	1.222
	Public	7	4	2	2	1	16	2.125	1.310
School staff have a high understanding of the CBC concept	Private	14	12	13	7	3	49	2.449	1.226
	Public	2	6	4	4	0	16	2.625	1.025
School staff can manage the CBC workload	Private	18	14	11	4	2	49	2.143	1.137
	Public	5	4	4	3	0	16	2.313	1.138
Schools have sufficient support staff members	Private	18	12	12	4	3	49	2.225	1.212
	Public	2	8	3	3	0	16	2.438	0.964
School management ensures quality is maintained in teaching CBC	Private	9	10	17	7	6	49	2.816	1.253
	Public	1	4	3	8	0	16	3.125	1.025
<b>Aggregate Score</b>								<b>2.398</b>	<b>1.109</b>

The study sought to establish the relationship between human capacity and effective implementation of CBC in Kenyan primary schools and eight statements were outlined for the respondents to agree or disagree with them. First statement was parents have adequate knowledge and skills to assist their children with CBC requirements. The response from the private schools were 15strongly disagreed, 25disagreed, 7were not sure and 2agreed whereas public schools responses were 6strongly disagreed and disagreed each, 2were not sure, 1agreed

and strongly agreed each. The statement's mean was of 1.918 and its SD .786 for private schools while for public schools, the mean was 2.063 and its SD was 1.181.

The second statement investigated whether teachers receive frequent in-service training to ensure they have the tools they need to successfully administer a competence-based curriculum. The response from the private schools were 9strongly disagreed, 19disagreed, 10were not sure, 7agreed and 4 strongly agreed whereas public schools responses were 2strongly disagreed, 6 disagreed, 3were not sure, and 5agreed. The statement's mean was of 2.551and its SD 1.191 for private schools while for public schools, the mean was 2.688 and its SD was 1.078.

The respondents were asked whether teachers have sufficient ICT skills. Responses from private school teachers were as follows; 12 strongly disagreed, 23 disagreed, 7were not sure, and 7agreed. Response form the public was 2strongly disagreed, 6disagreed, 4were not sure and 4 agreed. The mean and its SD results for the statement were, private schools mean was 2.184 and its SD 0.972 while for public schools the mean was 2.625 and its SD of 1.025.

The respondents were further asked whether the schools have sufficient teacher/pupil ratio. Responses from private school teachers were as follows; 22strongly disagreed, 10disagreed, 11were not sure, 3agreed and 3strongly agreed. Response form the public was 7strongly disagreed, 4disagreed, 2were not sure, 2agreed, and 2 strongly agreed. The mean and its SD results for the statement were, private schools mean was 2.082 and its SD 1.222 while for public schools the mean was 2.125 and its SD of 1.310.

The study sought to understand whether school staff have high understanding of the CBC concept. Responses from private school teachers were 14strongly disagreed, 12disagreed, 13were not sure, 7agreed and 3 strongly agreed. On the other hand, responses from the public schools teachers were, 2strongly disagreed, 6disagreed, 4were not sure and another 4strongly agreed. Moreover, the statement's mean was 2.449 and its SD 1.226 from private schools while it generated a mean of 2.625 and its SD of 1.025 from the public schools.

Another statement under investigation was whether the school staff can manage the CBC workload. Responses from private school teachers were as follows; 18strongly disagreed, 14disagreed, 11were not sure, 4agreed and 2strongly agreed. Response form the public was 5strongly disagreed, 4disagreed, 4were not sure, and 3agreed. The mean and its SD results for the statement were, private schools mean was 2.143 and its SD 1.137 while for public schools the mean was 2.313 and its SD of 1.138.

The study assessed whether the schools have sufficient support staff members. Responses from private school teachers were as follows; 18strongly disagreed, 12disagreed, 12were not sure, 4agreed and 3strongly agreed. Response form the public was 2strongly disagreed, 8disagreed, 3were not sure, and 3agreed. The mean and its SD results for the statement were, private schools mean was 2.225 and its SD 1.212 while for public schools the mean was 2.438 and its SD of 0.964.

The last statement looked into whether school management ensures quality is maintained in teaching CBC. Responses from private school teachers were as follows; 9strongly disagreed, 10disagreed, 17were not sure, 7agreed and 6strongly agreed. Response form the public was 1strongly disagreed, 4disagreed, 3were not sure, and 8agreed. The mean and its SD results for the statement were, private schools mean was 2.816 and its SD 1.253 while for public schools the mean was 3.125 and its SD of 1.025.

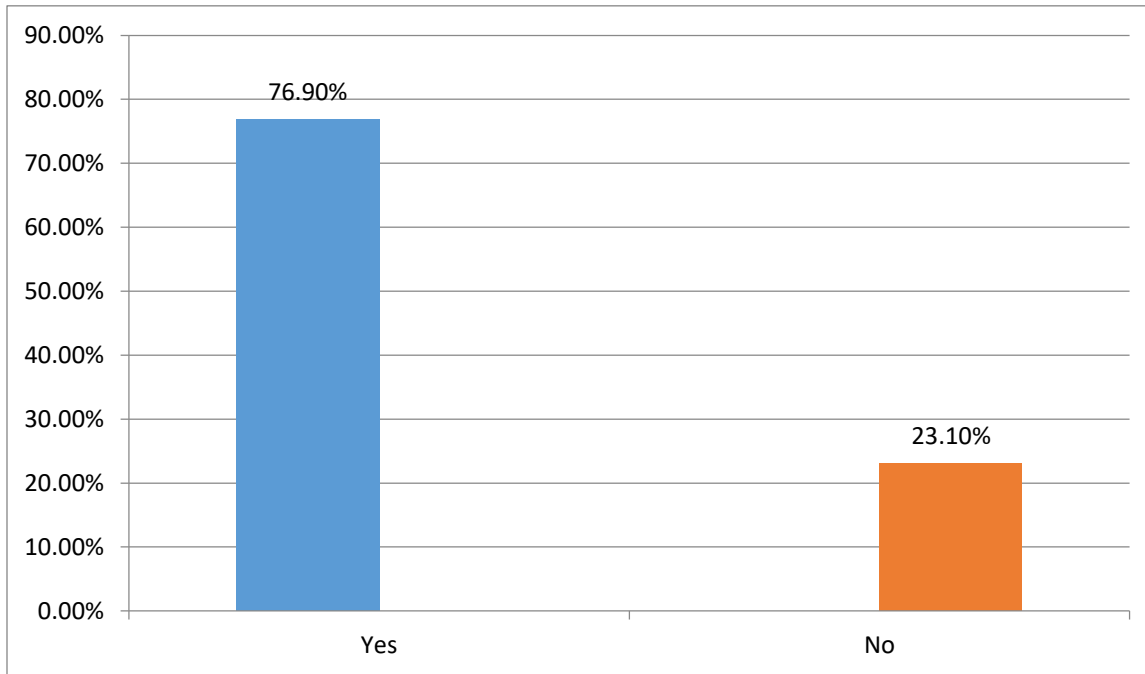
The overall aggregate mean was 2.398 and a SD of 1.109 which indicates that human capacity negatively affects the effective implementation of CBC. Important areas of human capacity that support the implementation of the curriculum were inadequate. For instance, parents lacked the necessary CBC skills and knowledge, there was inadequate regular in-service training, teachers lack sufficient ICT skills, insufficient teacher/pupil ratio, management of CBC workload, insufficient support staff members and management of CBC teaching quality. Human capacity plays a central role in the effective implementation of the curriculum because it is the channel of dissemination hence the need for it be adequately equipped and enabled.

Mwarari et al. (2020) also found that parents had trouble working with schools because they didn't have enough time, didn't know enough about the CBC, didn't have the skills and knowledge to help their children, and didn't have enough money. On the other hand, Ndiritu and Gatoto (2020) found that the Kenyan government has not paid for ICT training for teachers so that CBC can be used effectively. However, the Kenyan government should be in the lead when it comes to investing not only in ICT infrastructure but also in ICT education for teachers. Also, the human capital theory says that highly skilled workers (those with high levels of human capital) are more productive than low-skilled workers (those with low levels of human capital), so they earn more (Mincer, 1970; Becker, 1993).

#### 4.4.4 Implementation Techniques and the Effective Implementation of CBC

The last objective was to establish the relationship between implementation techniques and the effective implementation of CBC in Kenyan primary schools and the respondents were asked whether that schools have adequate implementation techniques to implement CBC in Kenya and the findings are illustrated in the below figure.

**Figure 4.5: Adequacy of Implementation Techniques to Implement CBC in Kenya**



As illustrated in Figure 4.5 majority 50(76.90%) of the respondents indicated that schools have inadequate implementation techniques to implement CBC in Kenya while 15(23.10%).

Moreover, the respondents were required to indicate the level they agree or disagree with the statement concerning implementation techniques and effective implementation of CBC in Kenya. The findings are represented in the table below.

**Table 4.7: Implementation Techniques and the Effective Implementation of CBC**

What category of school are you currently teaching in * TI Crosstabulation							Mean	Std Dev	
						Total			
		5	4	3	2	1	Total		
The school focuses on enhancing students competencies	Private	3	5	13	19	9	49	3.531	1.101
	Public	1	3	4	8	0	16	3.188	0.981

The school encourages communication & collaboration between teachers and learners	Private	1	3	10	24	11	49	3.837	0.921
	Public	1	2	3	9	1	16	3.438	1.031
Teachers use critical thinking methods of teaching	Private	4	2	14	20	9	49	3.571	1.099
	Public	1	1	3	10	1	16	3.563	0.964
Teachers use problem solving methods of teaching	Private	4	1	14	21	9	49	3.612	1.077
	Public	1	0	3	11	1	16	3.688	0.873
Students are encouraged to be creative and imaginative	Private	2	5	10	23	9	49	3.653	1.032
	Public	1	0	4	10	1	16	3.625	0.885
Teachers apply common teaching methods including; questions and answer, demonstration	Private	3	0	11	23	12	49	3.837	1.007
	Public	2	1	3	8	2	16	3.438	1.209
Students are taught digital literacy	Private	7	7	11	15	9	49	3.245	1.315
	Public	1	4	4	5	2	16	3.188	1.167
<b>Aggregate Score</b>								<b>3.529</b>	<b>1.047</b>

The first statement enquired about the school focuses on enhancing students competencies from private schools. Responses from private school teachers were as follows; 3strongly disagreed, 5disagreed, 13were not sure, 19agreed and 9strongly agreed. Response from the public school teachers was 1strongly disagreed, 3disagreed, 4were not sure, and 8agreed. The mean and its SD results for the statement were, private schools mean was 3.531 and its SD 1.101 while for public schools the mean was 3.188 and its SD of 0.981.

The second statement asked whether the school encourages communication & collaboration between teachers and learners. Responses from private school teachers were, 1strongly disagreed, 3disagreed, 10were not sure, 24agreed and 11strongly agreed while findings from the public school teachers was 1strongly disagreed 2disagreed, 3were not sure, 9agreed and 1 strongly agreed. The mean and its SD results for the statement were, private schools mean was 3.837 and its SD 0.921 while for public schools the mean was 3.438 and its SD of 1.031.

The third statement was teachers use critical thinking methods of teaching. Results from the private school teachers was, 4strongly disagreed, 2disagreed, and 14were not sure, 20agreed and 9strongly agreed. Moreover, results from the public school teachers was, 1strongly disagreed, 1disagreed, 3were not sure, 10agreed, and 1strongly agreed. The mean and its SD results for the statement were, private schools mean was 3.571 and its SD 1.099 while for public schools the mean was 3.563 and its SD of 0.964.

The fourth statement developed was teachers use problem solving methods of teaching. Response from the private school teachers was 4strongly disagreed, 1disagreed, 14were not sure, 21agreed and 9strongly agreed. Responses from the public teachers were, 1strongly disagreed, and 3were not sure, 11agreed and 1 strongly agreed. The mean and its SD results for the statement were, private schools mean was 3.612 and its SD 1.077 while for public schools the mean was 3.688 and its SD of 0.873.

The fifth statement measured if students are encouraged to be creative and imaginative. Results from the private school teachers were, 2strongly disagreed, 5disagreed, and 10were not sure, 23agreed and 9strongly agreed. Results from the public school teachers were, 1strongly disagreed, and 4were not sure, 10agreed and 1 strongly agreed. The mean and its SD results for the statement were, private schools mean was 3.653 and its SD 1.032 while for public schools the mean was 3.625 and its SD of 0.885.

The sixth statement was about whether teachers apply common teaching methods including; questions and answer, demonstration. Responses from the private school teachers were, 3strongly disagreed, and 11were not sure, 23agreed and 12strongly agreed. Response from the public school teachers were, 2strongly disagreed, 1disagreed, and 3were not sure, 8agreed and 2 strongly agreed. The mean and its SD results for the statement were, private schools mean was 3.837 and its SD 1.007 while for public schools the mean was 3.438 and its SD of 1.209.

The last statement measured inquired whether students are taught digital literacy. Findings from the private school teachers were, 7strongly disagreed, 7disagreed, and 11were not sure, 15agreed and 9strongly agreed. Responses from the public school teachers were as follows, 1strongly disagreed, 4disagreed, 4were not sure, 5 agreed and 2strongly agreed. The mean and its SD results for the statement were, private schools mean was 3.245 and its SD 1.315 while for public schools the mean was 3.188 and its SD of 1.167.

There were mixed findings concerning the relationship between implementation techniques and effective implementation of CBC in Kenya as show by the aggregate mean of 3.529 and its SD of 1.047. Some aspects of implementation techniques promoted the effective implementation of CBC while some other aspects derailed the effective implementation process. Private schools focused on improving its students' competencies, encourages communication & collaboration between teachers and learners, and application of common teaching methods including; questions and answer, demonstration unlike its public counterparts. The study by Momanyi and



Rop (2020) also found that early grade primary school teachers in Bomet East Sub-County don't know much about CBC. This has made it hard for them to teach and evaluate their students. Omollo et al. (2016) also found that the way Kiswahili is taught in pre-schools in the Kasipul Division of the Rachuonyo South sub-county is affected by a number of school-based factors. Teachers use common ways to teach, such as asking questions and getting answers, getting students to work in groups, and giving lectures. But teachers in both private and public schools teach students to think critically and solve problems, and they also encourage students to be creative and imaginative.

The results also go against what Gitahi (2019) says about the human capital theory, which says that education agencies can get key stakeholders, especially parents, on board with a new curriculum so that it can be put into place. Parents are very important to the success of CBC because they help create an environment that is good for learning.

Lastly, the study looked at how well CBC was put into place in Kenya. The results are shown in the table below.

**Table 4.8: Effective Implementation of CBC**

<b>What category of school are you currently teaching in * Effective Implementation of CBC Crosstabulation</b>									
		5	4	3	2	1	Total	Mean	Std. Dev.
Students have developed communication and collaboration skills	Private	4	5	11	24	5	49	3.327	1.049
	Public	1	0	7	8	0	16	3.250	0.931
Students think critically	Private	4	4	18	18	5	49	3.265	1.056
	Public	1	2	5	8	0	16	3.438	0.892
Students have developed problem solving skills	Private	4	6	16	19	4	49	3.449	1.042
	Public	1	1	4	10	0	16	3.563	0.892
Students are imaginative and creative	Private	4	4	11	26	4	49	3.020	1.090
	Public	1	0	5	9	1	16	3.000	0.966
Students learn to learn instead of just passing exams	Private	5	8	12	18	6	49	3.245	1.182
	Public	2	3	3	8	0	16	3.063	1.124

Students are digitally literate	Private	6	14	10	11	8	49	3.020	1.299
	Public	3	3	2	8	0	16	2.938	1.237
<b>Aggregate Score</b>								<b>3.215</b>	<b>1.063</b>

Finding for the first statement about students having developed communication and collaboration skills were, from private school teachers, 4strongly disagreed, 5disagreed, 11were not sure, 24agreed and 5 strongly agreed. The public school teachers responses were, 1strongly disagreed, 7not sure and 8agreed. The mean and its SD results for the statement were, private schools mean was 3.327 and its SD 1.049 while for public schools the mean was 3.250 and its SD of 0.931.

The study asked whether students think critically and the findings from the private school teachers were, 4strongly disagreed, and 18were not sure, 18agreed and 5strongly agreed. From the public school teachers, results were; 1strongly disagreed, 2disagreed, 5were not sure and 8agreed. The mean and its SD results for the statement were, private schools mean was 3.265 and its SD 1.056 while for public schools the mean was 3.438 and its SD of 0.892.

The next statement investigated whether students have developed problem solving skills. Responses from the private school teachers were, 4strongly disagreed, 6disagreed, and 16were not sure, 19agreed and 4strongly agreed. The public school teachers responses were, 1strongly disagreed, 1disagreed, 4were not sure whereas 10agreed. The mean and its SD results for the statement were, private schools mean was 3.449 and its SD 1.042 while for public schools the mean was 3.563 and its SD of 0.892.

The study further investigated whether students are imaginative and creative. Findings from private school teachers were, 4strongly disagreed, 4disagreed, 11were not sure, 26agreed, and 4strongly agreed. Responses from the public school teachers were, 1strongly disagreed, and 5were not sure, 9agreed and 1strongly agreed. The mean and its SD results for the statement were, private schools mean was 3.020 and its SD 1.090 while for public schools the mean was 3.000 and its SD of 0.966.

The respondents were also asked whether students learn to learn instead of just passing exams. Findings from private school teachers were, 5strongly disagreed, 8disagreed, 12were not sure, 18agreed, and 6 strongly agreed. Responses from the public school teachers were, 2strongly disagreed, 3disagreed, 3were not sure, and 8agreed. The mean and its SD results for the

statement were, private schools mean was 3.245 and its SD 1.182 while for public schools the mean was 3.063 and its SD of 1.124.

Finally, the study assessed whether students are digitally literate. Responses from private school teachers were, 6strongly disagreed, 14disagreed, 10were not sure, 11agreed, and 8(6) strongly agreed. Responses from the public school teachers were, 3strongly disagreed, 3disagreed, 2were not sure, and agreed. The mean and its SD results for the statement were, private schools mean was 3.020 and its SD 1.299 while for public schools the mean was 2.938 and its SD of 1.237.

The aggregate mean of 3.215 and its SD of 1.063 indicates that, the respondents moderately agreed that CBC was effectively implemented in their schools. The findings were related to students having developed problem-solving skills, communication and collaboration skills, thinking critically, imaginatively and creatively, learning to learn and being digitally literate. In the human capital theory, OECD (2017; 2019) says that a well-implemented curriculum makes sure that the goals of education for sustainable development are met. The findings show that this is not the case. More importantly, education can change the way people think, act, and take care of their responsibilities to each other and the planet.

## **CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter has a summary of the study, a discussion, a conclusion, and a suggestion. First, a summary of the whole study is given. This is followed by a discussion of how people can take part in making the curriculum, the physical infrastructure, the human capacity, and the relationship between how the curriculum is implemented and how well it works. The conclusions and suggestions from the study are given in the same order.

### **5.2 Summary**

The purpose of the study was to examine the relationship between school preparedness and effective implementation of the CBC in Nairobi County.

#### **5.2.1 Curriculum development practices and Effective Implementation of the CBC**

The study's first aim was to investigate how CBC implementation in Kenyan primary schools is affected by curriculum development procedures. The respondents were asked to give their opinion as per whether the curriculum development process was well-executed in Kenyan primary schools. Majority of the respondents from the private and public schools reported that the curriculum development process was not well-executed in Kenyan because of the following reasons; teachers were inadequately trained in the recommended teaching methods and the CBC contents. Another reason was because teacher training was undertaken for insufficient periods, inadequate involvement and participation of parents as education stakeholders' in the curriculum reform process. There also did not exist Implementing inquiry-based learning strategies into existing curricula is supported by a continuing professional development programme delivered via remote learning in addition to parents having inadequate time, skills and knowledge to assist their children. Further findings were that only private schools respondents indicated that parents did not work as co-educators with teachers thus limiting the CBC effective implementation. However, public respondents moderately agreed that parents work as co-educators with teachers while private schools respondents moderately agreed that parents provide learning materials for practical sessions.

#### **5.2.3 The Physical Infrastructure and Effective Implementation of the CBC**

Second, the researcher investigated how school's physical facilities affected CBC's effective implementation in Kenyan primary classrooms. There were mixed results on the availability of physical infrastructure and the effective implementation of CBC in Kenyan primary schools. For instance, respondents from private schools indicated that there was inadequate approved instructional materials for teachers while respondents from public school teachers moderately agreed that there was there was adequate approved instructional materials for teachers. Moreover, both respondents from private and public schools moderately agreed that there was adequate approved learning materials for learners.

Even though both respondents from private and public schools disagreed that school facilities were upgraded to cater for the CBC requirements such as computer labs, library, and internet, the respondents from public schools recorded a higher level of disagreement. The same case applied to the finding that schools have insufficient ICT infrastructure such as computers, smartphones; Schools did not have sufficient classrooms and desks and they did not sufficiently provide teachers with online open educational resources to enhance their competencies in CBC.

Further findings were that more respondents from private schools compared to those from public schools revealed that parents had inadequate ICT resources to cater for CBC resource requirements. Private schools to a large extent lacked sufficient fields for physical educational activities compared to their public schools counterparts.

Finally, respondents from private schools reported that they had co-curricular infrastructure e.g. agriculture clubs, scouting while the respondents from public schools reported the absence of the same.

### **5.2.3 Human Capacity and Effective Implementation of the CBC**

Third, the researcher sought to examine how human capacity contribute to the effective implementation of CBC in Kenyan primary classrooms. The general findings was that there was a weak relationship between human capacity and the effective implementation of CBC in Kenyan primary schools based on the aggregate mean. The reasons for this finding was that, in both private and public schools, parents had adequate knowledge and skills to assist their children with CBC requirements. Teachers do not receive frequent in-service training to ensure they have the tools they need to successfully administer a competence-based curriculum.

Teachers lacking sufficient ICT skills, the lack of sufficient teacher/pupil ratio, staff lack of high understanding of the CBC concept, school staff inability to manage the CBC workload, schools lack of sufficient support staff members. Lastly, in public schools respondents disagreed that school management ensures quality is maintained in teaching CBC even though their private school counterparts were of a contrary view.

#### **5.2.4 Implementation Techniques and Effective Implementation of the CBC**

The last objective was to establish the relationship between implementation techniques and the effective implementation of CBC in Kenyan primary schools. Based on the aggregate mean, there exists a positive relationship between implementation techniques and the effective implementation of CBC in Kenyan primary schools. The findings were based on the review of different aspects of implementation techniques as discussed herein. Private schools respondents agreed to a greater extent than their public schools counterparts that; the schools focus on enhancing students competencies; the school encourages communication & collaboration between teachers and learners; teachers use critical thinking methods of teaching; students are encouraged to be creative and imaginative; teachers apply common teaching methods including; questions and answer, demonstration. On the contrary, public schools respondents agreed to a greater extent than their private schools counterparts that teachers use problem solving methods of teaching. However, students learning digital literacy was found to be moderately practiced as reported by both the public and private schools respondents.

#### **5.2.4 Effective Implementation of the CBC**

Finally the study measured effective implementation of CBC. Generally, the effective implementation of CBC was moderately ranked based on moderate ranking on various measure of CBC implementation in both the public and private schools as follows; students development of communication and collaboration skills; students critical thinking, students development of problem solving skills; students imaginativeness and creativeness; students learning to learn instead of just passing and lastly students digital literacy.

### **5.3 Discussion**

On curriculum development practices the study concludes that both private schools and public schools agreed that there is little relationship between curriculum development practices and the effective implementation of CBC in Kenyan primary schools as evidently seen from low mean scores of the statements. For instance the study revealed that teachers were inadequately trained

in the recommended teaching methods regarding CBC contents. Also, Mokoro (2020) found that some teachers don't have enough training on the CBC because most of their training was in the form of short seminars.

Moreover, the study determined that parents as education stakeholders' were inadequately involved and participated in the curriculum reform process and there is no Implementing inquiry-based learning strategies into existing curricula is supported by a continuing professional development programme delivered via remote learning. Further the study indicated that parents do not have adequate time to assist their children. The findings concur with those by a KTNNews documentary, there was a common theme occurring amongst parents that unlike 844 system where learners would work on their homework with minimal or no assistance from their parents, the CBC is quite the contrary. Parents are required to heavily participate in their children's schoolwork and for some his is quite demanding due to the nature of their jobs.

Regarding the relationship between physical infrastructure and the implementation of CBC in Kenya the study reveals that public and private schools in Kenya have inadequate physical infrastructure to implement CBC. To point out, fields for physical educational activities are not enough and most school facilities were not upgraded to cater for the CBC requirements such as computer labs, library, and internet. The results are the same as what Muasya and Waweru (2019) found, which is that teachers in Kenya were not fully ready for the new curriculum to be put into place, and schools did not have the right facilities. The government rushed to put CBC into schools without first fixing problems like not having enough teachers, not having enough teaching and learning materials, and not having a good place to teach and learn.

The study further indicated that schools have insufficient ICT infrastructure such as computers, smartphones to implement effective CBC in Kenyan primary schools. This has hindered the implementation of CBC not only in Nairobi County but also Kenya as a whole. The results agree with Muthoka's (2017) findings that most schools didn't have enough classrooms, desks, and bathrooms, and that administrative management skills had a big impact on how well the curriculum was put into place. Also, Ndiritu and Gatoto (2020) said that the Kenyan government has not paid for teachers to get training in ICT so that CBC can be used well. The government should be the first to invest in both ICT infrastructure and teacher training in ICT.

The study concluded that human capacity has a relationship with the implementation of CBC in Kenyan primary schools and that it has not been implemented well. The study revealed that

parents have inadequate knowledge and skills to assist their children with CBC requirements, and also teachers do not receive frequent in-service training to ensure they have the tools they need to successfully administer a competence-based curriculum. In addition teachers from both private and public primary schools have sufficient ICT skills where, most schools have insufficient teacher/pupil ratio. In the same way, Ondimu (2018) found that the CBC wasn't being used well because there weren't enough in-service trainings, there weren't enough learning materials, there were a lot of records to keep, teachers didn't know how to use ICT, and parents didn't support it.

On whether the schools have implementation techniques to implement CBC in Kenya, the study revealed that there is no implementation techniques put in place for the CBC in Kenya. The school does not encourage communication and collaboration between teachers and learners and also do not use critical thinking methods of teaching and teachers apply common teaching methods including; questions and answer, demonstration. In the same way, Koskei and Chepchumba (2020) said that facilitators and trainers need to be trained well and consistently, and teachers need to be retrained and trained again so that the curriculum can be used well. In general, there is a link between being ready for school and how well the CBC is used in Kenyan primary schools. If the process is well executed students will be digitally literate, they will develop communication and collaboration skills and think critically.

#### **5.4 Conclusion**

On curriculum development practices the study concludes that curriculum development practices adversely affected the effective implementation of CBC because of its inherent inadequacies. The curriculum development practices were not done satisfactorily in the following aspects, adequate training of teachers on the appropriate teaching methods and CBC contents. The curriculum development practices also failed to provide for sufficient time for training teachers in addition to ensuring they receive continuous training for their professional development in relation to CBC. Moreover, the participation of parents who are key players in the education reforms was inadequate and thus limited the effective implementation of CBC since they did not work as a team with teachers in addition to providing the requisite learning materials to their children. Furthermore, lack of adequate involvement of parents in the development process adversely affected its effective implementation because the parents lacked the necessary skills and time needed to assist their children the CBC activities.



Regarding the relationship between physical structure and the implementation of CBC in Kenya the study reveals that physical infrastructure was a challenge to the effective implementation of CBC in Kenyan primary schools. For both public and private schools the main shortcoming of physical infrastructure in the effective implementation of CBC in Kenyan primary schools was inadequate instructional materials for teachers, failure to upgrade school facilities, insufficient ICT infrastructure, parents having inadequate ICT resources, schools having insufficient classrooms and desks, and schools failing to provide teachers with online open educational resources.

The study concluded that human capacity negatively affects the effective implementation of CBC. Important areas of human capacity that support the implementation of the curriculum were inadequate. For instance, parents lacked the necessary CBC skills and knowledge, there was inadequate regular in-service training, teachers lack sufficient ICT skills, insufficient teacher/pupil ratio, management of CBC workload, insufficient support staff members and management of CBC teaching quality. Human capacity plays a central role in the effective implementation of the curriculum because it is the channel of dissemination hence the need for it be adequately equipped and enabled.

On whether the schools have implementation techniques to implement CBC in Kenya, the study revealed that there were mixed findings concerning the relationship between implementation techniques and effective implementation of CBC in Kenya as show by the aggregate mean of 3.529 and its SD of 1.047. Some aspects of implementation techniques promoted the effective implementation of CBC while some other aspects derailed the effective implementation process. Private schools focused on improving its students' competencies, encourages communication & collaboration between teachers and learners, and application of common teaching methods including; questions and answer, demonstration unlike its public counterparts.

Lastly, the implementation of the CBC curriculum was moderately effective because the respondents moderately agreed to students having developed problem-solving skills, communication and collaboration skills, thinking critically, imaginatively and creatively, learning to learn and being digitally literate.

## **5.5 Recommendations**

The following sections presents the recommendations for policy and further research.

### **5.5.1 Recommendations for Policy**

The study made the following recommendations based on the findings of the study;

There is need for thorough review of the implementation requirements of CBC to ensure the curriculum is well implemented by all stakeholders particularly teachers, parents and students. For instance, teachers should be thoroughly trained on their roles in implementing the curriculum to ensure they fully understand and are aware of what is expected of them. On the other hand, parents should be sensitized on their role in curriculum as they ensure that children understand what they learn in the school and home settings. There have been concerns raised by parents about the curriculum being too involving to the extent of conflicting with their work life. There is need to come up with measures aimed at striking a balance between parent's work life and children's school life.

The study further recommends the swift provision of the requisite resources in all schools especially the public schools which are mainly government funded. Presently, there are issues of inequalities arising in the implementation of the new curriculum with some schools lacking sufficient number of teachers, school facilities and communication technologies for the implementation of the curriculum. Therefore, for the new curriculum to meet its desired objectives satisfactorily, there is need to ensure that resources are availed sufficiently to all schools.

Another recommendation is the need for provision of sufficient infrastructure, including telecommunication, internet, lighting, and security to schools to ensure the efficient implementation of the curriculum. Presently, information communication between the school and parents, and within the school requires internet services, and lighting and some schools lack these important infrastructure.

### **5.5.1 Recommendations for Further Research**

The focus of this study was the relationship between school preparedness and effective implementation of the CBC: a study of teacher's knowledge in Nairobi County. Other researchers can look into the same phenomena but in other counties. Moreover, the study focused on four factors of school preparedness, including; curriculum development practices, physical infrastructure, human capacity, and implementation techniques. The researchers recommends to future researchers to look at other aspects of school preparedness such as; the perception of parents and teachers on the concept of CBC, parents and teachers perception on the extent to

which CBC has been implemented in primary schools, and the challenges that primary schools encounter in the implementation of CBC. The study sample was 80 respondents only, future researchers can look at a larger sample size for comparability of findings.

There is also need for specific research focused on the views and knowledge of parents as well as the learners with regard to the CBC.

Finally, it is important to undertake continuous action research to enhance improvements in the CBC system.

## REFERENCES

- Abhijeet P (2018). Research design and its types: Exploratory, descriptive and causal. <https://notesmatic.com/2018/07researchdesign-and-types-exploratory-descriptive-and-causal/> Accessed 10/05/2019.
- Albanese, M.A., Mejjicano, G., Anderson, W.M. *et al.* Building a competency-based curriculum: the agony and the ecstasy. *Adv in Health Sci Educ* **15**, 439–454 (2010). <https://doi.org/10.1007/s10459-008-9118-2>
- Al-Fadel, Musa & Hassan, Ashshifaa (2016), The importance of training on the basic educational competencies needed by teachers of Arabic language in basic grades from their perspective, *Journal of Educational Sciences*. 17, (2): 133-152.
- Almanea, M. S. (2018). The Effect of using “Competencies Based Curriculum in Teaching” on Acquiring Tendencies towards Science Subjects Among Middle School Students, in the State of Kuwait. *European Journal of Social Sciences*, 56(3), 333-347.
- Amunga, J., Were, D., & Ashioya, I. (2020). The teacher-parent nexus in the competency based curriculum success equation in Kenya. *International Journal of Educational Administration and Policy Studies*, 12(1), 60-76.
- Bashnak (2017), the importance of competencies for teachers of social and national studies in the administration of education in the province of Namas from teachers’ perspective. *International Journal for Specialized Educational*. 6 (3):287-305.
- Borjas, G. J. (2013). *Labor economics*. 6. Ed. New York:
- Bristow, S. F., & Patrick, S. (2014). An International Study in Competency Education: Postcards from Abroad. Competency Works Issue Brief. *International Association for K-12 Online Learning*.
- Brown RB (2006). *Doing Your Dissertation in Business and Management: The Reality of Research and Writing*. Sage Publications.
- Creswell J (2012). *Educational research: Planning, conducting and evaluating quantitative*. Upper Sadle River, NJ: Prentice Hall.
- Dwi-Hatmanto, E. (2017). An evaluation of competency-based curricula implemented in the English language education programs in five universities in Indonesia.

- Esongo, N. M. (2017). Correlation between the Availability of Resources and Efficiency of the School System within the Framework of the Implementation of Competency-Based Teaching Approaches in Cameroon. *Journal of Education and Practice*, 8(2), 82-92.
- Gardner, A. (2017). The viability of online competency based education: An organizational analysis of the impending paradigm shift. *Journal of Competency-Based Education*, 2(4), 1-6.
- Hwande, E., & Mpfu, J. (2017). The Preparedness of Primary Schools to Implement the Grade 3 New Curriculum in Zimbabwe: Case study of Bulawayo Metropolitan Primary Schools.
- Hwande, E., & Mpfu, J. (2017). The Preparedness of Primary Schools to Implement the Grade 3 New Curriculum in Zimbabwe: Case study of Bulawayo Metropolitan Primary Schools. IBE-UNESCO 2017. The why, what and how of competency-based curriculum reforms: The Kenyan experience. Current and critical issues in curriculum, learning and assessment. *In Progress Reflection*, 11.
- Kabombwe, Y. M. & Mulenga, I. M. (2019). Implementation of the competency-based curriculum by teachers of History in selected Secondary Schools in Lusaka district, Zambia. *Yesterday and Today*, (22), 19-41. <https://dx.doi.org/10.17159/2223-0386/2019/n22a2>
- Kafyulilo, A. C., Rugambuka, B. I., & Moses, I. (2012). The implementation of competence based teaching approaches in Tanzania. *Makerere Journal of Higher Education*, 4 (2), 311-326.
- Kafyulilo, A. C., Rugambuka, I. B., & Moses, I. (2013). Implementation of Competency Based Teaching in Morogoro Teachers' Training College, Tanzania. *Makerere Journal of Higher Education*, 4(2), 311-326.
- Kilile, J., Mwalw'a, S. and Nduku, E. (2019). Challenges Facing Early Childhood Development Education Centres in the Implementation of the Competency Based Curriculum in Mwingi West Sub- County, Kitui County. *INTERNATIONAL JOURNAL OF EDUCATION THEORY AND PRACTICE*. 2, 3 (Oct. 2019), 36-37.
- Kimosop, H. (2019). Teacher Preparedness in the Implementation of Early Childhood Education Development Curriculum in Kenya: A Case of Baringo North Sub County Kenya. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*. vol. 24 (02), pp. 44-50.

- Kimosop, H. (2019). Teacher Preparedness in the Implementation of Early Childhood Education Development Curriculum in Kenya: A Case of Baringo North Sub County Kenya. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*. vol. 24 (02), pp. 44-50.
- Kisirkoi, Florence, and Kamanga, Angela Ndunge. (2018), Continuous Teacher Professional Support for Effective Implementation of Basic Education Curriculum Framework. In: *Education Quarterly Reviews*, Vol.1, No.2, 309-317.
- Koskei, B. K., & Chepchumba, E. (2020). Teachers' competency As\_A\_Cornerstone\_On\_The\_Implementation\_Of\_Compentency-Based Curriculum in Kenya. A Case of Lower Primary Schools in Nakuru County.
- Koskei, B. K., & Chepchumba, E. (2020). Teachers' competency as a Cornerstone on the Implementation of Competency-Based Curriculum in Kenya. A Case of Lower Primary Schools in Nakuru County. *International Journal of Education and Research* Vol. 8 No. 2.
- KTN News. (2021, September 25). CBC AUDIT: HOW CBC CREATED A GAP OF INEQUALITY IN EDUCATION FOUR YEARS AFTER IT WAS ROLLED OUT. <https://www.youtube.com/watch?v=rOYTUZZLVYU&t=1320s>
- Kya, H. E. and Huang, F. (2019). Community awareness for competency based curriculum: A case study of parents of public secondary students in Arusha, Tanzania, *International Journal of Academic Management Science Research*, and Vol. 3 No. 3.
- Lawton R (2017).Parents' and teachers' perceptions of parental involvement components in after school tutoring. <https://scholarworks.walden.edu/dissertation>.
- Leicht, A., Heiss, J., & Byun, W. J. (2018). *Issues and trends in education for sustainable development* (Vol. 5). UNESCO Publishing.
- Makunja, G. (2015). Adopting competence-based curriculum to improve quality of secondary education in Tanzania: "is it a dream or reality"?
- Makunja, G. (2016). Challenges facing teachers in implementing competence based curriculum in Tanzania: The case of community secondary schools in Morogoro Municipality, *International Journal of Education and Social Science*, Vol. 3. No. 5.
- Mandillah, L. (2019). Kenyan curriculum reforms and mother tongue education: Issues, challenges and implementation strategies. *Education as Change*, 23(1), 1-18.

- Mandukwini, N. (2016). *Challenges towards curriculum implementation in high schools in Mount Fletcher district, Eastern Cape* (Doctoral dissertation).
- Mbarushimana, N., & Kuboja, J. M. (2016). A paradigm shift towards competence-based curriculum: The experience of Rwanda. *Saudi Journal of Business and Management Studies*, 1(1), 6-17.
- Ministry of Devolution and Planning, (2017, June). Implementation of the Agenda 2030 for Sustainable Development in Kenya. <https://sustainabledevelopment.un.org/content/documents/15689Kenya.pdf>
- Mkonongwa, L. M. (2018). Competency-Based Teaching and Learning Approach towards Quality Education. *Dar es salaam University College of Education (DUCE)*.
- Mokoro, D. K. (2020). Perception of Teachers on their Preparedness for Implementation of the Competence-based Curriculum among Secondary Schools in Arumeru District, Tanzania. *East African Journal of Education and Social Sciences (EAJESS)*, 1(2), 109-117.
- Momanyi, J. M., & Rop, P. K. (2020). Teacher Preparedness for the Implementation of Competency Based Curriculum in Kenya: A Survey of Early Grade Primary School Teachers' in Bomet East Sub-County. *The Cradle of Knowledge: African Journal of Educational and Social Science Research*, 7(1), 10-15.
- Momanyi, J. M., & Rop, P. K. (2020). Teacher Preparedness for the Implementation of Competency Based Curriculum in Kenya: A Survey of Early Grade Primary School Teachers' in Bomet East Sub-County. *The Cradle of Knowledge: African Journal of Educational and Social Science Research*, 7(1), 10-15.
- Momentum schools.org and Oklahoma public school Resource Centre (2017).
- Moodley, V 2013. In-service teacher education: Asking questions for higher order thinking. *South Africa Journal of Education*, 33(2):1-18.
- Muasya, E. W. and Waweru, S. N. (2019). Constraints Facing Successful Implementation of the Competency-Based Curriculum in Kenya. *American Journal of Educational Research*; 7(12):943-947. Doi: 10.12691/education-7-12-8
- Muneja, M. S. (2015). *Secondary School teachers' implementation of the competency-based curriculum in the Arusha Region, Tanzania* (Doctoral dissertation, University of South Africa).

- Muthoka, B. N. (2017). *School-related factors influencing effective implementation of primary school curriculum in Nguu division, Makueni County, Kenya* (Doctoral dissertation).
- Muthoka, B. N. (2017). *School-related factors influencing effective implementation of primary school curriculum in Nguu division, Makueni County, Kenya* (Doctoral dissertation). South Eastern Kenya University.
- Mwaniki, S. and Aloyo, P. (2020). Actualization of Competency Based Curriculum: Influence of Schools' Physical Environment on Attainment of Learning Outcomes in Kenya. *International Journal of Advanced Research Int. J. Adv. Res.* 8(04) (04):788-802
- Mwanza, C 2017. *Teacher involvement in curriculum development in Zambia: A role analysis of selected Secondary School teachers in Lusaka Urban*. MEd dissertation, University of Zambia.
- Mwarari, C. N., Githui, P., & Mwenje, M. (2020). Parental Involvement in the Implementation of Competency Based Curriculum in Kenya: Perceived Challenges and Opportunities.
- Ndiritu, A., & Gatotoh, A. (2020). Information and Communication Technology skills for Effective Competence Based Curriculum Implementation in Kenya. *Advances in Social Sciences Research Journal*, 7(6), 712-721. <https://doi.org/10.14738/assrj.76.8544>
- Njeru, M. (2015). Parents as participants in their children's learning: A tall order for parents in rural Kenya. *Journal of Adolescent & Adult Literacy*, 58(5), 368-371.
- Nnabuo, P. O., & Asodike, J. D. (2012). Exploring education as a tool for sustainable development in Nigeria. *European Scientific Journal*, 8(10).
- NTV Kenya (2021, June 29). Discussion: Is Kenya's CBC, Competency Based Curriculum, working? | #WADR. <https://www.youtube.com/watch?v=EFldY9ncrgA&t=28s>
- O'Flaherty, J., & Liddy, M. (2018). The impact of development education and education for sustainable development interventions: a synthesis of the research. *Environmental Education Research*, 24(7), 1031-1049.
- OECD (2016), PISA 2015 Results (Volume II): Policies and Practices for Successful Schools, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/9789264267510-en>.
- Ogden J, Cornwell D (2010). The role of topic, interviewee, and question in predicting rich interview data in the field of health research. *Sociology of Health and Illness* 32(7):1059–71.



- Omollo, G. O., Odongo, B. C., & Raburu, P. A. (2016). School-based factors affecting the teaching of Kiswahili in public pre-schools in Kasipul division, Rachuonyo south sub-county, Homabay County. *International Journal of Education and Research* Vol. 4 No. 3.
- Ondieki, C., Kimani, G. N., & Tanui, E. K. (2018). Deficiencies of Competency Based Education and Training in Higher Education Institutions in Kenya. *Scholars Journal of Arts, Humanities and Social Sciences*.
- Ondimu, S. M. (2018). *Teachers' Preparedness for Implementation of the Competency Based Curriculum in Private Pre-schools in Dagoretti North Sub-county, Nairobi City County* (Doctoral dissertation, university of Nairobi).
- Ondimu, S. M. 2018. Teacher preparedness for the implementation of the competency based curriculum in private pre-schools in North Dagoreti Sub County, Nairobi City County. Nairobi.
- Onyango, O. T. (2017). School Based Factors Affecting Implementation Of Kiswahili Curriculum In Primary Schools In Homa Bay County, Kenya. *Master's Thesis*, Kenyatta University.
- Pamies, J., Blanco, A., Villanueva, M., & Granados Sanchez, J. (2015). The introduction of a competence-based curriculum in Spain: From the Primary School to the training of teachers. *E-Pedagogium*, (2).
- Pašić, M. (2020). *Education policy development in post-conflict contexts and its effect on achieving sustainable peace: the case of Bosnia and Herzegovina* (Doctoral dissertation, University of Sussex).
- Paulo, A. (2014). Pre-service Teacher Preparedness to Implement Competency-Based Curriculum in secondary schools in Tanzania. *International Journal of Education and Research*. 4 (3), 100-107.
- Paulo, A. (2014). Pre-service Teacher Preparedness to Implement Competency-Based Curriculum in secondary schools in Tanzania. *International Journal of Education and Research*. 4 (3), 100-107.
- Pridāne, A. (2017, May). The Study on Competence-Based Curriculum Implementation in the Subject Home Economics and Technologies. In *Rural Environment. Education. Personality. Proceedings of 10th international scientific conference*.

- Rahman, M.M. and Pandian, A. and Kaur, M. (2018). Factors Affecting Teachers Implementation of Communicative Language Teaching Curriculum in Secondary Schools in Bangladesh, *The qualitative Report*. 23 (5) 1104-1126.
- Republic of Kenya (2017). Basic education curriculum framework. Nairobi: Kenya Institute of Curriculum Development.
- Rieckmann, M. (2017). *Education for sustainable development goals: Learning objectives*. UNESCO Publishing.
- Rieckmann, M. (2018). Learning to transform the world: key competencies in Education for Sustainable Development. *Issues and trends in education for sustainable development*, 39.
- Ruth, C., & Ramadas, V. (2019). The "Africanized" Competency-Based Curriculum: The Twenty-First Century Strides. *Shanlax International Journal of Education*, 7(4), 46-51.
- Saunders M, Lewis P, Thornhill A (2012). *Research Methods for Business Students*. 6<sup>th</sup> edition, Pearson Education Limited.
- Sifuna, D. N & Obonyo, M. M. (2019). Competency Based Curriculum in Primary Schools in Kenya - Prospects and Challenges of Implementation. *Journal of Popular Education in Africa*. 3(7), 39.
- Sossion, W. (2017). Teacher preparedness for the implementation of the competency-based curriculum in preprimary and lower primary grades in Kenya. Nairobi Kenya National Union of Teachers.
- Sotco, K. and Mwandanji, M. "Reflections on the Implementation of Competency based Curriculum in Tanzania Secondary Schools." *Journal of Education and Learning*, vol. 4, no. 2, 2015, pp. 73-80.
- Stabback, P. (2016). What makes a quality curriculum? In-Progress Reflection No. 2 Paris: UNESCO.
- Suyanto, S. (2017). *A reflection on the Implementation of a New Curriculum in Indonesia: A crucial problem on School Readiness*. Indonesia: AIP Publishing.
- Syomwene, A. (2013). Factors affecting teachers' implementation of curriculum reforms and educational policies in schools: The Kenyan experience.

- Tambwe, M. A. (2019). Challenges Facing the Implementation of a Competency-Based Education and Training (CBET) System in Tanzanian Technical Institutions. *Education in Tanzania in the Era of Globalization: Challenges and Opportunities*, 242.
- Tikkanen, L., Pyhältö, K., Pietarinen, J., & Soini, T. (2019). Lessons learnt from a large-scale curriculum reform: The strategies to enhance development work and reduce reform-related stress. *Journal of Educational Change*, 1-25.
- UNDP-Kenya. (n.d.). What are the Sustainable Development Goals? <https://www.ke.undp.org/content/kenya/en/home/sustainable-development-goals.html>
- Waweru, W. J. (2018). Influence of teacher preparedness on the Implementation of Competency Based Curriculum in public primary school in Nyandarua North Sub County, Kenya.
- Waweru, W. J. (2018). Influence of teacher preparedness on the Implementation of Competency Based Curriculum in public primary school in Nyandarua North Sub County, Kenya.
- Zheng, X and Boig, S 2014. Task-based learning and teaching in China: Secondary school teachers". Beliefs and practices. *Language Teaching Research*, 18(2), 205-221.

## **APPENDICES**

### **APPENDIX 1: LETTER REQUESTING PARTICIPATION OF RESPONDENTS**

ANNRITA KURIA  
UNIVERSITY OF NAIROBI,  
P.O.BOX 30169 NAIROBI.

DATE

UNIVERSITY OF NAIROBI,  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION & PLANNING  
P.O.BOX 30169 NAIROBI.

Dear Sir/ Madam,

The study aims to examine “the relationship between school preparedness and effective implementation of the CBC: a study of teacher’s knowledge in Nairobi County”. The researcher has decided to ask you to take part in their study. Input from people like you is crucial to the success of this research. Please follow the instructions carefully and return the completed questionnaire. We will value your candor and willingness to cooperate. Respondents' identities will be kept strictly confidential.

Yours Sincerely,  
ANNRITA KURIA

## **APENDIX 2: INTRODUCTION LETTER**



UNIVERSITY OF NAIROBI  
INSTITUTE FOR DEVELOPMENT STUDIES

Telephone: 254-20-491-0000  
Fax: 254-020-22036

P.O.Box30197,  
00100,Nairobi, Kenya  
Mobile:+254-772-114-655  
E-Mail:[director-ids@uonbi.ac.ke](mailto:director-ids@uonbi.ac.ke)

July 26, 2021

Chief Executive Officer  
National Commission for Science, Technology and Innovation (NACOSTI)  
P.O Box 30623 – 00100  
NACOSTI Headquarters – Waiyaki Way  
Nairobi, Kenya  
Tel: 020 -3310571

Dear Sir,

**RE: LETTER OF INTRODUCTION AND SUPPORT – ANNRITA KURIA.**

Ms. Annrita Kuria is a Master of Development Studies Student at the Institute for Development Studies (IDS), University of Nairobi. She is scheduled to carry out data collection for her study in 'Relationship between school preparedness and effective implementation of the competency based curriculum: A study of teacher's knowledge in Nairobi County.' The student will carry out the data collection in Nairobi City County in the months of August and September 2021.

She has applied for her research permit and would appreciate if you give the permit so that she can collect the data for her studies.

The purpose of this letter is to introduce Ms. Kuria to you. Her details are as follows:

Registration No: T51/12262/2018  
Research Title: Relationship between school preparedness and effective implementation of the competency based curriculum: A study of teacher's knowledge in Nairobi County.  
Research Site: Nairobi County  
Duration of Study: Two Weeks  
National ID: 27809286

Thank you very much in advance.

Yours sincerely,

Prof. Karuti Kanyinga  
Research Professor  
Institute for Development Studies (IDS)  
Email: [karuti.kanyinga@uonbi.ac.ke](mailto:karuti.kanyinga@uonbi.ac.ke)  
Tel:+254-722-570-496

**APENDIX 3: QUESTIONNAIRE FOR TEACHERS**

The questionnaire attempts to examine “the relationship between school preparedness and effective implementation of the CBC: a study of teacher’s knowledge in Nairobi County”. All information provided will be kept strictly confidential and used only for research. We need your complete candor in answering these questions. When you find the correct option (v), please mark it.

**Section one: Background Information**

- 1. What is your age bracket?  
20-30  31-40  41-50  51 – 60  Above 61
- 2. How many years have you been a teacher in primary school(s)?  
0-5  6-10  Over 10 years
- 3. What category of school are you currently teaching in?  
Private  Public
- 4. Which class/grade to do you teach?.....

**Section B: The relationship between curriculum development practices and the effective implementation of CBC in Kenyan primary schools**

- 5. Do you think that the curriculum development process was well-executed?  
Yes [  ]  
No [  ]  
Please explain your answer  
.....  
.....  
.....  
.....

- 6. What is your level of agreement with the following statements that relate to the relationship between curriculum development practices and the effective implementation of CBC in Kenyan primary schools? Use a scale from 1 to 5 with 1 representing strongly disagreeing and 5 representing strongly agreeing. A positive median on the Likert scale, as suggested by Kothari (2004) and Sekaran (2006), is defined as being greater than 60%. A score of 60%, which corresponds to a median of 3 on this scale, will be seen as a favorable outcome, whereas a score of 60% or less will be interpreted as a negative result.

Statements	1	2	3	4	5
Teachers were adequately trained in the recommended teaching methods					
Teachers were adequately trained on the CBC contents					
Teacher training was undertaken for sufficient periods					
Parents as education stakeholders' were adequately involved and participated in the curriculum reform process					
Parents work as co-educators with teachers					
Parents provide learning materials for practical sessions					
Implementing inquiry-based learning strategies into existing curricula is supported by a continuing professional development programme delivered via remote learning					
Parents have adequate skills and knowledge to assist their children					
Parents have adequate time to assist their children					

**Section C: The relationship between physical infrastructure and the effective implementation of CBC in Kenyan primary schools**

7. Do you think that schools have adequate physical infrastructure to implement CBC in Kenya?

Yes [      ]

No [      ]

Please explain your answer

.....

.....

.....

8. How much do you agree with the following claims about how school facilities affect the success of implementing CBC in Kenyan primary schools? You can rate your agreement or disagreement using a scale from 1 to 5, where 1 means you strongly disagree and 5 means you agree without reservation.. A positive median on the Likert scale, as suggested by Kothari (2004) and Sekaran (2006), is defined as being greater than 60%. A score of 60%, which corresponds to a median of 3 on this scale, will be seen as a favorable outcome, whereas a score of 60% or less will be interpreted as a negative result.



Statements	1	2	3	4	5
There is adequate approved instructional materials for teachers					
There is adequate approved learning materials for learners					
School facilities were upgraded to cater for the CBC requirements such as computer labs, library, and internet					
Schools have sufficient ICT infrastructure such as computers, smartphones					
Parents have adequate ICT resources to cater for CBC resource requirements					
The schools have sufficient classrooms and desks					
Schools provide teachers with online open educational resources to enhance their competencies in CBC					
Fields for physical educational activities					
Co-curricular infrastructure e.g. agriculture clubs, scouting					

**Section D: The relationship between human capacity and the effective implementation of CBC in Kenyan primary schools**

9. Do you think that schools have adequate human capacity to implement CBC in Kenya?

Yes [     ]

No [     ]

Please explain your answer

.....

.....

.....

10. How much do you agree with the following statements about the relationship between human capacity and the efficient implementation of CBC in Kenyan primary schools? Rate your level of agreement or disagreement using a scale from one to five, with one signifying a strong disagreement and five a strong agreement. A positive median on the Likert scale, as suggested by Kothari (2004) and Sekaran (2006), is defined as being greater than 60%. A score of 60%, which corresponds to a median of 3 on this scale, will be seen as a favorable outcome, whereas a score of 60% or less will be interpreted as a negative result.

Statements	1	2	3	4	5
Parents have adequate knowledge and skills to assist their children with CBC requirements					
Teachers receive frequent in-service training to ensure they have the tools they need to successfully administer a competence-based curriculum.					
Teachers have sufficient ICT skills					
The schools have sufficient teacher/pupil ratio					
School staff have a high understanding of the CBC concept					
School staff can manage the CBC workload					
Schools have sufficient support staff members					
School management ensures quality is maintained in teaching CBC					

**Section E: The relationship between implementation techniques and the effective implementation of CBC in Kenyan primary schools**

11. Do you think that schools have adequate implementation techniques to implement CBC in Kenya?

Yes [     ]

No [     ]

Please explain your answer

.....

.....

.....

12. How much do you agree with the following statements about the connection between implementation strategies and successful rollout of CBC in Kenyan primary schools?

You can rate your agreement or disagreement using a scale from 1 to 5, where 1 means you strongly disagree and 5 means you agree strongly. A positive median on the Likert scale, as suggested by Kothari (2004) and Sekaran (2006), is defined as being greater than 60%. A score of 60%, which corresponds to a median of 3 on this scale, will be seen as a favorable outcome, whereas a score of 60% or less will be interpreted as a negative result.

Statements	1	2	3	4	5
The school focuses on enhancing students competencies					
The school encourages communication & collaboration between teachers and learners					
Teachers use critical thinking methods of teaching					
Teachers use problem solving methods of teaching					
Students are encouraged to be creative and imaginative					
Teachers apply common teaching methods including; questions and answer, demonstration					
Students are taught digital literacy					

### Section F: Effective implementation of CBC in Kenyan primary schools

13. When it comes to the amount to which CBC has been successfully implemented in Kenyan primary schools, how much do you agree with the following statements? You can rate your agreement or disagreement using a scale from 1 to 5, where 1 means you strongly disagree and 5 means you agree strongly. A positive median on the Likert scale, as suggested by Kothari (2004) and Sekaran (2006), is defined as being greater than 60%. A score of 60%, which corresponds to a median of 3 on this scale, will be seen as a favorable outcome, whereas a score of 60% or less will be interpreted as a negative result.

Statements	1	2	3	4	5
Students have developed communication and collaboration skills					
Students think critically					
Students have developed problem solving skills					
Students are imaginative and creative					
Students are self-sufficient					
Students learn to learn instead of just passing exams					
Students are digitally literate					

**THANKYOU FOR YOUR INPUT AND COOPERATION!!**

**APPENDIX 4: INTERVIEW SCHEDULE**

The interview attempts to examine the relationship between school preparedness and effective implementation of the CBC: a study of teacher’s knowledge in Nairobi County. The information given shall be used purely for research purposes and nothing else. So please be very honest in answering each of these questions.

- 1. Please describe your views on the CBC curriculum development process. Do you think it was effective or not effective? (Please explain).

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- 2. In your opinion, are there factors of curriculum development practices affecting the implementation of CBC in Kenyan primary schools? Have the factors promoted the effective or ineffective implementation of the CBC? Please explain.

.....  
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- 3. Physical infrastructure are important for curriculum implementation. How would you describe the state of physical infrastructure for the implementation of CBC in Kenyan primary schools? Please explain.

.....  
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- 4. In your opinion, which factors of physical infrastructure mostly affect the effective implementation of CBC in Kenyan primary schools? How did the factors affect the effective implementation of CBC in Kenyan primary schools? Please explain.

.....  
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.....

- 5. Do you think human capacity plays a role in the implementation of CBC in Kenyan primary schools? Please explain.

.....  
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6. In your opinion, do curriculum implementation techniques affect a curriculum implementation process? Please explain.

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7. Was CBC implementation process affected by curriculum implementation techniques in Kenya? Please explain.

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8. What are the indicators of an effectively implemented curriculum? What are the indicators that CBC has been effectively implemented in Kenya? Please explain.

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**THANKYOU FOR YOUR INPUT!!**

## APPENDIX 5: PROJECT WORK PLAN

Phases	Time Frame	Activity
Phase 1	April 2020	<ul style="list-style-type: none"><li>• Exploration of Initial Ideas</li><li>• Visitation to Library</li><li>• Reading of Literature</li><li>• Preparation and Submission of Concept Paper</li></ul>
Phase 2	May- June 2021	<ul style="list-style-type: none"><li>• Development of full Proposal</li><li>• Proposal Defense</li><li>• Designing of data collection instruments and analysis techniques</li></ul>
Phase 3	July-August 2021	<ul style="list-style-type: none"><li>• Undertaking small Pilot project</li><li>• Evaluation of pilot project</li><li>• Data collection and Field work</li><li>• Checking data collection instruments for completeness and consistency</li><li>• Data entry</li></ul>
Phase 4	August 2021	<ul style="list-style-type: none"><li>• Analysis of Data</li><li>• Interpretation of results</li></ul>
Phase 5	September – October 2021	<ul style="list-style-type: none"><li>• Compilation of final project</li><li>• Submission of Final Project</li></ul>

## APPENDIX 6: PROJECT BUDGET

<b>Budget Item</b>	<b>Sub-item</b>	<b>Amount in KES.</b>	<b>Sub- Total in KES.</b>	<b>Justification</b>
<b>Proposal Development</b>	Printing of full proposal	8,000		To seek approval to undertake the study from the project supervisor in good time
	Printing of data collection instruments	5,000		
			<b>10,000</b>	
<b>Field Work</b>	Travel cost to and from data collection locations	5,000		For actual collection of data in the field
	Accommodation and Food for two days	10,000		
	Commuter cost from hotel to Study area	4,000		
	Personnel-Data Collection Assistant	15,000		The nature of the study requires significant effort in survey administration e.g. distribution and collection of questionnaires throughout the various departments in the organisation
<b>Data Entry and Analysis</b>	Personnel- Research Assistant	10,000		To assist in coding of questionnaires, data entry, data management and analysis of data
			<b>44,000</b>	

<b>Printing, Photocopying and Binding of Project Report</b>	Printing 2 copies and Binding of Project Report	2,500		
			<b>2,500</b>	
Total Direct Expense			57,500	
<b>Miscellaneous (10% of total direct expense)</b>			5,750	
<b>Total Project Expense</b>			<b>63,250.</b>	