INFLUENCE OF TEACHER CHARACTERISTICS ON THE IMPLEMENTATION OF COMPETENCY BASED CURRICULUM IN PRIMARY SCHOOLS IN MOLO SUB-COUNTY, NAKURU COUNTY, KENYA

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A Research Thesis Submitted to the Department of Postgraduate Studies in Education in Partial Fulfillment of the Requirements for the Award of a Master's Degree in Educational Administration and Planning of the Catholic University of Eastern Africa, Kenya

CATHOLIC UNIVERSITY OF EASTERN AFRICA

SEPTEMBER, 2023

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DECLARATION

This thesis is my original work and has not been submitted in this or any other University/Institution for the award of any degree. The information cited from any other relevant sources has been duly acknowledged.

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DEDICATION

I dedicate this study to the African Sisters Education Collaborative (ASEC), my religious congregation of the Little Sisters of St. Francis (LSOSF), Sr. Alice Wanjiku my Superior, Sr. Basilisa Namikoye, my community members, my dad, my brothers, sisters and all my friends.

ACKNOWLEDGEMENTS

I express my gratitude to Almighty God for His guidance, protection and wisdom that has helped me throughout my study. My sincere and profound appreciation goes to Rev. Prof. Marcella Momanyi and Dr. Peter Koros my research supervisors, for their scholarly contributions, guidance, enthusiastic encouragement, rich and useful critiques of this research work.

In a special way, I am grateful to the African Sisters Education Collaborative (ASEC) for paying all my education fees and providing the necessary resources for my studies. I appreciate my religious congregation, the Little Sisters of St. Francis (LSOSF) through Sr. Alice Wanjiku my Regional Superior, for giving me an opportunity to study. My gratitude goes to my head teacher and St. Peter's Girls Boarding School, where I work, for their understanding and immense support throughout the research period. I thank all the primary school teachers and head teachers who agreed to participate in the study and provided key valuable information needed for analysis and writing this Thesis.

I thank my father, my brothers and sisters for encouraging me in my studies. Many thanks to my best friend and confidant Sr. Basilisa Namikoye for giving me the necessary support I needed during my studies. I sincerely acknowledge my colleagues and friends for their unwavering support, guidance and encouragement throughout my study.

I am really indebted to so many who helped me in different ways to make this work successful. Feel appreciated. I earnestly pray for you all. May God bless you!

ABSTRACT

The study examined the influence of selected teacher characteristics on the implementation of competency curriculum (CBC) in primary schools in Molo sub-county, Nakuru County, Kenya. The following research questions guided the study: How do teacher qualifications influence implementation of Competency Based Curriculum in primary schools? To what extent do teacher technical skills influence competency curriculum in primary schools? To what extent do teacher competency-based pedagogy influence the implementation of Competency- Based Curriculum in primary schools? To what extent do teachers encounter challenges when implementing CBC in primary schools? What strategies should be put in place to address challenges of curriculum implementation in primary schools? The Gross Theory of Curriculum Implementation guided the study. This study adopted mixed methods design, specifically convergent design incorporated qualitative phenomenological design and quantitative cross-sectional survey design. The study population included 83 schools, 83 head teachers, and 830 teachers in Molo sub- County. Stratified and simple random samplings were used to select 165 teachers, purposive sampling was used to select 17 head teachers, and stratified and systematic random samplings were used to sample 17 schools. The data collection tools included questionnaires, interviews, and observation checklist all validated for content and face validity. The questionnaires demonstrated high reliability with a Cronbach Alpha coefficient of 0.902. Trustworthiness of qualitative tools was established. Descriptive statistics; frequencies, means, and percentages were employed to analyze quantitative data, facilitated by the Statistical Packages for Social Sciences (SPSS) software version 28. Qualitative data was thematically analyzed using Creswell (2017) six steps. For inferential analysis, linear regression and correlation techniques were employed, with hypotheses tested at $\alpha = 0.05$. Results indicated that teacher qualifications, technical skills, and CBC pedagogy are favorably perceived by Molo sub- county teachers, with an aggregate mean score of 4. Spearman's rank correlation established statistically significant relationships between teacher qualifications, technical skills, CBC pedagogy, and CBC implementation ($r = 0.424$, $p < 0.05$; $r = 0.254$, $p < 0.05$; $r = 0.373$, $p < 0.05$). Linear regression analysis affirmed substantial predictive associations between teacher qualifications, technical skills, and CBC implementation ($\beta = 6.409$, $p < .001$; $\beta = 9.418$, $p < .001$; $\beta = 5.447$, $p < .001$). The study's findings underscore the interrelated roles of teacher qualifications, technical skills, and CBC pedagogy in the successful implementation of the Competency-Based Curriculum The study recommended that; the national and county governments and the Ministry of Education, need to prioritize the development and enforcement of teacher qualifications, technical skills, CBC pedagogy, and school implementation strategies for effective CBC implementation. These policies will contribute to enhancing the quality of education and ensuring successful implementation of the Competency-Based Curriculum.

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ABBREVIATIONS AND ACRONYMS

ASEC:	African Sisters Education Collaborative
BOM:	Board of Management
CBC:	Competency Based Curriculum
CBAM:	Concerns Based Adoption Model
GoK:	Government of Kenya
ICT:	Information and Communications Technology
KICD:	Kenya Institute of Curriculum Development
LSOSF:	Little Sisters of St. Francis
LoU:	Level of Use
MoE:	Ministry of Education
NACOSTI**:**	National Commission for Science Technology and Innovation
RoK:	Republic of Kenya
SPSS:	Statistical Package for the Social Sciences
SoC:	Stages of Concern
TSC:	Teachers Service Commission

CHAPTER ONE

INTRODUCTION

This chapter provides a comprehensive overview of the study's background, including the statement of the problem, research questions, and hypotheses. Additionally, it presents the study's significance, scope and delimitation, along with the conceptual framework and operational definitions of key terms. This consolidated chapter serves as a fundamental preamble, setting the stage for the ensuing research investigation.

1.1 Background to the Study

The changing economic and technical landscape and job demand for digital skills have forced adjustments in school teaching and learning (Ismail & Hassan, 2019). Globally, there is a need to equip learners with competencies and skills needed to cope with an emerging dynamic society and the need to achieve personal as well as social development. These changes demands that the education system should always change to accommodate the changing needs of the learner, the community and the society. Education systems globally have been changing to accommodate the changing environment. Countries like Finland, Denmark, USA, South Africa introduced Competency Based Curriculum. These countries have had varying outcomes. For example, Finland implementation was Successful but South Africa had challenges.

Since it emphasizes learning applicable skills and competencies, the Competency Based Curriculum (CBC) is recommended for school children (Curry & Docherty, 2017). CBC emphasizes the totality of a student's education (Henri, Johnson & Nepal, 2017). Competency means using the right abilities, knowledge, and values to execute a task. According to Akala (2021), CBC focuses on equipping the learner with attitudes required in coping and overcoming life challenges. Most significantly, the curriculum encourages learners to collaborate, take initiative, and improve their skills and values.

Since the 1970s, when USA first came up with the curriculum it has been evaluated and researched and still remains an area of interest (Hernandez, 2018). The curriculum aimed to assist students learn descriptive skills, accuracy in measurement, behavior change, and important knowledge to be relevant in the dynamic society. Students had to attain these goals at various points in their education levels.

CBC started to spread to other nations after making substantial progress and achieving the stated goals. UK and Germany adopted CBC from the US. It spread worldwide after being introduced in Australia in the 1990s. South Africa adopted the curriculum in 1998, dividing education into three levels: general education and training, further education and training, and higher education and training. CBC adoption worldwide is driven by new technology and the need for market-ready graduates.

Mulenga & Kabombwe (2019) examined CBC in Zimbabwe from 2013 to 2017 when the review and implementation began. In the study, Mulenga & Kabombwe (2019) provided and in-depth historical as well as fundamental premise of CBC. The work claims that CBC design is more complicated than it seems in theory. Thus, for any education system like CBC to succeed, teachers need to know the curriculum's key principles. Most significantly, CBC teachers must have the necessary skills and mindset to teach CBC. The study suggests that teachers and teacher educators need in-service training to understand the Competency-Based Curriculum before implementing it.

Mukunja (2016) examined Tanzanian community secondary school teachers' CBC implementation challenges. The study stressed the significance of incorporating teachers during design and curriculum review to overcome teacher-related obstacles to CBC implementation. According to Mukunja (2016), involving teachers in the curriculum formulation stages would allow teachers to gain the necessary content knowledge for the curriculum's successful implementation.

In Uganda, Mubangizi et al. (2016) observed that the lack of textbooks, teaching materials, and teacher training hindered CBC implementation. A number of studies at the regional have identified CBC implementation challenges in African countries. Insufficient resources and infrastructure make CBC implementation difficult.

Kenya segregated education by race: European, Asian, and African. This shows racial ideology shaped education. Asians were educated for middle-class jobs like artisanship, trade, and vocation, while Africans were trained for manual labor for whites and Asians. However, Europeans received specialized training preparing them for leadership. After independence in 1963, Kenya established educational commissions to restructure the education sector to reflect its physical, political, social, and economic realities and challenges. The first commission, the Ominde Commission, stated that education must foster national unity and a sense of nationhood. From the recommendations of Ominde Commission, between 1964 and 1985, the 7-4-2-3 system was adopted. However, the system did not include the "pre-primary" schooling. The 7-4-2-3 system was criticized to lack technical skills and produced a work force that was unfit for a developing nation (Agonga & Muhingi, 2020).

Because of the growing dissatisfaction with the 7-4-2-3 system, the Mackay Commission was formed in 1981 and proposed an 8-4-4 educational system to orient youths towards self-employment. However, the system placed an additional burden on teachers and students with limited learning resources. Most teachers lacked the necessary training to teach some vocational and pre-technical subjects. Later, the 8-4-4 education system was criticized for being too broad, costly, and burdensome for students and parents (Inyega, Arshad-Ayaz, Naseem, Mahaya, & Elsayed).

The KICD launched the Competency-Based Curriculum in 2018 in response to criticism of the 8-4-4 system. Since then, the government has been in the process of implementing it through various stakeholders. The roll out of curriculum design and school

infrastructure upgrades have been implemented to ease the transition and ensure successful implementation.

In response to a 2016 Kenya Institute of Curriculum Development (KICD) task force report that recommended replacing the 8-4-4 system with a Competency-Based option, the Kenyan government launched CBC in 2017 to increase regional and global job market competition. This was motivated by the desire to increase regional and worldwide job market competition (GoK, 2016). The necessity to integrate the education system with vision 2030 also spurred the reform. Kenya's vision 2030 includes science, innovation, and technology in education improvements. Kenya's CBC focuses on early talent identification, national values, and a national assessment system that targets different learning stages (KICD, 2018).

The Kenyan government has been making reforms to help the 8-4-4 system transition to CBC. Improved Public school infrastructure, CBC-aligned syllabus resources, and teacher training have been key areas of intervention (KICD, 2021). In 2019, 181 master trainers, 1,165 curriculum support officers, and 1,320 CBC champions were trained (Amunga, Were & Ashioya, 2020). By the end of year 2019, over 91,000 teachers had been trained on CBC through a multi-sectorial approach and there plans to extend the training (KICD, 2021).

Teachers' characteristics affect the success of a new curricula, according to previous studies. Gross theory proposed that a lack of skills, knowledge, in-service training, and peer support for teachers' new role in "open learning" could jeopardize curriculum implementation. Pollino, (2020) analyzed status of Belgium’s CBC implementation. They found out that a competency-based transition works best when the teacher guides learning and competency development. Teachers need qualifications and technical skills to implement competency-based curriculum, the authors claimed. The study also found out that parents and the Board of Management (BOM) are needed to implement CBC successfully.

Momanyi and Rop (2020) Kenyan study on teacher preparedness for CBC implementation indicated that teachers' comprehension of CBC concept was unclear, which affected delivery and evaluation of learners. There were also questions on whether teachers have the right attitude and readiness to implement the program (Silas, 2020). As Kenya implement the curriculum, certain concerns remain unresolved.

Kenyans were divided over CBC's introduction. Teachers, parents, and children applauded the move, but some were skeptical of the new approach. Owino (2019) found out that teachers were concerned about lack of training and support for CBC implementation and the workload involved in assessing students' competencies. Wambui (2019) found that Kenyan parents and students supported CBC because they believed it would deliver a more practical and relevant education for learners.

Despite concerted efforts, there remains a limited understanding of how teacher characteristics influence (CBC) implementation. It is noteworthy that teacher qualifications, knowledge and understanding of curriculum content, and technical skills are essential for successful implementation of CBC (Kibet, & Kipkemoi, 2021). Specific to the Kenyan situation, scholars have noted that teachers' understanding of CBC is unclear (Momanyi & Rop, 2020). There is also lack of clarity as to whether teachers have the right attitude and readiness to implement the program in Kenya (Silas, 2020). Barasa (2018) observed that lack of resources, infrastructure, teacher and parent resistance, was a significant challenge in implementing CBC. It's also important to understand instructors' obstacles in adopting the new curriculum and how schools address them. Thus, this study examined the influence of teacher characteristics on CBC implementation in primary schools in Molo Sub-County, Nakuru County, Kenya.

Motivated by these gaps, and given the critical role that teachers play in CBC implementation, this study examined the impact of teacher-related characteristics on CBC

implementation. More specifically, this study aimed at determining the impact of teacher-related characteristics on CBC implementation in primary schools in Molo Sub-County, Nakuru County.

1.2 Statement of the Problem

Kenya's education system has changed greatly since independence to date. KICD launched Competency Based Curriculum in 2017. Kenya's education system is incorporating CBC to assist students demonstrate mastery, improve learning, and allow for authentic learning and assessment. Improved school infrastructure and roll-out of new design resources have helped the transfer and successful implementation. However, preparation and implementation vary from one area to another including Molo Sub-County. For instance, there has been an argument that teachers have challenges in interpreting CBC concepts (Momanyi & Rop, 2020). Moreover, there is lack of clarity as to whether teachers have the right attitude and readiness to implement the program in Kenya (Silas, 2020). One of the key social concerns from the community is the impact of CBC on students' future opportunities. Some stakeholders worry that CBC's focus on specialized skills and expertise rather than a broad range of disciplines may limit students' educational and employment options. According to Oloo (2019) in Kenya, found that parents worried that CBC would limit their children's educational options because colleges and companies may prefer students with a broad range of disciplines rather than a narrow focus on certain skills. Given these doubts, the current study aimed at examining how teacher characteristics influence CBC implementation in primary schools in Molo Sub-County, Nakuru County, Kenya

1.3 Research Questions

This study was guided by the following research questions:

i) How do teacher qualifications influence the implementation of Competency Based Curriculum in primary schools in Molo Sub-County, Nakuru County?

ii) To what extent do teacher technical skills influence the implementation of Competency-Based Curriculum in primary schools in Molo Sub-County, Nakuru County?

iii) To what extent do teacher competency-based pedagogy influence the implementation of Competency Based Curriculum in primary schools in Molo Sub-County, Nakuru County?

iv) To what extent do teachers encounter challenges when implementing Competency Based Curriculum in primary schools in Molo Sub-County, Nakuru County?

v) What strategies should be put in place to address the challenges of Competency-Based Curriculum implementation in primary schools in Molo Sub-County, Nakuru County?

1.4 Research hypotheses

The study was guided by the following hypotheses.

Ho_1: There is no statistically significant influence of teachers' qualifications on the implementation of Competency Based Curriculum in primary schools in Molo Sub-County, Nakuru County.

Ho_2: There is no statistically significant influence on the extent of teacher technical skills on the implementation of Competency-Based Curriculum in primary schools Molo Sub-County, Nakuru County.

Ho_3: There is no statistically significant influence on the extent of teacher competency-based pedagogy on the implementation of Competency Based Curriculum in primary schools in Molo Sub-County, Nakuru County.

1.5 Significance of the Study

This research may be beneficial in a number of ways: The results of this research may help curriculum developers in Kenya (KICD) address teachers' concerns about implementing CBC in Kenyan primary schools and subsequently in Junior schools. It is hoped that the findings of this study may provide relevant information about implementation of CBC to education stakeholders particularly with regards to teachers' knowledge of CBC. This is

important because it provides information that might be used by the Ministry of Education (MoE) and other education stakeholders in developing effective CBC training programs for teachers. It is hoped that the findings may be beneficial to Teachers Service Commission (TSC) to consider other modes of training teachers that may adequately equip teachers to effectively implement CBC rather than relying on trainings conducted during holidays and weekends. As the country moves forward with teacher training and CBC implementation, it is hoped that the findings of this study may help identify gaps and suitable areas for government intervention. The study's findings may also be useful to teachers who are already working, teacher educators in colleges/universities, students in colleges, and curriculum support officers. This is because the results may provide data that helps these stakeholders plan for and implement CBC in the best possible way.

1.6 Scope and Delimitation of the Study

The study addressed teacher characteristics on the implementation of Competency Based Curriculum. Teacher characteristics included academic qualifications, pedagogy, and technical skills. The research also established challenges faced by teachers while implementing Competency Based Curriculum. CBC is currently being implemented beginning from pre-primary school level. The area has its uniqueness when it comes to primary schools since it has public, private and international schools. Furthermore, primary schools in Molo Sub-County have different infrastructure, student enrolment, and access to instructional materials. In addition, the research focused solely on the influence of teacher - related characteristics both professional and personality traits on CBC implementation rather than examining the whole scope of CBC implementation aspects. It may be argued that other stakeholders, including parents and students, may also have an impact on CBC implementation, but this research focused solely on teachers only since they are the major stakeholders directly involved in the implementation of the curriculum in schools. Teachers

are actively participating in pedagogy workshops and are directly involved and responsible for implementing CBC in their schools. Teachers and head teachers were the participants of this research.

This study was carried out in Public and Private Primary schools in Molo Sub-County, Nakuru County. Molo Sub-County was chosen since it is a metropolitan area. It has both urban and rural settings. Some schools are situated near Molo town where access to education is easy, while others are in remote areas where infrastructural challenges hinder learning and possibly the effective implementation of CBC. The area is thus expected to provide information that is representative of what could be happening elsewhere in Kenya. In addition, a good study area is where the researcher is familiar with and can establish a rapport with the participants.

1.7 Theoretical Framework and CBC Implementation

This research was inspired by Gross theory of curriculum implementation as cited by Nawaz and Akbar (2021), which suggests that successful educational program rollout hinges on three factors: teacher ability, management of support facility, and the clarity of the implementers. Therefore, in the context of this research, qualified teachers with curricular subject understanding are required for effective CBC implementation. Gross argues that the capacity of the implementer is crucial for successful curriculum implementation.

Furthermore, the theory suggests that elements like teacher competency, clarity, implementer knowledge, implementer ability, management support, and the attitude of teachers, learners, and stakeholders must be taken into account for the successful implementation of any educational programme. It is in this context that the current research aims to examine the mediating role of management and stakeholder support (e.g., government, parents) as intervening variables that moderate the relationship between the independent variable (teacher characteristic) and the dependent variable (CBC

implementation).

Gross Curriculum implementation Theory was found to be the most appropriate because it fits well with the variables of the current study. This is because curriculum implementation is done by the teacher, and as such, he or she should have the necessary knowledge, skills, and attitudes to effectively disseminate information to learners.

1.7.1 Strengths of Gross Theory of Curriculum Implementation

According to Gross' theory, the skill of the teachers, management of the support facilities, and clarity of the implementers are all crucial to the success of any educational program, and especially in this current study of CBC implementation (Nzinga, 2016). Teacher qualifications, training, pedagogical content knowledge, school administration, and external factors (parents, government) are all considered within the framework of this theory, making it relevant to this study because it fits well with the variables of ensuring effective CBC implementation in primary schools. Teachers play a crucial role in making sure students learn, therefore they should have the resources they need to effectively teach, lead, monitor, and assess their progress on the assigned tasks.

Gross theory suggests that there are aspects that are helpful in putting educational plans into action. External factors include parents and head teachers who should provide support, the education programme, and the employer who should select new teachers/trainers to implement Competency-Based Curriculum in schools.

Adequate infrastructural facilities should be provided to schools by school administration through the proper use of capitation to schools for use in constructing or renovating the current infrastructure to enable proper learning in schools, in addition to creating a conducive and enabling environment for effective CBC implementation.

Depending on the specifications of the curricula, parents also play a significant role by providing their children with the tools they need to succeed. Parents may help their

children succeed in school by keeping an eye on their homework and providing comments to teachers. Therefore, parents play a crucial role in helping teachers ensure successful curriculum implementation by seeing to it that their children complete homework assignments at home.

The government and the Board of Management provide technical, material, and financial support for the successful implementation of CBC in schools. A successful competency-based transition occurs when the primary focus is placed on the teacher, who not only guides learning and competency development, but also connects parents and other external parties such as the Board of Management (Arnold, 2018).

1.7.2 Weaknesses of Gross Theory of curriculum implementation

Gross theory relies on three main factors that, when present, allow for efficient curriculum delivery. Knowledgeable instructors, support facility management, and implementation clarity are all crucial. These presumptions, however, can only hold true in an ideal situation. To begin with, the idea presupposes that teachers have the skills necessary to implement curriculum, which is not always the case because teachers' skills vary from person to person and from time to time. It's also important to remember that teachers work in a constantly changing environment, which renders their previous skills obsolete over time (Nevenglosky, 2018). Therefore, effective implementation necessitates ongoing training and skill refreshment. In most situations, teachers are not financially prepared to cover the costs associated with training and retooling. Therefore, the government should make sure to pay for the necessary training so that all teachers can effectively implement CBC. Moreover, teachers are not always provided with an atmosphere that allows them to reach their greatest potential. Omollo et al. (2016) found that teachers were dissatisfied with their working conditions, including low salary, not being involved when curriculum changes are being initiated and unappealing management approaches. Teachers are essential to the success of

any educational program and should be consulted early on, compensated more fairly, and given more positive support from administration.

Successful curriculum implementation depends on well-managed auxiliary facilities. Physical structures, monetary instruments, and academic materials are all part of the available infrastructure. Successful curriculum implementation necessitates careful preparation, including the acquisition, organization, and use of all necessary resources. The theory's utility is diminished by the fact that some managers lack expertise in the management of support facilities. Therefore, managers should participate in in-service and ongoing training to keep their skills relevant.

To be effective, implementers need to be brought in at the very beginning of the process, and it's crucial that their duties, responsibilities, and authority, as well as measures of their success, all be laid out in advance. This is not always the case, however, which undermines the theory (Loveline, 2020). A working committee comprising of all educational stakeholders should be formed by the Ministry of Education and TSC to ensure the effective execution of a curriculum.

1.7.3 Application of Gross Theory of Curriculum Implementation to the Study

Despite its weakness, this theory is appropriate for this study because it factors in the qualifications of teachers, the pedagogical knowledge of CBC skills, the required training of teachers, and the contributions of external variables like the head teacher, parents, the government, and the BOM, this helps to bring out clarity of all stakeholders and understanding their role in the process of implementation. Therefore, there should be adequate communication between teacher, administrator, parent, and government for the teacher to facilitate implementation. The link between the study's independent and dependent variables is moderated by the study's intervening variables (parents and government). Successful implementation of the Competency-Based Curriculum in schools is hindered by a

number of factors, and the application of this study's theory helps all stakeholders identify these underlying challenges and constraints and seek mitigation measures.

Teachers, as important leaders, would want to take advantage of government training to better manage and guide pupils as they gain knowledge and participate in educational activities.

1.8 Conceptual Framework

Figure 1 depicts the relationship between various variables drawn from literature and relevant policy documents identified as important factors in the implementation of CBC in Kenya. Teacher qualifications, technical skills, and pedagogical knowledge are all indicators of the independent variable in this framework. It also includes the intervening variables of support and resources and the dependent variable of CBC implementation, as well as its indicators.

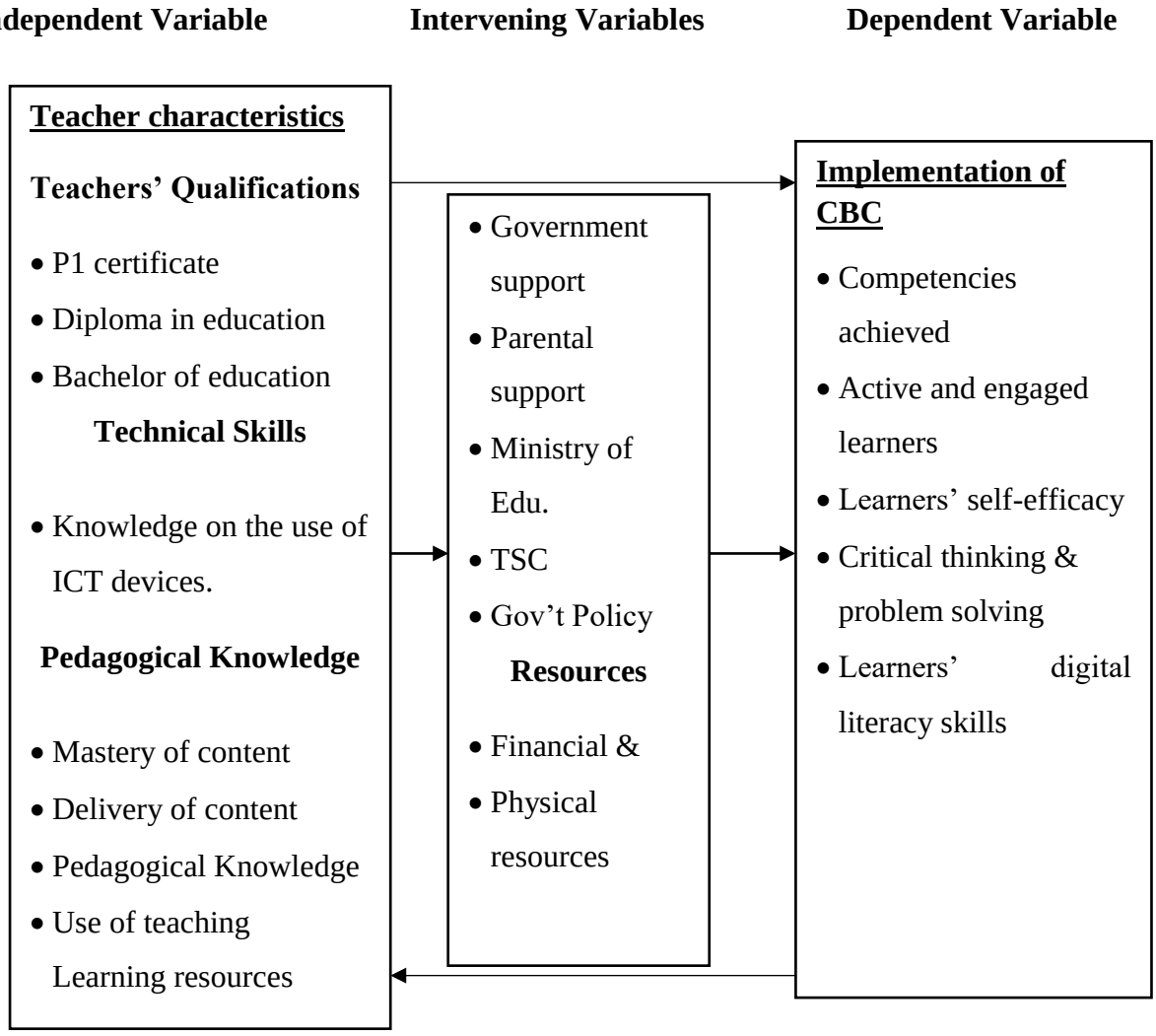

***Figure 1*: Conceptual Framework Showing the interaction among Variables**

Source: Researcher's Own conceptualization, 2023

Teacher characteristics and skills have a crucial role in whether or not CBC is successfully implemented. Teachers play the role of facilitators in the learning process. They need to instruct the student, help them develop appropriate abilities, and evaluate their development at regular intervals. Teachers need to have the appropriate academic qualifications, technical skills, and CBC pedagogical knowledge to carry out these responsibilities successfully. Teachers have been receiving training on CBC since the launch of the new curriculum, primarily over the holiday break.

Learning CBC and putting it into practice successfully both require access to resources and support. Classrooms, desks, labs, tablets, and other infrastructure must be made available, as well as policy support from, and funding from the government, an enabling atmosphere, and the hiring of qualified teachers. The parental role is crucial as well. Parents are responsible for equipping their children with the tools they need to succeed academically and socially, including books, writing materials, sports equipment, and other materials for practical learning activities. Parents play a vital role as co-educators, helping their children acquire the right attitudes and skills they need to succeed in school and in life. Key competencies and the proper abilities and attitudes to effectively take up opportunities and deal with challenges of the 21st century are among the many outcomes that the implementation of CBC in Kenyan schools aims to achieve, with a focus on the learner-centered approach. Some of these outcomes are measurable in the workplace and hence at the school, national, and even international levels. Given the curriculum's early stages of implementation and the challenges in identifying its success indicators, this research centered on five observable outcomes: active and engaged learners, learners' self-efficacy, critical thinking and problem-solving skills, and learners' digital literacy skills.

1.9 Operational Definition of Key Terms

Competency-based curriculum: a curriculum that lay emphasis on learner skills rather than subject content memorization.

Implementation: In the context of this research, refers to the process of rolling out the Competency Based Curriculum.

Self-efficacy: learner confidence in his or her own abilities and skills. Students were given a questionnaire designed to gauge their level of contentment with three aspects of their lives: their own intellectual growth; the emotional trust and support they receive from their families and peers; and the quality of the education they are receiving.

Teacher qualifications: Certificates, diplomas and degrees that teachers have acquired.

Teacher technical skills: the expertise or ability to use relevant CBC technological devices such as a computer, projector, tablet and smartphone.

Teacher pedagogical knowledge: Mastery of subject knowledge of relevant CBC subjects measured based on teacher's response to a number of statements relating to deep understanding of important CBC design concepts, such as knowledge progression and sequencing of concepts, CBC design, relevant technical skills, CBC teaching and appropriate delivery of content.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter includes a critical review of related theories as well as a review of relevant literature on the characteristics of teachers that influence CBC implementation. The five research questions: teacher qualifications, teacher technical skills, teacher pedagogical knowledge, challenges, strategies for improving CBC implementation were broken down into multiple sub-headings for the review of empirical investigations. The chapter concludes with a summary of the reviewed literature and identification of gaps.

2.2 Critical Review of Related Theories/Approaches

An overview of the theories guiding curriculum implementation is given in this section. To determine the proper theoretical basis for the investigation, it specifically reviewed theories and approaches pertinent to the study. The Managerial Approach and the Concerns Based Adoption Model were among theories and approaches examined.

2.2.1 The Managerial Approach and Implementation of Competency Based Curriculum

The managerial approach is grounded in Organizational Theory rather than any particular educational philosophy or theory. This involves considering the school as a social structure comprised of individuals who interact with one another in accordance with established rules and customs (including, but not limited to, students, teachers, curriculum specialists, and administrators). Teachers, students, and those outside the school who are responsible for supervising the curriculum must work together because the managerial approach in this context is focused on programs, schedules, space, resources, equipment, and personnel. Its primary goal is to improve educational opportunities for students. According to Purnama, (2018), taking into account the surrounding circumstances is crucial for learner's academic success. According to Dambudzo (2015), notes that managerial approach is a

strategy for student’s growth in which the primary action is the implementation of research-design processes. The implementation strategy helps students manage their knowledge, develop autonomous learning behaviors, and comprehend the school's instructional setting, all while fostering the creation of novel information in each subject area. Cai and Lönnqvist (2022) argue that it is important to include group dynamics, interpersonal dynamics, leadership strategies, and decision making while analyzing committee and group procedures. That is, the managerial strategy places more weight on the course's administrative components, such as its process, organization, and execution.

In addition, the managerial approach looks into the ways in which curriculum experts, managers, and administrators can facilitate transformation and creativity in the classroom (Cai & Lönnqvist, 2022). An administrator, in this view, serves multiple functions, including those of facilitator, a resource person (helping colleagues and teachers accomplish curriculum goals), and agent of change.

The study's intervening variables are a good fit for this method of implementing the program. Successful implementation of CBC was the dependent variable, and the current study aimed to determine what role stakeholders' support (support and resources) and resources played in moderating the relationship between the independent variable (teacher characteristics) and the dependent variable (successful implementation of CBC).

Managerial approach to curriculum’s main strength is that they follow a clear, methodical path to completion, with all steps leading directly to the achievement of the set objectives. The flow of information here is hierarchical (Liu, Bellibas & Printy, 2018) The school's administrative authority rests with the school's head teachers, who are responsible for overseeing the institution's pedagogical, financial, and human resources.

The interdependence of the various stakeholders is a fundamental flaw in this approach. It is presumed that the parts that make up the whole will function as intended. That

is, everyone would do their jobs, including educators, parents, students, policy makers, and human resources. However, this is not always the case, as sometimes parts fail to function properly. The entire institution (or course) would be impacted if something like this occurred. Getting everyone on board to do their part well, clearly defining their tasks, and giving them adequate training will help mitigate this shortcoming.

2.2.2 Concerns Based Adoption Model (CBAM) and CBC Implementation

The Research and Development Center for Teacher Education in Austin, Texas created the Concerns Based Adoption Model (CBAM) in the 1970s (Peskova, Spurná, & Knecht, 2019). It is grounded in Fuller's foundational study on teachers' levels of concerns for their own professional growth as educators. This study will use the CBAM model because it allows this research to focus on the key players in the execution of the curriculum process—the teachers (Makwinya, McKinnon, & Lummis, 2022). Although the Diffusion of Innovation Theory by Rogers of 1983 provides invaluable details of change processes and constructs, this study will use the CBAM model instead. This model was used to look at how teacher characteristics (independent variable) influenced CBC implementation in the Molo Sub-County, Nakuru County. The following paragraphs, will explain the components of this model.

There are two primary dimensions of CBAM. The first framework, known as Stages of Concern (SoC), details how educators experience and react to change. The question of whether or not educators have the technology literacy to effectively implement CBC is, perhaps, the most pressing one at this juncture. The second concept, "Levels of Use," refers to the actions taken by educators as they adapt to new technologies. It's natural to question if there are ways for educators to leverage technology to facilitate transformation.

The Stages of Concern dimension of the CBAM model postulates the existence of a sequence of distinct concerns that innovator adopters face at different points in time.

Adopters move from early-stage concerns about self-oriented issues (Awareness, Informational, and Personal concerns) to intermediate level task-related concerns about the effective management and use of the innovation, and then to higher level concerns about the effects of the innovation on students and how to collaborate more efficiently with fellow teachers to aid in the integration and even creative adaptation of the innovation.

This model's construct is explicitly developmental in nature. It hypothesizes an order for the formation and evolution of these concerns, with lower-stage concerns dissipating before the emergence of later, more advanced concerns (Yan & Deng, 2019). These concerns may reappear as teachers go through the levels. Teachers, for instance, may "re-cycle" back through earlier stages of utilization, management, and time management concerns if they develop or adopt new methods for utilizing the innovation once they reach a higher level. However, if the lesser concerns aren't settled or addressed, the greater concerns aren't likely to emerge either. Therefore, the goal of this research was to find out what role, if any, teachers' knowledge, access to information, and personal concerns play in the adoption of CBC as an innovation in Molo Sub- County, Nakuru County.

How an individual's performance and actions shift as they gain experience with and proficiency in using an innovation is shown by the CBAM model's Level of Use dimension (Isabirye & Moloi, 2019). Similar to the Stages of Concern, the Levels of Use are progressions through life. Once consumers are made aware of a new innovation, they immediately begin accumulating data in preparation for their first time using it. After some initial experimentation with a new innovation, users often settle into a mechanical level of use, where they remain until they master the technique and become so habituated that their behavior can be regarded as routinized. If the individual's concerns have been resolved and their motivations finally match to innovation adoption, they may choose to move on to one of the higher levels, return to level III (mechanical use), or remain at the Routine level

indefinitely. At the next stage of use, teachers begin to modify their implementation of innovation in order to maximize its impact on their pupils, taking into account both the immediate and long-term repercussions of their students' technological habits. Teachers can then move on to the integration phase, in which they collaborate with their peers to increase the collective efficacy of their efforts. Teachers then go on to renewal, which involves assessing the efficacy of an innovation's implementation and looking for ways to improve it.

The strength of the Concerns Based Model is that it takes teachers' concerns into account throughout the introduction of a new innovation: It's natural for educators to worry about the effects of a new initiative on themselves, their students, and their careers as they roll it out. It offers methods and resources for analyzing and advancing CBC implementation in schools. CBAM dimensions can be utilized to analyze the parts of an innovation, monitor its adoption, provide unbiased report findings, and come up with effective solutions to speed up the process.

In a nutshell, this theory is concerned with educational change management. Its biggest flaw is that people are naturally resistant to change, and many educational leaders lack an understanding of the factors that contribute to and necessitate transformation in the field of education. Recognizing change as a process, rather than an event, is the first step towards correcting this shortcoming. The procedure must be carried out in the correct order. Before a change is implemented, those who will be impacted by it should be given adequate notice, have the opportunity to prepare for the change, and receive any necessary training. All relevant parties should be kept in the loop and asked for input. Justifications for change and their associated advantages should be made crystal apparent.

2.3 Review of Empirical Studies

Curriculum development has been the subject of a number of empirical research in different parts of the world. In this sub-section, relevant empirical studies relating to the

research questions were reviewed. The objective was to learn what had already been accomplished and where new research was needed.

2.3.1 Teacher Qualifications and Competency Based Curriculum Implementation

In Kenya, both public and private primary schools need teachers to meet certain qualifications before hiring them. There is a wide range of teachers' qualifications; however, as some begin the profession with advanced degrees and others pursue ongoing professional development. Teachers can be distinguished by the range of academic credentials they hold, which includes certificates, diplomas, undergraduate and graduate degrees.

Numerous studies have been conducted on teacher qualifications and curriculum implementation. To gauge the level of preparation and skill of English instructors at the secondary school level in Indonesia, Sundayana (2015) conducted a study. The study indicated that it is simpler for instructors to respond to the need to focus on a learner-centered approach and instill knowledge and skills when they have higher skills in areas of ICT and others. The quality of instruction and student achievement are both positively impacted by teachers' levels of education and experience.

Some research (for example, Maphoso & Mahlo, 2015) has indicated that while teachers' qualifications aren't the only factor in students' academic success, they nevertheless have a substantial impact that can't be disregarded. Teachers in a CBC classroom should to be well-versed in a variety of subjects, have the capacity to engage students in meaningful conversation, and select standards and lessons that are achievable for their students' skill levels.

Yu and Leung (2019) looked into the responses of music teachers in China on the introduction of a new curriculum. This research surveyed 2,206 volunteer teachers across 15 provinces in China using questionnaires and semi-structured interviews. The research showed that there were many obstacles that made it difficult for teachers to apply the new curriculum.

Teachers with higher levels of education, those who are younger, and those who have been in the profession longer were shown to be more open to and competent of adopting the new curriculum. Schools in rural locations were shown to be slightly disadvantaged during the study's transition period. It was also determined that in-service training was insufficient to effectively apply the new curriculum. The previous study focused on music teachers, whereas the current study focuses on all teachers in the sampled primary schools, giving this study a broader scope to investigate the influence of teacher characteristics on CBC implementation.

Oyewole and Oyewole (2021) study teacher qualification and competency-based curriculum implementation in Nigeria using a study of public primary schools in Lagos State. In particular, the study investigated the relationship between teacher qualifications and the implementation of competency-based curriculum. The study found that teacher qualification had a significant effect on CBC implementation.

Andiema (2020) asserted that that although pre-service teachers were confident in their knowledge and abilities to adopt competency-based teaching techniques, they had difficulty explaining certain competency-based ideas during interviews. The results led to the conclusion that more work has to be done to improve teachers' and principals' familiarity with competency-based education in Tanzanian classrooms.

Kibet and Kipkemoi (2021) investigate teacher qualifications and implementation of competency-based curriculum in Kenya using a case study of public primary schools in Baringo County. More precisely, the study investigated the relationship between teacher qualifications and the implementation of competency-based curriculum. The study found that teachers' qualifications were not adequate for the implementation of competency-based curriculum. The authors suggest that there is a need for teacher training to improve the implementation of competency-based curriculum.

2.3.2 Teacher Technical Skills and CBC Implementation

The term "technical skills" refers to a set of competencies in the areas of science, technology, the arts, mathematics, and engineering that can be put to use in the workplace (Dong et al., 2020). Training and education are necessary to acquire these abilities and information, which can take time and money depending on the chosen profession. Teachers in Kenya need to be retrained in order to implement the Competency-Based Curriculum (CBC), which is learner-centered and is seen as a curriculum that aims to foster the development of the ability to apply knowledge and skills in order to successfully accomplish a task (Sifuna & Obonyo, 2019). For currently employed teachers, reskilling can be accomplished through in-service training aimed at promoting the use of ICT and other technical skills (Esfijani & Zamani, 2020).

A study conducted by Handwe and Mpofu (2017) on teacher preparedness to implement a newly developed grade three curriculum in Zimbabwe purposed to examine primary school teachers‟ competence in preparing lesson plans aligned to the new curriculum. The findings showed that the training which teachers underwent was not adequate to address their needs regarding how to prepare effective lesson plans. The study investigated grade three teachers' competence in preparing lesson plans aligned to the new curriculum only, the current study looked at influence of teacher characteristics

Murithi and Yoo (2021) investigated the availability of ICT facilities; teacher capacity to integrate technology into their lessons; and teacher perceptions towards technology in schools. The study found that teachers perceived that ICT facilities were inadequate in schools, which presented a challenge in the integration of technology during the implementation of the new curriculum. Most of the teachers answered that they received only basic computer literacy training. Although teachers perceived the use of computers as necessary, they faced difficulties integrating technology in their lessons.

Teachers' preparedness for implementing CBC in private pre-schools in Dagoretti North, Nairobi County, was investigated in a study by Ondimu (2018) in Kenya. This research set out to answer several questions about the implementation of competency-based curriculum in private pre-schools, including whether or not teachers were prepared to do so, how well-versed they were in the relevant subject matter, how proficient they were in the relevant technological skills, and what they thought of the whole process.

According to the results, teachers' lack of ICT skills was a major barrier to implementing CBC. The study suggested that in order to successfully implement the CBC in Kenyan schools, the ministry of education and KICD should provide teacher trainings focused on strengthening teachers' technical skills. This research included both private and public primary schools, in contrast to Ondimu (2018) study on private pre-schools.

Mwendwa (2017) did a study to determine the function of ICT in education by investigating the viewpoints of teachers and school principals regarding the incorporation of ICT into the primary school curriculum in Kitui County, Kenya. This research used the TAM (Technology Acceptance Model). It was influenced by the pragmatic worldview and the mixed-methods research methodology. Using stratified and simple random selection, information was collected from the head teachers and teachers at 388 public primary schools in Kitui County. There were a total of 1114 participants in the study, including 388 head teachers and 776 teachers.

Teachers' questionnaires and head teachers' interview schedules were utilized as data collection tools. Quantitative and qualitative analyses of the data collected were performed. The results showed that both teachers and head teachers considered ICT crucial to raising the bar for learners' success in primary school. The author believes that more should be done by the government to ensure that ICT is completely included into the educational system. Mwendwa (2017) studied public primary schools in Kitui County, whereas this study

examined both public and private primary schools in Molo Sub-County, Nakuru County.

In order to identify the primary obstacles that prevent CBC from being implemented in Kenya, Akala (2021) analyzed a number of factors, including insufficient material resources, human resources, poor public participation, and pedagogical practices in an article aimed at determining the initial challenges that impede Kenya's implementation of CBC. The report suggests retraining and reskilling teachers in CBC as they will be the backbone of the new curriculum's success. The same suggestion was made by Obuhatsa (2020) in his research on the issues associated to teachers that affect the implementation of CBC in Kenyan primary schools. Whereas Akala relied primarily on document analysis, the current study was grounded in fieldwork.

2.3.3 Teacher Pedagogical Knowledge and CBC Implementation

What teachers know about teaching, as well as what they know about their respective subjects, is collectively referred to as pedagogical knowledge. If a new curriculum is to be successfully implemented, teachers must be familiar with its content. Nonetheless, research shows that many Kenyan primary school teachers are not familiar with the CBC's content, and others aren't even sure what it is (Okeyo & Kanake, 2021). It has also been argued that not all teachers know the objectives of CBC except the few who have been trained on it, hence the need to extend the training to reach more teachers. Teachers benefit from knowing the content and goals of their subjects in order to better prepare lesson plans (Komba & Mwandaji, 2016).

The elements that affect teachers' application of the Communicative Language Teaching Curriculum (CLT) were investigated in a study by Rahman et al. (2018) in Bangladesh. The research looked into a variety of teacher characteristics that affect curriculum implementation by using a mixed method approach (exploratory, interpretivist, and qualitative). The phenomena of CLT-based curriculum transformation as seen through

the eyes of teachers was studied using a qualitative phenomenology method. Two urban schools in Dhaka (Urban) and two rural schools in Chandpur (Rural) were selected. Eight students were chosen at random from these institutions. Data was collected through semi-structured interviews, classroom observation, and document analysis of curriculum, assessment, and instructional materials.

Poor teacher development, a mismatch between syllabus and materials, a lack of classroom teachers, and inadequately equipped classrooms were some of the challenges that were found to have hindered the implementation of the CLT program. The study concluded that consideration should be given to teacher quality, education, and other associated aspects when introducing a new curriculum or easing any transition. Whereas Rahman et al. (2018) used semi-structured interviews, classroom observation, and document analysis of curriculum, assessment, and teaching materials to collect data. whereas the current study did not use classroom observation or documentary analysis of curriculum or any other teaching materials.

Momanyi and Rop (2020) investigated whether or not Kenyan teachers were prepared to implement CBC. The study's overarching goal was to ascertain whether or not primary school early grade teachers in the Bomet East Sub-County had a sufficient grasp of CBC to effectively implement it in their classrooms. CIPP curriculum Evaluation methodology was utilized to examine the CBC in its current form. The goals of the study were to examine how well instructors early grade teachers understand CBC, how well they may adapt their classrooms' materials and methods to meet CBC's needs, and how well they can assess a CBC curriculum. Questionnaires and in-person interviews were used to compile this data.

According to the results of the study, lack of clarity on CBC among teachers has a major effect on how lessons are delivered and how students are assessed. Momanyi and Rop (2020) suggested that Kenya's Ministry of Education need to provide training for teachers to

aid in closing the pedagogical gaps that appear to be a major challenge and are preventing the successful implementation of CBC. This study was exploratory in nature that utilized Gross's theory of curriculum implementation, while Momanyi and Rop (2020) study was evaluative and employed StuffleBeam's CIPP curriculum Evaluation model.

Wamuyu (2020) looked on how training of primary school head teachers had an impact on a competency-based curriculum implementation in Kiambu County, Kenya. The study used a descriptive survey as its research design, and 76 participants were selected to fill out questionnaires and provide the relevant data. Descriptive and inferential statistics were used to examine the data collected. If the new CBC is to be successfully implemented in Kenyan primary schools, the report advised that training of head teachers be expanded to other teachers. In contrast to Wamuyu's (2020) research, which only interviewed school head teachers, all the head teachers and some randomly selected teachers in the sampled schools in Molo Sub-County of Nakuru County were interviewed for the current study.

Some studies have indicated that in addition to content knowledge, teachers also need a strong foundation in pedagogical knowledge in order to effectively implement any curriculum. Mauki et al. (2020) argue that CBC should be implemented across all educational levels. As a result, future educators with degrees from accredited institutions would have a solid grounding in CBC and the means through which its desired learning objectives might be realized. Using data from needs assessment reports provided by education stakeholders at a deans' meeting at Embu University in August 2019, Mauki et al. (2020) drew their conclusions without the benefit of random sampling or controls. The researchers' curriculum-related papers were evaluated for relevant material, and documents and summaries were used to back up the reports. Unlike Mauki et al. (2020) study, which relied on document reviews and analyses, this current study was more of an exploratory investigation.

Facilitating active classroom sessions, identifying and developing students' special abilities, selecting appropriate tasks, interpreting students' responses, and placing an emphasis on students' skills are all crucial components of effective CBC implementation (Okeyo & Kanake, 2021). As a result, ensuring that teachers are well prepared is crucial to the success of CBC as it continues to be implemented (Jeanne & Mukamazimpaka, 2020). To this end, it is important to provide teachers with professional development opportunities designed to increase their preparedness for implementing a competency-based curriculum successfully.

2.3.4 Challenges that Teachers encounter when Implementing CBC in their Schools

A study conducted in Cameroon by Ambei and Kim (2018) sought to establish the extent to which the teachers were implementing CBC in primary schools. The findings indicated that even those teachers who had been trained and had some knowledge of the curriculum, effective implementation was still a major challenge in most situations because of insufficient resources as well as lack of knowledge on how to improvise resources. Based on the findings, the study recommended that it is very imperative for educational stakeholders in Cameroon to brainstorm and ensure that teachers are well apt with knowledge on the effective implementation of the curriculum as well as provide adequate instructional resources. The study involved primary schools in Cameroon which is a different setting from Kenya, therefore the findings may not necessarily apply in Kenyan schools. Hence, it was important to establish the challenges that teachers in Kenyan schools' encounter in CBC implementation.

The challenges of establishing a Competency-Based Curriculum in Tanzania were studied by Makunja (2016). The research method used in this study was a qualitative approach with a case study research design. The study surveyed 102 randomly selected teachers from six public secondary schools in Morogoro Municipality, including six school head teachers and six academic masters/mistresses and deans. Questionnaires and in-person

interviews were utilized to compile the data. The data was analyzed with the use of content analysis.

According to the findings, there are a number of obstacles to the effective implementation of CBC in schools, such as a lack of adequate teaching and learning resources, overcrowded classrooms, students who are not ready to accept a learner-centered approach, and students who have inadequate academic competence. Several solutions were proposed in the study to deal with the challenges. However, it does not include concerns relating to teachers, such as their lack of experience or education, as barriers to implementing CBC. This study focused on primary school teachers in the Molo Sub-County of Nakuru County, whereas Makunja (2016) looked at secondary school teachers. However, because the sample sizes were not representative of the whole, the results of the qualitative investigation could not be extrapolated to the entire population. This study will mitigate this flaw by using a quantitative methodology, specifically a cross-sectional survey, to collect data from a sizable population. This will allow the study's findings to be extrapolated to the target population.

In order to determine what was standing in the way of a smooth rollout of the Competency-Based Curriculum in Kenya, Muasya and Waweru (2019) undertook a research study. The study recruited 342 teachers from the 828 public primary schools in Machakos County using a descriptive survey approach with stratified random sampling. The information for the study was gathered through the use of a questionnaire and an observation checklist. The study concludes that poor infrastructure, understaffing, a lack of teaching and learning resources, and a hostile environment are the main obstacles to the implementation of CBC in schools. This study uses a different technique than the one used by Muasya and Waweru (2019). In contrast to the previous survey, which only included public school teachers, the current study included teachers from both public and private primary schools.

2.3.5 Strategies which should be put in place to address the challenges of CBC Implementation

The strategies and procedures for personalized the rollout of competency-based education were evaluated by Twyman (2014). Five US states: Iowa, Maine, Oregon, Vermont, and New Hampshire were selected for the research. It gives an overview of the problems and complications involved in implementing CBE and then suggests ways to conduct individualized instruction in classrooms. The study's findings support the idea that technology may be used in classrooms to facilitate both individualized and practical learning in schools. A proficiency-based approach, in which pupils move on to the next level only after demonstrating mastery of certain content methodology is also advocated, whereas the rigid traditional, calendar-based grade levels be discarded. In contrast to Twyman (2014) archival records/documentary research methodology, the present study drew more on an exploratory approach.

Using a qualitative research approach, Dragoo and Barrows (2016) examined the obstacles to and solutions for adopting competency-based education in the United States. In particular, the study employed conceptual models from higher education to shed light on the factors that leaders should consider while implementing CBE in business degree programs at three different universities. The study concluded that senior administrative support, staff development, collaborative planning, and rigorous design are the most effective techniques for implementing CBE. The current study targeted primary schools, while the study of Dragoo and Barrows (2016) focused on higher education institutions.

Research on the dynamics of CBC implementation in Kenyan lower primary schools was undertaken by Katam (2020). The research looked into teachers' challenges and identified possible ways for implementing CBC in Kenyan primary schools using the Lewin three-step change model. The research suggests that KICD should provide straightforward

manuals on how-to guides all the people who will have a hand in putting the curriculum into action. In addition, the research recommends that policymakers try to calm teachers' fears, especially those related to the model. The report recommends that the Kenyan government offer incentives to attract both implementers and consumers as they continue their implementation work in Kenyan primary schools. The current research was led by the Gross Theory of Curriculum Implementation, in contrast to Katam's (2020) use of the Lewin three-step model of change. Therefore, the theoretical underpinnings of this study are distinct from those of Katam (2020).

Lewin's Change Management Model's fundamental flaw is that it makes workers anxious about their job security and productivity when change is announced. This makes them worried about how well they'll be able to do their job. The lengthy period it takes to freeze and settle with new innovations is another challenge. There may not be enough time for the company to adapt to the new realities of a complex and shifting environment. It is often essential to "fill in the blanks" with another change management model because the steps within each phase, unfreezing, change, and freezing, can be understood differently.

2.3.6 Summary and Identification of Knowledge Gaps

There is a wealth of literature on teachers and the implementation of curriculum on a global, regional, and within Kenya. While some studies have explored the challenges affecting implementation, only a small number of research (e.g., Jeanne & Mukamazimpaka, 2020; Obuhatsa, 2020) have zeroed in on teacher- related factors or characteristics that may influence implementation. Methodological, geographical, and theoretical gaps were also identified as a result of the review. Furthermore, in 2017, Kenya launched a pilot program using a competency-based curriculum that was hastily developed. The necessary training for teachers to successfully adopt CBC was not provided. Teachers are the backbone of any curriculum, and it has been established that they were not given the tools they needed to

make the changeover go smoothly. This may be the root cause of the challenges encountered in implementing CBC. Teaching and learning facilities are essential to the successful implementation of a curriculum. There has not been sufficient attention paid in Kenya to the issue of teaching and learning facilities. The purpose of this research was to check if sufficient teaching learning facilities existed through setting up a schedule of observations.

In Finland where they have successfully implemented CBC, Class sizes average 15 students, teachers are required to have a Master's degree or above, and there are always two teachers present in class. Teachers also well remunerated. Kenyan schools have far lower standards than those in Finland, including unrestricted class sizes, low teacher pay, and teachers' inadequate academic qualifications. Thus, this research set out to fill a gap in the current literature by investigating the role of teacher-related factors in the successful implementation in Molo Sub-County primary schools, Nakuru County.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter provides a comprehensive overview of the research methodology, encompassing the employed methodologies and processes throughout the study. Key components discussed include the research design, study locale, target population, sampling procedures and sample size, research instruments, data analysis procedures, and the validity and reliability of research tools. The section highlights the strategies and processes utilized in the study to ensure a comprehensive understanding of the research approach.

3.2 Research Design

Research design is the overarching strategy or framework for conducting a study from its inception to the completion of data collection, measurement, and analysis (Tobi & Kampen, 2018). The study employed a mixed-methods strategy based on the convergent design. In a nutshell, convergent research design is an approach that employs both quantitative and qualitative designs (Creswell & Clark 2018). The advantages of a mixed-methods approach in data collection, analysis, and interpretation make it a good fit for this study. Quantitative and qualitative approaches each have their drawbacks, but when combined they can assist the researcher gain a deeper knowledge of the issue at hand (Creswell, 2017).

As part of a convergent research strategy, this study employed a Cross-sectional survey design for quantitative data and a Phenomenological design for qualitative data. Data from a large sample of participants is gathered all at once in a cross-sectional study (Setia, 2016). Since the study takes place at a single point in time, the Cross-sectional survey design is appropriate for this study because it allows the researcher to look at multiple characteristics related to the study all at once and is conducive to providing information about what is

happening in a current population under study in the shortest time possible. Lastly, a Cross-sectional design allows the researcher to swiftly and efficiently gather a large amount of data. Data was gathered cheaply through self-report surveys.

In addition, a phenomenological study design was used to collect qualitative data for this analysis. The current study was well-suited to the phenomenological research design because it allowed the researcher to investigate all important factors and characterize the existing state of affairs through in-depth interviews. Therefore, the researcher aimed to get insight into a phenomenon by probing key informants' perceptions and collecting first-hand accounts of teachers' experiences putting CBC into practice.

3.3 Locale of the Study

This research was conducted in Molo Sub-County in Nakuru County. Molo sits at the crossroads of three major roads in Kenya: The Nakuru–Kisumu Highway, the Nakuru–Eldoret Highway, and the Nakuru–Nairobi Highway. Its coordinates are 0°15′South, 35°44′East. Most of the Sub-County is within reasonable driving distance of these highways, making public transportation convenient. As a thriving agricultural and industrial hub, Molo Sub- County draws in individuals from all walks of life to work on the land and fill the region's many businesses. Because of the wide range of primary schools in the area, Molo was selected for this study. Molo Sub County is home to a variety of primary institutions, both governmental and private.

Because of its central location along the highway and its abundance of excellent educational options (both public and private, co-educational and sex-specific), the Molo Sub-County was selected. While some schools are conveniently located near major population centers, others are located in outlying places where a lack of resources might make it difficult to provide quality education, including CBC. This means that data gathered from this region will be reflective of conditions across Kenya. Green and Higgins (2018), the ideal setting for

the study is one that is directly related to the researcher's interest. He also points out the setting should be easily accessible to the researcher and that it should allow immediate rapport with the participants. Map of the study area is shown in Appendix 7.

3.4 Target Population

The term "target population" is used to refer to all of the individuals or things that the researcher is interested in studying. Therefore, all schools, head teachers, and primary school teachers in Molo Sub- County were the study's intended participants. For the year 2022, the Sub-County had 83 primary schools (both public and private), 83 head teachers and approximately 830 teachers. The units of sampling and the population were the 83 schools, 83 head teachers and 830 teachers respectively. The schools fall under two educational zones; that is Elburgon and Molo. Molo was chosen as a study area since the region has similar educational traits with other surrounding areas such as Baringo, Eldoret and Kericho.

3.5 Sampling Procedures and Sample Size

Sampling is the process of drawing conclusions about the total population using data collected from a smaller, more manageable sample (Mweshi & Sakyi, 2020). The study included Primary schools in Molo Sub-County as sampling units and target population. The population as a whole was sampled so that the results would be accurate. Descriptive surveys typically require a sample size between 10% and 30% of the target population in order to draw meaningful conclusions about the population as a whole (Mugenda & Mugenda, 2012). Researcher employed a number of sampling methods to randomly choose study participants.

3.5.1 Sampling of Schools

According to data from the Ministry of Education's Sub-County Office in 2022, there were 83 primary schools in the Molo Sub- County, 55 of which were public and 28 were private. Stratified sampling was utilized to choose schools for this research. When there are multiple possible classifications for schools or participants, stratified sampling is employed

(Tobi & Kampen, 2018). Stratified sampling technique was most appropriate for the current study because the schools in Molo Sub-County are of different categories which serves as strata. Twenty percent (20%) of all schools in each group were chosen at random for this research. Eleven (55 x 0.2) of the primary schools in the public schools were chosen to participate, whereas six (28 x 0.2) of the schools in the private were included. Therefore, 17 primary schools were included in the research. Stratified sampling was used to obtain strata and Systematic random sampling was utilized to choose the 17 schools. Public primary schools were given numbered and nth value was obtained by dividing target population by the sample for each category of school. Public (55 by 11) give nth value of 5. Therefore, public schools were numbered from 1 to 55, and every fifth number was chosen at random for the sample. Similar sampling procedures were used for the private schools; they were ranked from 1 to 28 and every 5th school was chosen.

3.5.2 Sampling of Head Teachers

Purposive random sampling is a method that involves including every individual or element in a population, gathering data from the entire population rather than selecting a subset (Stratton, 2021). All the 17 head teachers from the sampled schools were automatically included in the sample.

The researcher was able to gain a thorough grasp of the challenges and successes of integrating the Competency-Based Curriculum by engaging all 17 head teachers. The study benefited greatly from their knowledge and first-hand experience in educational administration and curricular oversight. A representative sample was obtained through purposive sampling and interviews, allowing for in-depth analysis of problems encountered throughout the rollout of the Competency-Based Curriculum in the primary schools.

3.5.3 Sampling of Teachers

Stratified random sampling technique was used to sample teachers for the study. The strata are on the basis of gender. Teachers from lower primary (pre- school to grade 3) and upper primary school (grade 4-6) were included in the study's sample. Each teacher had an equal chance of being selected for the study through the use of a simple random sampling technique. From each stratum, twenty percent of the teachers in the schools included in the study were selected at random to participate in the survey.

Table 1

Sampling Matrix Table

Category	**Population Size**	**Sampling Technique**	**Sample Size**	**Teachers**
Public schools	55	Stratified and systematic	11	
Teachers	550	Stratified and systematic		110
Private schools	28	Stratified and systematic	6	
Teachers	280			56
Head teachers	17	Purposive		17
Total			**17**	**183**

Source*:* Field Data, 2023

3.6 Description of Research Instruments

This section describes the research instruments that were used in this study. Questionnaires, interview guides, and observation guides were included. These instruments played a crucial role in facilitating data collection and analysis.

3.6.1 Questionnaires for Teachers

Both open-ended and closed-ended questions were included in the teacher questionnaire. Participants' responses to questionnaires were used to compile the data set.

There were five distinct sections in the questionnaire: A, B, C, D, and E. Part A gathered information on teacher demographics; Part B investigated whether teacher qualification affects CBC implementation; Part C gathered information on teacher technical skills and CBC implementation; Part D gathered information on teacher pedagogical knowledge and CBC implementation; Part E gathered information on the challenges to CBC implementation; and Part F sought to address the strategies required to improve CBC implementation.

3.6.2 Interview Guide for Primary School Head Teachers

Information was gathered from primary school head teachers using interview guides. The researcher conducted face-to-face interviews with the school head teachers. To better understand the qualifications, technical abilities, and pedagogical understanding of teachers, as well as the obstacles to and solutions for adopting CBC in the classroom, an interview guide was developed. The head teacher's interview guide incorporated both open-ended and closed-ended questions, organized into three sections: A, B, and C. Part A collected demographic information. Part B, delved into various aspects, including duration and experience, available resources, ICT training, competency and skill development, relevant programs, and the integration of digital literacy and technology. Part C employed a Likert scale to assess the level of agreement concerning curriculum design and utilized a scale ranging from 5 to 1: "Strongly Agree," "Agree," "Neither Agree nor Disagree," "Disagree," and "Strongly Disagree." This structured approach enabled a comprehensive exploration of the head teacher's insights and perspectives, contributing to a holistic understanding of the interviewee's viewpoint.

3.6.3 Observation Checklist

The researcher employed this strategy to glean more data on how CBC was being used in primary schools' classrooms across the Molo Sub -County. To be more specific, the observation checklist only covered the necessary CBC infrastructure at the schools that were

chosen at random. Playgrounds, art supplies, and interactive learning aids were some of the most-mentioned classroom amenities.

3.7 Validity, Pilot Testing and Reliability of Research Instruments

The researcher conducted tests to evaluate the reliability and validity of the research tools. This was to guarantee the reliability and validity of the research findings on the influence of teacher traits on CBC implementation in Molo Sub-County. The emphasis was placed on validating and replicating the findings.

3.7.1 Validity of Research Instruments

Validity in research is defined as the reliability of the measurement of the concept under study. It thus indicates how accurately a research tool measures its target variable (Creswell & Creswell, 2017). Types of validity include content and face validity. The extent to which a research instrument measures what it is supposed to measure is referred to as content validity. Face validity, on the other hand, determines how appropriate the content of a test appears to be on the surface.

Research instruments were evaluated for their validity by including only valid, relevant and appropriate items. In this case all research questions were covered by cross-checking the research questions and the corresponding items. The researcher sought expert advice on whether the instruments adequately covered the contents of the subject being studied. In addition, three educational specialists from the Catholic University of Eastern Africa confirmed the instruments' face and content validity alongside the study's supervisors.

To determine content validity, these specialists checked the questionnaire’s content, face validity, and structure to see if it covered crucial variables of teacher characteristics in CBC implementation. The same was also applicable to interview guide and observation guide. As a result, all suggestions were included into the final survey, rendering it reliable. Therefore, all recommendations provided were considered for inclusion in the questionnaire

thus validating it.

3.7.2 Pilot Testing

According to Creswell (2017), a pilot test is a primary test that is carried out to determine if the research instruments are working properly before conducting the actual study. A small sample of primary school head teachers and teachers in Njoro Sub-County were given questionnaires as part of a pilot study. Simple random sampling was used to select the schools for pilot testing and these schools did not participate in the actual study. The researcher sampled two primary schools in Njoro Sub-County after developing a questionnaire, observation guide, and interview guide and validated them in order to test the instruments' reliability. After that, the researcher met briefly with the participants in order to get their feedback on a few aspects, such as the questions' clarity, appropriateness, and relevance.

3.7.3 Reliability of the Instruments

Reliability was defined by Mugenda & Mugenda (2012) as "the extent to which measurements are free of error and the consistency of the results obtained." The researcher gave out a small number of questionnaires in Njoro Sub- County as part of a pilot study to ensure the questionnaires' quality and accuracy. The reliability of a measurement is its capacity to produce consistent results from one assessment to the next. The reliability index of 0.70 Cronbach coefficients which is the accepted threshold for social science research was accepted. According to Kissi (2020), Cronbach's alpha can be used to assess the consistency of both multiple-choice and essay type questions. The Cronbach Alpha reliability coefficient for the questionnaire was found to be 0.902 which was above the threshold of 0.7 and hence was considered reliable. The reliability results and feedback from supervisors and educators informed revisions to the questionnaire. The researcher incorporated the views of experts in the questionnaire before they were administered to the selected sample.

3.7.4 Trustworthiness of Qualitative Tools

Trustworthiness is a fundamental concept in research, encompassing the reliability, credibility, and validity of findings. In qualitative studies, trustworthiness underscores the degree to which data, methods, and interpretations can be relied upon to accurately represent the phenomenon under investigation. It involves employing rigorous methodologies and transparent practices to enhance the confidence that researchers, peers, and readers can place in the research outcomes. Credibility and dependability were taken into consideration in this study. Credibility refers to the confidence that can be placed on the findings of a study, while dependability implies the stability of such findings over time. For this study, a couple of strategies was used to ensure that its findings are credible and dependable. First, the researcher used the source and triangulation strategy as suggested by Creswell (2017) where multiple research instruments (questionnaires, interviews and observation checklist) were used to gather information. Secondly, key findings of the study were shared and discussed with neutral peers and supervisors to help identify loopholes and fix any errors that might have occurred during the research process.

3.8 Description of Data Collection Procedures

Once the proposal was completed, the researcher presented and defended it, taking into account any corrections made. Thereafter, the researcher applied and received an introduction letter from the Department of Post Graduate Studies in Education at the Catholic University of Eastern Africa.

The researcher then obtained a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) before proceeding to collect data from the field. Once research permit from NACOSTI had been obtained, the researcher used the permit to obtain a research authorization letter from the Nakuru County director of Education Office. The researcher then visited sampled schools in Molo Sub-County with these research

authorization documents and sought permission from the head teachers to collect data from the teachers.

3.9 Description of Data Analysis Procedures

Analysis of data entails processing and examining data in order to draw conclusions that help answer research questions (Smith, 2018). However, challenges may arise in the processing of raw data collected via surveys and in-depth interviews. Researcher used a combination of quantitative and qualitative techniques to properly organize, analyze, and interpret such data.

Following data collection, the information was input into a database, coded, and analyzed using Statistical Package for Science Social (SPSS version 28). In order to address the study questions, the collected data was processed and evaluated. Both descriptive and inferential statistics were used to accomplish this goal. Frequencies, averages, percentages, and standard deviations (SD) were calculated to characterize the characteristics of the variables under investigation. Hypotheses were evaluated using $\alpha = 0.05$ significance threshold of simple linear regression analysis. Variables on a Likert scale were coded as follows for use in the regression model: (Scale 5 = Strongly Agree; Scale 4 = Agree; Scale 3 = Moderately Disagree; Scale 2 = Disagree; Scale 1 = Strongly Disagree). The mean score for each dependent variable was used to obtain the continuous data for the regression model. Mean scores on each sub-variable/statement were used to gather data for the dependent variable (Implementation of Competency Based Curriculum) in Molo Sub-County primary schools, which was then used to create a regression model.

3.9.1 Quantitative Data Analysis Procedures

The quantitative data from the questionnaire underwent a comprehensive analysis, involving various steps to ensure accuracy and relevance to the research questions. Data analysis involves the systematic examination and transformation of collected data to derive

insights that contribute to addressing research inquiries (Hanelt et al., 2021. However, the analysis of raw data acquired through questionnaires and in-depth interviews can pose challenges. To effectively manage, analyze, and interpret such data, researcher employed a combination of quantitative and qualitative methods.

The data was carefully cleaned by removing erroneous or irrelevant entries. The researcher then organized the data into homogenous groups, facilitating efficient analysis. To aid in this process, data was coded and input into the computer using the Statistical Package for Social Sciences software, version 28.

Descriptive and inferential statistics were used in the analysis to help draw meaningful insights from the collected data. Mean, standard deviation, frequency distribution, and percentages were all part of the data summary offered by descriptive statistics. These components helped make sense of the traits and patterns displayed by the investigated variables.

Inferential statistics was analysed using both linear regression and correlation analysis techniques. Linear regression was utilized to determine the relationship between variables and assess how a change in one variable influenced the other. The examination of correlation helped identify the strength and direction of the relationship between variables.

A decision rule was used to draw conclusive results from the analysis's findings into actionable steps. The null hypothesis was rejected if the calculated p-value was less than the established cutoff value (in this case, 0.05). The null hypothesis would have been accepted if the p-value was larger than 0.05 ($p > 0.05$), indicating that the observed difference between the variables was not statistically significant. As a result, a p-value below 0.05 rendered the null hypothesis invalid. Beta Regression coefficient helped make sense of the connections between variables, and the p-value decision criterion helped determine which hypotheses to accept or reject.

The study's hypotheses informed the specification of the following regression models.

Hypothesis one

H**o₁** There is no statistically significant influence of teacher qualifications on the implementation of Competency Based Curriculum in primary in Molo Sub-County, Nakuru County.

$Y = \alpha + \beta_1 X_1 + \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.1$

Where Y = Implementation of Competency Based Curriculum in Molo Sub-County primary schools

α = Constant

β_1= Régression coefficients

X_1 = Teacher qualifications

ε = error term

Hypothesis two

H**o₂** There is no statistically significant influence of teacher technical skills on the implementation of Competency-Based Curriculum in primary schools in Molo Sub-County, Nakuru County

$Y = \alpha + \beta_2 X_2 + \varepsilon\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.2$

Where Y = Implementation of Competency Based Curriculum in primary schools in Molo Sub-County, Nakuru County.

α = Constant

β_2 = Régression coefficients

X_2 = Teacher technical skills

ε = error term

Hypothesis three

Ho_3There is no statistically significant influence of teacher Competency Based Curriculum pedagogy on the implementation of Competency Based Curriculum in primary schools in Molo Sub-County, Nakuru County.

$Y = \alpha + \beta_3 X_3 + \varepsilon$……...……..3.3

Where Y = Implementation of Competency Based Curriculum in Molo Sub-County primary schools

α = Constant

β_3 = Régression coefficients

X_3= Teacher Competency Based Curriculum pedagogy

ε = error term

3.9.2 Qualitative Data Analysis

The researcher recorded every response to the questionnaires and tallied the results of the in-depth interviews at the same time. In order to evaluate the relevance, consistency, and reliability of the information under examination, these notes were categorized into themes and patterns of content analysis. These notes were used to compile the final research report. Narratives and direct quotes were used to present the data. To conduct a thorough and methodical analysis of the qualitative data, the researcher followed the six steps proposed by Creswell (2017). The initial step involved selecting a representative data sample. By grouping the data according to the instruments used and the participants, the researcher structured and prepared the data for analysis. The researcher gave the information in the devices some careful reading. The field notes were also arranged and typed in accordance with each study question. The second step involved the researcher hand transcribing the data. The researcher carefully read through the re-edited transcripts. The text needed to be broken up into smaller pieces for analysis. This was done so that the researcher could get a complete picture of the information provided by all of the participants. The third stage involved the development of

codes. The researcher paraphrased the facts with precise phrases. This involves creating pertinent categories for the data analysis. The researcher refined the previously derived codes into meaningful analytical concepts in the fourth phase, which required classifying the units. The fifth stage involves the researcher doing an examination of the created concepts in light of the study questions. In the sixth and last stage, the researcher used the concepts as the foundation for interpretation, discussion, and making conclusions. The study used a mixed methods approach in order to demonstrate convergence.

3.10 Ethical Considerations

Ethics is a code of conduct rooted in respect for oneself, others, and the environment. It is guided by principles and underlying assumptions that shape the behaviour of teachers and organizations (Cascio & Racine, 2018). Ethical norms such as honesty, self-respect, informed consent, confidentiality, freedom of action, objectivity, and integrity were followed throughout the study procedure in accordance with Watson (2015) recommendations. Therefore, the researcher informed the participants that their information would be kept private and that it would not be shared in any form (written or spoken).

The researcher secured approval from the department of Post Graduate studies in Education at the Catholic University of Eastern Africa before beginning data collection. The National Commission for Science, Technology, and Innovation (NACOSTI) also issued a research permit. A letter from the County Director of Education was obtained in order to present to the school head teachers in whose institutions participated in the study and from which data was to be collected.

The researcher explained the purpose of collecting data from the participants, emphasizing that the information obtained would be used solely for academic and research purposes. Participants were assured that their names and personal data would not be published or disclosed.

The researcher took precautions during the writing process to avoid plagiarism. In study and writing, plagiarism includes presenting the ideas of others as one's own without giving recognition where credit is due (Mugenda & Mugenda, 2012). All information and ideas sourced from other works were appropriately acknowledged and cited to avoid plagiarism.

CHAPTER FOUR

PRESENTATION, DISCUSSION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter provides an analysis of the collected data and its corresponding interpretations. The study aimed at investigating the influence of selected teacher characteristics on the implementation of the CBC in primary schools in Molo Sub-County, Nakuru County, Kenya. This analysis was in line with research questions which included the relationship between teacher qualification, teacher technical skills and teacher CBC pedagogy with CBC Implementation. The data was analyzed using descriptive and inferential statistics to find connections and develop conclusions. The degree and direction of influence between variables were evaluated using Spearman's rank coefficient correlation, and the influence of teacher characteristics on the implementation of the competency-based curriculum was explored using simple linear regression.

4.2 Instrument Return Rate

The instrument return rates of participants of the study are presented in this section. The researcher distributed questionnaires to 166 teachers and had intended to interview 17 head teachers of the schools that took part in the study. The response rates are displayed in Table 2.

Table 2

Instrument Return Rate N = 17(H/T); 165 (T)

Respondents	**Sample size**	**Number collected**	**Return rate (%)**
Head teachers	17	17	100.0
Teacher	166	165	99.4
Total	**183**	**182**	**99.7**

Source: Field data, 2023

The study focused on primary schools in Molo Sub- County, Nakuru County, Kenya and targeted a total of 166 actual teachers and 17 head teachers. The actual teacher response

rate was 165 (99.4%), while the response rate among head teachers was 17 (100%).

The sample appears to be highly representative due to the large number of responses from both classroom teachers and head teachers. It's in keeping with Kline's (2017) recommendation that a response rate of 50% or above is adequate for data analysis and reporting. In addition, a response rate of 60% is plausible, whereas a response rate of 70% or above is extraordinary.

Therefore, the 99.7% response rate achieved in this study was deemed exceptional because the instrument return rate was excellent and it met the recommended standards for data analysis and reporting. This high return rate was possible because the researcher had prior arrangement with the school head teachers on day and time they were available, delivered the instruments to each school, distributed and waited as the participants filled and eventually collected the instruments. However, only one of the questionnaires distributed to teachers was never returned. This level of engagement strengthens the trustworthiness and credibility of the study's results by guaranteeing that all relevant viewpoints and insights were taken into account.

4.3 Demographic Characteristics of Teachers

In the current study, an analysis of teachers social-demographic factors was conducted. Some of the variables considered were the gender, age, number of years of teaching experience, position held by teachers in their respective schools, type of school they were affiliated with, as well as their highest academic qualification and professional qualifications. In Table 3 present teachers' demographics.

Table 3

Teachers' Background Information N =165 (T**)**

Variable		**Frequency**	**Percent**
Teacher's gender	Male	54	32.7
	Female	111	67.3
	Total	**165**	**100.0**
Teacher's age	21-30	72	43.6
	31-40	47	28.5
	41-50	38	23.0
	51 and above	8	4.8
	Total	**165**	**100.0**
Teacher's role in school	Deputy head teacher	2	1.2
	Senior teacher	10	6.1
	Teacher	153	92.7
	Total	**165**	**100.0**
Type of school	Public primary	112	67.9
	Private primary	53	32.1
	Total	**165**	**100.0**
Teaching experience	1 – 5 years	70	42.4
	6 – 10 years	50	30.3
	11 – 15 years	14	8.5
	16 – 20 years	16	9.7
	21 – 25 years	8	4.8
	26 – 30 years	5	3.0
	31 years and above	2	1.2
	Total	**165**	**100.0**
Teacher's qualification	P1 Certificate	72	43.6
	Diploma	56	33.9
	Degree	37	22.4
	Total	**165**	**100.0**

Source: Field data, 2023

The results Presented in Table 3 enhance gaining insights into the gender composition of the teaching workforce in Molo Sub-County schools in Nakuru County. Among the teachers included in the study, 54 (32.7%) teachers were male, representing the total population. On the other hand, there were 111 (67.3%) female teachers. These results indicate that there is a higher representation of female teachers compared to male teachers in Molo Sub-County schools. Females constitute a majority of the teaching workforce, comprising over two-thirds of the total population of teachers examined.

This could be attributed to factors such as societal norms, personal interests, and

educational policies may influence these proportions. The results highlight the gender disparity within the teaching profession, with a higher proportion of female teachers. Societal norms that prescribe traditional gender roles and expectations may discourage men from pursuing teaching careers, resulting in a higher representation of female teachers. Personal interests and career preferences can also contribute to the gender disparity, as individuals may be influenced by their own inclinations and aspirations when choosing a profession. If teaching is perceived as more suitable or fulfilling for women based on personal interests, it can lead to an overrepresentation of female teachers. Moreover, educational policies play a significant role in shaping the gender composition of the teaching workforce. Policies that promote gender equity and inclusivity in education may encourage the recruitment and retention of female teachers, while the lack of proactive measures to attract male teachers can further contribute to the gender disparity. Understanding these factors and their interactions is crucial for addressing gender disparities in the teaching profession and ensuring effective implementation of educational initiatives such as the Competency-Based Curriculum in Molo Sub- County schools.

Table 3 shows distribution of teachers by age. Understanding the age composition of the teaching workforce is crucial for educational planning, workforce management, and addressing the needs of teachers at different career stages. Table 3 provides a percentage distribution of teachers by age, offering insights into the age demographics of the teaching profession. By gaining a comprehensive understanding of the age distribution, stakeholders could develop strategies to support and empower teachers across different age groups, foster professional growth, and ensure the longevity and effectiveness of the teaching profession. The inclusion of age in this study was to determine whether teachers young by age would provide valuable and reliable information regarding teacher characteristic on implementation of CBC or those who have advanced in age and with more experience in teaching.

The largest age group among the teachers surveyed is the 21-30 years range, with 72 (43.6%) teachers, 31-40 years, comprising 47 (28.5%) teachers, the 41-50 age group includes 38 (23.0%) teachers. Lastly, the age group of 51 and above has the smallest representation, with only 8 (4.8 %) teachers.

The results revealed a relatively younger teaching workforce, as the majority of teachers fall within the 21-40 years' age range. This suggests that there is a significant portion of early to mid-career professionals in the teaching profession in Molo Sub- County schools. It is worth noting that the percentage distribution gradually decreases as the age increases. The disparity in age composition of the teaching workforce could be attributed to attrition rates, retirement policies, and recruitment strategies. These findings emphasized the importance of attracting and retaining teachers across different age groups to ensure a diverse and sustainable teaching workforce.

Table 3 Examined the distribution and trends of the various roles held by teachers. Understanding the different roles and positions held by teachers within a school is essential for effective organizational management and resource allocation. The table presents the distribution of teachers based on their roles in school, offering insights into the diverse responsibilities and positions within the teaching workforce.

Among the teachers who participated in the study, the role of teacher was the most common, with 153 (92.7%) teachers. The next significant role was senior teacher, comprising 10 (6.1%) teachers. The role of deputy head teacher had the smallest representation, with only 2 (1.2 %) teachers.

The results revealed that the majority of teachers in schools in Molo Sub-County, held teaching positions within the school. This suggests that the primary focus of the teaching workforce in this study was on classroom instruction and pedagogy. However, it is worth noting that a small proportion of teachers held higher-level positions such as senior teacher

and deputy head teacher. Factors such as career progression opportunities, organizational structure, and educational policies may influence the distribution of roles within schools.

Additionally, the results indicate that the majority of teachers surveyed in the teaching workforce held the role of teacher, highlighting the significance of classroom instruction. While senior teacher and deputy head teacher roles were less prevalent, they represent positions of higher responsibility within the school. These results accentuate the importance of supporting teachers in their instructional roles while also recognizing the contributions and leadership of teachers in higher-level positions.

Table 3 provides a visual representation of the percentage distribution of teachers based on the type of school they are employed in. The type of school in which teachers work can have a significant impact on the educational context, resources available, and teaching practices. Among the participants included in the study, the majority, comprising 112 (67.9%) teachers belonged to public primary schools. On the other hand, 53 (32.1%) participants were affiliated with private primary schools.

The results revealed that public primary schools had a higher representation in the dataset compared to private primary schools. The results suggest that a significant proportion of the participants were affiliated with publicly funded educational institutions, indicating their prevalence in the education system under study. Conversely, private primary schools constituted a smaller portion of the sample. Table 3 shows the percentage distribution of teachers based on the number of years they have spent in teaching of teaching profession. This section enhanced gaining of insights into the distribution and trends of teaching experience among educators.

Among the teachers included in the study, the largest category was the 1-5 years range, which accounted for 70 (42.4%) teachers of the total teacher population. The next significant category was 6-10 years, comprising 50 (30.3%) teachers. The 11-15 years had 14

(8.5%) teachers while 16-20 years' 16 (9.7%) teachers. The 21-25 years' category had 8 (4.8%) teachers and 26-30 years' category had 5 (3.0%) teachers. Lastly, the category of 31 years and above had the smallest representation with only 2 (1.2%) teachers.

The results revealed a diverse distribution of teaching experience among the surveyed teachers. The majority of teachers had relatively fewer years of teaching experience, with the 1-5 years and 6-10 years' categories being the most common. This suggests that many teachers are still in the early stages of their careers, developing their teaching skills and knowledge. While this influx of newer teachers can bring fresh perspectives and innovation, it also highlights the need for support and professional development to enhance their expertise. This is in agreement with the findings of Kipkurui (2017) who found out that support of teacher professional development would enhance instructional practices, pedagogical knowledge and effectiveness in classroom. The percentage distribution of those with more years gradually decreased as the number of years of teaching increased. Factors such as attrition rates, career progression opportunities, and the nature of the education system may have contributed to the diverse distribution of teaching experience. The findings underscore the importance of providing adequate support and professional development opportunities to early-career teachers while also recognizing and leveraging the expertise of more experienced teachers.

Table 3 show the number of teachers by their various qualifications. Among the teachers included in the study, the largest group held a P1 Certificate as their highest academic qualification, with 72 (43.64%) teachers of the total teacher population. The next significant category was Diploma, comprising 56 (33.94%) teachers. The smallest category was Degree, with 37 (22.42%) teachers.

The table revealed that a diverse distribution of academic qualifications among the surveyed teachers. The majority of teachers had either a P1 Certificate or a Diploma,

indicating that a substantial portion of the teaching workforce had completed a certification or diploma program as their highest level of formal education. However, a notable proportion of teachers held a degree, which represents a higher level of academic qualification. The findings of this study concur with the findings of a study done by Trianto (2019 which revealed teachers' qualifications, including their educational background and subject matter expertise, significantly influence their professional competence in implementing the CBC.

These findings highlight the diversity of academic qualifications within the teaching profession and underscore the importance of recognizing and leveraging the different levels of expertise and qualifications among teachers.

4.3.1 Distribution of teachers by the ICT training

Information and communication technology (ICT) integration in education, and notably CBC implementation, has become increasingly important as a result of recent technical developments increasingly important. Figure 2 presents the results of the distribution of teachers by ICT training, offering insights into the extent of ICT training among the teaching workforce. The figure includes frequencies and percentages for two categories: "Yes," indicating teachers who have received ICT training, and "No," indicating teachers who have not received ICT training. This section examined the frequency of ICT training among teachers.

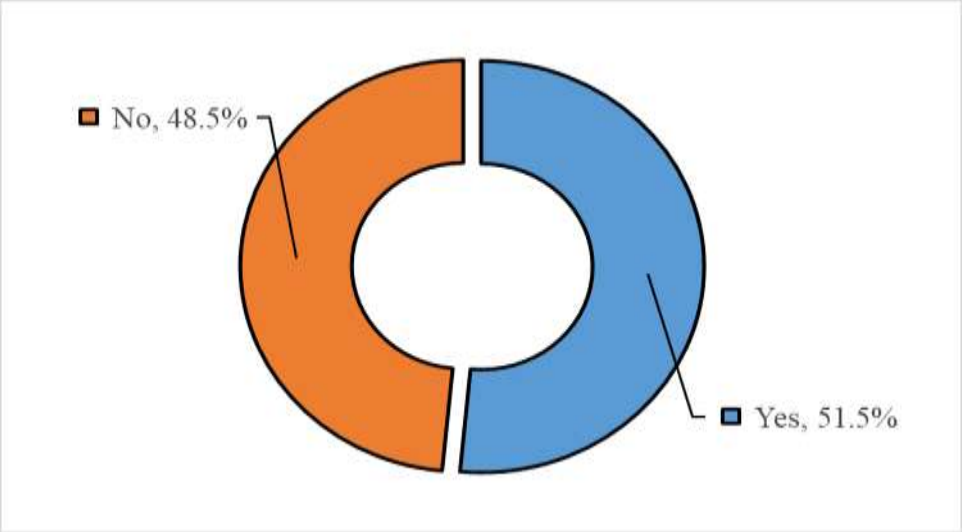

***Figure 2*: Percentage Distribution of teachers by ICT Training, N= 165**

Source: Field data, 2023

Fifty-one percent of the sampled teachers said they had received training in the use of ICT devices, and 85 (51.5%) teachers overall said they had gotten such training. Contrarily, 80 (48.5% teachers of the sample claimed that they had never received any sort of ICT training.

The results showed a fairly even split between the percentage of teachers with and without training in the use of information and communication technologies. According to the results, roughly half of the teachers polled have received training in the use of information and communication technologies. The findings highlight the importance of continuous professional development and assistance for educators to acquire the ICT skills necessary to successfully incorporate technology into their classroom practices. Findings were consistent with those of Ngambi and Lombe (2019), who also indicated that teachers need ICT abilities to effectively teach CBC in the classroom.

4.3.2 Distribution of teachers by the Digital devices handling training

Today's classrooms require teachers and students to be comfortable with the use of digital tools. The level of readiness within the teaching staff in employing digital tools is illustrated in Figure 2, which shows the distribution of teachers by digital devices handling training. The Figure provides frequencies and percentages for two groups: "Yes," indicating instructors who have received training in digital device handling, and "No," indicating teachers who have not. This section analyzed the widespread use of electronic devices in teacher education.

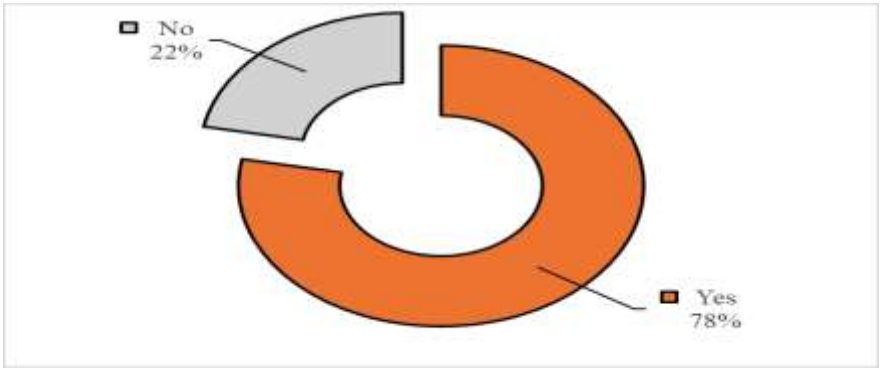

***Figure 3*: Percentage Distribution of teachers by the digital devices handling training, N= 165**

Source: Field data, 2023

Among the teachers included in the study, 128 (78%) of the total teacher population, reported having received training in handling digital devices. On the other hand, 37 (22%) of the sample, reported not having received training in this area.

The results revealed that the majority of teachers who participated in the study have received training in handling digital devices, indicating a relatively high level of preparedness in utilizing technology tools. However, a notable proportion of teachers reported not having received such training.

Consequently, the results point to a promising movement towards providing educators with the training they need to make successful use of digital technologies in the classroom,

while also recognizing the need for ongoing professional development in this area for those who have not yet received training. Findings were consistent with those of Ngambi and Lombe (2019), who also indicated that teachers need ICT abilities to effectively teach CBC in the classroom.

4.3.3 Distribution of teacher's Gender by highest academic qualification

Figure 4 presents the results of the distribution of teachers' gender by their academic qualifications. This section examined the distribution trends and explored any gender-based differences in academic qualifications among teachers.

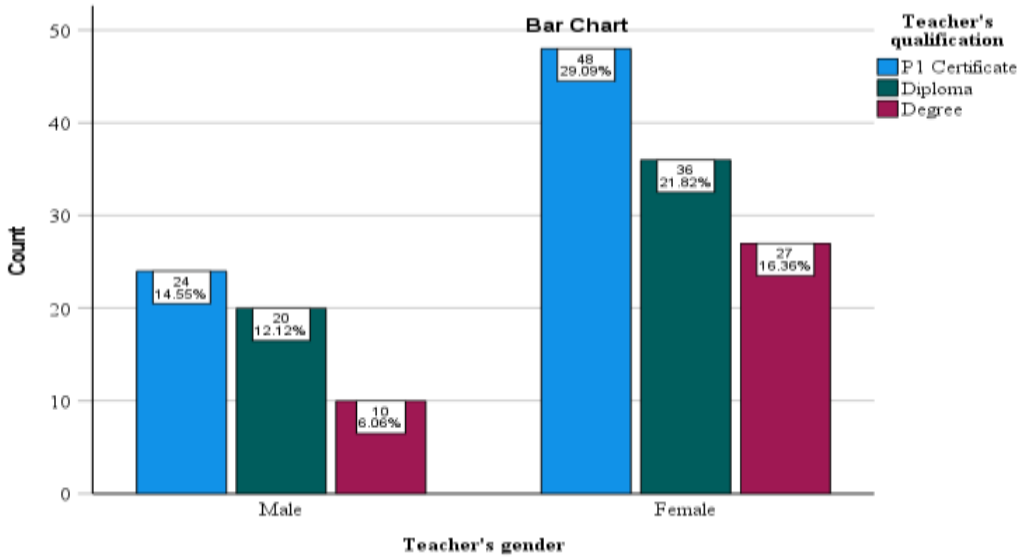

***Figure 4*: Distribution of teacher's Gender by teacher's academic Qualification, N= 165**
Source: Field data, 2023

There were 54 male educators who filled out the survey. Out of these, 24 (14.5%) had a P1 certificate, 20 (12.1%) had a diploma, and 10 (6.1%) had a degree. On the other hand, among the female teachers, a larger number of respondents, totalling 111, were recorded. Out of these, 48 (29.1%) had a P1 Certificate, 36 (21.8%) had a diploma qualification, and 27 (16.4%) possessed a degree. In total, there were 165 teachers included in the study. Among them, 72 (43.6%) held a P1 certificate, 56 (33.9%) had a diploma qualification, and 37 (22.4%) possessed a degree.

Female educators made up a bigger percentage than male educators at all educational levels, as shown by the findings. Female educators outnumbered male educators who earned P1 certificates, specifically. Similarly, more female educators held advanced degrees or diplomas. According to the results of this research, gender plays no role in determining whether or not a teacher is qualified. Research by Tran et al. (2020), titled "Student evaluation of teaching: do teacher age, seniority, gender, and qualification matter?", found similar results, concluding that teachers' gender and level of education had no bearing on how their students rated their classes. The findings of this study further support the findings of Haddad & Ghanem (2020) who found out that female teacher constituted a larger proportion compared to male teachers across all academic qualification levels.

4.3.4 Distribution of gender by the teacher's role in school

In Figure 5, presents a cross tabulation showing the distribution of teachers by gender and by their role in schools. This section explored the distribution patterns and potential gender-based differences in the roles held by teachers.

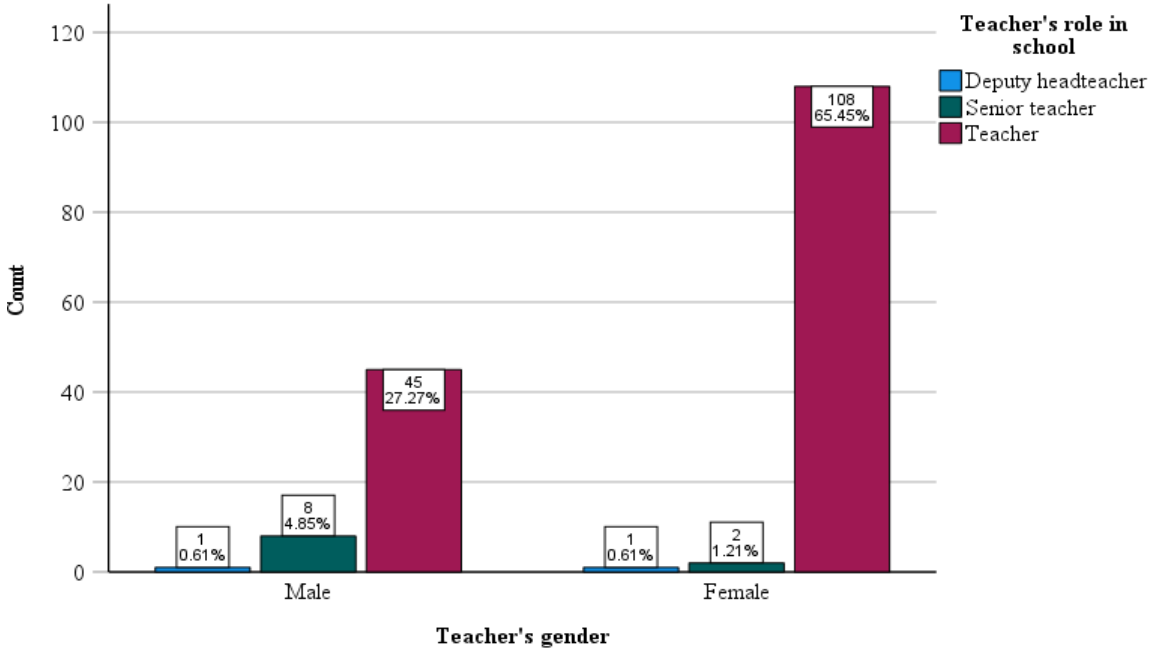

***Figure 5*: Distribution of Gender by the Teacher's Role in School, N=165**

Source: Field Field Data, 2023

Among the male teachers, there were a total of 54 respondents. Out of these, 1 (0.6%) served as a Deputy Head teacher, 8 (4.8%) held the position of Senior Teacher, and 45 (27.3%) were regular Teachers. For female teachers, there were a total of 111 respondents. Among them, 1 (0.6%) served as a Deputy Head teacher, 2 (1.2%) held the position of Senior Teacher, and 108 (65.5%) were regular Teachers. In total, there were 165 teachers included in the study. Out of these, 2 (1.2%) served as Deputy Headteachers, 10 (6.1%) held the position of Senior Teacher, and 153 (92.7%) were regular Teachers.

The results indicate that the majority of both male and female teachers assumed the role of a teacher in the school. However, there were some male and female teachers who held positions as Deputy Headteachers or Senior Teachers, albeit in smaller numbers. This career progression may have been contributed as a result of experience, qualification and professional development. This concurs with the findings of Birech et al., (2020) who found out that teachers with higher qualifications were more likely to be in leadership positions in school.

The findings of this study indicates that the gender distribution varies across different roles within the school setting in Molo Sub – County schools. These findings are consistent with the findings of Dos Santos, (2020), who established a significant influence between gender and teacher's roles in school.

4.3.5 Distribution of teacher's Gender by the type of school

Figure 6 presents the relationship between gender and the type of school. This section analyzed the data presented in Figure 6 which explored the distribution and patterns of gender within different types of schools.

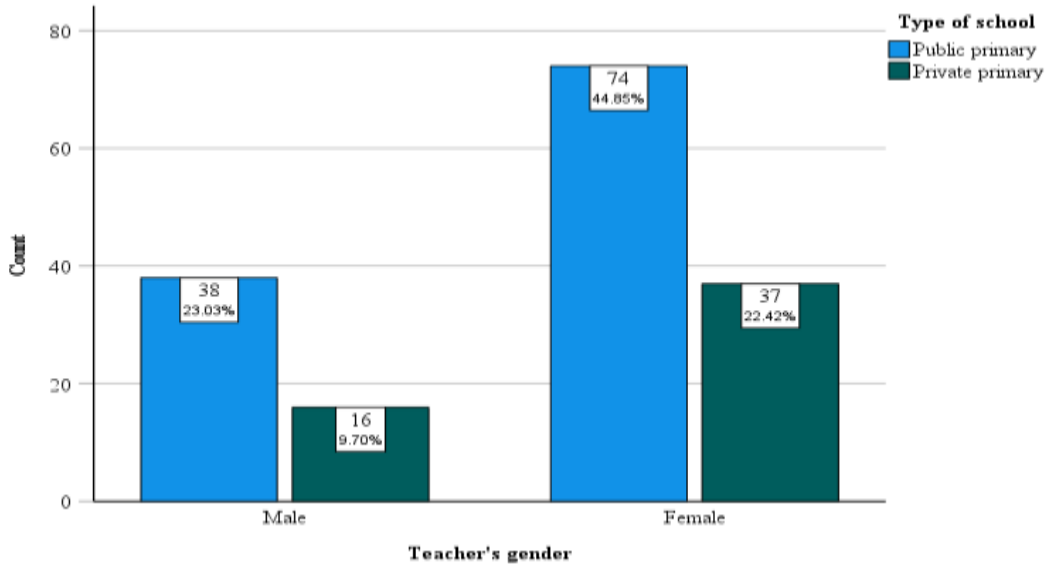

***Figure 6*: Gender by the Type of School, N= 165**

Source: Field data, 2023

Among the male teachers, a total of 54 participants were included. Out of these, 38 (23.0%) taught in public primary schools, while 16 (9.7%) taught in private primary schools. For female teachers, a total of 111 respondents were included. Out of these, 74 (44.8%) taught in public primary schools, while 37 (22.4%) taught in private primary schools. In total, there were 165 teachers included in the study. Out of these, 112 (67.9%) taught in public primary schools, while 53 (32.1%) taught in private primary schools.

The results indicate that the majority of both male and female teachers were teaching in public primary schools. However, there were also male and female teachers who were employed in private primary schools, albeit in smaller numbers. It can be noted that male and female teachers in a school may bring different perspectives and teaching styles to the

classroom. This diversity can enrich the learning experience for learners by exposing them to a variety of teaching approaches and ways of thinking. It can also foster a supportive and inclusive learning environment where multiple perspectives are valued.

4.3.6 Background Information of the Head Teachers

The history of the principal was investigated in this study. These elements included years since CBC's inception, age range, gender, marital status, type of school attended, level of education attained by teachers, and length of time spent in the profession.

Table 4

Background Information of Head teachers N = 17 (H/T)

Variable		Frequency	Percent
Head teacher's age bracket	21-30	1	5.9
	31-40	2	11.8
	41-50	4	23.5
	51 and above	10	58.8
	Total	**17**	**100.0**
Gender	Male	8	47.1
	Female	9	52.9
	Total	**17**	**100.0**
Marital status	Married	13	76.5
	Single	3	17.6
	Widowed	1	5.9
	Total	**17**	**100.0**
School Type	Public Primary	11	64.7
	Private Primary	6	35.3
	Total	**17**	**100.0**
Highest qualification attained	P 1 Certificate	2	11.8
	Diploma	9	52.9
	Degree	6	35.3
	Total	**17**	**100.0**
Head teacher’s experience	1 – 5 years	9	52.9
	6 – 10 years	4	23.5
	11 – 15 years	2	11.8
	16 – 20 years	1	5.9
	21 years and above	1	5.9
	Total	**17**	**100.0**
Head Teacher’s numbers of years since the introduction of CBC	1 – 2 years	4	23.5
	3 – 4 years	5	29.4
	5 – 6 years	3	17.6
	7 years and above	5	29.4
	Total	**17**	**100.0**

Source: Field data, 2023

Understanding the social-demographic aspects of head teachers is crucial for gaining a comprehensive perspective on the educational leadership landscape. Wanjiku and Mwangi (2020) in their study titled "Demographic Trends and Leadership in Kenyan Schools" underscores the significance of examining head teachers' demographics to inform effective educational policies. The analysis focuses on the distribution of head teachers across different categories and provides insights into their gender, age, marital status, type/category of institution, highest qualification attained, years of experience as a head teacher, and the number of years since the introduction of Competency-Based Curriculum (CBC). Table 4 presents the distribution of head teachers by age bracket, providing counts and percentages for each category.

Among the head teachers in the study, there was 1 (5.9%) head teacher in the age bracket of 21-30. In the age bracket of 31-40, there were 2 (11.8%). Within the age of 41-50, there were 4 (23.5%) head teachers. The majority of head teachers, 10 (58.8%), were in the age bracket of 51 and above.

According to the findings, the majority of head teachers (58.8%) were in the age bracket of 51 and above. This indicates that a significant proportion of the head teachers in the study were older and more experienced individuals. The experience and accumulated knowledge of these head teachers could potentially play a role in their ability to understand and effectively implement the competency-based curriculum. Their years of experience may have provided them with insights, skills, and strategies that contribute to successful curriculum implementation. The findings of this study concur with that of Smith and Johnson (2018), who examined the relationship between teacher age and curriculum implementation and found out that a higher percentage of older teachers were more likely to have extensive experience in teaching and a deeper understanding of curriculum implementation.

Table 4 shows distribution of head teachers by gender. Among the head teachers in the study, there were 8 (47.1%) male head teachers and 9 (52.9%) female head teachers. Therefore, the results indicated that there is a relatively balanced representation of male and female head teachers, with a slightly higher proportion of female head teachers. The gender distribution of head teachers in the study may have implications for the implementation of the competency-based curriculum. Having a relatively equal representation of male and female head teachers could contribute to a diverse range of perspectives and approaches, fostering a more inclusive and balanced implementation process. The presence of both male and female head teachers may allow for a wider range of teaching strategies, problem-solving techniques, and support systems for teachers and students.

Table 4 displays distribution of head teachers by marital status. Among the head teachers in the study, 13 (76.5%) were married, 3 (17.6%) were single and 1 (5.9%) was widowed.

Therefore, the results revealed that the majority of head teachers were married, while there is a smaller representation of single and widowed head teachers. This finding suggests that head teachers' personal circumstances can vary in terms of their marital status. This indicate that Married head teachers may need to balance their professional responsibilities with family commitments, which could potentially affect the time and energy they can allocate to curriculum implementation and to allocate time to attain higher qualification. This finding concurs with a study by Lee and Cho (2019) who found out that marital status and family commitments can influence the work-life balance of educational leaders, affecting their leadership effectiveness. Single and widowed head teachers might have more flexibility and fewer personal commitments, allowing them to dedicate more time and energy to curriculum implementation.

Table 4 shows distribution of head teachers by type of school they were inclined to. Among the head teachers in the study, 9 (52.9%) belonged to public primary schools, 8 (47.1%) from private primary schools. Analyzing the distribution of head teachers based on institution type and location helps address context-specific leadership needs.

The results suggest that there was a relatively balanced representation of head teachers between public and private primary institutions, with a slightly higher proportion of head teachers in public primary schools. The balanced representation of head teachers from both public and private primary institutions can have several implications. It indicates that the study aimed to capture a diverse range of perspectives and experiences from different types of schools. This inclusivity strengthens the generalizability of the study's findings and allows for a more comprehensive understanding of the factors influencing the implementation of the competency-based curriculum.

Table 4 displays distribution of head teachers by highest qualification attained. Among the head teachers in the study, 2 (11.8%) held a P1 certificate, 9 (52.9%) diploma and 6 (35.3%) degree. Therefore, the results revealed that the majority of head teachers had a diploma, followed by those with a degree. There was a smaller representation of head teachers with a P1 Certificate. The distribution of head teachers across different levels of certification reflects the varying qualifications and educational backgrounds within the sample.

The higher percentage of head teachers with a diploma and degree indicates that a significant proportion of the head teachers had pursued higher levels of education beyond the basic P1 certification. Teachers with higher educational qualifications, such as a diploma or degree, may have acquired more advanced pedagogical knowledge, instructional strategies, and subject matter expertise. These qualifications could contribute to their ability to effectively understand and implement the competency-based curriculum.

Table 4 shows distribution of head teachers by the number of years they had been head teachers in school. Among the head teachers in the study, 9 (52.9%) had served for 1-5 years, 4 (23.5%) had been in the position for 6-10 years. Additionally, 2 (11.8%) had served for 11-15 years. There was 1 (5.9%) head teacher for 16-20 years and 1 (5.9%) for 21 years and above years.

Therefore, the results indicate that the largest proportion of head teachers have been in their position for 1-5 years, followed by those with 6-10 years of experience. Hence there is a smaller representation of head teachers with longer tenures, with relatively equal proportions for 11-15 years, 16-20 years, and 21 years and above categories.

The findings highlight the importance of considering head teachers' years of service in understanding their experience levels and potential impact on curriculum implementation. Head teachers with longer tenures may have developed a wealth of expertise, while those with shorter tenures may benefit from ongoing support and professional development opportunities to enhance their capacity for effective curriculum implementation.

Table 4 shows distribution of head teachers by the number of years since introduction of CBC. Among the head teachers in the study, 9 (52.9%) had had served for 1-5 years, followed by 4 (23.5%) with 6-10 years of service since the introduction of CBC. Additionally, 2 (11.8%) had serviced for 11-15 years. There was 1 (5.9%) head teacher for 16-20 years and 1 (5.9%) with 21 years and above categories.

The findings suggest that the majority of head teachers in the study have had 1-5 years of experience since the introduction of CBC, followed by those with 6-10 years. The representation of head teachers decreases as the duration of service increases, with relatively equal proportions for 11-15 years, 16-20 years, and 21 years and above. These findings highlight the varying levels of experience among head teachers in implementing the competency-based curriculum concurs with a study by Nyambura (2021) entitled "Navigating

Curriculum Transitions: Head Teachers' Experiences with CBC Implementation and underscore the importance of ongoing support and professional development to enhance their effectiveness in curriculum implementation

4.4 Analysis of School Characteristics

The study analysed the school characteristics, including the numbers of teachers in the school, number of streams in the school, existence of enough classrooms to teach CBC, enough teachers to implement CBC, teachers training and practical skills for the implementation of CBC, relevance of CBC training, existence of modelling to help learners acquire the desired competencies, existence of digitally literate teachers in this school and availability of computers in the school.

4.4.1 Distribution of numbers of teachers in school

In order to acquire insight into the make-up and size of the teaching staff, knowing how many teachers are assigned to each school is crucial. Table 5 shows the breakdown of teacher counts across various categories to provide a holistic view of the school's staffing structure. This section provided a comprehensive discussion of the distribution of the number of teachers in schools.

Table 5

Percentage Distribution of Numbers of Teachers in School N= 17 (H/T)

Numbers of teachers	Frequency	Percent
9 – 15 teachers	5	29.4
16 – 20 teachers	6	35.3
21 – 25 teachers	2	11.8
26 teachers and above	4	23.5
Total	**17**	**100.0**

Source: Field data, 2023

For the category "9 – 15 teachers," there were 5 (29.4%) occurrences, “16 – 20” teachers had 6 (35.3%) occurrences, “21 – 25” teachers had 2 (11.8%) occurrences, Finally, for the category "26 teachers and above" had 4 (23.5%) occurrences. The total count for all

categories was 17 (100%), accounting for the teachers in the sampled schools.

Hence, the majority of schools had between 16 and 20 teachers, followed by 9 to 15 teachers. A smaller percentage of schools had 26 teachers and above or 21 to 25 teachers. This suggests that a significant proportion of schools in the study had a moderate-sized teaching staff. Having a sufficient number of teachers within this range can support effective classroom management, collaboration among staff, and the implementation of various instructional strategies.

4.4.2 Distribution of number of streams per school

Understanding the structure and organization of schools requires looking at how many different paths students might take at the same school. Table 6 shows the counts in percentage terms, of the number of academic streams or pathways offered by individual schools. This section explored the distribution patterns and implications of the number of streams per school.

Table 6

Percentage Distribution of Number of Streams per School N =17 (H/T)

Number of streams	**Frequency**	**Percent**
1 – 5 streams	4	23.5
6 – 10 streams	1	5.9
11 - 15 streams	5	29.4
16 streams and above	7	41.2
Total	**17**	**100.0**

Source: Field data, 2023

Within the category "1 – 5 streams," there were 4 (23.5%) occurrences of the total, "6 – 10 streams" had 1 (5.9%) occurrence, "11 - 15 streams" had 5 (29.4%) occurrences, the category "16 streams and above" had 7 (41.2%) occurrences. The total count across all categories was 17 (100%) of the schools.

Therefore, the results revealed that the majority of schools had 16 streams and above or 11 to 15 streams. A smaller percentage of schools had 1 to 5 streams or 6 to 10 streams.

This information provides insights into the diversity of educational offerings within the schools.

The findings reveal that schools with a high number of streams, typically 16 and above or 11 to 15, require a larger number of classrooms to accommodate the diverse range of subjects and courses offered. This allows for smaller class sizes, promoting better student engagement and personalized instruction. While schools with fewer streams, ranging from 1 to 10, may have a relatively lower number of classrooms, but it is still important for them to have enough space to accommodate their student population.

4.4.3 Distribution of Existence of Enough Classrooms to Teach CBC

Assessing the availability of sufficient classrooms to accommodate the implementation of the Competency-Based Curriculum (CBC) is crucial for understanding the infrastructure readiness of schools. Figure 7 presents the results of the distribution of the existence of enough classrooms to teach CBC per school.

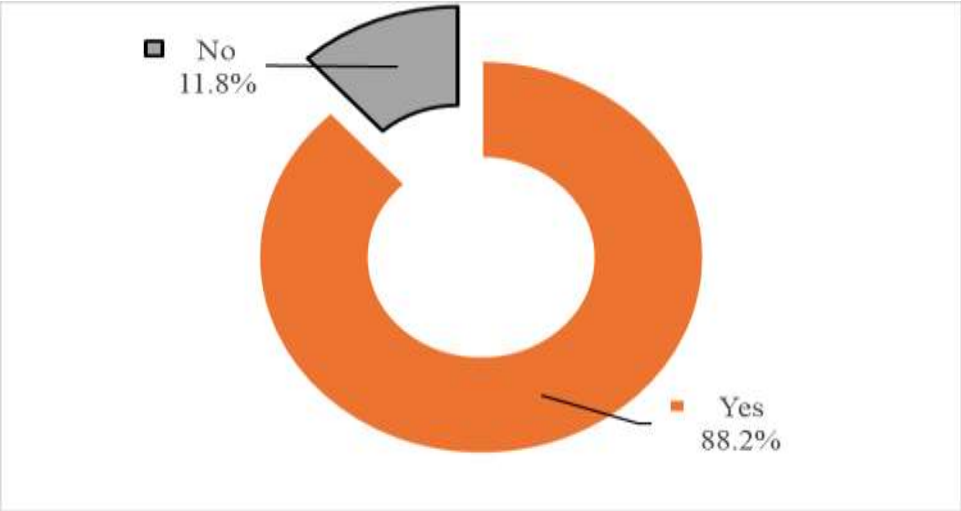

***Figure 7*: Percentage distribution of enough classrooms to teach CBC per School, N= 17**
Source: Field data, 2023

Among the surveyed schools, 15 (88.2%) schools reported having enough classrooms to teach CBC, 2 (11.8%) indicated a lack of sufficient classrooms. The total count of schools included in this analysis was 17 (100%).

Therefore, the results suggest that the majority of the surveyed schools reported having enough classrooms to accommodate the implementation of CBC. However, a small proportion of schools indicated a shortage of classrooms. Hence, the results provide insights into the importance of assessing the readiness of schools to implement the CBC and highlights the need for addressing infrastructural challenges in certain institutions.

4.4.4 Distribution of Number of Teachers to Implement CBC

Assessing the availability of an adequate number of teachers to implement the Competency-Based Curriculum (CBC) is essential for understanding the human resource capacity within schools. Figure 8 presents the results of the percentage distribution of the number of teachers required to implement CBC per school, offering insights into the staffing patterns across different categories. This section explored the distribution of number of teachers to implement CBC per school.

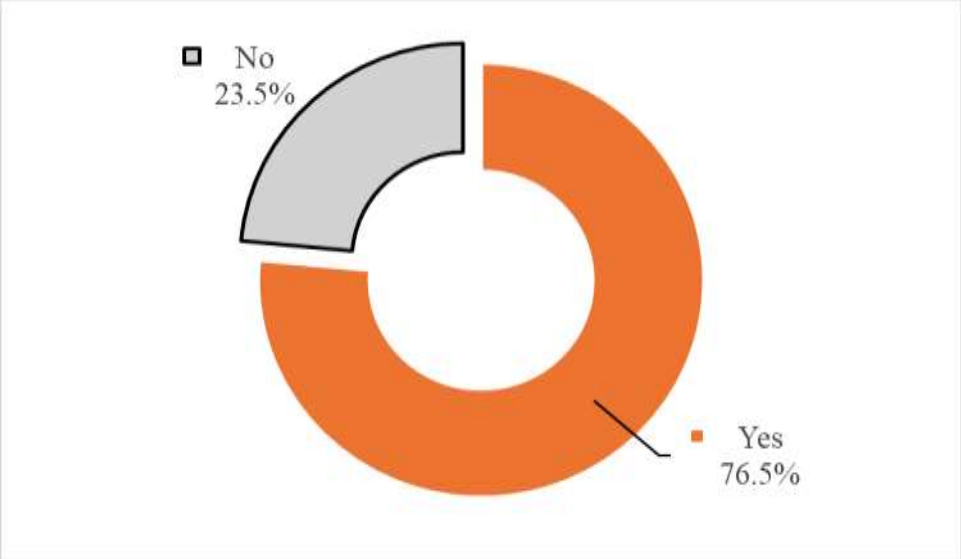

***Figure 8*: Percentage distribution of number of teachers to implement CBC per school, N= 17**
Source: Field data, 2023

Among the surveyed schools, 13 (76.5%) schools reported having a sufficient number of teachers, 4 (23.5%) schools indicated a shortage of teachers for CBC implementation. The total count of schools included in this analysis was 17 (100%) of the sample.

Therefore, the results revealed that the majority of the surveyed schools reported having enough teachers to implement the CBC. Schools with a sufficient number of teachers are likely to be better equipped to handle the demands of the curriculum, provide individualized attention to students, and facilitate effective learning experiences aligned with the CBC objectives. However, a significant proportion of schools indicated a shortage of teachers for CBC implementation. A shortage of teachers can lead to increased workload, larger class sizes, and limited capacity to deliver the curriculum in a comprehensive and effective manner. This may result in compromised instructional quality and hindered progress in achieving the intended outcomes of the CBC.

4.4.5 Distribution of Teachers Training and Practical Skills for the Implementation of CBC per School

Evaluating the training and practical skills of teachers for the implementation of the Competency-Based Curriculum is crucial for assessing their readiness to deliver effective instruction. Figure 9 presents the results of the percentage distribution of teachers' training and practical skills for the implementation of CBC per school, providing insights into the level of preparedness among teachers.

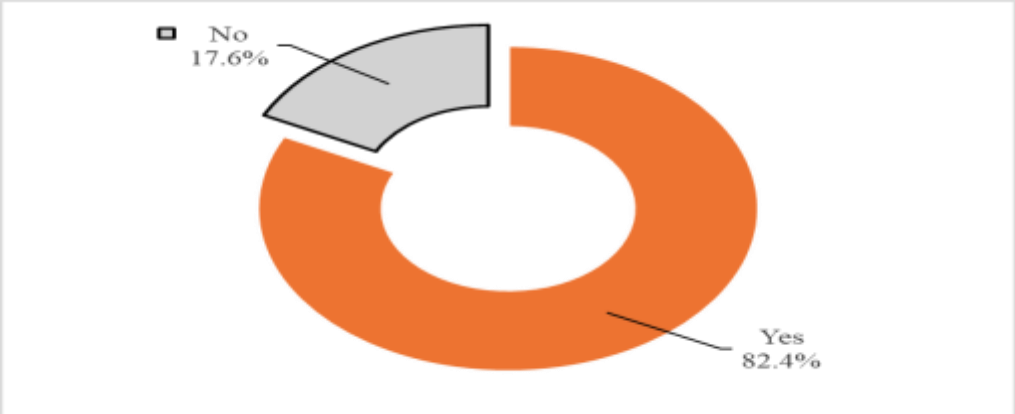

***Figure 9*: Percentage distribution of teachers training and practical skills for the Implementation of CBC per school, N= 17**

Source: Field data, 2023

Among the surveyed schools, 14 (82.4%) schools reported that their teachers had received training and possessed practical skills for CBC implementation. On the other hand, 3 (17.6%) indicated that their teachers had not received such training and lacked practical skills.

The majority of the surveyed schools reported that their teachers had received training and possessed practical skills for CBC implementation. Schools with trained teachers who possess practical skills are likely to be better prepared to understand the pedagogical approaches, assessment methods, and instructional strategies required by the CBC. They are more equipped to align their teaching practices with the curriculum's competency-based goals and foster meaningful learning experiences for their students. However, schools where teachers have not received specific training for CBC implementation may struggle to fully grasp the unique requirements and pedagogical shifts associated with the curriculum. The lack of practical skills among teachers in these schools can hinder their ability to effectively deliver the curriculum and support students in developing the required competencies. This information highlights the importance of providing adequate training and support to teachers to ensure successful implementation of the CBC in all schools.

4.4.6 Distribution of Relevance of CBC training in School

Assessing the perceived relevance of Competency-Based Curriculum training among head teachers is crucial for understanding the effectiveness and impact of training programs in supporting the implementation of the curriculum. Figure 10 displays the results of the percentage distribution of the relevance of CBC training as opined by the head teachers.

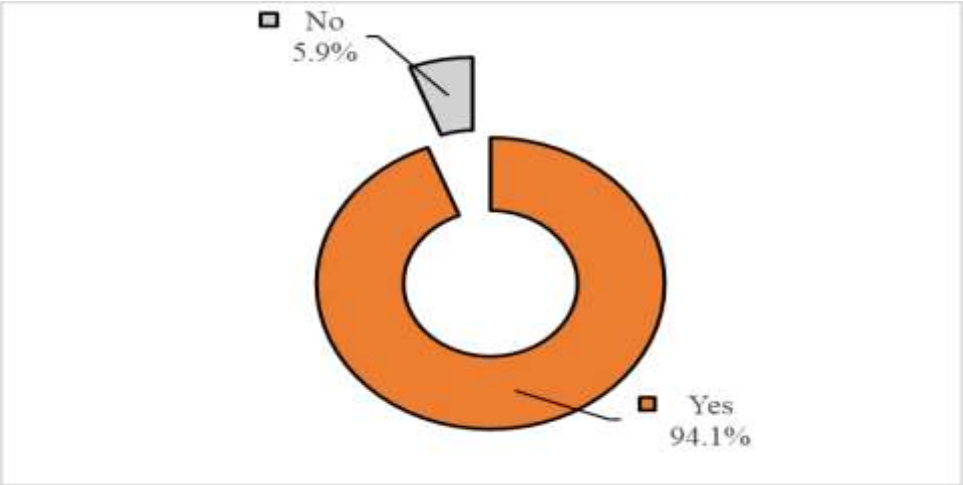

***Figure 10*: Percentage distribution of relevance of CBC training in school, N= 17**

Source: Field data, 2023

Out of the 17 schools, 16 (94%) claimed that the CBC training they gave their teachers was useful, while only 1 (6%) reported that it was not.

According to the findings, most of the surveyed institutions thought the CBC training they gave their educators was useful. This shows that the training programs at these institutions are in line with the CBC's expectations and goals. However, in order to guarantee that all schools' needs are met, it's crucial to address the issues raised by the school that reported the training as irrelevant. The results provide credence to the CBAM paradigm, which acknowledges that individuals' concerns during the adoption and execution of any educational innovation may range from enthusiasm to resistance. The issues raised by the school suggest there is a disconnect between their expectations and the instruction they are receiving.

4.4.7 Distribution of Existence of Modelling to Help Learners Acquire the Desired Competencies in school

Students' ability to learn the skills and knowledge emphasized in the CBC is greatly aided when schools have strong modeling methods in place. Figure 11 shows the prevalence of several kinds of modeling practices in schools that are designed to help students develop the necessary skills while still in school. this section gave a thorough description of the prevalence patterns of modeling tools available in schools.

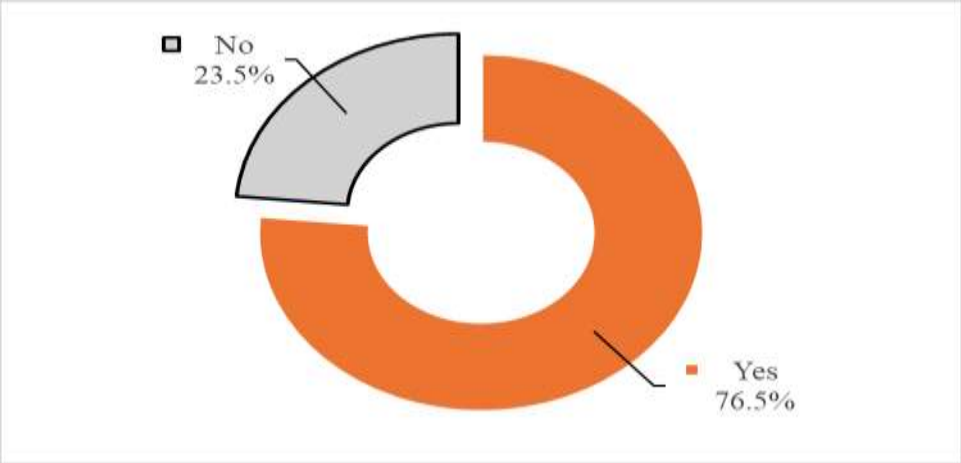

***Figure 11*: Percentage distribution of existence of modelling to help learners acquire the desired competencies in school, N= 17**

Source: Field data, 2023

Among the surveyed schools, 13 (76%) schools reported the presence of modelling to aid learners in acquiring the desired competencies, 4 (24%) indicated that modelling was not utilized in their teaching practices.

The results highlights that a significant proportion of the surveyed schools implement modelling techniques to support learners in acquiring the desired competencies. This suggests that these schools recognize the importance of using modelling as an effective instructional strategy within the Competency-Based Curriculum (CBC) framework. Modelling can enhance student engagement, improve comprehension, and facilitate the development of the desired competencies by providing explicit and visible demonstrations of skills, problem-

solving strategies, or critical thinking processes. However, it is worth noting that there were still a few schools that had not incorporated modelling into their teaching practices.

4.4.8 Distribution of Availability of Computers in the School

Having access to computers in the classroom is a major step toward incorporating technology into the curriculum. The percentage breakdown of computer access in schools is displayed in Figure 12. This section analyzed the current pattern of school computer availability.

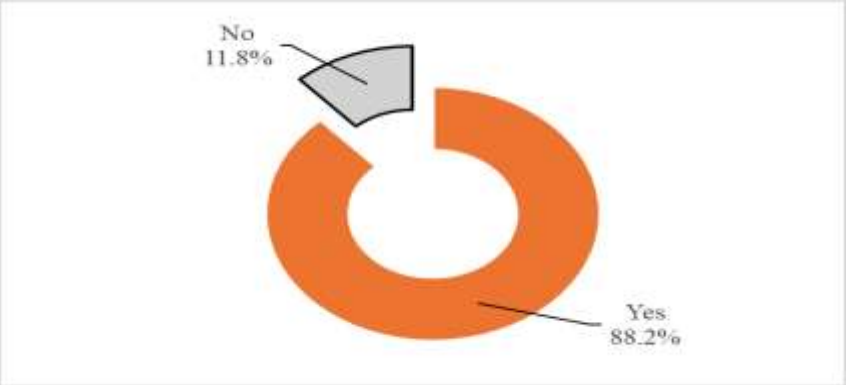

Figure 12: **Percentage distribution of availability of computers in the School, N=17**

Source: Field data, 2023

Out of the total 17 participants, 15 (88.2%) reported that computers were available in their schools indicating that a majority of the teachers had access to computers in their schools. Contrastingly, only 2 (11.8%) participants, reported that computers were not available in their schools.

The results in general indicated that a significant number of teachers had access to computers in their schools, with a relatively small percentage reporting the absence of computer facilities. The findings suggest that the availability of computers in schools may have played a role in shaping teachers' technological literacy and potential access to digital resources. The findings of this study are consistent with that of Bashir and Mativo (2020) who found out that integration of digital technology including computers supports implementation of CBC in schools.

4.5 Preliminary Tests for Linear Regression Assumptions

The regression model utilized in this study involved continuous data for both the independent and dependent variables. The mean score of the responses per variable was used to obtain the necessary data. To examine the study's hypotheses, the primary analysis technique employed was simple linear regression. Simple regression allows for the prediction of a specific outcome based on a set of variables that are correlated. Prior to conducting simple linear regression analysis, it is crucial to test for several underlying assumptions, as highlighted by Alita et al. (2021). These assumptions include linearity, autocorrelation, heteroscedasticity, homoscedasticity, normality of the scores, and multicollinearity between the independent and dependent variables. In this study, various tests were conducted to assess normality, multicollinearity, heteroscedasticity and homoscedasticity.

4.5.1 Test for Normality

The assessment of normality in the continuous data for the independent and dependent variables was conducted using the Q-Q Normal Plot. This plot helps determine the shape of the data and was employed to test for normality. The mean score of the responses per variable was utilized to obtain the continuous data. Figure 13 displays the Q-Q Normal Plot specifically for the Competency Based Curriculum (CBC).

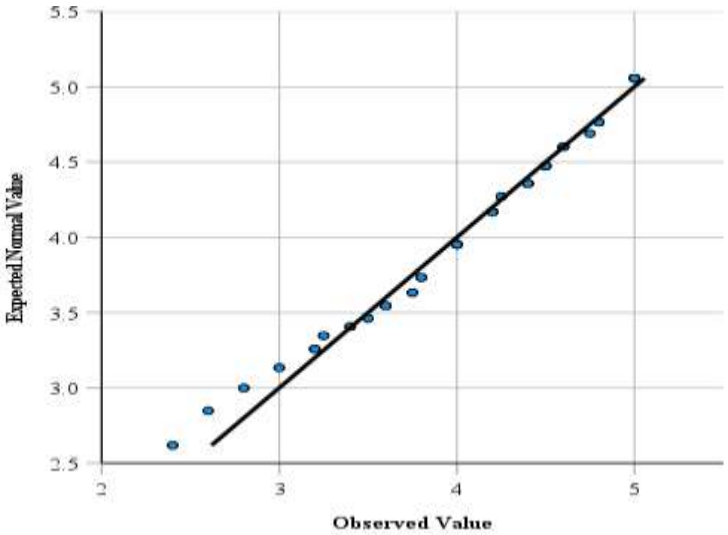

Figure 13: **Q-Q Normal Plot of the Competency Based Curriculum**
Source: Field Data, 2023

According to the results shown in Figure13, a straight diagonal line running from the bottom left to the top right of the Q-Q Normal Plot best represents the distribution of the data. This trend indicates that the data related to the CBC followed a normal distribution with no significant outliers. Normal data distribution, as described by Yang and Berdine (2021), looks like a straight diagonal line going from the bottom left to the top right. Figure 14 is a Q-Q Normal Plot, displaying teachers' credentials.

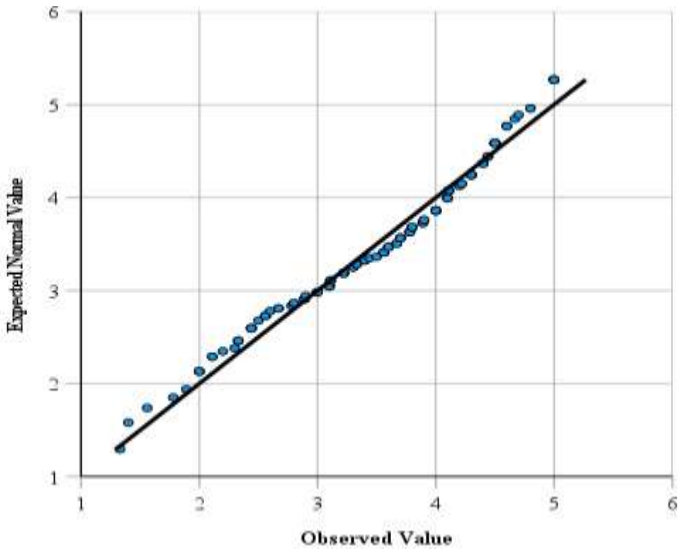

***Figure 14*: Q-Q Normal plot of Teacher's Academic Qualifications**
Source: Field data, 2023

According to the results shown in Figure 14, the data points in the Q-Q Normal Plot fall in a tight cluster along a diagonal line going from the bottom left to the top right. It is clear from this comparison that there were no significant deviations from a normal distribution in the data for the "teacher's academic qualifications" variable. Figure 15 shows the Q-Q Normal Plot of teacher technical skills.

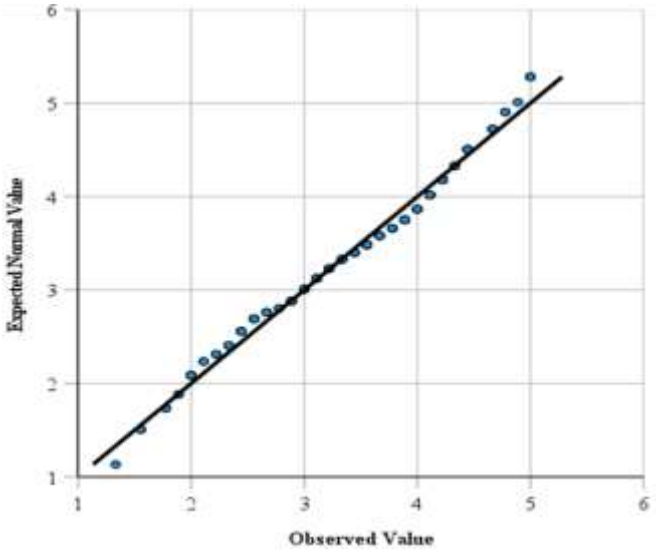

Figure 15: **Q-Q Normal plot of teacher technical skills**
Source: Field data, 2023

The findings depicted in Figure 15 reveal that the data points within the Q-Q Normal Plot align precisely along a linear diagonal trajectory, extending seamlessly from the lower-left quadrant to the upper-right quadrant. This distinct alignment substantiates that the data pertaining to the technical skills of teachers adhered to a normal distribution, displaying no substantial deviations or noteworthy departures from normality. Figure 16 shows the Q-Q Normal Plot of the teacher Competency Based Curriculum pedagogy.

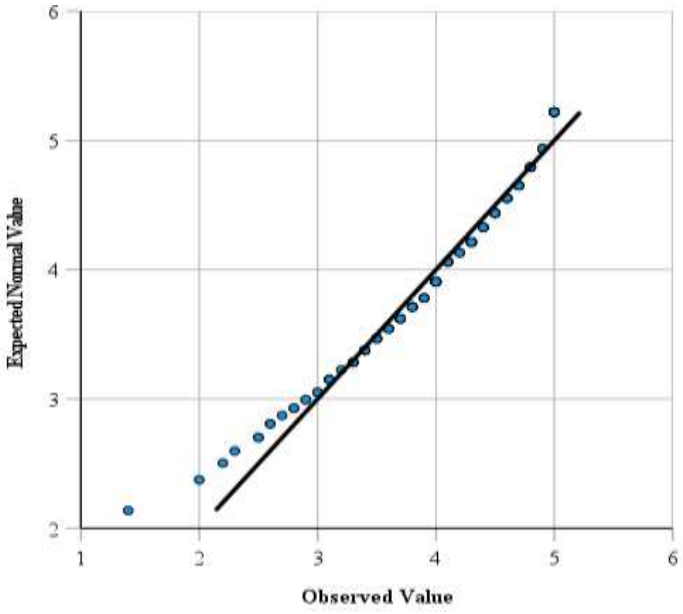

Figure 16**: Q-Q Normal plot of Teacher Competency Based Curriculum Pedagogy**
Source: Field data, 2023

When plotted on a Q-Q Normal Plot, a set of data points looks like it follows a straight line, with the trend running diagonally from the bottom left to the top right. The distribution of teachers' approaches to teaching in accordance with the Competency-Based Curriculum appears to follow a normal distribution, with only a few outliers (Figure 16).

4.5.2 Multicollinearity Test

Strong correlations or linkages among the independent variables are referred to as multicollinearity (Nwankwo et al., 2022). The occurrence of multicollinearity was investigated by looking at the continuous data acquired by averaging the responses across all of the variables. For this evaluation, SPSS was used to calculate the variance inflation factor (VIF) for each independent variable. The levels of multicollinearity were evaluated based on the VIF values. In Table 7, show the outcomes of the VIF test for each independent variable.

Table 7

Variance Inflation Factor Test Results for Independent Variables

	Collinearity Statistics	
Independent variables	**Tolerance**	**VIF**
Teacher academic qualifications	0.901	1.110
Teacher technical skills	0.941	1.062
Competency Based Curriculum pedagogy	0.901	1.109
Mean VIF	**0.914**	**1.094**

a. Dependent Variable: Implementation of Competency Based Curriculum

Source: Field data, 2023

The results of the Variance Inflation Factor (VIF) test for the independent variables are presented in Table 7. The VIF test is used to assess multicollinearity among the independent variables in a regression analysis. In this case, the VIF values indicate the extent of collinearity between each independent variable and the other variables included in the analysis.

The table displays the collinearity statistics, including the Tolerance and VIF values for each independent variable. The Tolerance value represents the proportion of variance in

an independent variable that is not explained by the other independent variables. On the other hand, the VIF value is the reciprocal of the Tolerance and indicates the degree of multicollinearity. In this analysis, the independent variables include "Teacher academic qualifications," "Teacher technical skills," and "Competency Based Curriculum pedagogy." For "Teacher academic qualifications," the Tolerance value is 0.901, suggesting that 90.1% of the variance in this variable is not explained by the other independent variables. The corresponding VIF value is 1.110, indicating a low level of collinearity. Similarly, for "Teacher technical skills," the Tolerance value is 0.941, indicating that 94.1% of the variance in this variable is not explained by the other independent variables. The VIF value of 1.062 suggests a minimal level of collinearity. The "Competency Based Curriculum pedagogy" variable has a Tolerance value of 0.901, indicating that 90.1% of the variance is not explained by the other independent variables. The VIF value of 1.109 also suggests a low level of collinearity.

The mean VIF value, calculated as the average of the VIF values for all independent variables, is 1.094. This value is below the threshold of 5, which is commonly used to identify the presence of multicollinearity. Therefore, it indicates that there is no significant multicollinearity issue among the independent variables in the analysis.

Overall, the results of the VIF test indicate that the teacher characteristics (teacher academic qualifications, teacher technical skills, and competency-based curriculum pedagogy), have low levels of collinearity. This suggests that these variables can be included in regression analyses without concern for multicollinearity-related issues. Therefore, the independent variables can be considered as distinct and relatively independent predictors of the dependent variable (Sutradhar, 2020).

4.5.3 Heteroscedasticity Test

The reliability and validity of statistical analyses may be affected by the presence of heteroscedasticity, which is characterized by unequal variances of errors in a regression model. The White test was performed to determine if the hypothesized explanatory factors exhibited heteroscedasticity. Table 8 displays the outcomes of this test and sheds light on the possible presence and form of heteroscedasticity in the data.

The White test is preferred over the Breusch-Pagan test because it can detect not just linear but also non-linear forms of heteroscedasticity, including variations in magnitude and direction (Smith et al., 2021). The White test was used so the researcher could have a better grasp on the heteroscedasticity patterns present in the data.

Table 8 displays the results of the White test, providing information on the presence and significance of heteroscedasticity across the explanatory variables. These results helped in assessing the robustness of their regression model and informed decisions about potential adjustments or further analyses to account for heteroscedasticity.

Table 8

Test for Heteroscedasticity Results

Source	**chi^2**	**df**	**P**
Heteroscedasticity	3.74	2	0.1545

Source: Field Data, 2023

The test for heteroscedasticity displayed in Table 8, examined the presence of unequal variances in the data. The obtained results revealed a chi-square value of 3.74 with 2 degrees of freedom, leading to a p-value of 0.1545. This p-value suggests that there was no substantial evidence to support the existence of heteroscedasticity in the dataset.

When the variability of the dependent variable varies with respect to the levels of the independent variable(s), this is known as heteroscedasticity. A p-value for heteroscedasticity that was not statistically significant suggests that the presumptions of equal variances was

met to a satisfactory degree in this research. Consequently, this finding shows that the dependent variable's variability was stable across the range of the independent variable(s) under investigation.

These results provide credence to the homoscedasticity assumption, which states that the dependent variable's variability is the same across all levels of the independent variable(s). Due to the lack of heteroscedasticity, the statistical analyses performed and the findings generated from the data are more trustworthy and valid (Rosmianingrum et al., 2022).

4.5.4 Test for Homoscedasticity

The assumption of equal variances, known as homoscedasticity, posits that the variance of the dependent variable remains constant across different samples or populations (Mansournia et al., 2021). In order to assess the assumption of homoscedasticity, scatter plots were employed to examine the relationship between the independent and dependent variables in the study. Specifically, a scatterplot was constructed, plotting the standardized residuals of the Implementation of Competency Based Curriculum (the dependent variable) against the standardized predictor variable, teacher academic qualifications. The scatterplot serves as a visual tool to explore the nature of the relationship between these variables. By analyzing the scatterplot, insights can be gained regarding the presence or absence of heteroscedasticity and the potential impact it may have on the statistical analyses conducted in the study. Figure 17 presents the scatter plot results of implementation of Competency Based Curriculum variable by teacher academic qualifications.

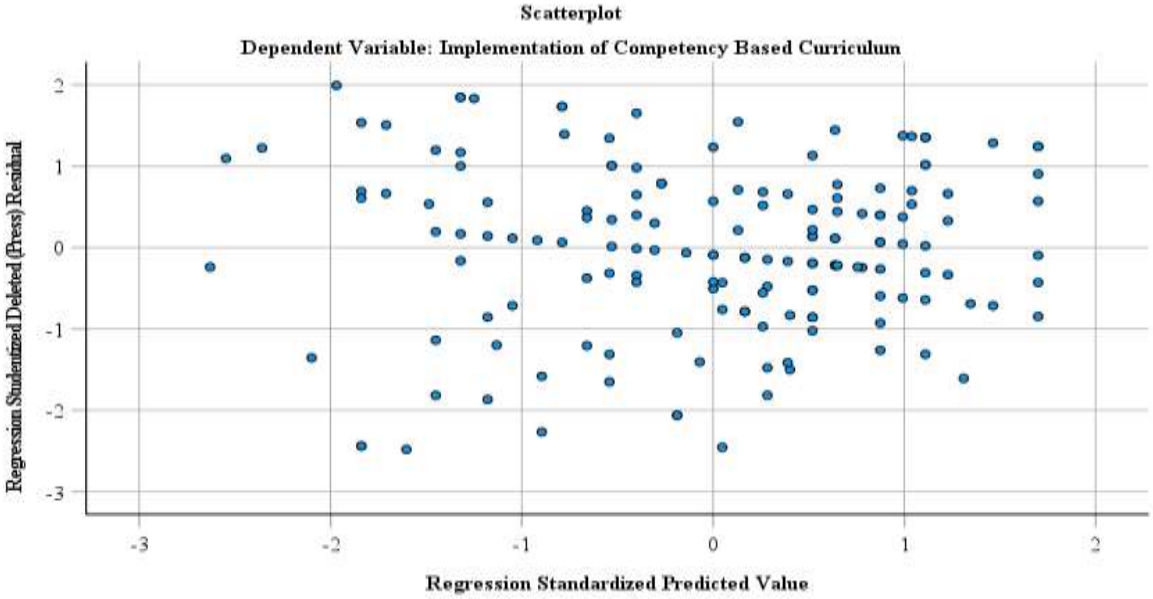

***Figure 17*: Implementation of CBC by Teacher Academic Qualifications**

Source: Field data, 2023

Standardized residuals for Implementation of Competency-Based Curriculum are displayed against the standardized predictor variable of teacher academic qualifications in Figure 17. The results show that the scores are distributed uniformly around zero, which rules out any homoscedasticity issues. The study appears to have maintained the premise of equal variances because there is no evident pattern or systematic divergence from zero. Figure 17 presents a scatter plot results for the implementation of Competency Based Curriculum against teacher technical skills.

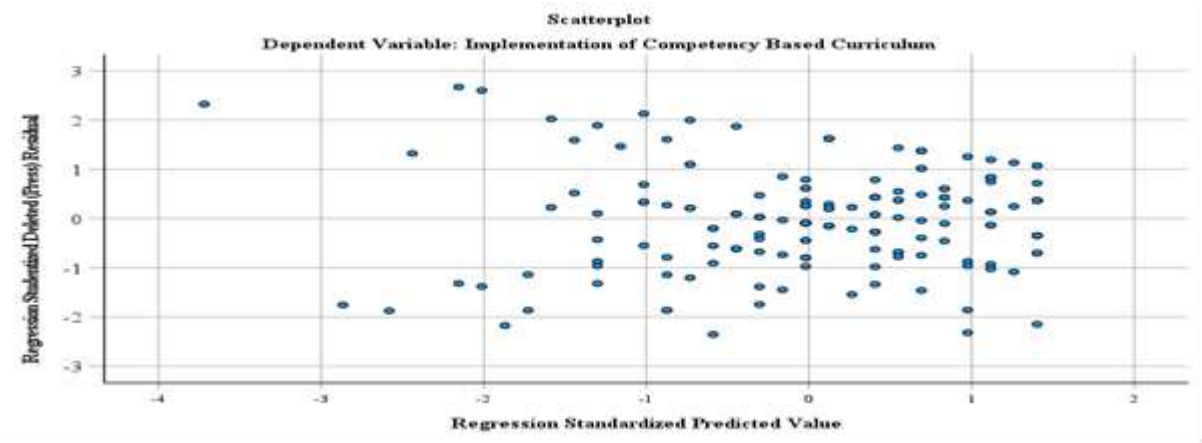

***Figure 18*: Implementation of CBC against Teacher Technical Skills**

Source: Field data, 2023

Figure 18 illustrates the distribution of scores, specifically the standardized residuals for the Implementation of Competency Based Curriculum, plotted against the standardized predictor variable of teacher technical skills. The results indicate that the scores are randomly dispersed around zero, suggesting the absence of any significant issues with homoscedasticity. The lack of a discernible pattern or systematic deviation from zero suggests that the assumption of equal variances was upheld in the analysis. Figure 18 presents the scatter plot results for implementation of Competency Based Curriculum against teacher Competency Based Curriculum pedagogy.

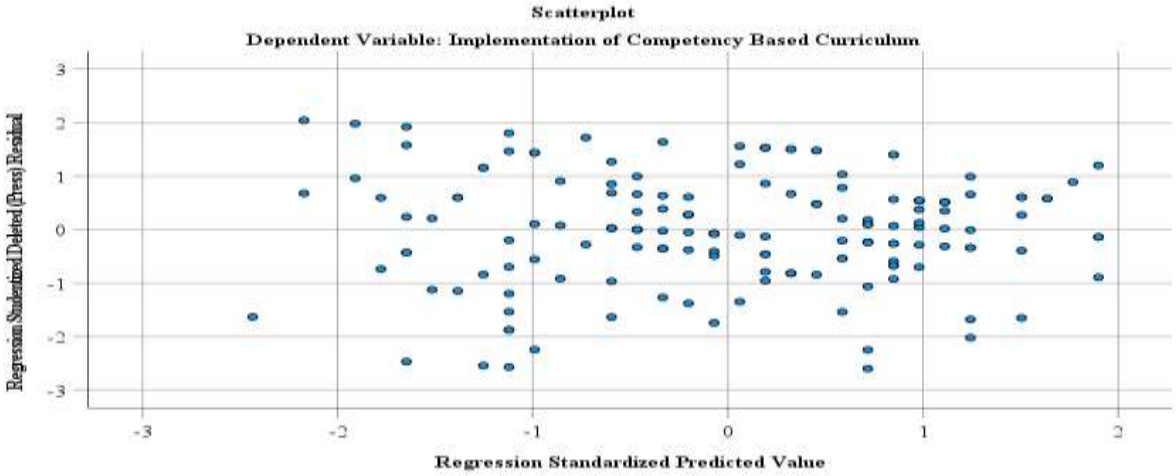

***Figure 19:* Teacher CBC Pedagogy on the Implementation of CBC**

Source: Field data, 2023

Figure 19 demonstrates the dispersion of scores, represented by the standardized residuals, for the Implementation of Competency Based Curriculum plotted against the teacher Competency Based Curriculum pedagogy. The distribution of scores shows a random pattern around zero, indicating the absence of any significant issues related to homoscedasticity between these variables. This suggests that the assumption of equal variances is upheld.

4.6 Influence of teacher characteristics on the Implementation of Competency-Based Curriculum in primary schools

The success of a competency-based curriculum (CBC) in primary schools depends on taking into account a number of factors related to the teachers implementing it. This section focuses on examining the influence of teacher characteristics and the implementation of the CBC. The size, direction, and statistical significance of these associations were analyzed using Spearman's rank correlation, a non-parametric statistical method.

The independent variables in this study include teacher academic qualifications, technical skills and teacher Competency Based Curriculum (CBC) pedagogy. These variables were analysed in relation to the dependent variable, which is the implementation of the CBC in primary schools. Spearman's rank correlation was chosen as it allows for the examination of associations between variables without making assumptions about their underlying distribution.

Table 9 presents the correlation matrix, which provides a comprehensive overview of the influence among the variables of interest. The correlation matrix includes the correlation coefficients, which indicate the strength and direction of the influence, as well as their statistical significance.

Table 9

Correlation Matrix for Teacher Academic Qualifications, Teacher Technical Skills, Teacher CBC Pedagogy and Implementation of CBC

		Implementation of CBC
Teacher academic qualifications	Correlation Coefficient	.424**
	Sig. (2-tailed)	.000
	N	165
Teacher technical skills	Correlation Coefficient	.254**
	Sig. (2-tailed)	.000
	N	165
Teacher CBC pedagogy	Correlation Coefficient	.373**
	Sig. (2-tailed)	.000
	N	165

** Correlation is significant at the 0.05 level (2-tailed).

Source: Field data, 2023

The study revealed several significant correlations between teacher characteristics and the implementation of the Competency Based Curriculum (CBC) in primary schools. Specifically, a positive and significant correlation was found between teacher academic qualifications and the implementation of the CBC ($r = 0.424$, $p < 0.05$). This indicates that higher levels of academic qualifications among teachers were associated with a greater implementation of the CBC. Teachers with more advanced academic backgrounds may have possessed the necessary knowledge and skills to effectively implement the curriculum, resulting in a higher level of implementation. This finding agrees with the findings of Baecher and Connor (2019) who found out that teacher certification pathway significantly influences instructional practices in teaching the mathematics curriculum. Teachers with more advanced academic backgrounds and specialized mathematics coursework were more likely to use instructional strategies aligned with the intended mathematics curriculum.

Similarly, the study identified a positive and significant correlation between teacher technical skills and the implementation of the CBC ($r = 0.254$, $p < 0.05$). This suggests that teachers who demonstrated stronger technical skills, such as proficiency in using educational technology or innovative teaching methods, were more likely to effectively implement the CBC in Molo Sub-County schools. These technical skills likely enabled teachers to adapt to the demands of the competency-based approach and effectively engage students in acquiring the desired competencies. The findings of this study were in agreement with the study by Kiboss, Mokaya, & Mutisya (2021) who found out that teachers who adopted and integrated Competency-Based Curriculum (CBC) pedagogy into their teaching practices were more successful in implementing the curriculum and facilitating student learning aligned with the desired competencies.

Additionally, a positive and significant correlation was observed between the implementation of the CBC and CBC pedagogy ($r = 0.373$, $p < 0.05$). This indicates that a stronger emphasis on CBC pedagogy, which focuses on learner-centered and competency-based instructional strategies, was associated with a higher level of implementation of the CBC. Teachers who adopted and integrated CBC pedagogy into their teaching practices were more successful in implementing the curriculum and facilitating student learning aligned with the desired competencies.

The correlation matrix provides valuable insights on the influence of the independent variables of teacher academic qualifications, technical skills, CBC pedagogy and the implementation of the CBC. These findings highlight the importance of these teacher characteristics in shaping the successful implementation of the CBC. Teachers with higher academic qualifications, stronger technical skills, and a deeper understanding of CBC pedagogy were better positioned to effectively implement the curriculum and support students in achieving the desired competencies.

4.7 Teacher Qualifications and Competency Based Curriculum Implementation

This section focuses on examining the influence of teacher qualifications on the implementation of the Competency Based Curriculum (CBC) in primary schools within Molo Sub-County. This section begins by providing descriptive statistics of teachers' qualifications, shedding light on the distribution and perceived influence of qualifications on various aspects of learners' development.

Next, Hypothesis test one (Ho1) is introduced, which aims to investigate the significant influence of teachers' qualifications on the implementation of the Competency Based Curriculum in primary schools. The results of this analysis are presented in Table 11, which displays the findings of a simple regression model examining the influence of teacher qualifications and the implementation of the CBC. Thus, this section seeks to provide a comprehensive understanding of the role of teacher qualifications in the effective implementation of the Competency Based Curriculum.

4.7.1 Descriptive statistics of teacher qualifications

Table 10 provides descriptive statistics on teacher qualifications and the extent to which it is believed to affect student growth in a variety of domains. Teachers' credentials and their impact on students' development and education are provided by the data in the table. The count column indicates the number of teachers who participated in the survey or study, offering information on the sample size and the level of engagement from the teaching workforce. In order to get a sense of how widely spread out the various certifications are, we may look at the percentages in the columns. The mean also indicates the average opinion of teachers regarding the impact of their credentials on students' growth in many domains. This mean rating reflects how their credentials are generally regarded as helping students develop and learn.

Table 10
Descriptive Statistics of Teacher Qualifications N = 165 (T**)**

Statement		**SD**		**D**		**M**		**A**		**SA**		**Mean**
Percentage (%)	**N**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	
Teacher's academic qualifications influence how learners achieve competencies	165	13	7.9	19	11.5	38	23.0	59	35.8	36	21.8	3.52
Teacher's academic qualifications influence learner's active participation in class.	165	20	12.1	16	9.7	27	16.4	65	41.8	33	20.0	3.48
Teachers' academic qualifications influence learners critical thinking	165	18	10.9	20	12.1	33	20.0	58	35.2	36	21.8	3.45
Teacher's academic qualifications influence learner's problem-solving skills	165	11	6.7	16	9.7	34	20.6	73	44.2	31	18.8	3.59
Teacher's academic qualifications influence learner's numeracy skills.	165	9	5.5	12	7.3	34	20.6	37	40.6	43	26.1	3.75
Teacher's academic qualifications influence learner's literacy skills	165	8	4.8	12	7.3	32	19.4	72	43.6	41	24.8	3.76
Teacher's academic qualifications influence learner's digital skills	165	9	5.5	20	12.1	41	24.8	49	29.7	46	27.9	3.62
Teacher's academic qualifications influence effective interpretation of curriculum design	165	7	4.2	12	7.3	29	17.6	65	39.4	52	31.5	3.87
Teacher's academic qualifications influence learner's lifelong learning	165	9	5.5	20	12.2	35	21.2	60	36.4	41	24.8	3.63
Overall mean												**3.63**

Source: Field Data, 2023

For the statement "Teacher's academic qualifications influence how learners achieve competencies," the majority of participants 95 (57.6%) either agreed or strongly agreed with this assertion. However, a considerable portion of participants expressed a moderate disagreement, with 38 (23.0%) moderately disagreeing. The mean score for this statement was 3.52. Teachers with higher academic qualifications may be more likely to employ effective instructional strategies and adapt their teaching methods to meet the diverse needs

of their learners. They may be better equipped to design engaging lessons, incorporate practical-based practices, and use appropriate assessment methods to monitor student progress. The findings of this study concur with a study by Kibet, & Kipkemoi (2021) who found out that teachers' characteristics, including qualifications are important factors in students' academic achievement. Regarding the influence of teachers' academic qualifications on learner's active participation in class, 36 (62.2%) of participants agreed or strongly agreed with this notion. Conversely, a notable proportion of participants 43 (28.1%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.48, indicating a moderate agreement on average.

Regarding on the influence of teachers' academic qualifications on learner's critical thinking, 94 (57.0%) of participants agreed or strongly agreed. However, a considerable proportion 53 (32.1%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.45, suggesting a moderate agreement on average.

Regarding the influence of teachers' academic qualifications on learner's problem-solving skills, a majority of participants 104 (62.9%) agreed or strongly agreed with this statement. However, a notable proportion 50 (27.3%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.59, indicating a moderate agreement on average.

When examining the influence of teachers' academic qualifications on learner's numeracy skills, the majority of participants 111 (66.7%) agreed or strongly agreed. However, a notable proportion 46 (26.1%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.75, indicating a moderate agreement on average. The findings of the current study demonstrate a substantial majority agreement regarding the positive influence of teachers' academic qualifications on learners' numeracy skills, while a notable proportion expressed some level of disagreement. The moderate mean

score further reinforces this sentiment of moderate agreement on average. This aligns with previous research by Tenge and Anditi (2017), which found a positive association between teachers' academic qualifications and learners' performance in mathematics.

On whether teachers' academic qualifications influence learner's literacy skills, a significant majority of participants 113 (68.4%) agreed or strongly agreed. Nonetheless, some participants 44 (24.2%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.76, suggesting a moderate agreement on average.

Regarding the influence of teachers' academic qualifications on learner's digital skills, a notable proportion of participants (57.6%) agreed or strongly agreed. However, a considerable portion (37.9%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.62, indicating a moderate agreement on average.

When asked to state whether teachers' academic qualifications influence on effective interpretation of curriculum design, a majority of participants 95 (70.9%) agreed or strongly agreed. Nonetheless, a considerable portion 61 (22.1%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.87, suggesting a moderate agreement on average.

Regarding the influence of teachers' academic qualifications on learner's lifelong learning, a majority of participants 101 (60.9%) agreed or strongly agreed. However, a significant proportion 55 (33.3%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.63, indicating a moderate agreement on average.

The results indicated that the majority of teachers in Molo Sub- County schools agreed (Overall mean score of approximately of 4) with statement of teachers' academic qualifications. The fact that the majority of participants agreed with the influence of teachers'

qualifications suggests that they believe that teachers' academic qualifications play a significant role in the successful implementation of the CBC. This viewpoint aligns with the idea that teachers' qualifications and knowledge are crucial for delivering effective instruction and facilitating students' acquisition of competencies. While the majority of participants agreed with the influence of teachers' qualifications, there was also a noticeable proportion expressing some level of disagreement or moderate disagreement.

4.7.2 Hypothesis test one

H**o₁**There is no statistically significant influence of teacher qualifications on the implementation of Competency Based Curriculum in Molo Sub-County primary schools.

Table 11 presents the results of the simple regression model investigating the influence of teachers' qualifications on the implementation of Competency Based Curriculum in primary schools.

Table 11

Simple Regression Model Results for Influence of Teachers' Qualifications on the Implementation of Competency Based Curriculum Primary Schools

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.449[a]	.201	.196	.63015

a. Predictors: (Constant), qual

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.312	1	16.312	41.078	.000[b]
	Residual	64.726	163	.397		
	Total	81.038	164			

a. Dependent Variable: Implementation of Competency Based Curriculum
b. Predictors: (Constant), qual

Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.690	.212		12.669	.000
	Teachers' qualifications	.372	.058	.449	6.409	.000

a. Dependent Variable: Implementation of Competency Based Curriculum

Source: Field Data, 2023

The model summary reveals that the regression model has an R-squared value of .201, indicating that approximately 20.1% of the variance in the implementation of Competency Based Curriculum can be explained by teachers' qualifications. The adjusted R-squared value, which considers the number of predictors and sample size, is .196. The standard error of the estimate is .63015, representing the average distance between the observed values and the predicted values by the model.

The ANOVA table demonstrates that the regression model is statistically significant ($F = 41.078$, $p < .001$). This indicates that the relationship between teachers' qualifications and the implementation of Competency Based Curriculum is not likely due to chance. Therefore, the null hypothesis (H01), which suggests no significant influence of teachers' qualifications on the implementation of Competency Based Curriculum in Molo Sub-County primary schools, is rejected at the significance level of .05. Therefore, the alternative hypothesis was accepted which states that “There is significant influence of teacher qualifications on the implementation of Competency Based Curriculum in Molo Sub-County primary schools”.

Analysing the coefficients, it can be observed that the constant term has a value of 2.690 with a standard error of .212. The coefficient for teachers' qualifications is .372, indicating that for every unit increase in teachers' qualifications, the implementation of Competency Based Curriculum increases by .372 units. This coefficient is statistically significant ($\beta = 6.409$, $p < .001$). The results suggest a positive and significant relationship between teachers' qualifications and the implementation of Competency Based Curriculum in primary schools. The findings indicate that higher qualifications among teachers are associated with a greater implementation of the curriculum. These results provide strong evidence to support the alternative hypothesis and reject the null hypothesis, emphasizing the significant influence of teachers' qualifications on the implementation of Competency Based

Curriculum in Molo Sub-County primary schools. These findings are consistent with the findings of the study done by Kamwitha et al. (2022) on "Teacher Professional Qualification in Early Childhood Education and Its Influence on Promotion Rates in Public Primary Schools in Embu County, Kenya". Who established that there was significant association between teachers' qualifications and the implementation of Competency Based Curriculum.

The findings were supported by the following teacher's responses when interviewed regarding the benefits of academic qualifications and the implementation of competency-based curriculum. The analysis delves into the viewpoints of four participants (identified as Participant A to C) who provided valuable insights on various aspects related to CBC implementation. By examining these diverse perspectives, this qualitative analysis aims to provide a comprehensive understanding of the significance of academic qualifications and their implications on the effective implementation of competency-based curriculum in educational settings.

> "As a degree holder, I believe that academic qualifications significantly contribute to enhancing focus and task performance in schools The knowledge and skills I have acquired over time has greatly improved the way I prepare, plan, and organize my work. Advancing in my academic field has made a noticeable difference compared to when I had not pursued higher education." (Participant A, Personal communication, April 28, 2023).

Participant A highlighted the advantages of academic qualifications, emphasizing how they contribute to improved focus on task performance. The participant specifically mentioned how his own knowledge and skills acquired over time has enhanced his general work in regard to preparation, planning, and organization.

> "Competency-based curriculum necessitates individuals who possess the necessary skills and knowledge to assist learners in constructing meaning from their

> experiences. Recognizing the importance of this, I have actively encouraged my teachers to embrace the challenge. Currently, more than half of the staff hold either a diploma or a degree. This has not only resulted in improved remuneration for them but has also empowered them to create teaching resources. Moreover, their ability to improvise equipment in science-related learning areas has effectively reduced the cost of materials." (Participant B, Personal communication, April 28, 2023)

Participant B emphasized the significance of competence in a curriculum and the role of individuals with skills and knowledge in helping learners construct meaning. The participant noted that over half of their staff, who hold diplomas or degrees, have experienced positive outcomes such as improved remuneration, the ability to prepare teaching learning resources, and cost reduction through equipment improvisation in science-related learning areas.

> "It is my firm belief that the Ministry of Education should prioritize planning regular in-service training for teachers. Such training programs would equip them with the necessary skills to meet the demands of the ever-evolving educational landscape. Additionally, this would be particularly beneficial for those teachers who are nearing retirement and may not have the opportunity to pursue further academic qualifications." (Participant C, Personal communication, April 28, 2023)

Respondent C focused on the need for regular in-service training for teachers. The participant highlighted its importance in equipping teachers with necessary skills, particularly for those approaching retirement that may not have the opportunity to pursue further academic qualifications.

In this qualitative analysis, participants shared their perspectives on the benefits of academic qualifications, the importance of competence in curriculum, the need for regular in-service training, and the impact of advancing teachers' academic qualifications in

implementing competency-based curriculum.

4.8 Teacher technical skills and CBC Implementation

This section focuses on examining the influence of teacher's technical skills on the implementation of the Competency Based Curriculum (CBC) in primary schools within Molo Sub-County. This section begins by providing descriptive statistics of teachers' technical skills, shedding light on the distribution and perceived influence of use of technical skills on various aspects of learners' development.

Next, Hypothesis test one (Ho2) is introduced, which aims to investigate the significant influence of teachers' technical skills on the implementation of the Competency Based Curriculum in primary schools. The results of this analysis are presented in Table 4.16, which displays the findings of a simple regression model examining the relationship between teachers' technical skills and the implementation of the CBC. Thus, this section seeks to provide a comprehensive understanding of the role of teacher technical skills in the effective implementation of the Competency Based Curriculum.

4.8.1 Descriptive statistics of teacher's technical skills

Table 12 presents the descriptive statistics of teachers' technical skills and their utilization of various tools and resources in the teaching process. This table provides valuable insights into the proficiency and application of technical skills among teachers. The count column indicates the number of teachers included in the analysis, providing information about the sample size and the level of engagement from the teaching workforce. The column percentage represents the proportion of teachers who possess each specific technical skill, giving an overview of the distribution of skills among the participants. Additionally, the mean score reflects the average rating given by teachers regarding their utilization of various tools and resources in teaching. This average score serves as an indicator of the perceived effectiveness and frequency of their technical skill application. Improving teachers' technical

skills is essential in the modern education landscape, as it enables them to leverage technology and digital resources to enhance instructional delivery, engage students, and promote effective learning outcomes. Therefore, the findings presented in Table 12 serve as valuable input for designing targeted training programs, supporting teachers in acquiring and utilizing the necessary technical skills, and fostering innovation in teaching practices.

Table 12

Descriptive Statistics of Teachers' Technical Skills N = 165 (T)

Statement		**SD**		**D**		**M**		**A**		**SA**		**Mean**
Percentage (%)	**N**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	
Teachers in this school have skills and utilize improvisation of teaching learning resources in teaching.	165	1	0.6	3	1.8	18	10.9	74	44.8	69	41.8	4.25
Teachers in this school are competent in using computer skills in teaching	165	5	3.0	18	10.9	44	26.7	65	39.4	33	20.0	3.62
Teachers in this school effectively use databases in teaching	165	9	5.5	30	18.2	50	30.3	56	33.9	20	12.1	3.29
Teachers in this school easily do electronic presentation.	165	20	12.1	21	12.7	51	30.9	55	33.3	18	10.9	3.18
Teachers in this school have access to and use computers in teaching.	165	21	12.7	23	13.9	37	22.4	42	25.4	42	25.5	3.37
Teachers in this school easily use Google classrooms to teach.	165	36	21.8	30	18.2	38	23.0	35	21.2	26	15.8	2.91
Teachers in this school easily navigate web and use it for teaching.	165	22	13.3	34	20.6	43	26.1	40	24.2	26	15.8	3.08
Teachers in this school effectively use the internet.	165	10	6.1	19	11.5	34	20.6	52	31.5	50	30.3	3.68
Teachers in this school effectively use email.	165	24	14.5	29	17.6	38	23.0	48	29.1	26	15.8	3.14
Overall mean												**3.39**

Source: Field data, 2023

In terms of teachers' skills and utilization of improvisation of teaching-learning resources, a significant majority of participants 143 (86.6%) either agreed or strongly agreed with this statement. A small proportion of participants 4 (2.4%) expressed some level of disagreement. The mean score for this statement was 4.25, indicating a high level of agreement on average. The high level of agreement suggests that teachers are proficient in adapting their teaching methods and using various resources creatively to enhance the learning experience for their students. This adaptability and resourcefulness may contribute to improved engagement, understanding, and retention of the subject matter.

Regarding teachers' competence in using computer skills in teaching, a majority of participants 98 (64.2%) agreed or strongly agreed. However, a considerable proportion 62 (37.6%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.62, suggesting a moderate agreement on average. The findings underscore the need for continuous efforts to enhance teachers' computer skills and ensure they are well-equipped to use technology effectively in the classroom. By addressing the factors influencing this mixed perception, educational institutions can foster a positive and confident approach to integrating technology in teaching, ultimately benefiting both teachers and students in the learning process

When it comes to the effective use of databases in teaching, a notable proportion of participants 80 (43.9%) expressed some level of disagreement or moderate disagreement. However, the majority76 (47.8%) still agreed or strongly agreed with this statement. The mean score for this statement was 3.29, indicating a moderate agreement on average. To foster successful integration of databases in teaching, there is a need for a deeper understanding of the factors influencing educators' perceptions. Addressing the concerns raised by those who disagreed and showing positive responses can lead to a more supportive environment for using databases effectively in education

Regarding teachers' ease in conducting electronic presentations, a significant portion of participants 72 (43.6%) expressed some level of disagreement or moderate disagreement. Nonetheless, a majority 73 (43.2%) agreed or strongly agreed with this statement. The mean score for this statement was 3.18, suggesting a moderate agreement on average. The findings suggest a mixed perception among the participants regarding teachers' ease in conducting electronic presentations. By resolving the factors contributing to this mixed perception and providing necessary training, support, and resources, educational institutions can facilitate the effective use of electronic presentations in teaching. This can lead to enhanced instructional experiences and outcomes for both teachers and students

In terms of teachers' access to and use of computers in teaching, a considerable proportion of participants 60 (38.2%) expressed some level of disagreement or moderate disagreement. However, a majority 84 (51.0%) still agreed or strongly agreed with this statement. The mean score for this statement was 3.37, indicating a moderate agreement on average.

Regarding the use of Google classrooms for teaching, a notable proportion of participants 68 (41.0%) expressed some level of disagreement or moderate disagreement. However, a considerable portion 61 (36.8%) still agreed or strongly agreed with this statement. The mean score for this statement was 2.91, suggesting a moderate agreement on average.

When it comes to teachers' ease in navigating the web and using it for teaching, a considerable proportion of participants 77 (46.7%) expressed some level of disagreement or moderate disagreement. Nonetheless, a majority 66 (39.4%) agreed or strongly agreed with this statement. The mean score for this statement was 3.08, indicating a moderate agreement on average.

Regarding the effective use of the internet by teachers, a majority of participants 102 (61.8%) agreed or strongly agreed. However, a notable proportion 53 (32.2%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.68, suggesting a moderate agreement on average.

For the statement on the effective use of email by teachers, a considerable proportion of participants 67 (37.6%) expressed some level of disagreement or moderate disagreement. Nonetheless, a majority 74 (44.6%) agreed or strongly agreed with this statement. The mean score for this statement was 3.14, indicating a moderate agreement on average.

The results indicated that the majority of teachers in Molo Sub-County schools moderately disagree (Overall mean score of approximately 3) with statement of teachers' academic qualifications. The results indicated that while the participants moderately disagreed on teachers' skills and utilization of improvisation in teaching and their competence in using computer skills, there are mixed perceptions regarding the effective use of databases, electronic presentations, access to computers, Google classrooms, web navigation, internet use, and email usage. Addressing the challenges and promoting professional development in these areas can contribute to more effective teaching practices and enhanced educational experiences for both teachers and students.

4.8.2 Hypothesis Test Two

Ho_2: There is no significant influence of teacher technical skills on the implementation of Competency-Based Curriculum in Molo Sub-County primary schools.

Table 13 presents the results of the simple regression model examining the influence of teacher technical skills on the implementation of Competency-Based Curriculum in Molo Sub-County primary schools

Table 13

Simple Regression Model Results for influence of Teacher Technical skills on the Implementation of CBC in Molo Sub-County Primary Schools.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.594[a]	.352	.348	.56742

a. Predictors: (Constant), teacher technical skills

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28.558	1	28.558	88.701	.000[b]
	Residual	52.480	163	.322		
	Total	81.038	164			

a. Dependent Variable: Implementation of Competency-Based Curriculum

b. Predictors: (Constant), Teacher technical skills

Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.340	.183		12.779	.000
	Teacher technical skills	.493	.052	.594	9.418	.000

a. Dependent Variable: Implementation of Competency-Based Curriculum

Source: Field data, 2023

The model summary reveals that the regression model has an R-squared value of .352, indicating that approximately 35.2% of the variance in the implementation of Competency-Based Curriculum can be explained by teacher technical skills. The adjusted R-squared value, considering the number of predictors and sample size, is .348. The standard error of the estimate is .56742, representing the average distance between the observed values and the predicted values by the model.

The ANOVA table demonstrates that the regression model is statistically significant ($F = 88.701$, $p < .001$). This indicates that the relationship between teacher technical skills and the implementation of Competency-Based Curriculum is not likely due to chance. Therefore, the null hypothesis (H02), which suggests no significant influence of teacher technical skills on the implementation of Competency-Based Curriculum in Molo Sub-County primary schools, is rejected at the significance level of .05.

Analysing the coefficients, it can be observed that the constant term has a value of 2.340 with a standard error of .183. The coefficient for teacher technical skills is .493, indicating that for every unit increase in teacher technical skills, the implementation of Competency-Based Curriculum increases by .493 units. This coefficient is statistically significant ($\beta = 9.418$, $p < .001$).

The results suggest a positive and significant influence of teacher technical skills and the implementation of Competency-Based Curriculum in primary schools. The findings indicate that higher technical skills among teachers are associated with a greater implementation of the curriculum. These results provide strong evidence to reject the null hypothesis and support the alternative hypothesis, emphasizing the significant influence of teacher technical skills on the implementation of Competency-Based Curriculum in Molo Sub-County primary schools. These findings conform with the findings of a study done by Khan et al. (2022) on "The competency-based training & assessment, and improvement of technical competencies and changes in pedagogical behaviour", who established a significant association between teacher technical skills and the implementation of Competency-Based Curriculum.

The qualitative analysis focuses on several critical aspects of CBC implementation, including the importance of teachers acquiring technical skills, the availability and functionality of devices such as tablets and laptops, the challenges faced by teachers in utilizing provided resources, and the significance of collaboration among stakeholders.

The findings conform with the response from some head teachers' responses when interviewed. They were identified as HT1-HT2 and each had this to say,

> "I want to draw attention to the limited availability and accessibility of tablets and laptops provided for CBC implementation at our school. This sheds light on the challenges schools face when incorporating technology into the learning environment.

The sporadic availability of devices suggests a lack of planning and resource allocation, which hinders consistent integration of technology into teaching practices. Without regular access to these tools, teachers may struggle to fully explore the potential benefits of personalized learning through technology integration. It underscores the need for sufficient resources, proper device management, and strategic planning to ensure equitable access to technology for all students and teachers." (HT1, Personal communication, April 17, 2023).

"I would like to highlight the challenges teachers face when trying to use the provided devices. The non-functionality of the devices, along with the lack of internet connectivity and data bundles, further hinder the successful implementation of CBC. It is not enough to simply provide devices; their proper maintenance and support are also crucial. Teachers require functional devices and reliable connectivity to effectively incorporate ICT into their teaching and learning practices. Insufficient access to the internet and data bundles also limits the potential of utilizing online resources, interactive platforms, and digital collaboration tools. Schools need to address these technological barriers to fully leverage the benefits of the CBC framework." (HT2, Personal communication, April 17, 2023).

The responses from the participants' present various perspectives on the effective implementation of CBC in schools. It underscores the significance of teachers acquiring technical skills, the challenges related to the availability and functionality of devices, the importance of reliable connectivity, and the necessity of collaboration among stakeholders. By addressing these factors, schools can optimize CBC implementation and create an engaging and effective learning experience for all learners in schools.

4.9 Teachers' Competency Based Curriculum pedagogy

This section focuses on the examination of teachers' Competency Based Curriculum (CBC) pedagogy and its influence on the implementation of the CBC in primary schools within Molo Sub-County. This section begins by providing descriptive statistics of teachers' Competency Based Curriculum pedagogy, offering insights into the distribution and perceived importance of pedagogical practices aligned with the CBC. Understanding teachers' pedagogical approaches is crucial in assessing their readiness and effectiveness in delivering the curriculum.

Moreover, Hypothesis Test Three (Ho3) was introduced to investigate the significant influence of teacher Competency Based Curriculum pedagogy on the implementation of the CBC in Molo Sub-County primary schools. The results of this hypothesis test are presented in Table 15, which displays the findings of a simple regression model examining the relationship between teacher CBC pedagogy and the implementation of the CBC. Hence, this section aims to provide valuable insights into the role of teachers' Competency Based Curriculum pedagogy in the effective implementation of the CBC.

4.9.1 Descriptive statistics of teachers' Competency Based Curriculum pedagogy

Table 14 displays the descriptive statistics of teachers' competency in implementing the Competency Based Curriculum (CBC) pedagogy. This table offers valuable insights into the level of competence exhibited by teachers in delivering instruction aligned with the CBC principles and approaches. The count column represents the number of teachers included in the analysis, indicating the sample size and the extent of participation in the study. The column percentage presents the proportion of teachers who exhibit a certain level of competency in implementing the CBC pedagogy. This distribution provides an overview of the range of competency levels among the participants. In addition, the descriptive statistics table includes the mean score, which represents the average rating given by teachers

regarding their competency in implementing the CBC pedagogy. This mean score serves as an indicator of the overall level of competence demonstrated by the teachers. CBC pedagogy is crucial for assessing the effectiveness of professional development initiatives, identifying areas for improvement, and designing targeted interventions to enhance teachers' competency in delivering instruction that aligns with the principles of the CBC. Improving teachers' competency in the CBC pedagogy is essential for ensuring the successful implementation of the curriculum and promoting positive learning outcomes for students. Teachers who are well-versed in the CBC pedagogy can effectively facilitate student-centered learning, assess student competencies, and provide personalized instruction to meet the diverse needs of learners. The findings presented in Table 14 serve as a basis for identifying areas of strength and areas that require further support or professional development.

Table 14
Descriptive Statistics of Teachers' Competency Based Curriculum Pedagogy N= 165(T)

Statements		**SD**		**D**		**M**		**A**		**SA**		**Mean**
Percentage	**N**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	
Teachers in this school understand CBC content	165	2	1.2	7	4.2	14	8.5	67	40.6	75	45.5	4.25
Teachers in this school effectively teach CBC content.	165	2	1.2	5	3.0	19	1.5	78	47.3	61	37.0	4.16
Teachers in this school organize content effectively for teaching.	165	2	1.2	6	3.7	20	12.2	80	48.8	56	34.1	4.11
There are adequate teaching learning resources for teaching CBC in this school.	165	15	9.1	31	18.8	22	13.3	60	36.4	37	22.4	3.44
Teachers in this school have been trained on how to use teaching learning resources on CBC.	165	1	0.6	11	6.7	12	7.3	85	51.5	56	33.9	4.12
Teachers in this school have been trained on how to pay individualized attention in class.	165	3	1.8	8	4.8	25	15.2	78	47.3	51	30.9	4.01
Teachers in this school are motivated to implement CBC.	165	13	7.9	21	2.7	21	2.7	65	39.4	45	27.3	3.65
Teachers in this school motivate learners in CBC classes	165	3	1.8	6	3.6	19	11.5	78	47.3	59	35.8	4.12
Teachers in this school have been trained on how to engage pupils actively in CBC classes	165	1	0.6	6	3.6	17	10.3	77	46.7	64	38.8	4.19
Teachers in this school have been trained to assess learners using appropriate CBC assessment tools	165	4	2.4	8	4.8	17	10.3	74	44.8	62	37.6	4.10
Overall mean												**4.02**

Source: Field data, 2023

Regarding teachers' understanding of CBC content, a significant majority of participants 142 (86.1%) either agreed or strongly agreed with this statement, indicating a high level of understanding. A small proportion of participants 21 (5.4%) expressed some level of disagreement. The mean score for this statement was 4.25, suggesting a high level of

agreement on average.

In terms of teachers' effectiveness in teaching CBC content, a majority of participants 139 (84.3%) agreed or strongly agreed. However, a small proportion 24 (4.2%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 4.16, indicating a high level of agreement on average.

When it comes to organizing content effectively for teaching, a majority of participants 136 (82.9%) agreed or strongly agreed with this statement, suggesting effective organization of content. However, a small proportion 26 (4.9%) expressed some level of disagreement. The mean score for this statement was 4.11, indicating a high level of agreement on average.

Regarding the availability of adequate teaching-learning resources for CBC in the school, a majority of participants 97 (58.8%) agreed or strongly agreed, indicating a satisfactory level of resources. However, a notable proportion 53 (28.0%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.44, suggesting a moderate level of agreement on average.

For the statement on teachers' training on using teaching-learning resources for CBC, a majority of participants 141 (85.4%) agreed or strongly agreed, indicating a high level of training. However, a small proportion 23 (7.9%) expressed some level of disagreement. The mean score for this statement was 4.12, suggesting a high level of agreement on average.

When it comes to training on paying individualized attention in class, a majority of participants 129 (77.6%) agreed or strongly agreed with this statement, indicating a high level of training. However, a notable proportion 33 (20.0%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 4.01, suggesting a high level of agreement on average.

Regarding teachers' motivation to implement CBC, a majority of participants 110 (66.7%) agreed or strongly agreed. However, a notable proportion 42 (20.6%) expressed some level of disagreement or moderate disagreement. The mean score for this statement was 3.65, indicating a moderate level of agreement on average.

For the statement on teachers' ability to motivate learners in CBC classes, a majority of participants 137 (82.9%) agreed or strongly agreed, suggesting effective motivation techniques. However, a small proportion 25 (5.4%) expressed some level of disagreement. The mean score for this statement was 4.12, indicating a high level of agreement on average.

When it comes to training on actively engaging pupils in CBC classes, a majority of participants 141 (85.5%) agreed or strongly agreed, indicating a high level of training. However, a small proportion 23 (4.8%) expressed some level of disagreement. The mean score for this statement was 4.19, suggesting a high level of agreement on average.

Regarding training on assessing learners using appropriate CBC assessment tools, a majority of participants 136 (82.4%) agreed or strongly agreed, indicating a high level of training. However, a small proportion 25 (7.2%) expressed some level of disagreement. The mean score for this statement was 4.10, suggesting a high level of agreement on average.

The results indicated that the majority of teachers in Molo Sub- County schools agreed (Overall mean score of approximately 4) where teachers generally demonstrated a high level of understanding of CBC content and were effective in teaching it. They were also perceived as being proficient in organizing content, utilizing teaching-learning resources, paying individualized attention, motivating learners, actively engaging pupils, and assessing learners using appropriate assessment tools. However, there were some mixed perceptions regarding the availability of adequate teaching-learning resources and teachers' motivation to implement CBC.

4.9.2 Hypothesis test three

Ho_3: There is no statistically significant influence of teacher Competency Based Curriculum pedagogy on the implementation of Competency Based Curriculum in Molo Sub-County primary schools.

Table 15 presents the results of the multiple regression model investigating the influence of teacher Competency Based Curriculum pedagogy on the implementation of Competency Based Curriculum in Molo Sub- County primary schools.

Table 15

Multiple Regression Model Results for influence of Teacher CBC Pedagogy on the Implementation of CBC in Molo Sub- County primary schools

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.392[a]	.154	.149	.64855

a. Predictors: (Constant), Competency Based Curriculum pedagogy

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.478	1	12.478	29.667	.000[b]
	Residual	68.560	163	.421		
	Total	81.038	164			

a. Dependent Variable: implementation of Competency Based Curriculum
b. Predictors: (Constant), Competency Based Curriculum pedagogy

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
1 (Constant)	2.198	.337		6.522	.000
Competency Based Curriculum pedagogy	.448	.082	.392	5.447	.000

a. Dependent Variable: Implementation of Competency Based Curriculum

Source: Field data, 2023

The model summary indicates that the regression model has an R-squared value of .154, suggesting that approximately 15.4% of the variance in the implementation of Competency Based Curriculum can be explained by teacher Competency Based Curriculum pedagogy. The adjusted R-squared value, considering the number of predictors and sample

size, is .149. The standard error of the estimate is .64855, representing the average distance between the observed values and the predicted values by the model.

The ANOVA table reveals that the regression model is statistically significant ($F = 29.667$, $p < .001$). This indicates that the relationship between teacher Competency Based Curriculum pedagogy and the implementation of Competency Based Curriculum is not likely due to chance. Therefore, the null hypothesis (H03), which proposes no significant influence of teacher Competency Based Curriculum pedagogy on the implementation of Competency Based Curriculum in Molo Sub-County primary schools, is rejected at the significance level of .05.

Examining the coefficients, it is observed that the constant term has a value of 2.198 with a standard error of .337. The coefficient for Competency Based Curriculum pedagogy is .448, indicating that for every unit increase in teacher Competency Based Curriculum pedagogy, the implementation of Competency Based Curriculum increases by .448 units. This coefficient is statistically significant ($\beta = 5.447$, $p < .001$).

The results suggest a positive and significant influence of teacher Competency Based Curriculum pedagogy and the implementation of Competency Based Curriculum in primary schools. The findings indicate that a higher emphasis on Competency Based Curriculum pedagogy among teachers is associated with a greater implementation of the curriculum. These results provide strong evidence to reject the null hypothesis and support the alternative hypothesis, highlighting the significant influence of teacher Competency Based Curriculum pedagogy on the implementation of Competency Based Curriculum in Molo Sub-County primary schools. The findings of these study are consistent with the findings of the study done by Prasetia et al. (2020) on “Effective Competency Based School Model”, who established a significant link between of teacher Competency Based Curriculum pedagogy on the implementation of Competency Based Curriculum.

Teachers should have an understanding on the content to be taught in every learning area in CBC design and how to teach it. Competency based curriculum uses learner centre approach where learners are presented with tasks through which they construct knowledge. The teacher should be highly skilled on the way to present the content to pupils depending on their different levels so as not to mislead them in the process. Majority of teachers in Molo Sub-County schools expressed that they had all what was required to implement CBC in their schools. However, from the study findings, majority of the teachers (58%) indicated that most of their learners were not prepared to accept learner centred approach and (42%) were undecided. There is a lot which needs to be done in Molo Sub-County schools to help learners embrace learner- centred approach because that is what CBC is all about.

From the findings therefore, it is imperative for the schools to bring awareness to the pupils to accept learner-centred approach and also for Sub- County education office to plan to properly equip trainers before sending them to the field to train teachers because failure to that the trainers might negatively influence implementation of CBC in the Sub-County.

4.10 Implementation of Competency Based Curriculum

This section focuses on the examination of the implementation of the Competency Based Curriculum (CBC) in primary schools. This section begins by providing descriptive statistics that offer insights into the overall implementation status of the CBC within the study context. Understanding the current state of CBC implementation is crucial in assessing the progress, challenges, and potential areas for improvement in aligning the curriculum with its intended goals and objectives.

Subsection 4.10.1 presents the descriptive statistics of CBC implementation. This includes information on the sample size and the level of representation of schools within the study. The descriptive statistics shed light on various aspects of CBC implementation, such as the extent of curriculum adoption, integration of competency-based approaches into teaching

practices, availability of resources, and overall readiness of schools in implementing the CBC.

4.10.1 Descriptive Statistics of Implementation of Competency Based Curriculum

Table 16 presents the descriptive statistics of the implementation of the Competency Based Curriculum (CBC) and its impact on various aspects of learning. This table provides valuable insights into the current state of implementation and the perceived impact of the CBC on different measures. The count column indicates the number of respondents or participants included in the analysis, representing the sample size and the extent of participation in the study. It gives an idea of the number of individuals providing feedback on the implementation of the CBC.

The column percentage represents the proportion of respondents who provided a certain response or rating for each measure. It offers an overview of the distribution of responses among the participants, highlighting the variations in perception and experiences regarding the implementation of the CBC.

Additionally, the descriptive statistics table includes the mean score for each measure. The mean score represents the average rating given by the respondents regarding the implementation of the CBC and its impact on the specific aspect of learning. It provides an overall measure of the perceived effectiveness or success of the CBC implementation in relation to the given measures. CBC implementation findings could be crucial in evaluation of the effectiveness of the curriculum, identifying areas of strength, and identifying areas that require improvement or further support.

Table 16

Descriptive Statistics of Implementation of Competency Based Curriculum N = 165 (T)

Statement		**SD**		**D**		**U**		**A**		**SA**		**Mean**
Percentage (%)	**N**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	
Competencies achieved among learners	165	0	0	6	3.6	15	9.1	92	55.8	52	31.5	4.15
You have active and engaged learners.	165	2	1.2	2	1.2	14	8.5	94	57.0	53	32.1	4.18
Learners' self-efficacy achieved	165	0	0.0	11	6.7	22	13.3	77	46.7	55	33.3	4.07
Critical thinking & problem-solving skills acquired.	165	1	0.6	5	3.0	25	15.2	95	57.6	39	23.6	4.01
Learners' digital literacy skills improved	165	5	3.0	17	10.3	24	14.5	85	51.5	34	20.6	3.76
Overall mean												**4.03**

Source: Field data, 2023

Regarding the competencies achieved among learners, a majority of participants 144 (87.3%) either agreed or strongly agreed that learners were able to achieve the desired competencies outlined in the CBC. A small proportion of participants 6 (3.6%) expressed disagreement. The mean score for this measure was 4.15, indicating a high level of agreement on average.

In terms of having active and engaged learners, a significant majority of participants 147 (89.1%) either agreed or strongly agreed that learners were active and engaged in the learning process. A small proportion of participants 16 (9.7%) expressed disagreement. The mean score for this measure was 4.18, suggesting a high level of agreement on average.

When it comes to learners' self-efficacy, the majority of participants 132 (80%) agreed or strongly agreed that learners had achieved self-efficacy in their learning. However, a notable proportion of participants 33 (20%) expressed some level of disagreement or uncertainty. The mean score for this measure was 4.07, indicating a moderate level of agreement on average.

Regarding the acquisition of critical thinking and problem-solving skills, a majority of participants 134 (81.2%) agreed or strongly agreed that learners had acquired these skills as intended by the CBC. However, a notable proportion 30 (18.8%) expressed some level of disagreement or uncertainty. The mean score for this measure was 4.01, suggesting a moderate level of agreement on average.

In terms of learners' digital literacy skills, the data showed mixed perceptions. While a majority (73%) agreed or strongly agreed that learners' digital literacy skills had improved, a notable proportion (24.8%) expressed some level of disagreement or uncertainty. The mean score for this measure was 3.76, indicating a moderate level of agreement on average.

The results indicated that the majority of teachers in Molo Sub-County schools agreed (Overall mean score of approximately 4). These suggest that the implementation of the Competency Based Curriculum had positive outcomes in terms of learners' achieved competencies, active engagement, and self-efficacy. The findings support the findings of Smith et al. (2019) who found out that learners were more proficient in applying their knowledge and skills to real-world situations, indicating the effectiveness of the CBC in promoting competency attainment. However, there were mixed perceptions regarding the acquisition of critical thinking and problem-solving skills as well as the improvement of learners' digital literacy skills. These findings provide valuable insights into the effectiveness of the CBC implementation and can guide further efforts to strengthen specific areas of focus within the curriculum.

4.10.2 Challenges Facing the Implementation of CBC

The successful implementation of any curriculum is contingent upon understanding and addressing the challenges encountered during its execution. This section examined the challenges reported by teachers during the implementation of the CBC, as revealed by the results presented in Table 17.

Table 17

Distribution of Challenges by Teachers Responses N = 165 (T)

Challenges Facing the implementation of CBC		Frequency	Percent
Insufficient teaching and learning resources	Yes	153	92.7
	No	12	7.3
	Total	165	100.0
Overcrowded classrooms	Yes	103	62.4
	No	62	37.6
	Total	165	100.0
Students' unpreparedness to accept learner-centered approach	Yes	96	58.2
	No	69	41.8
	Total	165	100.0
Issues related to assessment criteria	Yes	113	68.5
	No	52	31.5
	Total	165	100.0
Unfriendly environment	Yes	61	37.0
	No	104	63.0
	Total	165	100.0
Lack of support from school administration	Yes	56	33.9
	No	109	66.1
	Total	165	100.0
Inadequate training	Yes	103	62.4
	No	62	37.6
	Total	165	100.0

Source: Field data, 2023

This section examined the challenges reported by teachers during the implementation of the CBC, as revealed by the results presented in Table 17. By comprehending and addressing these challenges, stakeholders can work towards optimizing the implementation process and enhancing the outcomes of the CBC.

Regarding insufficient teaching and learning resources majority of teachers 153 (92.7%) reported that there were insufficient teaching and learning resources. This challenge suggests that a lack of necessary materials, such as textbooks, teaching aids, and technology, is hindering the effective implementation of CBC.

When asked the state of the classrooms majority of teachers 103 (62.4%) reported overcrowded classrooms Overcrowding can have detrimental effects on the learning environment, making it difficult for teachers to provide individualized attention and implement learner-centered approaches effectively. This finding highlights the urgency of

addressing classroom capacity issues, potentially through infrastructure development or a reevaluation of student-teacher ratios, to create a more conducive learning environment for CBC.

Regarding learners' unpreparedness to accept learner-centered approach more than half of the teachers 96 (58.2%) mentioned that students were unprepared to accept a learner-centered approach. This finding highlights the need for orientation and training programs for both students and teachers to help them adapt to this innovative teaching method.

Regarding issues related to assessment criteria 113 (68.5%) reported that they had challenges related to assessment criteria. This finding suggests that there may be significant challenges in designing and implementing assessment methods aligned with the CBC. The competency-based approach often requires a shift from traditional assessment methods towards more holistic and skill-based evaluations.

When asked on training they have had a significant portion 103 (62.4%) reported inadequate training. Teachers need proper training and professional development opportunities to effectively implement the CBC. These challenges are crucial to address, as they can significantly impact the effectiveness and success of the curriculum. The finding was supported by response the following teacher's response when interviewed regarding the challenges they experienced. The participant was identified as T1.

> "In my school, the issue of overcrowded classrooms is a pressing concern. We often find ourselves with 70 to 80 learners crammed into a single classroom, and we have three streams operating simultaneously. When there are so many learners in one class, it becomes extremely difficult to give each student the attention they deserve. Personalized instruction, which is crucial for competency-based education, feels almost impossible in these conditions. Students struggle to engage actively, ask questions, or participate in class discussions due to the crowded setting." (Participant

T1, Personal communication, April 22, 2023).

4.10.3 Strategies of improving CBC Implementation

Efforts to enhance the implementation of the Competency-Based Curriculum (CBC) require the identification and implementation of effective strategies. Table 18 presents descriptive statistics that shed light on the implementation of various strategies aimed at improving the CBC implementation. This section will analyze the data, including the count, column percentage, and mean score for each strategy, to provide insights into the effectiveness of these approaches. By understanding the outcomes of these strategies, stakeholders can make informed decisions and further refine their efforts to optimize the implementation of the CBC.

Table 18

Descriptive Statistics of Implementation Strategies for Improving Implementation of CBC in Schools N =165 (T)

Statements		**SD**		**D**		**M**		**A**		**SA**		**Mean**
Percentage	**N**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	
Training teachers	165	4	2.4	4	2.4	5	3.0	48	29.1	08	63.0	4.48
Addressing the concerns raised by teachers	165	2	1.2	7	4.2	8	4.8	60	36.4	88	53.3	4.36
Use of relevant technology for personalized and practical learning in schools	165	2	1.2	6	3.6	19	11.5	69	41.8	69	41.8	4.19
Provision of incentives by the government for both teachers and learners	165	5	3.0	17	10.3	18	10.9	51	30.9	74	44.8	4.04
Developing a proficiency-based system where students advance to the next level once they demonstrate mastery of specific content	165	1	0.6	10	6.1	27	16.4	70	42.4	57	34.5	4.04
All stakeholders of the school agree on planned activities and programs of the school	165	2	1.2	9	5.5	15	9.1	69	41.8	70	42.4	4.19
Provision of teaching learning resources	165	2	1.2	5	3.0	10	6.1	51	30.9	97	58.8	4.43
Employment of more teachers	165	4	2.4	9	5.5	8	4.8	37	22.4	107	64.8	4.42
Overall mean												**4.23**

Source: Field data, 2023

Regarding the strategy of training teachers, a majority of participants 152 (92.1%) either agreed or strongly agreed with the effectiveness of this strategy, indicating its positive impact on improving implementation. Only a small proportion of participants 8 (4.8%) expressed some level of disagreement. The mean score for this strategy was 4.48, suggesting a high level of agreement on average.

In terms of addressing the concerns raised by teachers, a significant majority of participants 148 (89.7%) agreed or strongly agreed with the effectiveness of this strategy, indicating its positive impact on addressing concerns and improving implementation. Only a small proportion of participants 9 (5.4%) expressed some level of disagreement. The mean score for this strategy was 4.36, indicating a high level of agreement on average.

When it comes to the use of relevant technology for personalized and practical learning in schools, participants had mixed perceptions. While a majority 138 (83.6%) agreed or strongly agreed with the effectiveness of this strategy, a notable proportion 25 (15.1%) expressed some level of disagreement or moderate disagreement. The mean score for this strategy was 4.19, suggesting a moderate level of agreement on average.

Regarding the provision of incentives by the government for both teachers and learners, a majority of participants 125 (75.7%) agreed or strongly agreed with the effectiveness of this strategy, indicating its positive impact on motivation and engagement. However, a notable proportion 35 (21.2%) expressed some level of disagreement or moderate disagreement. The mean score for this strategy was 4.04, suggesting a moderate level of agreement on average.

For the strategy of developing a proficiency-based system where students advance based on mastery, a majority of participants 127 (76.9%) agreed or strongly agreed with the effectiveness of this strategy, indicating its positive impact on student advancement and content mastery. However, a notable proportion 37 (22.5%) expressed some level of

disagreement or moderate disagreement. The mean score for this strategy was 4.04, suggesting a moderate level of agreement on average.

Regarding the agreement of all stakeholders on planned activities and programs of the school, a majority of participants 139 (84.2%) agreed or strongly agreed with the effectiveness of this strategy, indicating its positive impact on collaboration and alignment. However, a notable proportion 24 (14.6%) expressed some level of disagreement or moderate disagreement. The mean score for this strategy was 4.19, suggesting a moderate level of agreement on average.

When it comes to the provision of teaching-learning resources, a majority of participants 148 (89.7%) agreed or strongly agreed with the effectiveness of this strategy, indicating its positive impact on resource availability and support for implementation. Only a small proportion of participants 7 (4.2%) expressed some level of disagreement. The mean score for this strategy was 4.43, indicating a high level of agreement on average.

Regarding the employment of more teachers, a significant majority of participants 144 (87.2%) either agreed or strongly agreed with the effectiveness of this strategy, indicating its positive impact on workload distribution and instructional support. Only a small proportion of participants 13 (7.9%) expressed some level of disagreement. The mean score for this strategy was 4.42, indicating a high level of agreement on average.

The results indicated that the majority of teachers in Molo Sub-County schools agreed (Overall mean score of approximately 4), where the strategies of training teachers, addressing concerns raised by teachers, provision of teaching-learning resources, and employment of more teachers were highly regarded and perceived as effective in improving the implementation of the CBC. These results conform with the findings of Msamba et al. (2023) on “In-service training for improving the implementation of competency-based curriculum in English foreign language teaching: is planning effective?" who found significant association

with of the strategies for improving the implementation of CBC. However, there were mixed perceptions regarding the use of relevant technology, provision of incentives by the government, the proficiency-based system, and stakeholder agreement on planned activities.

These findings could provide valuable insights into the effectiveness of these strategies and can guide further efforts to enhance the implementation of the CBC. The findings were supported by one of the head teachers who had this to say when interviewed,

> "As an expert in education, it is evident that the Ministry of Education should prioritize the training and employment of more teachers, especially in schools with high enrolment rates. This inadequate allocation of teachers results in an overwhelming burden for teachers in this school, making it difficult to provide quality education and individual attention to each learner. The current situation also hampers teachers' ability to adequately prepare for their lessons and cater to the diverse needs of students. With a growing number of learners in schools, it is imperative to provide educators with the necessary materials and tools to facilitate effective teaching and learning. However, the shortage of resources places additional strain on teachers, limiting their ability to deliver comprehensive and engaging lessons. As an administrator, I find myself in a challenging position I juggle both administrative responsibilities and teaching duties across multiple grade levels (grades 1 to 6) throughout the entire school. Managing such a wide range of responsibilities is undoubtedly demanding and may hinder the capacity to effectively address the challenges raised by teachers at the school level." (HT8, Personal communication, April 26, 2023)

The study findings demonstrate that the majority of teachers in Molo Sub-County schools support and acknowledge the effectiveness of strategies such as teacher training, addressing concerns, resource provision, and increasing teacher numbers in improving the

implementation of the CBC. These findings highlight the importance of investing in teacher development, addressing their needs, and providing adequate resources to ensure the successful integration of the CBC in the education system at the local level.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Aligned with the study's research questions, this chapter provides a thorough review encompassing research findings, conclusions, and recommendations. The chapter also outlines challenges related to CBC implementation and the strategies formulated to address them. This section further offers valuable suggestions for further research.

5.2 Summary of the Findings

This study aimed to investigate the influence of selected teacher characteristics on the implementation of the Competency-Based Curriculum (CBC) in primary schools within Molo Sub County, Nakuru County, Kenya. The following research questions guided the study: How do teacher qualifications influence the implementation of the CBC in primary schools? To what extent do teacher technical skills impact the implementation of the CBC in primary schools? To what extent do teacher competency base pedagogy influence the implementation the CBC in primary schools? To what extent do teachers encounter challenges when implementing the CBC in primary schools? What strategies should be put in place to address the challenges of CBC implementation in primary schools?

The study was anchored on Gross's theory of Curriculum Implementation. The study employed mixed method design, specifically convergent design incorporated quantitative Cross-Sectional survey design and qualitative phenomenological design. The population of the study included 83 schools, 83 head teachers, and 830 teachers in Molo sub-county. Stratified and simple random sampling were used to sample 165 teachers, purposive random sampling was used to sample 17 head teachers, stratified and systematic random sampling to sample 17 schools. The data collection tools included questionnaires, interviews, and observation checklist, all validated for content and face validity. The questionnaires

demonstrated high reliability with a Cronbach's Alpha coefficient of 0.902. Trustworthiness of qualitative tools as established.

The collected quantitative data were analyzed using descriptive statistics, frequencies, and percentages through the Statistical Package for Social Sciences (SPSS) software version 28. On the other hand, the qualitative data underwent thematic analysis, using Creswell (2017) six steps approach. Key findings of the study revealed the influence of teacher qualifications, technical skills, and CBC pedagogy on the implementation of the CBC in primary schools. Furthermore, the study identified the challenges faced by teachers during the implementation process. Based on these findings, recommendations and strategies were proposed to address the challenges and improve the implementation of the CBC in primary schools

The following key research findings are presented:

The results indicated that the majority of teachers in Molo Sub-County schools agreed (overall mean score of approximately 4) with statements regarding teachers' academic qualifications. The study established a positive and significant correlation ($r = 0.424$, $p < 0.05$) between teacher academic qualifications and the implementation of CBC. Furthermore, teacher academic qualifications were found to be a significant predictor ($\beta = 6.409$, $p < 0.05$) of CBC implementation.

The results indicated that the majority of teachers in Molo Sub-County schools agreed (overall mean score of approximately 4) with statements concerning teachers' technical skills. The findings of the study established a significant association ($r = 0.254$, $p < 0.05$) between teacher technical skills and the implementation of CBC. Additionally, teacher technical skills were found to be a significant predictor ($\beta = 9.418$, $p < 0.05$) of CBC implementation.

The results indicated that the majority of teachers in Molo Sub-County schools agreed (overall mean score of approximately 4) with statements regarding teacher CBC pedagogy. The findings of the study established a significant association ($r = 0.373$, $p < 0.05$) between CBC pedagogy and the implementation of CBC. Furthermore, CBC pedagogy was found to be a significant predictor ($\beta = 5.447$, $p < 0.05$) of CBC implementation. The successful implementation of CBC heavily depends on addressing the challenges faced by teachers, such as the lack of resources, overcrowded classrooms, students' readiness for the new approach, assessment issues, unfriendly learning environments, lack of administrative support, and inadequate training. Overcoming these challenges requires collaborative efforts from educators, policymakers, and other stakeholders to create a conducive learning environment that fosters the development of competencies and skills in students effectively. Majority of teachers in Molo Sub-County schools agreed (Overall mean score of approximately 4), where the strategies of training teachers, addressing concerns raised by teachers, provision of teaching-learning resources, and employment of more teachers were highly regarded and perceived as effective in improving the implementation of the CBC.

5.3 Conclusions

The results of this study's analysis and research yield some important conclusions about the use of the CBC in Molo Sub-County, Nakuru County, Kenya.

Based on the study, the findings revealed a positive and significant correlation between teacher academic qualifications and the implementation of CBC. This indicates that teachers with higher academic qualifications are more likely to effectively implement the CBC. Moreover, teacher academic qualifications were found to be a significant predictor of the implementation of CBC, suggesting that improving the qualifications of teachers can positively influence the successful implementation of the curriculum.

There is a significant association between teacher technical skills and the implementation of CBC. This implies that teachers with better technical skills are more likely to effectively implement the CBC. Furthermore, teacher technical skills were identified as a significant predictor of CBC implementation, highlighting the importance of providing teachers with adequate training and support to enhance their technical competencies.

The study also demonstrated a significant association between CBC pedagogy and the implementation of CBC. This suggests that utilizing appropriate pedagogical approaches aligned with the CBC principles contributes to the successful implementation of the curriculum. Additionally, CBC pedagogy was identified as a significant predictor of CBC implementation, emphasizing the need for teachers to be equipped with pedagogical strategies that align with the competency-based approach.

5.4 Recommendations

Based on the conclusions drawn from the study findings, the following recommendations were made by teachers which can be made to improve the implementation of the Competency-Based Curriculum (CBC):

Ministry of Education (MoE) in collaboration with Teachers Service Commission (TSC) could arrange for comprehensive and ongoing professional development opportunities for teachers to enhance their academic qualifications and technical skills. This can include targeted training programs, workshops, and courses aimed at equipping teachers with the necessary knowledge and skills to effectively implement the CBC.

Head teacher together with BOM need to provide teachers with adequate resources, teaching materials, and technology tools that support the implementation of CBC. These resources should be tailored to meet the specific needs of the curriculum and assist teachers in delivering engaging and interactive lessons.

Nakuru county director of Education through Molo Sub- County director, could offer specific trainings on teacher CBC pedagogy to teachers, focusing on instructional strategies, assessment methods, and curriculum design aligned with the competency-based approach. This training should emphasize student-cantered learning, active engagement, and the development of critical thinking and problem-solving skills.

5.5 Areas of further research

The study findings and policy recommendations indicate there are several areas of further research that can contribute to a deeper understanding of the implementation of the Competency-Based Curriculum (CBC). These areas include:

1. Research should be done on selected teacher characteristics on the implementation of competency-based curriculum in primary schools in Njoro Sub-County, Nakuru County.
2. Research should be done to investigate effective strategies for teacher preparation and ongoing support in implementing CBC.
3. Research should be done on the role of parents and the community in supporting CBC implementation.

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APPENDICES

Appendix One: Interview Consent Form

Taking Part

I acknowledge that I have received, read and understood the project information sheet.

[ ] Yes

[ ] No

I have been given the opportunity to ask questions about the Research project.

[ ] Yes

[ ] No

I understand that my participation in this research project is entirely voluntary.

[ ] Yes

[ ] No

I understand that the school information I have given may be quoted in publications, reports, web pages, and other research outputs.

[ ] Yes

[ ] No

Name of the participant……. Sign…….

Name of the Researcher……. Sign…….

Appendix Two: Questionnaire for Teachers

Introduction

I am a student at the Catholic University of Eastern Africa pursuing a Master's Degree in Educational Administration and Planning. In partial fulfillment of the requirements of this degree, I am carrying out a study on the topic **"Influence of Selected Teacher Characteristics on The Implementation of Competency Based Curriculum in Primary Schools in Molo Sub- County, Nakuru County."** I am, therefore, requesting your assistance in answering these questions. The information collected was kept confidential and used for research purposes only. Please refrain from entering a name or any other form of identification on this questionnaire. Your assistance and cooperation are highly appreciated.

SN: _____

Name of school: _____

SECTION A: Teacher Demographic Information

Background Information

Instructions: please (tick as applicable) or provide appropriate information

1. Gender

Male [ ] Female [ ]

2. Age bracket?

21 – 30 [ ] (b) 31 – 40 [ ]

41 -50 [ ] (d) 51 and above [ ]

3. How long have you been a teacher? [ ] Years

4. Your position in school

i) Deputy head teacher [ ] (ii) Senior teacher [ ] (iii) Teacher [ ]

5. Type of school

(i) Public primary [ ] (ii) Private primary [ ]

6. What is your highest academic qualification?

(a) P1 Certificate [ ] (b) Diploma [ ] (c) Degree [ ]

(e) Any other academic qualification not mentioned above? (Please specify)

i)……

ii)……

iii)……

7. Tick appropriately the professional qualifications you have?

a) IT/ICT training [ ]

b) Digital devices handling [ ]

c) Any other professional qualification not mentioned above? (Please specify)

i)……

ii)……

iii)……

SECTION B: Teacher qualifications and Implementation of Competence Based Curriculum

8. a) To what extent do you agree with the following statements on the influence of teacher qualifications on the implementation of CBC on the scale of 5 to I where 5 = Strongly Agree; 4 = Agree; 3 = Moderately Disagree; 2 = Disagree; 1 = Strongly Disagree.

SN	**Statement**	5	4	3	2	1
	Teacher academic qualification influence how learners achieve competencies					
	Teacher academic qualification influence learners' active participation in class					

	Teacher academic qualification influence learners' critical thinking					
	Teacher academic qualification influence learners' problem solving skills					
	Teacher academic qualification influence learners' numeracy skills					
	Teacher academic qualification influence learners' literacy skills					
	Teacher academic qualifications influence learners' digital skills					
v	Teacher academic qualifications influence effective interpretation of curriculum design					
	Teacher academic qualification influence learners' lifelong learning					

b) In what ways has teachers training enhanced effective implementation of CBC in this school?

i……

ii……

iii……

In what ways has training of teachers hindered Implementation of CBC in this school?

i. ……

ii. ……

c) ……In what ways do teacher academic qualifications influence implementation of CBC in this school?

i……

ii…….

iii…….

d) In what ways do teacher academic qualifications hinder implementation of CBC in this school?

i…….

ii……....

SECTION C: Influence of Teacher Technical Skills on the Implementation of Competency Based Curriculum in Primary Schools in Molo Sub-County

9. a) Tick appropriately, the technical skills you have that are relevant for the Implementation of CBC?

i.	Electronic presentation skills	[ ]
ii.	Web navigation skills	[ ]
iii.	Website design skills	[ ]
iv.	Digital camera skills	[ ]
v.	Database skills	[ ]
vi.	Word processing skills	[ ]
vii.	Spreadsheet skills	[ ]

b) Any other technical skill that is relevant in CBC Implementation not mentioned above? (Please specify).

i)……

ii)……

iii)……

10. To what extent do you agree with the following statements on the influence of teacher technical skills on the Implementation of CBC on the scale of 5 to I: Scale 5 = Strongly Agree; 4 = Agree; 3 = Moderately Disagree; 2 = Disagree; 1 = Strongly Disagree.

SN	**Statement**	5	4	3	2	1
	Teachers in this school have skills and utilize improvisation of teaching learning resources in teaching					
i	Teachers in this school are competent in using computer skills in teaching					
ii	Teachers in this school effectively use data bases in teaching					

iv	Teachers in this school easily do electronic presentation					
v	Teachers in this school have access and use computer in teaching					
v	Teachers in this school easily use goggle classrooms to teach					
vi	Teachers in this school easily navigate web and use it for teaching					
viii	Teachers in this school effectively use internet					
Ix	Teachers in this school effectively use email					

SECTION D: Influence of Teacher Pedagogical Knowledge and CBC Implementation

11. Please indicate the extent to which you agree or disagree with the following statements on teacher pedagogical knowledge on CBC:

SN	**Statement**	**SA**	**A**	**U**	**D**	**SD**
i.	Teachers in this school understand CBC content					
ii.	Teachers in this school effectively teach CBC content					
iii.	Teachers in this school organize content effectively for teaching					
iv.	There are adequate teaching learning resources for teaching CBC in this school					
v.	Teachers in this school have been trained on how to use Teaching learning resources on CBC					
vi.	Teachers in this school have been trained on how to pay individualized attention in class					
vii.	Teachers in this school are motivated to implement CBC					
viii	Teachers in this school motivate learners in CBC classes					
Ix	Teachers in this school have been trained on how					

	to engage pupils actively in CBC classes					
X	Teachers in this school have been trained to assess learners using appropriate CBC assessment tools					

SECTION E: Challenges Facing the Implementation of CBC

12. (a) Tick appropriately the challenges facing implementation of CBC?

i) Insufficient teaching and learning resources [ ]

ii) Overcrowded classrooms [ ]

iii) Student unpreparedness to accept learner-centered approach [ ]

iv) Issues related to assessment criteria [ ]

v) Unfriendly environment [ ]

vi) Lack of support from school administration [ ]

vii) Inadequate training [ ]

(b). Any other challenge you are facing while implementing CBC not mentioned above? (Please specify).

i)……

ii)……

iii)……

SECTION F: Strategies for Improving the Implementation of CBC

13. (a). Please indicate the extent to which you agree or disagree with the following statements concerning the strategies for improving CBC implementation?

SN	Statement	SA	A	U	D	SD
i.	Training of teachers?					
ii.	Addressing the concerns raised by teachers					

iii.	Use of relevant technology for personalized and practical learning in schools					
iv.	Provision of incentives by the government for both teachers and learners					
v.	Developing a proficiency-based system where students advance to the next level once they demonstrate mastery of specific content					
vi.	All stakeholders of the school agree on planned activities and programs of the school					
vii.	Provision of teaching learning resources					
viii.	Employment of more teachers					

(b). Any other information concerning the strategies for improving CBC implementation not mentioned in the above table? Please specify…….

i)…….

ii)……

iii)…….

SECTION G: CBC Implementation

14. (a). Please indicate the extent to which you agree or disagree with the following statements on CBC implementation in your school

SN	**Statement**	**SA**	**A**	**U**	**D**	**SD**
	Competencies achieved among learners					
i	You have active and engaged learners					
ii	Learners' self-efficacy achieved					
iv	Critical thinking & problem-solving skills acquired					
v	Learners' digital literacy skills improved					

(b). Any other information concerning CBC implementation not mentioned in the above table? Please specify…….

i)…….

ii)……

iii)…….

END

Appendix Three: Interview Guide for Primary School Head Teachers

Introduction

I am a student at the Catholic University of Eastern Africa pursuing a Master's Degree in Educational Administration and Planning. In partial fulfillment of the requirements of this degree, I am carrying out a study on the topic: **"Influence of Teacher Characteristics on The Implementation of Competency Based Curriculum in Primary Schools in Molo Sub-County, Nakuru County."** I am, therefore, requesting your assistance in answering these questions. The information collected was kept confidential and used for research purposes only. Your assistance and cooperation is highly appreciated.

SN: _____

Name of school: _____

School Type: (i) Public primary [ ] (ii) Private primary [ ]

SECTION A: Head-Teachers' Demographic Information

1. Age bracket?

(a) 21 -30 [ ] (b) 31- 40 [ ] (c) 41-50 [ ] (e) 51 and above [ ]

2. Gender: Male [ ] Female [ ]

3. Marital Status: Married [ ] Single [ ] Divorced [ ] Widowed [ ]

4. Type/category of institution: …….

5. Indicate the highest qualification attained

(a) P1 Certificate [ ] (b) Diploma [ ] (c) Degree [ ]

Any other information not mentioned above? (Please specify)

i)……

ii)……

iii)……

SECTION B

6. Instructions: please (tick as applicable) or provide appropriate information

i. For how long have you been a head teacher in this school? years [ ]

ii. For how long have you been a head teacher in this school since the introduction of CBC? -----

iii. How many teachers do you have in your school? ----------

iv. How many streams does the school have? ----------

v. Do you have enough classrooms to teach CBC? Yes [ ] No [ ]

vi. Are the teachers you have enough to implement CBC? Yes [ ] No [ ]

vii. If the number of teachers in (v) is not enough, what is the shortfall? ----------

viii. Have all your teachers attended training and acquired practical skills for the implementation of CBC?

Yes [ ]

No [ ]

a) Is the training relevant?.....

b) Is the training adequate?.....

c) If not adequate what is lacking?.....

ix. Do you have modelling to help learners acquire the desired competencies?

Yes [ ]

No [ ]

x. What skills do you desire your teachers to have in order to impart the required competencies to the learners?

…….

……..

……..

……..

……..

xi. What trainings/workshops have been organized for your teachers to acquire the skills to teach CBC?

……..

……..

……..

……..

……..

xii. Do you have teachers in this school who are digitally literate? Yes [ ] No [ ]

a) If yes, how many are they? ----------

b) How have they promoted literacy skills in this school? ----------

xiii. Does the school have computers?

Yes [ ] No [ ]

a) If yes, how many? ----------

b) Are they sufficient for CBC learning? Yes [ ] No [ ]

xiv. What specific learning areas are taught using computers or any other ICT devices?

---

xv. Have teachers created databases for teaching? Yes [ ] No [ ]

xvi. Do teachers in this school easily navigate the web? Yes [ ] No [ ]

xvii. Do you use digital platforms of communication (such as emails, web portals etc.) in this school? Yes [ ] No [ ]

xviii. Do teachers use individualized learning methods in your school? Yes [ ] No [ ]

xix. Would you recommend teachers in this school to advance their academic qualifications?

Yes [ ] No [ ]

SECTION C

7. Please indicate the extent to which you agree or disagree with the following statements concerning CBC curriculum design?

5) Strongly Agree 4) Agree 3) Neither agree nor disagree 2) Disagree 1) Strongly disagree

SN	Statement	5	4	3	2	1
i.	Your teachers understand the concept of competency-based curriculum					
ii.	Your teachers are able to identify the competencies included in the CBC					
iii.	Your teachers are confident in to teach using a competency-based approach					
iv.	Your teachers are able to design assessments that align with the CBC					
v.	Your teachers are adequately prepared to implement CBC in classroom					

END

Appendix Four: Observation Checklist

SN: _____

Name of school: _____

School Type: (i) Public primary [ ] (ii) Private primary [ ]

SN	Facility	Available	Adequate	Inadequate
	Classrooms			
i	Text books			
ii	Teaching Learning Materials			
iv	Demonstration land			
	Demonstration materials			
v	Playgrounds for skits and sports			

END

Appendix Five: Document Analysis Guide

SN: _____

Name of school: _____

School Type: (i) Public primary [ ] (ii) Private primary [ ]

SN	Document Type	Information Required	Available	Unavailable	Comments
	Schemes and records of work	Schemes and records of work i.e. check on dates, topics, objectives, resource materials used, among others			
	Lesson Plan	Learning area, strand, sub-strand, learning outcomes			
	Log in and out Book	Time management i.e., teachers' arrival times in the morning and exit times in the evening			
	Curriculum Design	Learning Areas, timely coverage, learning outcomes, strands, sub-strands			
	Guidance and Counselling	Records of pupils with challenges, interventions and referrals if any and to who. Frequency of counselling sessions i.e., twice a week etc.			
	Punishment Record Book	Offenders, punishment, reasons, handlers and			

	(include minor and major offenses)	solutions			
v	**Teacher Performance Appraisal and Development (TPAD)**	Lesson observation, attendance records for teachers			
v	**Log book/daily occurrence book**	Daily activities and happenings			
	Pupils' progress/assessment record	Performance/Assessment and teachers' remarks			

Any other document not listed above? (Please specify).

i)…….

ii)……

iii)…….

END

Appendix Six: Reliability Test Results

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	33	100.0
	Excluded[a]	0	.0
	Total	33	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.902	57

Item-Total Statistics

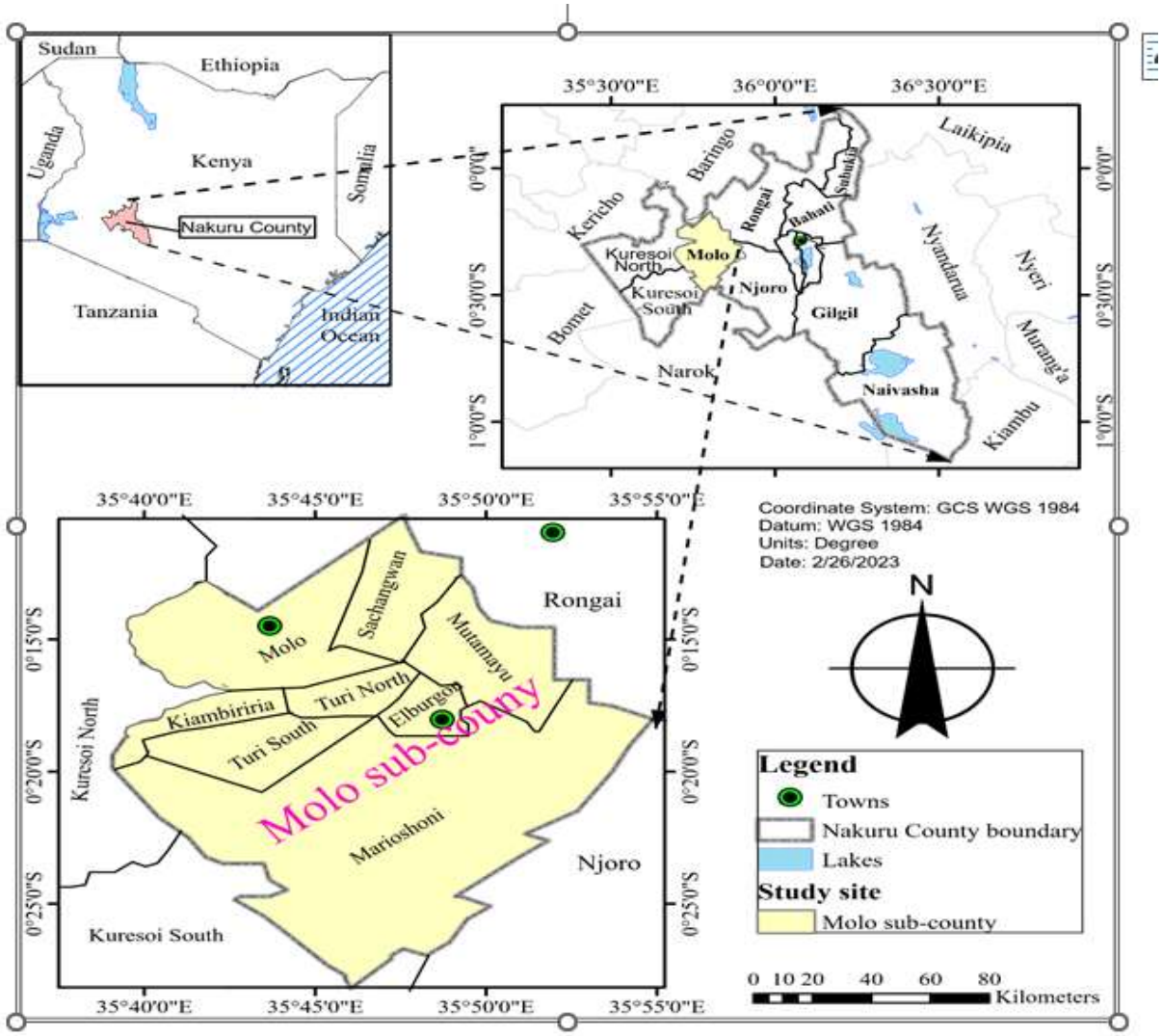
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Teacher's gender	170.4545	416.318	.516	.900
Teacher's role in school	169.0000	419.875	.469	.901
Type of school	170.8485	427.008	.000	.902
Teacher's qualification	169.5455	423.006	.108	.903
IT/ICT Training	170.3333	427.229	-.023	.903
Digital devices handling	170.6667	424.167	.167	.902
Teacher's academic qualifications influence how learners achieve competencies	168.0909	366.960	.925	.891
Teacher's academic qualifications influence learner's active participation in class	168.4545	383.818	.800	.894
Teacher's academic qualifications influence learner's critical thinking	168.4848	377.070	.834	.893
Teacher's academic qualifications influence learner's problem solving skills	168.4848	375.008	.872	.892
Teacher's academic qualifications influence learner's numeracy skills	168.3333	385.917	.629	.897

Teacher's academic qualifications influence learner's literacy skills	168.3030	381.905	.719	.895
Teacher's academic qualifications influence learner's digital skills	169.1515	413.758	.149	.906
Teacher's academic qualifications influence effective interpretation of curriculum design	168.1515	377.945	.809	.893
Teacher's academic qualifications influence learner's lifelong learning	169.1818	404.028	.394	.900
Web navigation skills	170.1212	421.360	.293	.901
Website design skills	169.9697	419.093	.575	.900
Digital camera skills	170.8182	426.153	.115	.902
Database skills	170.1515	425.820	.050	.903
Word processing skills	170.3636	432.489	-.272	.904
Spreadsheet skills	170.3030	431.280	-.216	.904
Teachers in this school have skills and utilize improvisation of teaching learning resources in teaching	167.7273	429.955	-.114	.904
Teachers in this school are competent in using computer skills in teaching	169.0606	399.621	.858	.896
Teachers in this school effectively use databases in teaching	169.4242	411.564	.520	.899
Teachers in this school easily do electronic presentation	169.3636	410.739	.778	.898
Teachers in this school have access to and use computers in teaching	168.7879	390.922	.920	.894
Teachers in this school easily use Google classrooms to teach	169.9394	433.059	-.200	.906
Teachers in this school easily navigate web and use it for teaching	168.7273	391.705	.938	.894

Teachers in this school effectively use the internet	168.0303	426.030	-.015	.907
Teachers in this school understand CBC content	167.5758	427.752	-.042	.904
Teachers in this school effectively teach CBC content	167.6970	433.093	-.235	.905
Teachers in this school organize content effectively for teaching	167.8182	436.466	-.347	.906
There are adequate teaching learning resources for teaching CBC in this school	168.4848	389.758	.894	.894
Teachers in this school have been trained on how to use teaching learning resources on CBC	167.8485	435.258	-.315	.906
Teachers in this school have been trained on how to pay individualized attention in class	167.7879	436.047	-.370	.906
Teachers in this school are motivated to implement CBC	168.4848	396.508	.911	.895
Teachers in this school motivate learners in CBC classes	167.6667	430.729	-.148	.905
Teachers in this school have been trained on how to engage pupils actively in CBC classes	167.8182	433.591	-.224	.906
Teachers in this school have been trained to assess learners using appropriate CBC assessment tools	167.9697	435.843	-.278	.906
Insufficient teaching and learning resources	170.4545	425.881	.043	.903
Overcrowded classrooms	170.1515	431.820	-.259	.904
Students' unpreparedness to accept learner-centered approach	170.3030	430.968	-.201	.904
Unfriendly environment	169.9394	429.371	-.202	.903
Lack of support from school administration	170.0909	434.398	-.418	.905
Training teachers	168.1515	367.820	.882	.891

Addressing the concerns raised by teachers	167.7879	384.485	.896	.893
Use of relevant technology for personalized and practical learning in schools	168.1818	398.403	.752	.896
Provision of incentives by the government for both teachers and learners	167.9091	389.773	.816	.895
Developing a proficiency-based system where students advance to the next level once they demonstrate mastery of specific content	167.7576	425.002	.160	.902
All stakeholders of the school agree on planned activities and programs of the school	168.1818	398.403	.752	.896
Provision of teaching learning resources	168.0000	394.125	.751	.896
Employment of more teachers	167.6364	382.426	.904	.893
Competencies achieved among learners	167.4242	419.252	.293	.901
You have active and engaged learners	167.6970	434.280	-.488	.905
Learners' self-efficacy achieved	167.7879	434.297	-.364	.905
Critical thinking & problem solving skills acquired	168.2121	428.047	-.049	.905
Learners' digital literacy skills improved	168.4242	416.377	.212	.902

Appendix Seven: Map



Source: Google Maps, Nakuru County Integrated Development Plan (CIDP) 2018-2022

Appendix Eight: University Letter



MINISTRY OF EDUCATION
State Department for Early Learning and Basic Education

Telegrams: "EDUCATION",
Telephone: 051-2216917
Fax: 051-2217308
Email: cdenakurucounty@gmail.com
When replying please quote

COUNTY DIRECTOR OF EDUCATION
NAKURU COUNTY
P. O. BOX 259,
NAKURU.

Ref. NO. CDE/NKU/GEN/4/1/21 VOL IV/111

4th April, 2023

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION – JANE CHEPKURUI KIKWEI

Reference is made to the above named individual letter dated 6th April, 2023 seeking permission to conduct research in Nakuru County having been approved by NACOSTI through Research Reference **No. 456534** and license No. **NACOSTI/P/23/24925** dated 5th April, 2023.

Permission is hereby granted to her to carry out research on topic ***"Influence of Selected Teacher Characteristics on The Implementation of Competency Based Curriculum in Primary Schools in Molo Sub-County, Nakuru County, Kenya"*** for the period 5th April, 2024.

The findings of the research to be shared with this office when through with the research.

Kindly accord her the necessary assistance.

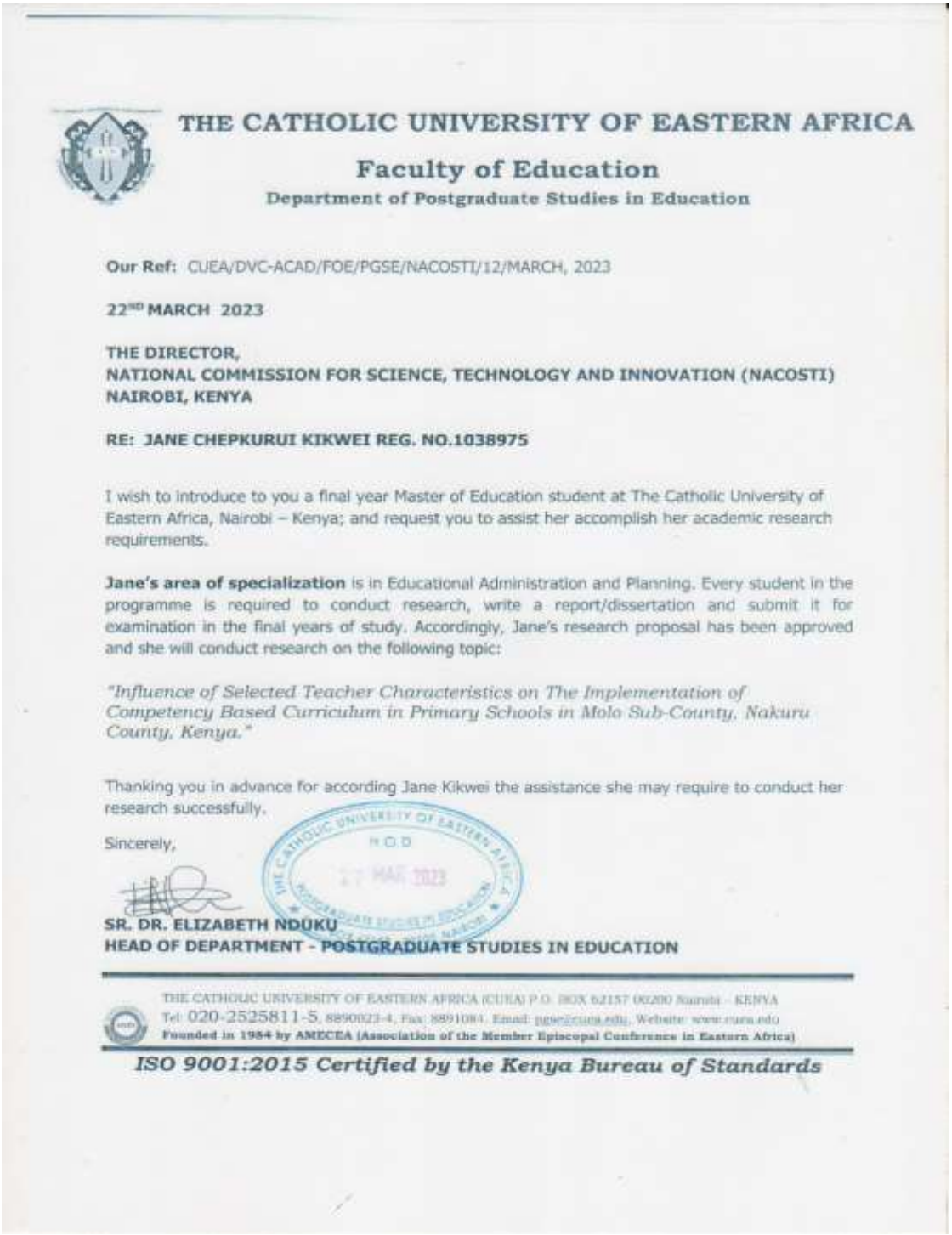
COUNTY DIRECTOR OF EDUCATION
NAKURU
P. O. Box 259 - 20100,
NAKURU

Victoria W. Mulili
County Director of Education
NAKURU

My Education My Future

My Education My Future

Appendix Nine: Ministry of Education Letter



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

Faculty of Education

Department of Postgraduate Studies in Education

Our Ref: CUEA/DVC-ACAD/FOE/PGSE/NACOSTI/12/MARCH, 2023

22ND MARCH 2023

THE DIRECTOR,
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION (NACOSTI)
NAIROBI, KENYA

RE: JANE CHEPKURUI KIKWEI REG. NO.1038975

I wish to introduce to you a final year Master of Education student at The Catholic University of Eastern Africa, Nairobi – Kenya; and request you to assist her accomplish her academic research requirements.

Jane's area of specialization is in Educational Administration and Planning. Every student in the programme is required to conduct research, write a report/dissertation and submit it for examination in the final years of study. Accordingly, Jane's research proposal has been approved and she will conduct research on the following topic:

"Influence of Selected Teacher Characteristics on The Implementation of Competency Based Curriculum in Primary Schools in Molo Sub-County, Nakuru County, Kenya."

Thanking you in advance for according Jane Kikwei the assistance she may require to conduct her research successfully.

Sincerely,

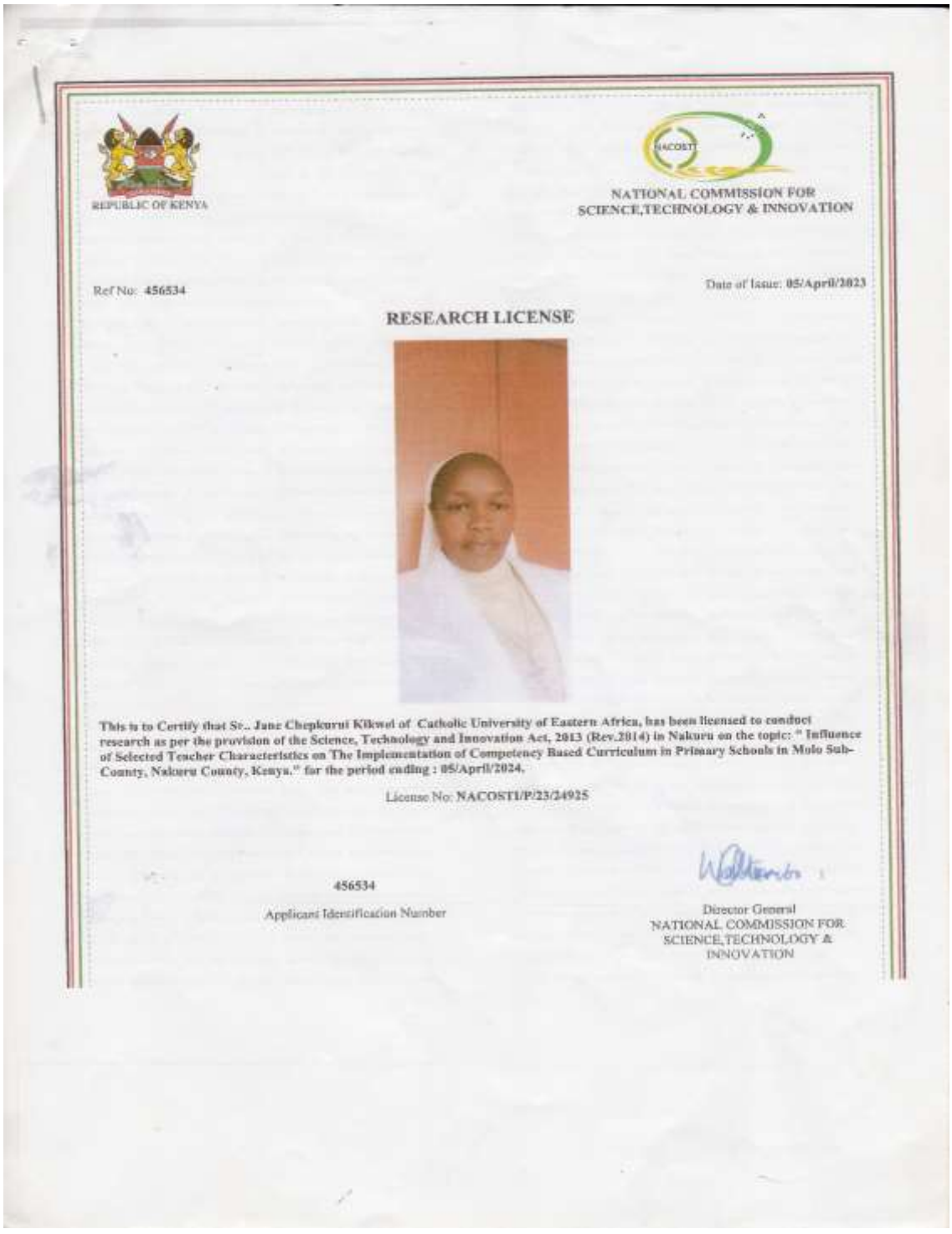
H.O.D

SR. DR. ELIZABETH NDUKU
HEAD OF DEPARTMENT - POSTGRADUATE STUDIES IN EDUCATION

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA) P.O. BOX 62157 00200 Nairobi - KENYA
Tel: 020-2525811-5, 8890023-4, Fax: 8891084, Email: pgse@cuea.edu, Website: www.cuea.edu
Founded in 1984 by AMECEA (Association of the Member Episcopal Conference in Eastern Africa)

ISO 9001:2015 Certified by the Kenya Bureau of Standards

Appendix Ten: Research Permit



REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 456534

Date of Issue: 05/April/2023

RESEARCH LICENSE

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INFLUENCE OF SELECTED TEACHER CHARACTERISTICS ON THE IMPLEMENTATION OF COMPETENCY BASED CURRICULUM IN PRIMARY SCHOOLS IN MOLO SUB-COUNTY, NAKURU COUNTY, KENYA By Jane Chepkurui Kikwei 1038975

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I HEREBY CONFIRM THAT **JANE CHEPKURUI KIKWEI** REG NO: **1038975**, SUBMITTED A CHECK OF ANTIPLAGIARISM ON CRITICAL EVALUATION OF **INFLUENCE OF SELECTED TEACHER CHARACTERISTICS ON THE IMPLEMENTATION OF COMPETENCY BASED CURRICULUM IN PRIMARY SCHOOLS IN MOLO SUB-COUNTY, NAKURU COUNTY, KENYA. A RESEARCH THESIS SUBMITTED TO THE DEPARTMENT OF POSTGRADUATE STUDIES IN EDUCATION IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER'S DEGREE IN EDUCATIONAL ADMINISTRATION AND PLANNING AT THE CATHOLIC UNIVERSITY OF EASTERN AFRICA.**

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Appendix Twelve: Publication

Journal of Popular Education in Africa: ISSN 2523-2800 (online)
July, August & September 2023, Volume 7, Number 7, 8 & 9
Citation: Chepkurui, J; Momanyi, M & Koros, P. (2023). Influence of Teacher Qualifications on the Implementation of Competency Based Curriculum in Primary Schools in Molo Sub-County, Nakuru County, Kenya. *Journal of Popular Education in Africa.* 7(8), 5 - 26.

Influence of Teacher Qualifications on the Implementation of Competency Based Curriculum in Primary Schools in Molo Sub-County, Nakuru County, Kenya

By

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Abstract
The study examined the influence of selected teacher characteristics on the implementation of competency curriculum (CBC) in primary schools in Molo sub-county, Nakuru County, Kenya. The following research questions guided the study: How do teacher qualifications influence implementation of Competency Based Curriculum in primary schools? The Gross Theory of Curriculum Implementation anchored the study. This study adopted mixed methods design, specifically convergent design incorporated qualitative phenomenological design and quantitative cross-sectional survey design. The study population comprised of 83 schools, 83 head teachers, and 830 teachers in Molo sub- County. Stratified and simple random sampling was used to select 165 teachers, purposive sampling was used to select 17 head teachers, and stratified and systematic random samplings were used to sample 17 schools. The data collection tools included questionnaires, interviews, and observation checklist all validated for content and face validity. The questionnaires demonstrated high reliability with a Cronbach Alpha coefficient of 0.902. Trustworthiness of qualitative tools was established. Descriptive statistics; frequencies, means, and percentages were employed to analyze quantitative data, facilitated by the Statistical Packages for Social Sciences (SPSS) software version 28. Qualitative data was thematically analyzed using Creswell (2017) six steps. For inferential analysis, linear regression and correlation techniques were employed, with hypotheses tested at $\alpha = 0.05$. Results indicated that teacher qualifications are favorably perceived by Molo sub- county teachers, with an aggregate mean score of 4. Spearman's rank correlation established statistically significant influence of teacher qualifications and CBC implementation ($r = 0.424$, $p < 0.05$). Linear regression analysis affirmed substantial predictive associations between teacher qualifications and CBC implementation ($\beta = 6.409$, $p < .001$. The study's findings underscore the interrelated roles of teacher qualifications in the successful implementation of the Competency-Based Curriculum The study recommended that; the national and county governments and the Ministry of Education, need to prioritize the development and enforcement of teacher qualifications, technical skills, CBC pedagogy, and school implementation strategies for effective CBC implementation. These policies will contribute to enhancing the quality of education and ensuring successful implementation of the Competency-Based Curriculum.

Key Words: Kenya, Nakuru County, CBC implementation Kenya, primary schools, teacher qualifications.