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**Influence Of Teachers' Preparedness On Implementation
Of Competency Based Curriculum (Cbc) In Public
Primary Schools In Bomet East Sub-County, Bomet
County, Kenya**

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**INFLUENCE OF TEACHERS' PREPAREDNESS ON IMPLEMENTATION OF
COMPETENCY BASED CURRICULUM (CBC) IN PUBLIC PRIMARY SCHOOLS IN
BOMET EAST SUB-COUNTY, BOMET COUNTY, KENYA**

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**A Thesis Submitted to the Board of Graduate Studies in Partial Fulfilment of the
Requirements for the Award of the Degree of Master of Education in Early Childhood and
Primary Education of the University of Kabianga**

UNIVERSITY OF KABIANGA

OCTOBER 2023

DECLARATION AND APPROVAL

This thesis is my original work and has not been presented for the conferment/award of a degree or diploma in this or any other institution.

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Approval

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ABSTRACT

This study focused on implementation of Competency Based Curriculum (CBC) in Kenya's public primary schools in Bomet East Sub-County, Bomet County. It purposed to investigate teacher's preparedness and how it influence effective implementation of CBC. It was guided by objectives that include: the teacher training and its influence, teacher's knowledge on CBC mode of assessment, teacher's ability to select and use CBC instructional resources and teacher lesson preparation techniques and their influence on CBC implementation. It was justifiable given that CBC had already been rolled out and that curriculum change was paramount. CBC significantly was a breakaway from the rigid and costly 8-4-4 system. The study found CBC significant in assisting learners to apply and create knowledge rather than memorization. Knowledge Development Theory anchored this study. It utilized a descriptive survey research design, thus making use of questionnaires and interviews for data collection. The target population was 444, teachers from 52 primary schools. It sampled 210 respondent, 156 teachers, and 2 Curriculum Support Officers. Data collection involved questionnaires for teachers and interviews with head teachers and CSOs. Rigorous validation processes ensured the accuracy of research instruments, and reliability assessments were carried out. The validity of the research instruments was ensured through content, construct, and face validity checks. Expert reviews were conducted to refine the instruments, align them with study objectives, and enhance clarity. Construct validity was upheld by designing questions that measured specific constructs related to CBC implementation. The findings emphasized the need for additional support for teachers to effectively integrate core competencies, foster critical thinking, stimulate creativity, and promote collaboration among learners. Concerns were raised about the availability of essential instructional materials, which could hinder CBC implementation. The study also highlighted the importance of helping teachers design effective assessment criteria and rubrics for summative reporting. It also underscored the importance of providing teachers with additional support through training and capacity building to effectively implement CBC. It advocated for significant investments by the Kenyan government and stakeholders to ensure successful CBC implementation in public primary schools, not only in Bomet East Sub-County but nationwide.

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DEDICATION

This thesis is dedicated to my loving Husband, my children, and also to my parents for their constant encouragement and unceasing support during the entire period of my studies. I also dedicate this thesis to my siblings for their moral, financial and social support.

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This thesis would not have been accomplished without the support and contributions of others. The names of those mentioned here are but a representatives of the many others to whom I will always be indebted and grateful. Firstly, I wish to sincerely thank the Almighty God for offering me life and profound grace. Secondly, my humble appreciation goes to my supervisors, for their tireless support, encouragement and guidance through the conception and in the development of this thesis. Thirdly, much appreciation goes to the head teachers for the guidance and assistance they offered me while I was undertaking my fieldwork. Fourthly, my appreciation goes to the respondents in the schools who agreed to take part in the study. Finally, to all those who in one way or the other, contributed significantly to the success of this study, may the Almighty God abundantly reward your efforts.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBC	Competency Based Curriculum
CSO	Curriculum Support Officers
CSOIG	Curriculum Support Officers' Interview Guide
HTIG	Head Teachers' Interview Guide
KICD	Kenya Institute of Curriculum Development
KNUT	Kenya National Union of Teachers
MoE	Ministry of Education
NACOSTI	National Commission for Science, Technology and Innovation
PCIs	Pertinent and Contemporary Issues
SPSS	Statistical Package for Social Sciences
TPD	Teacher Professional Development
TPQ	Teachers' Questionnaire
USAID	United States Agency for International Development
VIF	Variance Inflating Factor

DEFINITION OF TERMS

Competency Based Curriculum: In this study it is defined as a new educational innovation that has been implemented to replace the old education system of 8-4-4. Its emphasis is on applying knowledge and skills practically, acquiring new attitudes, and adding values in real-life situations. This is a curriculum that does not focus on subject content.

Curriculum Reforms: In this study the term refers to changes from 8-4-4 curriculum to CBC. The purpose of these changes was to enable learners to adjust to the evolving societal needs and get aligned to the world's educational systems.

Implementation of Competency Based Curriculum: This is what this study is focused to seek as its dependent variable. It involve what the schools, teachers do in regard to bringing CBC to a take-off from the 8-4-4 system. This refers to actual steps or activities undertaken practically to execute the competency based curriculum that prioritizes what learners do rather than just what they know.

Influence of Teacher preparedness: This has been used in the study objectives and as a main action in the title. It was researched to determine the degree of the level at which the independent variable exerts action on dependent variable. In this study, it focused on the impact of teachers' training or general knowledge skills on implementation of CBC. It also operationalized the role of capacity building on general implementation of CBC.

Instructional Materials: The study takes this to include but not limited to objects and resources, this concept includes CBC-compliant course books, acceptable tools relevant for use by teachers to clarify abstract concepts and aid in teaching and learning.

Lesson Preparation The study reflects the diversion in teachers' focus in selecting activities relevant for CBC that shows clear differences with 8-4-4. It means the process of preparing

lessons to focus on introductory activities, linkage of old knowledge to new knowledge, focusing on creativity from both teacher and learners. Teacher's ability to plan relevant lesson activity is the main concern.

Mode of Assessment: A change from the previous system focus on several examinations and tests for competition. The level of expectation was researched to determine the learners' degree of success. The primary target is for the learner to exceed expectation.

Public Primary School: This is the selected unit of analysis in this study. It represent government-funded schools that have already implemented the new CBC curriculum.

Teacher Competence: It was used to allude to teachers training skills, intelligibility, creativity and knowledge base. The ordinary use included teachers' knowledge, skills, and values that is required to successfully implement CBC program, including an understanding of the new curriculum's learning approach.

CHAPTER ONE

INTRODUCTION

1.1 Overview

The background of the study has been presented leading to the exposition of the statement of the problem. The study purpose that leads to the objectives of the study, research question, justification, significance, limitation and assumptions of the study also forms this section.

1.2 Background of the Study

The transition from a content- and teacher-centered curriculum to a competency-based curriculum is an effort to raise the standard of education by enabling learners to develop a wider range of abilities that are applicable in many different contexts (Komba & Mwandaji, 2016). However, in order to successfully implement the CBC, it is crucial to equip all the teachers and make sure they are familiar with the new techniques of instruction and learning (MacIellan, 2004). In this regard, Sudsomboon (2010) emphasizes that the success of competency-based curricula is strongly dependent on the teachers, who must adopt a new role as coaches and facilitators rather than information transmitters. Consequently, it is crucial that instructors are ready to execute a competency-based curriculum.

Teachers have a crucial part in the growth and transformation of a learner since they are the ones who carry out the curriculum. As a result, the quality of the instructor has a significant impact on the quality of education (Kafyulilo, Rugambuka & Moses, 2012). As a result, in order to effectively instruct learners, teachers must possess a high level of expertise (Kafyulilo, *et al.*, 2012). It is impossible to compare a teacher's value and quality to any other factor (Reeves, 2004). The level of teacher quality and preparedness closely relates to learners accomplishment. In comparison to other sorts of investments like teacher wages and a reduced number of learners

per classroom, teacher quality and learner accomplishment are associated (Darling-Hammond, 2000).

A teacher's subject-matter expertise has a significant impact on how learners learn and how learning occurs in a classroom. According to Buchmann (1984), a teacher's ability to effectively guide learners during the teaching process depends on their level of understanding of the material they are to be taught. This includes making decisions about which knowledge is valuable, planning learning activities, asking insightful questions, providing pertinent explanations, and assessing the progress of learners. In a similar vein, Jadama (2014) argues that a teacher's knowledge and comprehension of the subject matter determine how well they can instruct learners on the material covered in the curriculum. The extent to which the instructor is knowledgeable about the subject matter that influences learning will determine how well misunderstandings of knowledge are corrected for the learners.

According to Molapo (2018), who conducted a research to determine how grade 3 teachers in Limpopo primary schools in South Africa integrated the new curriculum, teacher training in the curriculum can impact the adoption process. The majority of grade three instructors, according to the study, lacked the necessary abilities and expertise to administer the curriculum, which hampered the process of implementation. This suggests that insufficient teacher preparation impedes a curriculum's ability to be implemented effectively. Ambei and Kim (2018) carried out a study in Cameroon to determine the level of CBC implementation by teachers in primary schools. The results showed that most instructors still don't know what the CBC is all about. The research also revealed that even for instructors who had received training and had some familiarity with the curriculum, successful implementation remained a significant difficulty in the majority of cases due to a lack of resources and a lack of expertise on how to improvise

resources. According to the study's conclusions, it is crucial for Cameroon's educational stakeholders to come up with ideas, make sure instructors are knowledgeable about how to apply the curriculum effectively, and equip teachers with enough instructional tools.

Technology can help teachers and learners learn more effectively. However, according to Bonanno (2011), the instructors who are in charge of implementing the curriculum do not have the necessary knowledge and abilities to fully exploit, apply, and integrate technology. According to Zindi and Ruparanganda (2011), modern technology offers several options aimed at enhancing classroom teaching and learning. To successfully implement these changes, teachers must be sufficiently trained and furnished with technical know-how and competences.

The results of a research done by Makunja (2016) on the difficulties teachers faced when implementing the CBC curriculum in Tanzania indicated that one of the main issues preventing efficient implementation of the curriculum was a lack of adequate in-service training for teachers. This was a sign of the lack of preparation and readiness on the part of the instructor to utilize and apply pedagogical knowledge throughout the teaching and learning process. The findings also revealed that although instructors were eager to implement the CBC, they lacked sufficient expertise in and comprehension of the competence-based curriculum. According to a research by HakiElimu published in Rweyemamu (2012), teachers have a limited understanding of the competency-based curriculum. He makes the point that although teachers believe they are familiar with the competency-based curriculum, they are not.

According to Makuna (2013), Kenya has previously made several curricular revisions that either weren't implemented or took too long to be implemented. Researchers have cited a variety of causes, including teachers' unwillingness to adopt the new curriculum owing to their own ineptitude, a lack of preparation before the new curriculum was introduced, and insufficient ICT

skills (Bingimlas, 2009; Mumtaz, 2000 & Balanskat, 2006). The majority of Kenyan teachers, according to Kinuthia (2009), are computer illiterate, and only a select minority are proficient users. According to Gakuu (2006), the way teachers approach implementing the curriculum is crucial. Therefore, in order for teachers to successfully adopt a new curriculum, they need be well-prepared and have a positive mindset.

Concerns have been expressed about Kenya's ability and teachers' readiness to implement the competency-based curriculum (CBC). Quite a few difficulties are being encountered during the first phase of the competency-based curriculum implementation. According to Kaviti (2018), a trial that was conducted in 2017 resulted in the competency-based curriculum being created in hurry. According to a report by Kaviti (2018) on the new curriculum for education in Kenya, less than 2000 of the 160000 teachers who teach basic education were educated during the pilot program of the new curriculum, which lasted an average of 10 weeks. Sossion (2018) asserts that instructors' objection to the new curriculum is due to their lack of readiness to guide learners through it. He said that teachers' opposition to it is not due to a lack of desire, but rather, a lack of understanding. However, school administrators have asserted that teachers have received sufficient CBC training and are prepared to use it. Ndolo, the head of the Kenya Primary Heads Association (KEPSHA), stated that no objections have yet been made about the new curriculum (Ndolo, 2018). As a result, it is unclear if instructors have received sufficient preparation for the implementation of the CBC.

Momanyi and Rop (2013), carried out a related study and made a conclusion that curriculum outcome is impacted by teacher preparedness. Unprepared teachers are limited to the successful implementation of a curriculum. The findings of this study will provide valuable insights for education policymakers, school administrators, teacher training institutions, and other

stakeholders. It has the potential to inform strategies for enhancing teacher preparedness, which, in turn, can significantly impact the successful implementation of the Competency Based Curriculum in Bomet East Sub-County, Bomet County and potentially serve as a model for other regions in Kenya. Ultimately, the study contributes to the ongoing efforts to improve the quality and relevance of primary education in Kenya in the context of a rapidly changing world.

The conceptualization of the global education trend, the need for learning that elicits positive responses to global needs and the existence of the old educational systems points at the need for educational reforms in this regard. Much as reforms are paramount, the inadequacies and other impediments in its implementations are myriad. Thus this study sought to establish the implementation preparedness of the teachers in Kenya.

1.3 Statement of the Problem

The shift from 8-4-4 Curriculum to CBC is definitely a non-reversible trend in the current education in Kenya. Curriculum change and implementation is a long predictable process and not without its preceding challenges. Despite the enormous time, resource and sensitization on this matter, the implementation of Competency Based Curriculum CBC is still not at its apex. Kenya with over two hundred thousand teachers in primary schools are yet to train, retool or offer capacity building courses to all the teaching staff. Curriculum implementation role although it involves many other factors is led by teacher knowledge, preparedness, skills and attitude towards it. In Kenya, the time for implementation of the curriculum seems to have superseded the preparedness of the teachers, the availability of materials and thus being a threat to actual or full implementation of the program. The transition from 8-4-4 to CBC has significant impact on

all school going children and Kenyans as a whole, the change from academic oriented system to the new competence, practical and skill oriented system cannot be overstated.

There was therefore a missing link between the necessity for implementation and preparedness of the implementers and thus the reason for the current study. If the curriculum would be implemented well, there would be a reflection of adequacy of the teachers' preparedness as well as provision of other necessary resources. Well prepared teachers will exhibit competence in lesson execution. There was a need to assess the extent to which teachers had been adequately trained to implement CBC effectively. The effective training will exhibit teachers who are able to align their teaching methodologies with the CBC's objectives, which foreground critical thinking, problem-solving, creativity, and collaboration skills which are all a shift from the previous approaches. The preparedness of the teachers was also meant to show their ability to utilize the available or create CBC-compliant instructional materials and resources without which the program implementation is curtailed. The implementation of CBC focused on shift of the methods of assessment of learners' competencies. It required that a thorough training on assessment modes be done. Teachers were accustomed to the 8-4-4 assessment skills which are completely different with the new curriculum. This study was premised on the gap and question on what would be the influence of teacher preparedness on implementation of the CBC curriculum. Whether inadequate teacher preparedness would impede learners' development of the competencies that CBC seeks to foster was also the problem in question. Addressing these issues was imperative to ensure the successful implementation of CBC in Bomet East Sub-County and to provide valuable insights for enhancing teacher preparedness and the overall quality of the curriculum in Kenyan primary education.

1.4 Purpose of the Study

The purpose of this study was to examine the extent to which teachers' preparedness influences the successful implementation of the Competency Based Curriculum (CBC) within the specific educational context of Bomet East Sub-County, Bomet County.

1.5 Objectives of the Study

This study was guided by the following objectives

- i. To investigate the impact of teachers' training on the successful implementation of the Competency Based Curriculum (CBC) in public primary schools situated in Bomet East Sub-County, Bomet County, Kenya.
- ii. To ascertain the influence of teachers' chosen modes of assessing learners on the implementation of the Competency Based Curriculum (CBC) in public primary schools located in Bomet East Sub-County, Bomet County, Kenya.
- iii. To evaluate the utilization of CBC instructional resources and materials in the context of implementing the Competency Based Curriculum (CBC) within public primary schools in Bomet East Sub-County, Bomet County, Kenya.
- iv. To analyse the significance of teachers' lesson preparation as a crucial tool in the implementation of the Competency Based Curriculum (CBC) in public primary schools within Bomet East Sub-County, Bomet County, Kenya.

1.6 Research Question

The research was guided by the following research questions

- i. What influence does training of teachers in Bomet East Sub-County has on implementation of the Competency Based Curriculum?

- ii. Have teachers in Bomet East Sub-County been trained to utilize the assessment modes that are aligned to principles and objectives of the Competency Based Curriculum?
- iii. How are teachers in public primary schools in Bomet East Sub-County utilizing instructional resources and materials suitable for implementation of Competency Based Curriculum?
- iv. Do teachers in Bomet East Sub-County public primary schools prepare lessons based on lesson preparations skills for effective implementation of the Competency Based Curriculum?

1.7 Justification of the Study

The study on teachers' preparedness for the implementation of competency-based curriculum in Kenya is justifiable due to its for policy and decision-making, its impact on the quality of education, its potential to inform professional development programs, its contribution to curriculum improvement, and its role in generating valuable research and knowledge.

A more equitable learning environment and teacher preparedness is important benefit of competency based education, and one that could potentially support closing the opportunity gap that exists in the education system, which both contributes to and is influenced by inequities in the larger society. There was an educational outcry related to classroom activities that characterized the previous system, this involved the conventional "seat work" or paper-and-pencil tests. Teachers' preparedness sort to revolutionize classroom tasks by implementing authentic tasks and authentic assessments rather than the regular sit in classroom work.

The study addresses broader issues of educational quality and relevance. Teachers' preparedness on implementation of CBC is intrinsically linked to improved learning outcomes, as it prioritizes the development of competencies that are highly pertinent in the modern world. By devolving

into the role of teacher preparedness in achieving these outcomes, this research underscores the importance of equipping learners with the skills they need to thrive in an evolving global landscape and also carries implications for education policy formulation. The insights derived from this research can inform county and national education policies. Policymakers can use the findings to refine existing strategies, allocate resources more effectively, and create support systems that empower teachers to excel in delivering CBC. This, in turn, aligns with the broader objective of advancing the overall quality of education in Kenya.

1.8 Significance of the study

This study's finding would be useful for majority of educational stakeholders, ranging from school heads, teacher trainers and training institutions, quality assurance officers, policy makers and other stakeholders who will find incredible insights in teacher training and capacity building.

Its ultimate goal is to enhance strategies for improving teacher preparedness, causing a resultant influence on successful implementation of the Competency Based Curriculum in Bomet East Sub-County, Bomet County and potentially serve as a model for other regions in Kenya. Significantly, the study exerts influence to the continuing efforts to streamline the quality and relevance of primary education in Kenya in order to meet the global educational standards.

Ministry of Education (MoE) may utilize the study findings to tailor its efforts towards retraining practicing teachers on the paradigm shift to the new curriculum. The study will research on relevant materials to be supplied and thus facilitating implementation of CBC. The study will further provide the field officers, especially CSOs, focus on designing feedback to teachers. Majority of scholars would get knowledge to supplement existing research from this study. In the process of restructuring Primary Teacher Education (PTE) in line with the paradigm shift the

Ministry of Education (MoE) would also benefit from this study in facilitating pre-service trainings to teachers on the paradigm shift and therefore avoid duplication.

1.9 Scope of the Study

The scope of the study encompassed an in-depth examination of the influence of teachers' preparedness on the implementation of the Competency Based Curriculum (CBC) in public primary schools within Bomet East Sub-County, Bomet County, Kenya. This research aimed to explore various facets of teacher preparedness, including their understanding of CBC principles, training, availability and utilization of instructional materials, competence in CBC-aligned assessment methods, and the integration of CBC into their teaching practices. The study primarily focused on the experiences and perspectives of teachers, head teachers, and Curriculum Support Officers within the selected sub-county.

Data collection for this study involved the administration of surveys and interview schedules to teachers and educational stakeholders, allowing for a comprehensive exploration of the factors influencing CBC implementation. Additionally, the study considered the contextual nuances specific to Bomet East Sub-County while recognizing that the findings may offer valuable insights applicable to broader educational contexts. The research was conducted with the objective of shedding light on critical issues related to teacher preparedness and its impact on the successful execution of CBC, thereby contributing to the ongoing efforts to enhance the quality of primary education in Kenya and beyond.

1.10 Limitation of the Study

This study was conducted with an awareness of certain limitations that could have affected the scope and depth of its findings. One limitation was related to the sample size, which, due to practical constraints, might not have fully represented the diversity of public primary schools and

teachers in Bomet East Sub-County. To address this, the research employed a thorough and representative sampling technique while transparently acknowledging the limitations tied to sample size in the study's final report. Furthermore, the study recommended future research with larger and more diverse samples to enhance the generalizability of its conclusions.

Another potential limitation was the reliance on self-reported data from teachers, which could have introduced response bias or inaccuracies. To bolster data validity, the research incorporated data triangulation, utilizing multiple data sources such as surveys, interviews, classroom observations, and learners' performance assessments. This approach aimed to provide a more comprehensive and reliable understanding of teacher preparedness and its influence on CBC implementation.

Context-specific findings were another consideration, as the study's results may have primarily applied to the unique educational landscape of Bomet East Sub-County. To mitigate this context-specificity, the study explicitly acknowledged regional limitations and emphasized the importance of conducting comparative research in diverse contexts to validate or contrast the findings.

Time constraints posed another potential limitation, potentially limiting the study's data collection and analysis efforts. In response, the research transparently communicated these time limitations and recommended that future investigations allocate more extended periods for data collection, enabling a more thorough exploration of the subject matter.

Social desirability bias was also a concern, as participants may have provided responses they deemed socially acceptable rather than expressing their genuine experiences or beliefs. To minimize this bias, the study prioritized confidentiality and anonymity, assuring participants that their responses would remain confidential, thereby encouraging honest and candid feedback.

Finally, resource constraints may have impacted the study's ability to delve deeply into all aspects of teacher preparedness. To address this limitation, the research openly acknowledged the resource constraints and recommended that future research initiatives secure additional resources to facilitate a more comprehensive exploration of the impact of teacher preparedness on CBC implementation.

1.11 Assumptions of the Study

In the course of this study, several assumptions guided our research efforts and shaped the methodology employed.

It was assumed that the selected sample of public primary schools and teachers within Bomet East Sub-County provided a representative cross-section of the broader educational landscape in the region. This assumption was based on the premise that the schools and educators included in the study would offer insights reflective of the challenges and opportunities faced by primary education stakeholders in the area.

The study also assumed that participants, including teachers, head teachers, and Curriculum Support Officers, provided accurate and honest responses during interviews. While every effort was made to encourage candid feedback, it was acknowledged that social desirability bias might influence some responses, potentially leading to an underrepresentation of certain issues.

Another assumption was that the research instruments utilized, including questionnaires and interview schedules, effectively captured the nuances of teacher preparedness and its influence on CBC implementation. We relied on the assumption that these instruments accurately assessed the factors under investigation and provided a comprehensive understanding of the subject matter and that the findings of this study could offer valuable insights into teacher preparedness and its impact on CBC implementation within the specific context of Bomet East Sub-County. While

recognizing the contextual specificity of the findings, we assumed that they could potentially inform strategies and recommendations for educational improvements both within the region and serve as a reference point for broader discussions on competency-based education.

The study also assumed that the limitations and constraints acknowledged in this study, such as sample size and resource constraints, did not compromise the integrity of the research process or the validity of the findings. These assumptions were made with the understanding that they were addressed transparently and that future research endeavors might build upon this foundation to expand and refine our understanding of teacher preparedness and curriculum implementation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter paid attention to literature to the study. It reviewed literature authentically in order to examine the influence of teachers' preparedness on implementation of Competency Based Curriculum. The review was arranged according to the objectives of the study. This chapter will also offer both conceptual and theoretical framework.

2.2 Competency Based Curriculum

The ultimate professional live of the learner is most significant and should be emphasized by an educational system. This agrees with Munyasia & Olel, (2020) who fronts for an education that gears to empowering the learner with requisite skills, appropriate attitude towards work and valuable morals in any profession. This being the desired approach would best replace the four decade curriculum that had exerted pressure on learners in classroom activities with less focus in the future abilities in the place of work. This contribution foregrounds the Competency Based Curriculum as a remedy to the gap already identified in the job market even when there was a sterling performance in the academic live of the learners.

The adoption of CBC is timely and necessary response to the dynamic global economic need, which demands professionals with specialized skills and competencies. Atta Quainoo, Aggrey, Adams, Opoku, & Wanzam, Abubakari, (2022), looked at the African countries Educational situation and noted the attempt by many African countries to keep a breast with global standard economy. This study took note of this knowledge gap and equally contents that CBC was the bridge to future professional stability.

Kenya Educational stakeholders led by Kenya Institute of Curriculum Development KICD, in its report (2017), advanced for the tenets of CBC and its implementation. KICD focused on CBC learning outcome with the resultant feature being knowledge skills acquisition, attitude dispensation in actual execution of any profession. KICD did not leave the learning environment behind. It is this environment and professionally well selected activities that will yield the CBC objective. What remained therefore was the implementation of this curriculum and this was what the current study stood to address.

KICD, (2017), arraigned the competencies that are the heart of CBC in its design. These competencies are communication and collaboration, critical thinking and problem-solving, imagination and creativity, citizenship, learning to learn, and digital literacy These competencies represent a collection of trainable skills, knowledge, abilities, behavior, attitude, aptitude, confidence, experience, talent, and proficiency that learners are expected to acquire by the end of every learning activity.

In the same vein, the proponents of CBC took cognizant of the fact that acquisition of competencies without values would not make plausible learners and professionals. KICD (2017) then stipulated love, responsibility, respect, unity, peace, patriotism, and integrity as values that makes CBC a complete curriculum for these were standards that guide individuals on how to behave in given circumstances, and they influence one's feelings, actions, and choices.

Njagi, (2020), intertwined job market and education and observed that a close link between the two would suffice to bring an individual who will be brilliant and compliant in job market.

In this regard, the designing of CBC was aimed at addressing the issues of unemployment in African countries. Njagi's work was handy in the current study in line with the rationale for implementation of CBC through addressing the issue of teacher preparedness.

This study considered Barman, & Konwar, (2011) and Carnoy, Hallak, & Caillods, (1999). Their argument was on the kind of learners required in an education system and there after they posits that learners need to be active in generating knowledge and not just consumers of knowledge. The goal of these scholars was interterm with the current study which aimed at implementing a curriculum of 21st century that diverts from acquisition of knowledge to acquisition of competencies and skills among its populace.

CBC learners are independent, Lumonya, (2020), observed that the role of a teacher is to identify the learning resources. This therefore requires training in order to be a good facilitative teacher. Once they are given resources, the learners interact and construct meaning, which enhances their understanding and mastery of the competencies and values. This work was credible in this study as it added information on teachers' training needs.

The inevitable need for educational reforms in Africa requires an adoption of a curriculum that befits the 21st century job market. In Kenya, focus is on meeting the vision 2030 educational needs. The acceptability of CBC merits against the old system that has been overwhelming. However, the implementation of the CBC approach is not without its challenges, and policymakers need to address these challenges to ensure its success and thus the need for this review.

2.3 Teachers' Training and Implementation of CBC in Public Primary Schools

The extent to which schools adopt curriculum policies is determined by the involvement of teacher, who is a significant and powerful stakeholder (Porter, 2015). Therefore, if the instructors who are crucial in carrying out the changes do not see the necessity for curricular reforms, the changes may not be carried out properly. According to a research by Kaniuka (2012), effective curriculum revisions that involved teachers in the decision-making process highlighted the need

for better teacher competence and preparation. This, in turn, improved learner accomplishment. According to research done by Luhambati (2013) on the transition of secondary schools in Tanzania from knowledge-based to competency-based curricula, some instructors saw the new textbooks as being useless, and some respondents thought it was impracticable.

In a study conducted in Canada by Hardy (2003), it was discovered that both pre-service and in-service teachers believed they lacked the ICT skills necessary for handling and using technological tools to implement technology in their classrooms effectively. Despite receiving formal training in instructional technology, the majority of teachers have no experience integrating computers into their lessons. The majority of instructors were found to be unable to use technology during instruction. This was due to the fact that the teachers had not received appropriate training in using technology effectively in their activities. Studies reflected a myriad of challenges in effective training of teachers.

Karugu & Rutere (2020), noted resistance to change amongst teachers who were deep rooted into the other system and traditional approaches. Such teachers were quite hesitant to undertake any capacity building courses, consequently, teacher's ended up being unprepared for implementation of CBC. The Kenya Institute of Curriculum Development (KICD) (2019) notes disparities in the coverage and depth of training programs, with some teachers receiving inadequate preparation.

A study by Obiero (2019), recommended a continuous professional development which emerges as a critical component of ensuring that teachers remain equipped with the requisite skills for CBC implementation. The justification need of teacher training was seen when the Kenyan

government introduced the Teacher Professional Development (TPD) program (Ministry of Education, 2018).

Well trained teachers play a key role in accessing and utilizing updated instructional materials and technology tools. Teachers in these categories become an impediment to implementation as claimed by KICD, (2021). Kamau & Mugo, (2019). Presses for quality training and advocate for removing the constraints that could lead to disparities in the quality of CBC implementation between schools.

In a study on facilitators' perceptions of competency-based curriculum and training conducted by Msuya (2016), it was discovered that 33.3% of the facilitators could not clearly describe the teaching and learning approaches and methods used in CBC. Although they noted that applying the CBC places a strong focus on learners' active engagement and participative, many were unfamiliar with the words used in CBC curriculum methods. This had a detrimental effect on the accepted CBC curriculum since it slowed down the implementation process. Another study by Shamwelekwa (2008) discovered that mathematics instructors' limited understanding of CBC ideas had a negative impact on how it was used in the classroom.

CBC teacher is that of a guide and a facilitator, it is quite different from teacher centered approach where the teacher leads in every activity. Sturgis & Patrick (2010), added that CBC teacher does not take monopoly of instructions. A teacher can also be a participant in the classroom activity where the learner leads the role. This is a paradigm shift that requires adequate practice.

Sandi-Urena, (2011) and Stronge (2011) sums it that teacher training is a priority for actualizing reform in education since teachers are supposed to provide learners with opportunities to realize and develop their full potential.

Waweru (2018) posits that well trained teachers are able to set manageable standards in choosing instructional materials that are suitable and relevant for learners at all levels. In the context of 21st-century skills acquisition, teachers have to adopt a dynamic methodology in their way of contextualization of the learner. Such teachers possess innate abilities whose role is to nurture the learner's competencies. Jones, Lefoe, Harvey, & Ryland (2012) directs a pathway that education seeks to follow through CBC. Teachers need significant knowledge, skills, and abilities to interact with all learners, set manageable standards, and choose instructional materials that can accommodate them at different levels, this sentiments are also held by Zeiger, (2019).

The transition from content-based to competency-based methodologies is an attempt to improve the quality of education by enabling learners to acquire the requisite competencies relevant in different spheres of life (Komba, 2016). Teachers' minds under the new curriculum have to conceptualize the paradigm shift from teaching to learning and therefore, shift their attention to learning experiences (Jones, 2012). The teacher under the CBC must have in mind the extension of the teacher's responsibilities focused on the connections built between the curriculum and the learner during instructional delivery (Lumonya, 2020).

For effective learning, especially under the CBC, a good choice of a variety of pedagogy is key. For example, teachers need to be highly knowledgeable in the application of teaching strategies necessary to make pupil learning effective (Koskei & Chepchumba, 2020).

Therefore, teachers should receive adequate training on CBC in the form of professional development to enable them to effectively deliver their mandate (Akala, 2021). A functional

system of education should involve consistent retraining of teachers for efficient implementation of the curriculum (Akala, 2021).

Kombe and Mwanza (2019), carried out a study in Zambia with similar view on level of training of teachers on implementation of a new curriculum. Their objective was to find out if primary school had the ability to develop necessary assessment tools for the new revised curriculum. Their finding was that the teachers were partially implementing the curriculum because they were inadequately trained. This inability was observed since the teachers were glued to the old assessment method that they were trained to use previously. Training stands out from this study to be a key component in implementation of a new curriculum without which the implementation is curtailed. The current study agrees with the study in Zambia from its findings.

A related study was carried out by Paulo (2014) in Tanzania. The focus was on integrating pre-service training in secondary schools. Similar to the current study, the Tanzanian study was based on teacher preparedness for pre-service training. It reflected equal results that the untrained teachers were unable to implement the new curriculum because they were not prepared. The study was crucial in current one, especially on the aspect of preparedness in CBC implementation.

As a result of unpreparedness, most teachers utilized the previous curriculum methodologies and thus an impediment to the new curriculum. The study recommended a review of teacher education in all universities to prepare teachers with the required pedagogical content and knowledge necessary to implement the Competency Based Curriculum.

In conclusion, there is indication of need to prepare teachers before implementation of a new curriculum. Training should not be under estimated and even for the trained teachers, retaining for purpose of retooling is a recipe for a successful implementation of the new curriculum.

The review of literature related to teacher training identified the gaps related to trainers and trainee teachers, among these are lack of access to training institution and failure to avail the training manuals equally to all teachers. While training is crucial, teachers readiness for it is still a gap to be addressed, similarly there was need to address the aspect of resistance to change. The need to enable teachers to comply to continuous professional development was paramount component of CBC implementation to be prioritized by policy makers, educational authorities and all stake holders for successful implementation of Competency Based Curriculum.

2.4 Mode of Assessing Learners' and Implementation of CBC in Public Primary Schools

The Competency Based Curriculum (CBC) in public primary schools has incorporated both formative and summative assessments to ensure that learning outcomes are well understood and cross-curricular competencies are developed. Formative assessment is an ongoing process that involves teachers drawing out learners' thinking during learning sessions or engaging learners in activities to assess their cognitive and psychological levels (Furtak, Morrison, & Kroog, 2014).

The shift towards competency based education is driven by the recognition that education should not solely be focused on academic knowledge but should extend to practical skills, critical thinking, problem-solving, and creativity. In this context, the modes of assessing learners have gained prominence as they need to align with the broader goals of CBC (Ministry of Education, 2018).

Continuous assessment emerges as a pivotal mode of assessing learners under CBC. This approach involves ongoing evaluation of learners' performance throughout the learning process,

offering consistent feedback, and permitting adjustments in teaching strategies. Research by Theobald Kimario & Omondi (2022) underscores the advantages of continuous assessment. It not only provides a more comprehensive view of learners' progress but also identifies specific areas where improvement is needed. Continuous assessment is perfectly aligned with CBC's philosophy of learner-centered education and skills development.

Performance-based assessment is another cornerstone of CBC. This mode of assessment evaluates learners based on their ability to apply acquired knowledge and skills in practical contexts. Typically, it involves tasks, projects, and real-world scenarios (KICD, 2019). Performance-based assessment is celebrated for its potential to nurture critical thinking, problem-solving, and the application of competencies (Ruth & Ramadas, 2019). However, transitioning from traditional examination-oriented assessments to these new modes is not without its challenges. Teachers may face difficulties in developing and implementing performance-based assessments effectively, necessitating targeted capacity building and support (Ruteere, Awori, & Kiriimi 2021). Additionally, establishing standardized criteria and rubrics for these assessments is crucial to ensure fairness and consistency across different learning environments (KICD, 2019).

The role of technology in assessment cannot be understated in the context of CBC. Digital tools and platforms have the potential to enhance the efficiency and effectiveness of assessment processes (Gakuru & Kimathi, 2019). They can facilitate the collection of data, automate grading, and provide timely feedback to both teachers and learners. However, several challenges must be addressed, including disparities in digital infrastructure, access to technology, and varying levels of digital literacy among teachers and learners.

CBC has introduced assessment rubrics to be used by teachers in assessing learners. Assessment rubrics are assessment tasks designed to gauge learners' ability to understand and perform a

given task (KICD, 2017). According to Bowen (2017), teachers need to develop valid rubrics that reflect every individual learner's level of progress, and not just focus on scoring or grading. Teachers require proper training and guidance on how to design rubrics and give formative feedback. The rubrics should be crafted with specific questions and prompts that make learners' thinking relevant to what they have been taught (Barman & Konwar, 2011). Teachers need to have a complete understanding of the learning outcomes and identify learners' ability levels to demonstrate their competence in developing assessment ratings.

KICD (2017) asserts that teachers are expected to decide on their own rating system after being trained, such as exceeding expectations, meeting expectations, approaching expectations, and below expectations, depending on how effectively a learner can demonstrate a competence on a given task. After using assessment rubrics, teachers can obtain evidence that learners have acquired specific competencies during formal and informal learning contexts through observation, individual and group assessments, portfolios, questioning, projects, extended work, performance, and development of success (Akala, 2021).

The incorporation of formative and summative assessments in CBC has revolutionized the way learners are assessed in public primary schools. The use of assessment rubrics has enabled teachers to assess learners' competencies comprehensively, and provide timely feedback to enhance learning outcomes. However, teachers require proper training and guidance on how to design rubrics and give formative feedback to ensure the assessment process is fair and accurate. Therefore, teacher capacity building is paramount to ensure that CBC is successfully implemented in public primary schools.

Implementation of CBC requires the involvement of parents and the community in the learning process. Parents are expected to play an active role in their children's education by providing a

conducive learning environment at home, monitoring their children's progress and attending parent-teacher meetings (MOE, 2018). The community, on the other hand, can provide support in terms of resources, expertise and mentorship to both learners and teachers. It is important that teachers are adequately trained and supported to ensure that they are able to effectively implement the new curriculum and provide quality education to learners. By embracing these principles, it is possible to achieve the desired learning outcomes and competencies that are essential for the development of the learners and the nation as a whole.

2.5 Utilization of Instructional Resources and Implementation of CBC in Public Primary Schools

There are variety of relevant teaching and learning resources necessary in implementation of an educational program. These resources are in addition to teachers' innovativeness and training as well as a recipe for successful implementation of Competency Based Curriculum (CBC). These thoughts have been advanced by Usman, (2016) who adds that instructional resources, that include digital devices, are a requirement for making authentic steps towards conceptualization of content and acquiring skills in curriculum implementation. Gagne, (2010), added to this voice that teachers need to integrate attention to teaching resources, motivation learners using resources that are varied, and make observations during teaching lessons to attract learners' attention, and finally conclude with significant resources, measure achievement, and evaluate the lesson. Njoki, (2020) in her work, advocated for locally available resources sourced from the learning environment. This gives room for the teacher to domicile the classroom activities to what is nearly available.

Njoki further alluded to the benefit of such materials that are cost effective, has economy of time and general acceptability and are meaningful to the learners. The current study took cognizance

of this review with regard to arousing teacher awareness of the environment and readiness for training for use and creation of the resources.

The call for harnessing digital resources is loud in modern teaching. Technology plays a pivotal role of any curriculum CBC not exempted. Gakuru & Kimathi, (2019), enumerated the digital resources that included e-books that would be availed in electronic libraries, educational apps, and online platforms such as Moodle that are useful in making access to a deeper of information and opportunities for self-directed learning. A finding by UNESCO, (2017) paper pointed out the issue of unequal access to technology across many nations. Kenya's network access is an outstanding challenge, indeed the application of technology was to begin from first installation of electricity to many schools and up to the date of inauguration of CBC, many schools have no connectivity yet. The net result of lack of connectivity, was enough excuse for many teachers remaining in their old school of thoughts where textbooks, and two dimensional materials were their main resources. The earnest call by KICD, (2019), was the need for resource to be designed to aid teachers in effective delivery of competency lessons and facilitate learners in acquiring skills. Despite this a UNICEF, (2019), still allude to unequal access but insisted that government agencies had the duty and responsibility of availing and making the resources accessible in remote and undeserved areas.

The teachers stands a fundamental role in utilization of resources. Teachers are expected to be creative and resourceful in developing and using materials to meet the specific needs of their learners and to create a serene teaching learning atmosphere (Ministry of Education, 2017). Otieno and Mwangi, (2018), in their findings implied on the centrality of teacher training and in servicing including capacity building in integrating instructional resources into CBC lessons.

In a similar association of relevance of resources, Labani, (2019), asserted that implementing CBC requires a change in instructional techniques, and competent deep teacher induction in CBC should be given attention for proper actualization of the curriculum. Zeiger, (2019). Agreed with the above sentiments that teachers were the gateway for successful implementation of the curriculum. Based on this it was imperative to have teachers who have implicit knowledge, specialized skills, and robust abilities to integrate all the components and create a conducive learning environment. KICD (2017), required teachers to have ability to make efforts to integrate CBC methods into their lesson plans and be endowed with knowledge in the utilization of teaching techniques that are unique in making learning most plausible. Prior to successful teaching and learning in schools, Labani, (2019) roots for imperative training on instructional and pedagogical strategies on utilization of resources to implement CBC.

Dart, (2018), foregrounded the necessity of accessibility of resources and materials. If the teachers have a non-restricted access to rich array of materials, an obvious successful implementation of the curriculum is easily realized. Modern digital materials not only support the curriculum's content but also encourage inquiry-based learning which a component of learner centered approaches is. As a result of learner-centered approaches exploration and active participation of learning is highly encouraged. Conversely, a dearth of CBC compliant materials may force teachers into improvisation, potentially compromising the quality of education delivered.

2.6 Teachers' Lesson Preparation and Implementation of CBC in Primary Schools

Implementation of the curriculum happens in the classroom and outside the classroom. A lesson plan is a guide for all the classroom activities in relation to the time available using the selected method. This is in line with Farrell, (2012) disposition on what entails lesson preparation.

This process is an important aspect of a pedagogical process that require the teacher's technical and creative efforts that culminates to effective implementation of the curriculum. Avolio & Gardner, (2005), eluded lesson preparation to the procedures used to provide direction to teachers on the ideal instructional activities and authentic resources to be used for effective delivery of the lesson. Farrell (2012), also added that lesson preparation involves the procedures of directing the learning environment, allocating time to the activities, defining the techniques and strategies and evaluating the achievement of the learners, The current study made use of the sentiments of these scholars in assembling facts about the role of the teacher in effective implementation of CBC through ability to prepare a CBC lesson plan. It took consideration of the prototype lesson plans any trained teacher can prepare versus a CBC specific lesson plan. It should be noted that CBC objectives are more specific to higher order domain of teaching than the previous lesson plans. It was therefore necessary to consider teachers ability to design a CBC compliant lesson plan.

A CBC compliant lesson plan encompasses more than just following a curriculum, according to Gitonga (2019), lesson planning is a dynamic process that allows the teacher and learner to adopt to varying teaching and learning needs. The process entails appropriate consideration of the specific CBC competencies to be imparted to learners. MoE, (2017) asserted that the ultimate goal of an effectively well designed lesson plan is to enable the teacher to engage the learner actively in class, demonstrate critical thinking, and invoke practical application of knowledge.

CBC lesson planning begins with formulation of the objectives for the stands and sub-strands to be taught. Njoki, (2020), confirmed that a lesson plan should align the objectives of learning with the competencies expected to be achieved. While designing this, flexibility of a lesson plan is paramount. A good lesson plan should be flexible by being able to give room for modification

based on learners progress and feedback, (KICD, 2019). Ogola, (2019), emphasize on the tail process of lesson planning which is evaluation. Evaluation is the feedback from learners as well as a teachers self-reflections. CBC emphasizes on meeting expectations which is a different evaluation from the previous orientation.

Comprehensive and appropriate teacher training is essentially required in ensuring effective lesson preparation in CBC. Mbugua, (2018), proposed the need for professional development programs that equip teachers with the pedagogical skills and content knowledge necessary for CBC implementation. Teachers should be endowed with skills of designing lesson plans developing engaging activities, facilitating opportunities for collaborative learning, and evaluating learners' competencies (Ogola, 2019).

Individual learners need should be put into consideration in lesson planning process, this entails preparation and decision-making that is paramount for teachers to deliver and manage their classes, (Nesari & Heidari, 2014). (KICD, 2017). Cuevas (2015) argued that there will be no successful delivery without appropriate lesson planning. Appropriate lesson planning also requires conscious effort from the teacher to integrate the CBC aspects and values into the teaching and learning strategies as required by KICD (2017). The studies on a well-trained teacher would therefore be the one who is able to plan and organize the scope and sequence of activities in advance, with a focus on the ability of the learners. Good lesson planning entails ability to assemble resources in advance, deliver concepts and skills sequentially using appropriate pedagogy, and isolate appropriate assessment strategies to test the teaching-learning process.

Okeyo & Kanake, (2021), carried out a study and concluded that effective implementation of CBC is anchored on preparation of reflexive lesson plans. Other studies for instance, Leibowitz, Bozalek, Van Schalkwyk, & Winberg, (2015) conducted a study to evaluate the influence of training primary school teachers as key agents in curriculum implementation in South Africa. The findings revealed that teachers play a vital role in implementing the curriculum, and therefore, recommended that teachers should be trained on how to prepare effective lesson plans for the new curriculum before being involved in the implementation process.

Since the inauguration of CBC in 2017, continuous training of teachers has been rolled out with a view of making teachers to integrate the aspects of the CBC in lesson plans for they need to be highly knowledgeable in the application of teaching strategies necessary to make learning active and effective. Labani, (2019) argue that teachers require pedagogical knowledge and skills on how to integrate CBC aspects, such as the core competencies, in instruction.

Despite the need for training teachers on preparation and lesson planning, the implementation of CBC in primary schools in Kenya has faced several challenges, such as trainers, and facilitators, inadequate training resources, and lack of involvement of stakeholders in the implementation process (Wekesa, 2020).

Research substantiates the critical role of teachers' understanding and adaptability in achieving the intended outcomes of CBC (Kamunge & Ndungu, 2019). Kamunge and Ndungu's study highlights that teachers who possess a comprehensive grasp of CBC's objectives are better equipped to create engaging and relevant learning experiences for their learners. They are more likely to embrace the learner-centered approach inherent to CBC, thereby fostering a conducive

environment for competency development. Conversely, inadequate teacher preparedness can hinder the curriculum's effectiveness and limit its transformative potential.

Teacher preparedness is reflected in many ways in the implementation of CBC; it extends to practical lesson preparations which includes the ability to interpret CBC's principles into classroom practices that stimulate learners' intellectual growth and practical competence. The ability of teachers to align their teaching strategies with CBC's objectives will translate to quality education delivered (UNESCO, 2016). Consequently, training of teachers and the continuous professional development programs remains as critical components of enhancing preparedness for CBC implementation.

2.7 Theoretical Framework

The study will adopt the theory of knowledge development during teaching and learning process as advocated by Shulman (1986). The theory demands teacher's effective acquisition of pedagogical content, knowledge and skills. It stipulates the relationship between teacher's subject content matter and pedagogical instruction that enable learner's acquisition of skills and knowledge during the teaching and learning. In this theory, teacher preparedness entails development and acquisition of required competencies in the implementation of CBC. The theory notes that a teacher characteristic has an influence on the teacher's instructional pedagogy, classroom management, overall teaching and learning process. Knowledge development theory enabled study to determine teachers' preparedness on the implementation of CBC. The CBC emphasizes knowledge, skills, attitudes, behavior, abilities and ethics into real life situation (Jeng'ere, 2017).

This helped in designing appropriate interventions to enhance teachers' preparedness for CBC implementation, which ultimately improve the quality of education in Kenya.

2.8 Conceptual Framework

In the case of this study, the conceptual framework aims to illustrate the relationship between teacher's preparedness and the implementation of CBC in public primary schools in Bomet East Sub County. The framework consists of three main variables: independent, mediating and dependent variables:

1. Dependent Variable

Successful Implementation of CBC: Effective delivery of the Competency-Based Curriculum (CBC) in public primary schools within Bomet East Sub-County, Kenya, as evidenced by improved learner competencies, alignment with CBC principles and objectives, and overall curriculum goals achievement.

2. Independent Variables

Teachers' Preparedness: Teachers' knowledge, skills, attitudes, and readiness to implement CBC effectively in the context of Bomet East Sub-County. It includes their training, understanding of CBC principles, and ability to adapt to learner-centered approaches.

Teachers' Training: This variable focuses on the impact of formal and informal training programs on teachers' preparedness to implement CBC. It considers the content, quality, and relevance of training.

Assessment Methods: This represents the various modes of assessing learners employed by teachers in Bomet East Sub-County and the extent to which these methods align with the principles and objectives of CBC.

Utilization of CBC Resources: This variable assesses the extent to which teachers effectively utilize CBC instructional resources and materials in their teaching to support the curriculum's implementation.

Teachers' Lesson Preparation: This refers to the thoroughness and effectiveness of teachers' lesson planning processes, including the alignment of lessons with CBC objectives and principles.

3. Mediating Variables

Teacher Training Efficacy: This mediating variable examines how the effectiveness of teachers' training programs influences their preparedness to implement CBC and its subsequent impact on successful CBC implementation.

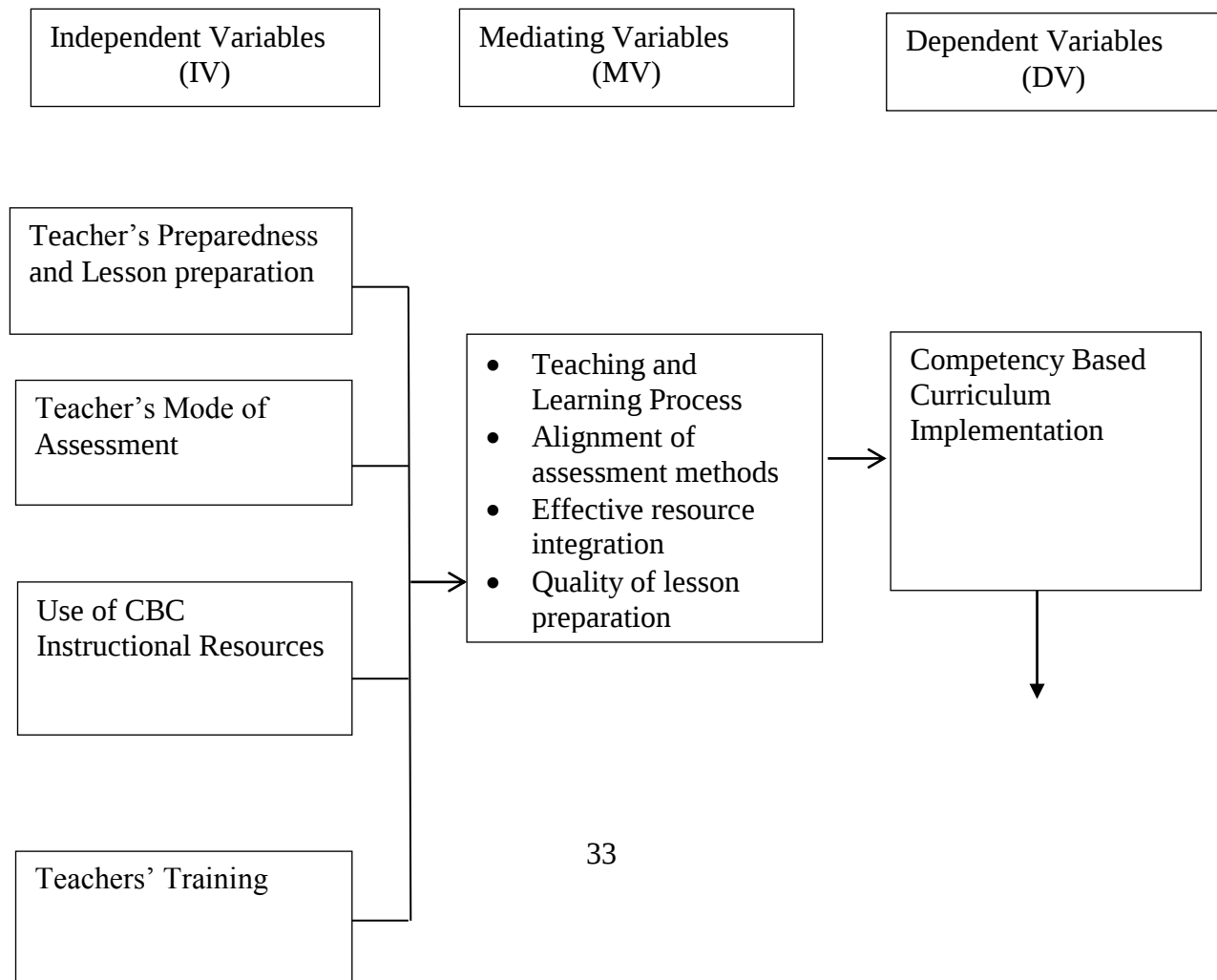
Alignment of Assessment Methods: This mediating variable explores how the alignment of teachers' chosen assessment methods with CBC principles affects the successful implementation of CBC.

Effective Resource Integration: This mediating variable assesses the extent to which teachers' ability to effectively integrate CBC instructional resources into their teaching practices influences CBC implementation outcomes.

Quality of Lesson Preparation: This mediating variable examines how meticulous lesson preparation by teachers impacts the successful implementation of CBC.

The conceptual framework proposes that teacher's preparedness has a direct and positive influence on the implementation of CBC in public primary schools in Bomet East Sub County.

This means that the better prepared teachers are in terms of knowledge, skills, and competencies needed for CBC implementation, the more likely it is that the CBC curriculum will be effectively implemented in the classroom. The independent variables that are expected to influence teacher's preparedness and the implementation of CBC include teacher training, availability of teaching resources, and teacher motivation.



Outcomes
• Improved alignment with CBC principles and objectives • Improved learner competencies • Promoting active learning and competency development among learners

Figure 2.1: Conceptual Framework on teachers' preparedness on Competency Based Curriculum implementation.

Source: Author's conceptualization, 2020

2.9 Identification of the Knowledge gap

The implementation of Competency Based Curriculum (CBC) in public primary schools in Bomet East Sub County has posed challenges that affect the quality of teaching and learning. While the literature reviews emphasize the importance of teacher preparedness, ongoing professional development, and the availability of instructional materials in the successful implementation of the Competency Based Curriculum (CBC) in Bomet East Sub-County, Kenya, there is a lack of specific research that examines the synergistic relationship between these factors. The existing literature primarily discusses these elements individually, but there is a need for comprehensive research that explores how teacher preparedness, continuous professional development, and the availability of CBC-compliant instructional materials interact and mutually influence CBC implementation outcomes in this specific context.

Integration of Factors: The literature reviews highlight the significance of teacher preparedness, continuous professional development, and instructional materials in isolation. However, there is a gap in understanding how these factors interconnect and influence each other

in practice. For instance, how does effective teacher training impact the selection and utilization of CBC instructional materials? Do ongoing professional development address challenges relate to resource constraints? Research that delves into these relationships is needed.

Context-Specific Insights: The literature reviews provide valuable insights into CBC implementation in Bomet East Sub-County, Kenya. However, they often discuss these factors in a broad sense.

There is a need for research that considers the unique local context, challenges, and opportunities of Bomet East Sub-County to provide context-specific recommendations for improving CBC implementation.

Impact on learners' Outcomes: While the literature reviews emphasize the importance of these factors for successful CBC implementation, there is a knowledge gap in understanding how their integration influences student outcomes, such as competency development, critical thinking, and problem-solving skills. Research that explores the impact on student learning and achievement is essential to validate the effectiveness of these factors in practice.

Best Practices and Strategies: Existing literature reviews provide general insights into the significance of these factors but may not offer concrete strategies or best practices for policymakers and educators in Bomet East Sub-County to enhance CBC implementation. Further research could provide practical guidance and recommendations based on real-world experiences and challenges.

Addressing this knowledge gap through empirical research would provide a more comprehensive understanding of the dynamics involved in CBC implementation in the specific context of Bomet East Sub-County, Kenya. It would also offer actionable insights for policymakers, educational

authorities, and stakeholders to develop targeted interventions that maximize the potential of CBC and improve the quality of education for learners in the region.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, the study area, the target population, sample size and sampling procedure, data collection instruments, validity and reliability of instruments, data collection procedures, data analysis, and ethical considerations.

3.2 Research Design

The research design adopted in this study is the descriptive survey research design. According to Creswell and Creswell (2017), descriptive survey research is a scientific approach that involves observing and describing the behaviours of the study subjects without influencing them in any way. It aims to obtain relevant information from a target population by asking the same questions through different means such as telephone, email and face-to-face interactions, to achieve the research objectives (Bryman & Cramer, 1999). Descriptive survey research design is also useful

in gathering, summarizing, presenting and interpreting information for the purpose of clarification (Bryman & Cramer, 1999).

This research design is appropriate for data collection in this study because it ensures a complete description of the situation and minimum biasness in data collection and interpretation, thus reducing errors in the findings. Additionally, it will help to obtain precise information to make conclusive results and report based on the respondents on the influence of teachers' preparedness on the implementation of CBC in public primary schools in Bomet East Sub-County.

3.3 Study Area

The study area is the location where the research was conducted. Specifically, the research was carried out in public primary schools located in Bomet East Sub County. Bomet East Sub County is situated in Bomet County, which shares borders with Kericho County to the North Eastern, Narok County to the South Eastern, Nyamira County to the North West and Nakuru County to the East. The area covers approximately 2,037.4 square kilometers and is divided into five sub-counties: Sotik, Chepalungu, Bomet East, Bomet Central, and Konoin, as documented in the Bomet County Development Profile of 2013. Bomet East sub-county was chosen as the study area due to its homogeneity and accessibility of schools. The decision to conduct this study in Bomet East Sub-County was primarily driven by the aim to obtain a representative sample of the broader Kenyan educational landscape. The sub-county encompasses a diverse range of public primary schools and teachers, making it an ideal microcosm for exploring the challenges and opportunities within Kenya's education system. Focusing on Bomet East Sub-County ensured that the research findings would be contextually relevant, addressing the specific needs and

issues faced by schools and educators in this area. Additionally, engaging with local stakeholders, including teachers, head teachers, and Curriculum Support Officers provided an in-depth and nuanced understanding of Competency Based Curriculum (CBC) implementation within this unique context. The insights derived from this study were not only valuable for Bomet East but also had broader policy implications at both the county and national levels, potentially influencing curriculum implementation strategies across the country.

3.4 Target Population

In this study, the target population consists of all the head teachers, grade one, grade two, and grade three teachers, as well as the Curriculum Support Officers (CSO) in the one hundred and ten (110) public primary schools in Bomet East Sub-County. This is because the head teachers are the managers and supervisors of curriculum implementation, while the grade one to grade three teachers are the facilitators and implementers of the curriculum. The CSO is also involved as the overseer of curriculum implementation in the zone.

The total number of public primary schools in Bomet East Sub-County is one hundred and ten (110) (Bomet County Development, Profile 2013). Therefore, the target population for this study is four hundred and forty-four (444) respondents, comprising of one hundred and ten (110) head teachers, three hundred and thirty (330) grade one to grade three teachers, and four (4) CSOs representing the sub-county.

3.5 Sample Size and Sampling Procedures

3.5.1 Sample Size

The required sample size is influenced by the size of the target population, the number of variables in the data collection tool, the statistical analysis requirements, and the degree of

confidence required from the findings (Wolf, Harrington, Clark, & Miller, 2013). Since the target population of this study was relatively small, Taro Yamane's formula (Yamane, 1973) was used to calculate the sample size (Table 3.1):

n = sample size

N = population

e = error of sampling method = 0.05

The formula used is as shown in the equation below:

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

$$n = \frac{444}{1 + (444)0.05^2} = 210$$

Table 3.1: Sample size

Respondents	Target Population	Sample Size
Head teachers	110	52
Teachers	330	156
Curriculum Support Officers	4	2
Total	444	210

Source: Authors' Computation

3.5.2 Sampling Procedure

To obtain the required sample size in the Bomet East Sub-County, a stratified random sampling procedure was utilized. This approach involved dividing the population into strata or subgroups,

in this case, head teachers, teachers, and Curriculum Support Officers, to increase precision in selecting a representative sample.

A proportionate sampling procedure was then used to select the head teachers and teachers for the study. A list of all head teachers and teachers in the public primary schools in the five zones was obtained from the Curriculum Support Officers (CSOs). These lists were then serially numbered, randomly ordered, and picked using a simple random sampling technique.

This process resulted in the selection of 52 head teachers, 156 teachers, and 2 CSOs from the target population of 110 head teachers, 330 teachers, and 4 CSOs, representing a total of 444 respondents.

The use of a stratified random sampling procedure allowed for a more precise selection of participants, while the proportionate sampling ensured that the sample size reflected the target population size. Furthermore, the availability of a sample frame in the form of a list of head teachers and teachers provided an advantage in the sampling process.

By randomly selecting participants from the sample frame, each respondent had an equal opportunity of being selected, increasing the chances of obtaining an appropriate and representative sample size. This approach also reduced bias in the selection process and ensured that the findings of the study were generalizable to the target population.

Overall, the use of a stratified random sampling procedure in conjunction with a proportionate sampling approach and a simple random sampling technique allowed for the selection of a representative sample from the target population in the Bomet East Sub-County. This approach

ensured that the findings of the study were precise, unbiased, and generalizable to the population of interest.

3.6 Data Collection Instruments

To obtain the necessary information for the research, the researcher needed to develop instruments for data collection (Bernard, 2013). For this study, questionnaires and interview guides were used to gather primary data from respondents.

Close-ended questions were used in the questionnaires administered to grade one to grade three teachers, as they can be conveniently completed by respondents at their own pace and facilitate easier analysis of immediate usable quantitative data.

Meanwhile, open-ended questions were utilized in the interview guides and the authority of the Likert scale was used, with the options of 1- no extent, 2- little extent, 3- some extent, 4- large extent, and 5- very large extent. These were administered to the head teachers and CSOs to gather qualitative data. Head teachers are responsible for supervising the implementation of CBC in their respective schools, while CSOs perform the same task across the whole zone. Thus, the interview guide was used to collect information on teacher training, utilization of CBC instructional resources, teacher assessment modes, and lesson preparation.

The instruments used in the study were divided into five sections: A, B, C, D, and E, each addressing different aspects of CBC implementation. Section A dealt with background information, Section B addressed teacher training, Section C focused on the utilization of CBC instructional resources, Section D centered on teacher assessment modes, and Section E tackled teacher lesson preparation and the implementation of CBC.

Questionnaires and interview guides are widely used research instruments for data collection (Creswell & Creswell, 2017). They enable the collection of both quantitative and qualitative data, which allows for a more comprehensive understanding of the research topic. The use of close-ended questions in the questionnaires for this study was appropriate, as it facilitated the analysis of immediate usable quantitative data.

On the other hand, the use of open-ended questions in the interview guides was necessary to gather more in-depth information from head teachers and CSOs, who were in charge of CBC implementation.

The Likert scale used in the interview guides was also appropriate, as it provided a range of responses from which the respondents could select based on their experiences and opinions. This allowed for a better understanding of the extent to which CBC was being implemented in the schools. The division of the instruments into five sections was also necessary, as it enabled the researcher to address all aspects of CBC implementation comprehensively.

The use of questionnaires and interview guides in this study enabled the collection of both quantitative and qualitative data, which provided a more comprehensive understanding of CBC implementation. The close-ended questions in the questionnaires and the open-ended questions in the interview guides were appropriately used to gather immediate usable quantitative data and more in-depth qualitative data, respectively. The division of the instruments into five sections was also necessary to address all aspects of CBC implementation comprehensively.

3.6.1 Validity of Instruments

In this study, the research instruments underwent various types of validity testing to ensure the accuracy and consistency of the data collected. Specifically, content validity, construct validity,

and face validity were utilized. Face validity refers to the likelihood that respondents misunderstood or misinterpreted a question, which can lead to inaccurate responses (Greenfield & Greener, 2016).

On the other hand, content validity is the degree to which each item in an instrument accurately reflects the entire content being measured (Collis & Hussey, 2013).

To establish the content and face validity of the research instruments used in this study, two experts at the University of Kabianga were approached. The experts, who have extensive experience in teaching and supervising postgraduate students, were asked to review the instruments and provide feedback.

The feedback received from the experts was used to improve the instruments, ensuring that they accurately measured what the researcher wanted to study. This process also helped to identify any ambiguous or confusing questions that needed to be rephrased. By incorporating the feedback from the experts, the research instruments were deemed valid and reliable measures of the variables being studied.

Moreover, construct validity was also considered in this study. In this study, the researcher ensured that the questions in the questionnaires and interview guides were designed to measure the specific constructs related to the implementation of CBC in public primary schools in Kenya. Validity testing is a crucial step in research, as it ensures that the data collected is accurate and reliable. The use of content validity, construct validity, and face validity in this study helped to ensure that the research instruments were valid measures of the variables being studied. The input of experts in reviewing and improving the instruments was essential in guaranteeing the validity and reliability of the data collected.

3.6.2 Reliability of the Instrument

The reliability of the research instruments was assessed through a pilot test and the use of statistical tests. As recommended by Yevale (2016), a pilot test was conducted on 30 respondents from a neighbouring sub-county that shared similar characteristics with the study sample. The respondents were not part of the actual research.

The purpose of the pilot test was to identify any potential issues with the research instruments and to make necessary adjustments before the actual data collection.

The reliability of the instruments was assessed using the Cronbach alpha coefficient, which measures the internal consistency of the items in a scale or questionnaire. A Cronbach alpha coefficient of 0.79 was found which indicated that the instruments were reliable.

3.7 Data Collection Procedures

In order to conduct the research, the researcher obtained a research authorization letter (permit) from the National Commission for Science Technology and Innovation (NACOSTI) with the help of an introduction letter from the Board of Graduate Studies at the University of Kabianga. The researcher then presented the research authorization letters to both the county commissioner and the sub-county director of education of Bomet East sub-county to seek their approval. To ensure cooperation from the sampled schools, the researcher also sought appointments through the head teachers and explained the purpose and procedure of the research.

The researcher personally administered questionnaires to the respondents for self-administration, and conducted interviews with the head teachers after organizing the most convenient time with them. The information collected from each respondent was recorded accordingly.

3.8 Data Analysis and Presentation

Data analysis is an essential process that involves the systematic examination of information collected from research for the purpose of generating insights and presenting findings to others (Heiberger, Heiberger, & Burt Holland, 2015). In this study, the process of data analysis began with the initial screening of data received from filled interview schedules and questionnaires. The data was sorted, coded, and cleaned, and incomplete data sources were discarded. The remaining pieces of data were numbered and coded using a coding frame, which was then used for entry and analysis.

To determine and describe the elements of independent variables, descriptive statistics were employed, while for the dependent variable, descriptive statistics were also used. IBM SPSS version 25 statistical package software was used to edit, organize and analyse the collected data. Descriptive statistics such as percentages, frequencies, figures, tables, and graphs were used to analyse the closed-ended questions. The results were then presented using tables to enable easy interpretation and comparison.

The qualitative data collected through the open-ended questions were analysed by identifying the responses and representing the data visually. The analysis involved identifying sequences, regularity, and patterns of words and phrases for coding purposes, which was then exposed to quantitative interpretations of frequencies and percentages. This approach allowed for the identification of themes, trends, and patterns in the data, which could be used to generate insights and make meaningful conclusions.

The process of data analysis in this study involved sorting, coding, and cleaning the data, followed by the use of descriptive statistics, IBM SPSS version 25 statistical package software,

and visual representation of the data. This approach allowed for the identification of themes, trends, and patterns in the data, which were used to generate insights and conclusions.

3.9 Ethical Considerations

The study upheld high standards of professional and ethical conduct to ensure the privacy and confidentiality of the respondents throughout the research period. The purpose of the study was communicated to the participants using a copy of the research permit issued by NACOSTI. To prevent any occurrence of plagiarism, intellectual property rights were upheld and all individuals involved in the research were treated with respect and dignity.

Informed consent was obtained from all participants, and their participation was voluntary. The participants were also assured of the confidentiality of their responses and their personal information. To prevent any accidental breach of confidentiality, data was stored in a secure location and only accessed by the researchers involved in the study. It was conducted with high regard for professional and ethical standards, which are essential in ensuring the integrity and validity of research outcomes.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The chapter focuses on presenting and discussing the findings of the research study that aimed to investigate the influence of teacher preparedness on the implementation of Competence Based Curriculum (CBC) in public primary schools. The chapter provides a comprehensive analysis of the results obtained from the research instruments used in the study, which include questionnaires, interviews, and field notes.

The first aspect of the research results that is presented is the response rate of the research instruments. The study reports on the number of participants who responded to the research instruments and the corresponding response rate. This information is crucial in determining the representativeness of the sample used in the study and the reliability of the research findings.

The chapter provides a detailed analysis of the demographic data of the study participants. The study participants comprised of teachers, head teachers, and Curriculum Support Officers. The demographic data include age, gender, academic qualifications, years of teaching experience, and years of experience in implementing CBC. This information helps to contextualize the research findings and provide insights into the characteristics of the study sample.

The chapter also presents and discusses the research findings on teachers' competence in implementing CBC. This includes the level of understanding of the CBC framework, the use of learner-centered approaches, and the integration of technology in teaching and learning. The study also explores the availability of instructional materials, such as textbooks, teaching aids, and laboratory equipment, and their impact on the implementation of CBC.

Additionally, the research findings on teachers' lesson planning are presented and discussed. This includes the frequency of lesson planning, the use of lesson plan templates, and the alignment of lesson plans to the CBC framework. Moreover, the chapter also highlights the mode of assessment used by head teachers and Curriculum Support Officers in evaluating learners' performance in CBC.

Overall, the research findings provide valuable insights into the influence of teacher preparedness on the implementation of CBC in public primary schools. The chapter offers a comprehensive analysis of the research results and discusses the implications of the findings for policy and practice.

4.2 Demographic Data of the Respondents

The background information of the respondents is crucial in any research study as it provides a contextual understanding of the population under study. In this study on the influence of teacher preparedness on the implementation of Competence Based Curriculum (CBC) in public primary schools, the respondents consisted of teachers, head teachers and Curriculum Support Officers (CSOs) of the sampled public primary schools in the Sub-County. The background data analysed in this section includes the gender, age and experience in teaching of the respondents. The gender of the respondents was important to establish the distribution of males and females in the sample.

The age of the respondents was also analysed as it gives an insight into the level of experience and the possibility of differences in experience among different age groups. Furthermore, the experience in teaching was important to establish the level of expertise of the respondents and its potential influence on the implementation of CBC.

By delving into demographic factors such as teachers' age, gender, educational backgrounds, and years of teaching experience, the study gains the ability to tailor interventions precisely to the unique needs of various teacher groups. It also helps identify disparities and inequalities that may exist in preparedness, enabling the formulation of policies and strategies aimed at promoting equity and inclusivity in education. Additionally, demographic data aids in judicious resource allocation, ensuring that limited resources are directed toward those areas and groups that require them most. This data, combined with an ethical approach, ensures that the study is not only scientifically rigorous but also considerate of the privacy and rights of the participating teachers. Demographic data enriches the study's validity, generalizability, and impact, ultimately contributing to the effectiveness of CBC implementation in Bomet East Sub-County's public primary schools.

4.2.1 Gender distribution of teachers

The gender distribution of teacher's results is indicated as shown in Table 4.1.

Table 4.1: Gender of Respondents

Gender of the respondent	Frequency	Percentages%
Male	62	48.1
Female	67	51.9
Total	129	100.0

The results revealed that a majority of teachers teaching lower primary grades were females (51.9%). According to CSOs female teachers seem to have a tendency of being learner centered, caring and supportive unlike their male counter parts. He also established that female teachers utilize more collaborative and class discussion learning environments especially in lower grades.

The background information was collected using a questionnaire and analyzed using descriptive statistics. The findings showed that the majority of the respondents were female teachers, which is consistent with the trend in primary school teaching in Kenya (UNESCO, 2017).

The findings from the analysis of the background information are useful in interpreting the results of the study. For example, the experience in teaching may influence the level of preparedness of the teachers and the effectiveness of the implementation of CBC. The gender distribution of the respondents may also influence the way CBC is implemented in the sampled schools. Overall, the background information of the respondents provides a foundation for understanding the context in which the study was conducted and the potential impact of demographic factors on the implementation of CBC.

4.2.2 Age Brackets of Teachers

Research instruments administered to the respondents included a stem on their ages to link that to their understanding of the paradigm shift towards the new system. Their ages are indicated as shown in Table 4.2.

Table 4.2: Respondent's Age Bracket

Age Bracket		Frequency	Percentages%
Valid	(20-30)	31	24.0
	(31-40)	56	43.4
	(41-50)	41	31.8
	Total	128	99.2
Missing	System	1	.8
Total		129	100.0

The results in the table show that the majority of grade one to three teachers are aged between 31-40 years (43.8%). Only 24.2% are between 20-30 years. The age of the respondents ranged from 20 to 60 years with the majority falling between 31-40 years.

4.2.3 Teaching Experience of Teachers

Research has shown that children have a lot that they experience socially, emotionally and cognitively than already studied (Hirst, 2009). It has also been established that learning and development in children is very fast and it is important in laying the foundation for further learning. These insights have strong impact on institutions where learners are being cared for and educated. This research sought to understand the respondents experience in the teaching of lower grades to link that to the understanding of the physical versus cognitive growth of the learner. Their response is indicated in the Table 4.3.

Table 2.3: Teaching Experience in Lower Grades

		Frequency	Percentage (%)
Valid	(1-4 years)	69	53.5
	(5-8 years)	43	33.3
	(> 9 years)	14	10.9
	Total	126	97.7
Missing	System	3	2.3
Total		129	100.0

Table 4.3 presents the distribution of teachers based on their teaching experience in years. The results reveal that the majority of the teachers, 69 out of 126, which translates to 54.8%, had an experience of 1-4 years. Meanwhile, 43 teachers, accounting for 34.1%, had an experience of 5-8 years. Only 14 teachers, representing 10.9%, had an experience of over 9 years. These findings suggest that the majority of teachers in the sampled public primary schools in Bomet County have relatively low teaching experience, which could impact the implementation of Competency-Based Curriculum (CBC) in the region. Research studies have shown that teacher experience has a significant impact on learners' academic achievement and growth.

According to Kombe and Mwanza (2019) and Phillips, experienced teachers create a superior learning environment, pay attention to learners' behavioral characteristics, and exhibit more

cautious and astute teaching practices. Similarly, Koskei and Chepchumba (2020) found that teaching experience is positively associated with learners' academic performance, with teachers who have more than 10 years of experience showing better performance than those with less experience. This could be attributed to the fact that experienced teachers have had ample time to refine their teaching practices, develop a deeper understanding of learners' needs and provide better support.

The study revealed that the majority of teachers in the sampled public primary schools in Bomet County had less than eight years of teaching experience, which could be a challenge for the effective implementation of CBC. However, it is worth noting that CBC was introduced in Kenya in 2017, and the relatively low level of teaching experience among teachers in the region could be attributed to this. Despite this, the findings suggest that Bomet County is making significant strides towards improving teacher experience, which could enhance the implementation of CBC in the long term. One way to achieve this is by providing continuous professional development opportunities to teachers, which could help them refine their teaching practices, develop a deeper understanding of CBC, and provide better support to learners.

4.3 Influence of Teachers' Training on Implementation of CBC in Public Primary Schools

The first objective of the study focused on investigating the impact of teachers' training on the successful implementation of the CBC in public primary schools in Bomet East Sub-County, Kenya. The primary purpose was to gain a deeper understanding of how teacher training influences the effective implementation of the new curriculum. The research aimed to explore the training provided to teachers with regards to the CBC, including the topics covered and the level of detail provided. In addition, the study also aimed to investigate the duration and frequency of training sessions provided to the teachers, and whether there were any differences

in implementation outcomes for those who received more training compared to those who received less. Furthermore, the research also sought to determine whether the core competencies of the CBC were integrated into the training curriculum and whether this had an impact on the implementation of the new curriculum.

By exploring these aspects, the study aimed to provide insights into the influence of teachers' training on the successful implementation of the CBC in public primary schools in Bomet East Sub-County, Kenya.

4.3.1 Training on the Competency Based Curriculum

The researcher was interested in information regarding the impact of the training on CBC in terms of attendance of teachers to such trainings. The responses were presented in Table 4.4.

Table 4.4: CBC In-service Training

		Frequency	Percentages (%)
Valid	Yes	122	94.6
	No	6	4.7
	Total	128	99.2
Missing	System	1	.8
Total		129	100.0

Table 4.4 presents the distribution of respondents based on whether they have received in-service training on CBC or not. The results show that the majority of the teachers, accounting for 95.3%, have received training on CBC. This finding is encouraging as it implies that the teachers are equipped with the necessary knowledge and skills to effectively implement the CBC curriculum in their classrooms.

Effective in-service training on CBC is crucial for successful implementation of the curriculum. It enable teachers to understand the core competencies, learning outcomes and assessment

strategies required for CBC. This is important as CBC requires a shift in the teaching approach from the traditional content-based teaching to a more competency-based approach.

The six teachers who indicated that they had not received any in-service training on CBC may require additional support to enable them to effectively implement the curriculum. The teachers may require further training, professional development, or mentorship to help them understand the CBC curriculum and its implementation.

The high percentage of teachers who have received in-service training on CBC is an indicator of the government's commitment to supporting the successful implementation of the CBC curriculum in public primary schools in Bomet East Sub-County. The findings also highlight the need for continued investment in teacher training and development to ensure effective implementation of the CBC curriculum in primary schools.

The implementation process of a curriculum can be affected by the level of teacher training, as evidenced by a study conducted by Molapo and Pillay (2018) in primary schools in Limpopo, South Africa, which aimed to determine how grade 3 teachers implemented the new curriculum. The findings revealed that many of the teachers lacked the necessary skills and knowledge required for effective implementation of the curriculum, which hindered the implementation process. Therefore, inadequate training of teachers can have a negative impact on the successful implementation of a curriculum.

4.3.2 Head teachers and Curriculum Support Officers' Teachers CBC Training

The study conducted interviews with 32 head teachers and 2 Curriculum Support Officers to determine the impact of teacher training on the implementation of CBC in public primary schools. The results showed that all teachers had received training on CBC, indicating the importance that the government places on the curriculum.

However, Table 4.5 revealed that only 58.8% of the trained teachers were competent to give instruction in all learning areas as per the CBC, while 41.2% were found to be incompetent.

Table 4.5: Teachers Trained on CBC

		Frequency	Percentages %
Valid	Yes	34	100.0

It was also established that 58.8% of the trained teachers were competent to give instruction in all learning areas according to CBC, while 41.2% were incompetent as shown in table 4.6.

Table 4.6: Competence of Trained Teachers in Giving Instruction in all Areas

		Frequency	Percentages%
Valid	Yes	20	58.8
	No	14	41.2
	Total	34	100.0

This finding suggests that even though all teachers have received training on CBC, not all of them are fully equipped to implement it effectively. This is a concerning issue as teacher competence plays a crucial role in ensuring successful implementation of any curriculum.

Therefore, it is crucial for the government and other stakeholders to focus on developing training programs that not only cover the curriculum content but also provide teachers with the necessary skills and knowledge to implement the curriculum effectively. This will help to

improve the quality of education offered in public primary schools and ensure that learners receive the best education possible.

According to Komba (2016), the transition from a content-based approach to a competency-based approach in education is aimed at acquiring competencies that are applicable in various aspects of life. To achieve this goal, teachers must be trained to develop integrated learning experiences that facilitate the transfer of learning outcomes, ultimately enhancing an individual's professional growth.

4.3.3 Duration of Training on CBC.

In order to evaluate the effectiveness of Competency Based Curriculum (CBC) trainings, the study utilized questionnaires and observation schedules that included a question on the duration of the training. The research draws upon the insights of scholars such as Gullo (2005) and Theobald Kimario & Otieno (2022), who emphasize the importance of adequate teacher training for the successful implementation of CBC. According to these scholars, teachers should receive at least two years of training on CBC, as well as ongoing training and support while they work in the classroom. This level of training provides teachers with the necessary background information and skills to effectively implement the new curriculum. The findings on the duration of CBC training were presented in table 4.7, providing important insights into the extent to which teachers have been adequately trained on CBC in public primary schools in Bomet East Sub-County, Kenya.

Table 4.7: CBC Training Period

		Frequency	Percentages (%)
Valid	1 week	116	89.9
	2 weeks	5	3.9
	3 weeks	5	3.9

	4	1	0.8
	Total	127	98.4
Missing	System	2	1.6
Total		129	100.0

The study revealed that the majority (89.9%) of teachers in the public primary schools in Bomet East Sub-County, Kenya had only received a one-week training on the Competency Based Curriculum (CBC), while only 3.9% of teachers had been trained for two or three weeks each. It is important to note that the Ministry of Education stipulates a minimum period of two years for teacher training. Therefore, the training provided by the Ministry was inadequate, as it did not align with the recommended duration. This finding is consistent with work done by Waweru (2018), who cautions that the duration of training for teachers must be sufficient to ensure they have the necessary competencies to enhance learners' achievement.

4.3.4 Frequency of the Training of Teachers on CBC

The researcher sought to investigate how often trainings on CBC had been convened to ascertain how teachers had internalized the paradigm shift to the new curriculum. The results presented as shown in table 4.8.

Table 4.8: Frequency of CBC in Service Training

		Frequency	Percentages (%)
	Once	25	19.4
	Twice	41	31.8
Valid	Thrice	37	28.7
	>3	24	18.6
	Total	127	98.4
Missing	System	2	1.6
Total		129	100.0

Table above reveals that most of the teachers, 32.3% have attended trainings at least twice while 29.1% have attended it thrice. Only 19.4% have attended it once while 18.6% have attended more than three times. Teachers under CBC need to be specialists in learner-centered pedagogical experience in order to adopt the paradigm shift from teaching to learning.

Most of the respondents had the following content covered in their CBC training

- Portfolio and assessment rubrics
- CBC teaching strategies
- Guiding principles for value-based education
- Curriculum design including for special need learners
- Core competent values
- Assessment tools

When it comes to materials used for training, most of the respondents used the following

- Computers, laptops and projectors
- Stationeries
- Mobile phones and other digital devices

The methodology used in the training was mostly discussion method. However, some respondents used the following

- Lectures
- Demonstrations
- Formal learning
- Digital learning

The results of a recent study on the impact of teacher training on the Competency-Based Curriculum (CBC) in Bomet East Sub-County, Kenya, revealed that a large number of teachers

lack adequate training. Out of the participants, 94.6% had attended CBC workshops, while 4.7% had never undergone in-service training. The small percentage of teachers who have not undergone training may be attributed to the nature of their work, as such training is usually scheduled during holidays.

However, according to interviews with Head Teachers (HTs) and Civil Society Organizations (CSOs), 100% of teachers had attended CBC training, with 58.8% being competent to provide instruction while 41.2% were deemed incompetent. The current model of teacher education and training does not possess the capacity to cope with the demands inherent in providing the kind of educational experience we desire for our children (Ministry of Education 2010; Sindelar, 2010).

Compared to Bachelor of Arts or Bachelor of Science courses in similar academic fields, the amount of time dedicated to subject matter under the current teacher education model is less. Instead, a significant portion of the curriculum is dedicated to Education foundation courses, i.e., pedagogy, which covers the how of teaching. Therefore, it is necessary to re-evaluate the breadth and depth of subject matter preparation for teachers to better equip them for the complexity of modern knowledge or industrial society.

It is worth noting that the implementation of the CBC requires a significant shift from the traditional content-based approach to a competency-based approach. The CBC aims to equip learners with competencies that are relevant to different spheres of life, including the workforce, entrepreneurship, and civic engagement. The CBC seeks to promote the development of skills such as critical thinking, creativity, communication, collaboration, and problem-solving. These skills are essential for learners to be successful in the 21st century, where there is a high demand for a workforce with skills that go beyond traditional knowledge-based competencies.

The information presented highlights the importance of teachers being specialists in learner-centered pedagogical experience in order to effectively implement the Competency-Based Curriculum (CBC).

The CBC approach is a paradigm shift from traditional teaching methods to a more student-centered learning approach. This means that teachers need to have specialized skills and knowledge to facilitate a learning environment that allows students to acquire the competencies relevant in different spheres of life.

The training content outlined in the study aligns with the requirements needed to ensure teachers are equipped with the necessary skills to implement CBC effectively. The portfolio and assessment rubrics are essential tools that assist teachers in monitoring and evaluating student progress based on the competencies outlined in the curriculum. The CBC teaching strategies and guiding principles for value-based education are important elements that help teachers in creating an enabling environment for learning. Curriculum design including special needs learners is important because it helps teachers create inclusive classrooms that cater to the needs of all students. The use of assessment tools is essential in monitoring students' progress and identifying areas that need improvement.

The materials used for training such as computers, laptops, projectors, and mobile phones indicate that technology played a significant role in the training process. The use of technology in training can be a useful tool in ensuring that teachers are equipped with modern teaching methods and techniques.

The methodology used in training was mostly discussion method which indicates that the training was interactive and allowed for the exchange of ideas between trainers and trainees. The use of lectures, demonstrations, formal learning, and digital learning also indicates that the

trainers used a variety of methods to ensure that the training was effective and catered to different learning styles.

The study highlights the importance of specialized training for teachers in CBC. The content covered in the training, materials used, and methodology employed are all crucial elements that should be incorporated in training programs for CBC teachers. Teachers need to be equipped with the skills and knowledge necessary to facilitate a learning environment that allows students to acquire the competencies relevant in different spheres of life. This will ensure that the implementation of CBC is successful and that students are prepared for life beyond the classroom.

The study conducted in Bomet East Sub-County, Kenya, has shed light on the training of teachers on CBC in public primary schools. The study has revealed that while there is a high percentage of teachers who have received training on CBC, the duration of the training is inadequate, according to the Ministry of Education. To fully prepare teachers for CBC, there is a need for enhanced training programs that focus on equipping teachers with the necessary competencies and skills to facilitate the development of competencies among learners.

Our study found that the duration of teacher training was limited, with the majority of teachers (89.9%) receiving only one week of training and a small percentage (3.9%) receiving two or three weeks of training. This duration is inadequate and poses a significant challenge to the successful implementation of the Competency Based Curriculum (CBC). Previous studies have shown that teachers need more than two years to acquire the necessary knowledge to effectively instruct learners. Furthermore, our study found that the frequency of training was low, with only 18.9% of teachers receiving training more than three times, while 81.1% received training once, twice or thrice. During these trainings, teachers were taught important topics such as portfolio

and assessment rubrics, CBC teaching strategies, guiding principles for value-based education, curriculum design, core competent values, and assessment tools. These topics are crucial to the effective implementation of CBC.

4.3.5 Infusion of Core Competencies During Instruction

The research aimed to collect data on how well teachers were able to infuse core competencies during their instructional practices. The research instruments used sought to determine the extent to which teachers were able to incorporate communication and collaboration, critical thinking and problem-solving, imagination and creativity, citizenship, learning to learn, and digital literacy into their teaching.

Table 4.9 shows the responses obtained from the teachers on the degree to which they were able to infuse core competencies during instruction. The table displays five levels of achievement: no extent, little extent, to some extent, large extent, and very large extent. The percentage of teachers who fell under each level of achievement for each core competency is shown in the table.

Table 4.9: Degree to which Teachers Infuse Core Competencies During Instruction

	Communication & collaboration	Thinking & problem solving	Imagination & creativity	Citizenship	Learning to learn	Digital literacy
no extent	4.7	0.8	2.3	2.3	2.3	7.8
little extent	5.4	10.9	14.7	3.9	6.2	21.7
to some extent	36.4	45.0	42.6	46.5	39.5	42.6
large extent	41.1	38.0	32.6	30.2	40.3	21.7
very large extent	12.4	5.4	7.8	17.1	11.6	6.2
Overall rating	70.22	67.32	75.78	71.18	70.48	59.36

The results of the study indicate that teachers had varying levels of success in infusing core competencies during instruction.

The majority of teachers reported being able to appropriately inculcate communication and collaboration (70.22%), critical thinking and problem-solving (67.32%), imagination and creativity (75.78%), citizenship (71.18%), learning to learn (70.48%), and digital literacy (59.36%) during instruction. The overall rating for each core competency was relatively high, indicating that teachers were confident in their ability to incorporate them into their teaching.

However, the study also found that there were challenges encountered by teachers in infusing core competencies during instruction. According to the HTs and CSOs, 90.9% of teachers experienced challenges, while only 9.1% did not have any challenges.

To address the challenges faced by teachers, it is essential to provide them with ongoing support and training. Teachers need to develop and improve their knowledge and skills in learner-centered pedagogical experience to adapt to the paradigm shift from teaching to learning. This will enable them to effectively infuse core competencies during instruction and help students develop the skills they need to succeed in their personal and professional lives.

The study showed that while teachers were relatively confident in their ability to incorporate core competencies into their teaching, they still encountered challenges. Ongoing support and training can help address these challenges and enable teachers to effectively infuse core competencies into their teaching.

4.3.6 Core Competencies that are Challenging to Infuse During Instruction

Core competencies refer to a set of skills, knowledge, and abilities that enable individuals to perform tasks effectively and efficiently. These competencies are crucial in today's world, where there is a high demand for professionals who can work in dynamic and complex environments. However, some competencies are challenging to infuse during instruction, as highlighted in Table 4.10.

Table 4.10: Core Competencies that are Challenging to Infuse During Instruction

	Frequency	Percentages (%)
Valid	Digital Literacy	19
	Communication and Collaboration	2
	Critical Thinking and Problem Solving	2
	Citizenship	3
	Learning to Learn	4
	Total	30
Missing System	4	11.8
Total	34	100.0

According to the table, digital literacy was the most challenging competency to infuse during instruction, with 63.3% of respondents indicating so. Digital literacy refers to the ability to use digital technologies to access, evaluate, create, and communicate information. The challenge in infusing this competency during instruction could be due to the rapid pace of technological advancements, making it difficult for educators to keep up with the latest trends and tools.

Additionally, the lack of access to digital tools and resources in some educational settings could also limit the infusion of digital literacy during instruction.

Communication and collaboration, as well as critical thinking and problem-solving, were the least challenging competencies to infuse during instruction, with only 6.7% of respondents indicating so for each competency. Communication and collaboration refer to the ability to work effectively with others to achieve a common goal, while critical thinking and problem-solving refer to the ability to analyse information and make decisions based on evidence.

The low level of challenge in infusing these competencies during instruction could be attributed to the fact that they are relatively easier to understand and apply in practice.

Citizenship and learning to learn were also identified as challenging competencies to infuse during instruction, with 10% and 13.3% of respondents indicating so, respectively. Citizenship refers to the ability to understand and engage in civic responsibilities, while learning to learn refers to the ability to learn and adapt to new situations. The challenges in infusing these competencies could be due to the lack of emphasis on these skills in traditional education systems, where the focus is primarily on academic achievement.

In conclusion, core competencies are crucial skills that individuals need to succeed in today's world. However, some competencies are challenging to infuse during instruction, such as digital literacy, citizenship, and learning to learn. Educators need to be aware of these challenges and find creative ways to integrate these competencies into their teaching practices.

In terms of infusing core competencies during instruction, our study found that most teachers were able to do so at a rate of over 59.36% (overall rating). However, interviews with Head

Teachers (HTs) and Community Service Officers (CSOs) revealed that 90.9% of teachers encountered challenges in infusing core competencies during instruction. This result underscores the urgent need for additional training and support to help teachers effectively infuse core competencies during instruction. The infusion of digital literacy was found to be a major challenge, and therefore, the provision of ICT equipment by the Ministry of Education (MoE) is crucial. Infusion is a skill that requires adequate preparation on the part of teachers, and they need to be trained in infusion techniques and methodologies in planning the content they teach.

4.4 Teachers' Mode of Assessment and Implementation of Competency Based Curriculum

The second objective of the study aimed to evaluate the impact of teachers' methods of assessment on the implementation of Competency Based Curriculum (CBC). The researcher set out to investigate the level of proficiency exhibited by teachers in developing evaluation criteria, constructing assessment rubrics, and documenting learners' progress after conducting formative assessments. Furthermore, the study sought to determine whether the teachers were maintaining accurate records of assessments for the purpose of summative reporting. By examining these aspects, the research aimed to gain insight into how the methods of assessment employed by teachers may impact the implementation of CBC. The research findings are indicated as shown in Table 4.11.

Table 4.11: Teachers Mode of Assessment and Implementation of CBC

	Design rating system	Make assessment rubrics	Keep assessment records	Report performance after formative and summative assessment
No Extent	3.9	2.3	2.3	1.6
Little Extent	22.5	10.9	9.3	9.3
To Some Extent	60.5	53.5	48.8	44.2
Large Extent	94.6	86.0	83.7	86.8
Overall Rating	63.7	69.5	71.18	71.66

The findings above reveal that a majority of teachers, at 63.7%, were confident in creating assessment criteria or ratings. Almost all teachers, 94.6%, demonstrated a high level of proficiency in designing a CBC rating system, with only 3.9% reporting a lack of ability. In addition, the vast majority of teachers, 86.0%, were able to create and implement assessment rubrics, with only 2.3% indicating a lack of skill. Assessment rubrics are a method of evaluating a learner's performance on assigned tasks. The study's results demonstrate that most teachers, 83.7%, were capable of maintaining assessment records and 86.8% could report on performance after formative and summative assessments. The administration of assessment rubrics should be tailored to individual learners' proficiency levels, enabling them to apply what they have learned in practical situations (Ab Rahman & Ahmad, 2014).

Head teachers and CSOs reported that 64.7% of teachers were somewhat proficient in developing assessment methods, while 8.8% lacked the ability to do so, as shown in Table 4.12. Only 11.8% of teachers were fully capable of developing assessment methods.

Table 4.12: Ability of Teachers to Develop Assessment Methods

	Frequency	Percentages (%)
No Extent	3	8.8
Little Extent	3	8.8
To Some Extent	22	64.7
Large Extent	2	5.9
Very Large	4	11.8
Total	34	100.0

HTs and CSOs provided information that 76.5% of teachers that had undergone CBC training could develop assessment rubrics as shown in table 4.13 while, 23.5% however cannot develop assessment rubrics.

Table 4.13: Ability to Develop Assessment Rubrics

	Frequency	Percentages (%)
Yes	26	76.5
No	8	23.5
Total	34	100.0

HTs and CSOs ascertained that 94.1% of teachers had the ability to keep summative assessment records for the learners (Table 4.14). The ability to keep these records is important in tracking and understanding learner's weaknesses and strengths. The results further indicated that 5.9% of the teachers according to CSOs and HTs still require training and facilitation to achieve a 100% in keeping learner's assessment records.

Table 4.14: Ability to Keep Assessment Records

	Frequency	Percentages (%)
Yes	32	94.1
No	2	5.9
Total	34	100.0

These findings indicated that a majority of teachers were yet to understand what the CBC is all about. Further, it shows that even those teachers who had been trained and had knowledge of the curriculum, effective implementation is still a major challenge in most situations because of insufficient resources as well as lack of knowledge on how to improvise resources.

4.5 Utilization of CBC Instructional Resources on Implementation of CBC in Public Primary Schools

In the process of teaching, instructors or teachers must ensure that abstract concepts are made practical for learners. This is achieved by using various instructional materials that facilitate the dissemination of information and promote clear communication between teachers and learners (Chen & Wei, 2015).

The third objective of a recent study was to investigate the influence of instructional material availability on the implementation of Competency Based Curriculum (CBC). Specifically, the study examined whether course books, teacher guides, and handbooks were available for use.

The results of the study were presented on a scale of 1 to 5, with 1 indicating no utilization, and 5 indicating very high utilization. The study found that CBC books were the most commonly used instructional material, with an overall rating of 76.46%, indicating that they were used to a very large extent (28.1%) and a large extent (41.4%). Only 1.6% of respondents reported that they did not use CBC books at all.

The study also found that teaching and learning aids were used to a significant extent, with an overall rating of 69.14%. The use of digital devices had an overall rating of 55.86%, indicating that they were used to a lesser extent than traditional teaching and learning aids. Teachers were found to be effective in facilitating learning, with an overall rating of 71.62%. Additionally, learners were reported to have interacted with instructional materials at an overall rating of 71.36% (Table 4.15).

The availability and utilization of instructional materials is critical to the successful implementation of CBC. These materials help to enhance the quality of teaching and learning, as well as to ensure that abstract concepts are made practical for learners. The findings of this study

highlight the importance of ensuring that CBC books, teaching and learning aids, and other necessary resources are available to teachers and learners.

Table 4.15: Utilization of CBC Instructional Materials

	CBC course books	Teaching and learning aids	Digital devices	Teachers facilitate learning	Learners interact with instructional resources
No Extent	1.6	8.6	12.5	0	0.8
Little Extent	9.4	44.5	22.7	8.6	9.4
To Some Extent	19.5	36.7	42.2	35.2	38.3
Large Extent	41.4	10.2	16.4	43.0	32.8
Very Large	28.1	8.6	6.3	13.3	18.8
Overall Rating	76.46	69.14	55.86	71.62	71.36

Teacher facilitated learning seem to be preferred choice for most of teachers with 35.2%, using it to some extent, 43.0% using to large extent, 13.3% using it at a very large extent and 0% to no extent.

The availability of instructional material is important in meeting the requirements of any curriculum. Head teachers and CSOs were interviewed and according to 76.5% of them they believe there are enough CBC books, while 23.5% believe there are no enough CBC books. HTs and CSOs believe that 91.2% of teachers prepare learning and teaching aids, 61.8% use digital devices, 79.4% prepare lesson plans, 61.8% are able to present all lessons in time and 97.1% of teachers are able to infuse lessons with CBC aspects as shown in Table 4.16.

Table 4.16: Availability of CBC Instructional Material

	Yes (%)	No (%)
Are there enough CBC course books for the learners	76.5	23.5
Do teacher prepare learning and teaching aids	91.2	8.8
Do teachers use digital devices	61.8	38.2
Are teachers able to prepare lesson plans	79.4	20.6
Are teachers able to present all lessons in the time	61.8	38.2
Are teachers able to infuse lessons with CBC aspects	97.1	2.9

The use of instructional materials in teaching is a critical factor in determining the success of the educational process. The selection of appropriate instructional materials depends on several factors, including the age of the learners, the objectives of the curriculum, the physical skills, level, and social situation of the learners, among others.

Effective use of instructional materials enhances the quality of teaching, making abstract concepts more practical for learners to understand. These materials provide visual and interactive representations of the learning content, which helps to promote active learning and improve retention. They also facilitate the communication between the teacher and the learner by promoting a better understanding of the learning objectives.

Without the use of adequate instructional materials, it would be challenging to achieve a long-lasting difference in behaviour among learners. The lack of instructional materials can lead to ineffective teaching, making it difficult for learners to retain the information and skills learned.

The selection and utilization of appropriate instructional materials are essential in the successful implementation of any educational curriculum. The materials should be carefully chosen, considering the age, level, and learning objectives of the learners.

The availability and use of instructional materials promote effective teaching and learning and facilitate the achievement of long-lasting behaviour change. A crucial dimension in teacher education that has received much attention relates to the use of instructional materials. These materials, both visual and audio-visual aids, are used by teachers to simplify their teaching, and can be either concrete or non-concrete. They bring life to learning by stimulating students to learn and can help teachers explain new concepts clearly, resulting in better learner understanding of the concepts being taught. However, it is essential to note that instructional materials are not ends in themselves, but rather means to an end.

Good teaching resources can never replace the teacher, but teachers use them to achieve their teaching and learning objectives (Haward, 2016). Sheillah (2023) notes that instructional materials such as the chalkboard, models, graphs, charts, maps, pictures, diagrams, cartoons, slides, filmstrips, radio, and television are necessary for effective teaching and learning of Social Studies. The use of these materials has been emphasized by scholars, with Sheillah (2023) stating that they are critical ingredients in learning and that the curriculum could not be easily implemented without them.

A study showed that teachers utilized various instructional resources during instruction, with the most used being the use of CBC books while the least used were digital devices. The choice of instructional material majorly depended on its availability. According to HTs and CSOs (76.5%), CBC books were sufficient and available. The use of instructional materials would also depend on various aspects such as the age of the learners and the social situation of the particular learners.

4.6 Teacher's Lesson Planning and Implementation of Competency Based Curriculum

The implementation of Competency Based Curriculum (CBC) is greatly influenced by the teacher's lesson planning. The fourth objective of the study was to investigate the influence of teacher's lesson planning on the implementation of CBC to learning. The study aimed to find out if teachers were preparing lesson plans in all activity areas, schemes of work, assessment rubrics, presenting all the lessons per day in the time table according to CBC, and infusing lessons with CBC aspects.

Table 4.17: Lesson Planning and Implementation of Competency Based Curriculum

	Prepare Lesson Plans in All Activity Areas	Prepare Scheme of Work	Prepare Assessment Rubrics	Present All the Lessons in The Time Table Per Day According to CBC	Infuse Lessons with CBC Aspects
No Extent	1.60	0.80	0.00	3.10	1.60
Little Extent	12.5	4.7	11.7	14.1	10.2
To Some Extent	39.1	30.5	44.5	35.9	46.5
Large Extent	35.2	39.1	31.3	32.8	29.1
Very Large	11.7	25.0	12.5	14.1	12.6

The results in Table 4.17 revealed that a majority of teachers felt incompetent and needed support in designing lesson plans with all CBC aspects and in presenting competency-based lessons systematically. Only 11.7% of teachers were able to prepare lesson plans with very large extent. Moreover, 95.1% of the teachers indicated that it was impossible to prepare lesson plans for all lessons. Most of the teachers felt that lesson planning consumed much time and went into teaching time.

It is important for teachers to engage themselves in lesson planning to ensure that the curriculum objectives are well covered. Planning enables teachers to identify relevant instructional materials to be used, set clear learning goals, create appropriate learning activities, and organize their teaching time effectively. Adequate lesson planning leads to improved student outcomes as it ensures that the learners' learning experiences are well structured and aligned with the curriculum objectives.

Research shows that effective lesson planning is crucial in delivering quality education. According to Nesari and Heidari (2014), to carry out educational plan, requires prepared educators that are fit for conveying satisfied, pertinent, and satisfactory instructive materials.

Lesson planning should be a collaborative process where teachers work together to identify the best teaching strategies, design and share lesson plans, and evaluate the effectiveness of their teaching methods. Collaboration among teachers leads to professional growth, effective use of resources, and shared responsibility for student learning.

The implementation of CBC in learning is greatly influenced by teacher's lesson planning. It is crucial for teachers to prepare lesson plans that encompass all CBC aspects and infuse lessons with the relevant competencies. Lesson planning should not be viewed as a waste of time, but rather as an essential tool for effective teaching and learning. Collaboration among teachers in planning and implementing lessons is essential for the successful implementation of CBC.

This study found that the majority of teachers did not fully understand what CBC entails, and even those who had an idea and had been trained were unable to effectively implement CBC due to the lack of sufficient resources and know-how on how to improvise resources.

According to Darling-Hammond and Snyder (2000), teacher assessment should be contextualized and authentic, involving various methods to gain a rich picture of teachers' knowledge and performance and to measure whether construction of meaning has taken place. They recommend four conditions for teacher assessment, which include sampling the actual knowledge, skills, and dispositions desired of teachers as they are used in teaching and learning contexts, integrating multiple kinds of knowledge and skills as they are used in practice, collecting multiple sources of evidence over time and in diverse contexts, and evaluating assessment evidence by individuals with relevant expertise against criteria that matter for performance in the field of teacher education.

Lesson planning is a major contributor to CBC implementation. Planning and preparation are considered to have a central role in teacher practice (Neill, Fisher & Dingle, 2010; Roche, Clarke, Clarke & Sullivan, 2014). Planning involves knowing what and how to teach (such as sequencing content), while preparation involves organizational elements, including the getting and/or designing of materials.

There is great variation in the way teachers plan, reflecting their varied perspectives about learning, teaching, curriculum, and education (Roche et al., 2014). Novice teachers are likely to engage in short-term planning, and generally describe planning as time-consuming and complex (Mutton, Hagger & Burn, 2011). Once exposed to teaching, novices begin to realize that planning and preparation are concepts associated with unpredictability, flexibility, and creativity (Bailey, 2015; Hall & Smith, 2006).

The results of the study showed that teachers felt incompetent and needed support in designing lesson plans, with 95.15% saying it is almost impossible to design lesson plans for all the lessons.

The teachers said that lesson planning consumed most of their time and could eat into teaching time. A teacher's level of experience is only one factor influencing a teacher's planning. Others include depth of subject knowledge and pedagogical knowledge, teaching style, and perceptions and knowledge of pupils (Roche et al., 2014).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary, conclusions and recommendations based on the results findings. The summary highlight influence of teachers' preparedness on implementation of Competence Based Curriculum in public primary schools in Bomet East Sub-County, Bomet County Kenya. From these conclusions and recommendations that will guide CBC success in public primary schools shall emerge.

5.2 Summary of Research Findings

The study's objectives were four-fold. Firstly, it sought to investigate the impact of teachers' training on the successful implementation of CBC in public primary schools in the region. Secondly, it aimed to ascertain the influence of teachers' chosen modes of assessing learners on the CBC's implementation. Thirdly, it evaluated the utilization of CBC instructional resources and materials within public primary schools in Bomet East Sub-County. Lastly, it analysed the significance of teachers' lesson preparation as a crucial tool in implementing CBC.

To comprehensively address these objectives, the researchers employed a range of data collection instruments, including questionnaires and interview guides, thoughtfully designed to examine various facets of CBC implementation. Ensuring the accuracy of these instruments was paramount, and rigorous validation processes, including content, construct, and face validity checks, were conducted. The study also incorporated reliability assessments, such as a pilot test and statistical tests, to validate the instruments' effectiveness.

The study's findings underscored the necessity of addressing these critical issues to ensure the successful implementation of CBC in Bomet East Sub-County. Teacher preparedness, the availability of instructional materials, assessment methods, and lesson preparation all emerged as pivotal factors influencing CBC's transformative potential. To tackle these challenges effectively, the study emphasized the need for continuous support and professional development opportunities for teachers. Such initiatives were deemed essential in enhancing teacher preparedness and competencies in delivering CBC effectively.

The quality of education that a country offers its learners is only as good as its teachers (Boss, 1979). The government should reflect on the current state of teacher education objectively in light of the CBC it is rolling out. Graduates who will soon handle junior and senior high school learners must be better prepared for CBC than their primary school counterparts.

5.3 Conclusions

Through rigorous investigation and analysis, the study has uncovered critical challenges and opportunities in the pursuit of an education system that prioritizes practical skills, competencies, and holistic development of learners. This study has provided valuable insights into the influence of teachers' preparedness on the implementation of the Competency Based Curriculum (CBC) in public primary schools in Bomet East Sub-County, Bomet County, Kenya. The introduction of CBC represents a significant shift in the education system, aiming to foster practical skills and competencies among learners.

Through a comprehensive investigation, this study has highlighted several critical issues that impact the successful execution of CBC. These include the need for teacher training and support to align teaching methodologies with CBC objectives, the availability and accessibility of CBC-compliant instructional materials, the importance of teacher competency in assessments, the significance of effective lesson planning and delivery, and the integration of technology in education. Additionally, stakeholder involvement and collaboration have been recognized as essential components of CBC implementation.

The findings of this study emphasize the central role of teacher preparedness in shaping the outcomes of CBC. Insufficient teacher preparedness may hinder learners' development of the competencies that CBC seeks to foster. Therefore, addressing these challenges and leveraging the identified opportunities is crucial to ensuring the successful implementation of CBC in Bomet East Sub-County and, by extension, across Kenya.

The implications of this research extend beyond the boundaries of Bomet East Sub-County, offering valuable insights and recommendations that can inform educational policies and practices at the national level. By recognizing and addressing the challenges outlined in this study, stakeholders can work together to create an educational environment that equips learners with the skills, competencies, and knowledge necessary for their future success in an ever-changing world.

5.3 Recommendations

The implementation of the Competency Based Curriculum (CBC) in public primary schools in Bomet East Sub-County, Bomet County, Kenya, represents a significant shift in the country's education system.

The CBC is designed to empower learners with practical skills and competencies, moving away from traditional rote learning to a learner-centred approach. As with any transformative educational reform, the successful execution of the CBC is contingent upon addressing a range of critical issues and challenges. The study "Influence of Teachers' Preparedness on Implementation of Competency Based Curriculum (CBC) in Public Primary Schools in Bomet East Sub-County, Bomet County, Kenya" has shed light on several key findings, pointing to areas of improvement and development to enhance the CBC's implementation.

In response to the identified challenges, this set of recommendations is designed to provide a strategic roadmap for policymakers, educational institutions, and stakeholders. These recommendations aim to strengthen teacher preparedness, enhance the availability of instructional materials, improve teacher competency in assessments, support effective lesson planning and delivery, promote digital literacy, foster stakeholder engagement and collaboration, encourage ongoing research and evaluation, allocate necessary resources, raise community awareness and involvement, and ensure the curriculum's continued relevance through regular review. The study recommends:

- i. **Comprehensive Teacher Training and Continuous Professional Development:** The Ministry of Education and educational institutions should prioritize extensive training programs for teachers. These programs should encompass the infusion of core competencies into instruction, with a particular focus on digital literacy. Additionally, continuous professional development opportunities should be readily available to keep teachers updated with evolving educational practices and technologies.

- ii. **Ensuring Adequate Provision of Instructional Materials:** Collaboration between the Ministry of Education, county governments, and educational stakeholders should be reinforced to guarantee the timely provision of CBC-compliant instructional materials. These materials are essential for creating an engaging and relevant learning environment that aligns with the CBC's learner-centered approach.
- iii. **Strengthening Teacher Competency in Assessment:** Specialized training programs should be developed to enhance teacher competency in designing assessment criteria, constructing rubrics, and maintaining accurate assessment records. Teachers must have the skills necessary for formative and summative assessments, ensuring the accurate evaluation of learners' practical competencies.
- iv. **Support for Lesson Planning and Delivery:** Teachers should receive additional training and support in designing CBC-compliant lesson plans and delivering competency-based lessons systematically. This support will equip them with the pedagogical skills required to create engaging and effective learning experiences for learners.

5.4 Suggestions for Further Research

The researcher recommends the following areas are recommended for further research in line with the implementation of Competency Based Curriculum;

- i. A study to investigate influence of school factors on implementation of competency based curriculum.
- ii. A study to assess influence of pupil related factors on implementation of Competency based curriculum.

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APPENDICES

Appendix I: Letter of Introduction

CHEROTICH NAOMI,
UNIVERSITY OF KABIANGA
DEPT. OF CIEM
P.O BOX 2030
KERICHO.

Dear Participant,

I am a postgraduate student in school of education, University of Kabianga carrying out a research study on influence of teachers' preparedness on implementation of Competency Based

Curriculum in public primary schools in Bomet East Sub-County. You have been selected to be one of the respondents to take part in this research. Kindly respond to all items in the questionnaire by giving information that truly represents your opinion. The information given was treated with confidentiality, accorded the privacy restricted to use and purpose of this research study only.

I look forward to your kind co-operation.

Yours Sincerely,

Cherotich Naomi

REG NO. PGC/ECD/008/17

Appendix II Questionnaire

This questionnaire attempts to collect information on influence of teachers' preparedness on implementation of CBC in public primary schools in Bomet East sub-county. The information was purely used for research purposes only. So please, complete each of the section in this questionnaire as instructed. Your careful, complete and honest responses will assist in collecting valid data. Do not indicate your name or institution as this information given is confidential. Please put a tick () in the box for the right response.

Section A: Background information

1. Please indicate your gender Male () Female ()
2. What is your age bracket? 20-30 yrs () 31-40 yrs () 41-50 yrs ()
3. What is your teaching grade? Grade 1 () Grade 2 () Grade 3 ()
4. Which grade are you teaching currently? Grade 1 () Grade 2 () Grade 3 ()

Section B: Influence of teachers' preparedness on implementation of CBC

5. How many years have you taught in lower grades? 1-4 yrs () 5-8 yrs ()
6. Have you attended CBC in-service training? Yes () No ()
7. If yes, how many times have you been trained? Once () Twice () Thrice ()
More than thrice ()
8. How long was the training? One week () Two weeks () Three weeks ()
9. What content was covered during the
training.....

10. Which materials were used during the training?

1.

2.

3.

4.

11. Which methodology was used in the training

.....

In your opinion to what extent have you been able to inculcate the following core competencies during instruction appropriately? Indicate this on a scale of one to five where 1= to no extent, 2= to little extent, 3= to some extent, 4= to a large extent and 5= to a very large extent.. Please tick the appropriate answer.

Competency	1	2	3	4	5
Communication and collaboration					
Imagination and creativity					
Citizenship					
Learning to learn					
Digital literacy					

Section C: Teachers' mode of assessing learners and implementation of CBC

In your opinion to what extent have you been able to perform the given activity appropriately?

Indicate this on a scale of one to five where 1= to no extent, 2= to little extent, 3= to some extent,

4= to a large extent and 5= to a very large extent. Please tick the appropriate answer.

Activity	1	2	3	4	5
Ability to design rating system					
Ability to make assessment rubrics					
Ability to keep assessment records					
Reporting of performance after formative and summative assessment					

Section D: The utilization of CBC instructional resources and implementation of CBC

12. How many pupils do you have in your grade?

13. In your opinion to what extent do instructional resources utilized in your grade? Indicate this on a scale of one to five where 1= to no extent, 2= to little extent, 3= to some extent, 4= to a large extent and 5= to a very large extent. Please tick the appropriate answer.

Instructional resources	1	2	3	4	5
CBC course books					
Teaching and learning aids					
Digital devices					
Teachers facilitate learning					
Learners interact with instructional resources					

Section E: Teachers' lesson preparation and implementation of CBC

In your opinion to what extent do lesson preparation according to CBC have been achieved in your lessons? Indicate this on a scale of one to five where 1= to no extent, 2= to little extent, 3=

to some extent, 4= to a large extent and 5= to a very large extent. Please tick the appropriate answer.

Activity	1	2	3	4	5
Ability to prepare lesson plans in all activity areas according to CBC					
Ability to prepare scheme of work					
Ability to preparing assessment Rubrics					
Ability to present all the lessons in the time table per day according to CBC					
Ability to infuse lessons with CBC aspects					

Appendix III: Head Teachers' Interview Guide (HTIG)

1. Have your teachers been trained on Competency Based Curriculum?
2. Are your teachers competent in giving instruction in all activity areas according to CBC?
3. Are there activity areas they find challenging to infuse during instruction?
4. Which core competencies are challenging to infuse during instruction?
5. To what extent are teachers able to develop assessment methods?
6. Are your teachers able to develop assessment rubrics?
7. Are your teachers able to keep assessment records?
8. In what ways do your teachers report to learners and parents after conducting formative and summative assessments?
9. Are there enough CBC course books for your learners?
10. Do your teachers prepare teaching and learning aids?
11. Do your teachers use digital devices during instruction?
12. Are your teachers able to prepare lesson plans in all activity areas according to CBC?
13. Are your teachers able to present all the lessons in the time table per day according to CBC requirement?
14. Are teachers able to infuse lessons with CBC aspects during instruction?

Appendix IV: Curriculum Support Officers' Interview Guide (CSOIG)

1. Have the teachers been trained on Competency Based Curriculum?
2. Are the trained teachers competent in giving instruction in all activity areas according to CBC?
3. Are there challenges encountered to infuse during instruction?
4. Which core competencies are challenging to infuse during instruction?
5. To what extent are teachers able to develop assessment methods?
6. Are teachers able to develop assessment rubrics?
7. Are teachers able to keep assessment records?
8. In what ways do teachers report to learners and parents about after conducting formative and summative assessments?
9. Are there enough CBC course books for the learners?
10. Do teachers prepare teaching and learning aids?
11. Do teachers use digital devices during instruction?
12. Are teachers able to prepare lesson plans in all activity areas according to CBC?
13. Are teachers able to present all the lessons in the time table per day according to CBC requirement?
14. Are teachers able to infuse lessons with CBC aspects during instruction?

Thank you for your co-operation.

Appendix V: Map of Study Area



Appendix VI: Clearance Letter



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Appendix VII: NACOSTI License



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PUBLICATION

Influence of teachers' preparedness on implementation of competency-based curriculum (CBC) in public primary schools in Bomet east sub-county, Kenya

**Cherotich Naomi*, Solomon Kaptingei,
Joseph Rotumoi University of
Kabianga**

Abstract

The government of Kenya embarked on curriculum reform from the 8.4.4 system of education to Competency Based Curriculum in order to change from knowledge and skills acquisition to knowledge creation and application. The study was undertaken to establish the influence of teachers' preparedness on the implementation of Competency Based Curriculum (CBC) in public primary schools in Bomet East Sub County, examine the influence of teachers' training, teachers' mode of assessing learners, teachers' preparation on utilization of CBC instructional resources and how effectively the lesson can be prepared in the implementation of the CBC. The knowledge development theory was adopted in the study. The study adopted descriptive survey research design which involved the use of questionnaires and interview schedules for data collection. Results show that teachers need support in infusing core competencies, infusing critical thinking and problem solving, in creativity and imagination and in infusing communication and collaboration. Head teachers and Curriculum support officers expressed serious concerns on the availability of instructional materials. Results further showed that teachers need support in designing assessment criterion, support in constructing assessment rubrics and support in keeping assessment records for summative reporting. In conclusion teachers need more support to fully implement CBC curriculum. Study recommends further training and capacity building for teachers involved in CBC implementation.

Key words: Competency Based Curriculum; Teachers preparedness; Bomet County

Introduction

Competency Based Curriculum (CBC) currently appears to be gaining ground in basic, technical and higher education across the world. The driving force is the purpose of connecting the education initiatives with labour markets and the dynamic societal demands (Mulder *et al.*, 2018). A distinctive factor of the CBC is that it is designed to be specific and applicable to every learner's situation, entry behavior and learning style. Critical to the

CBC is an evaluation practice which precisely and dependably identifies the learner's capability to accomplish a task (Kasten *et al.*, 2018). By focusing on an individual in a group, CBC stands out to spark intrinsic motivation characterized by learner's possession of an internal drive to engage in their education as they come into contact of hands-on experience with learning by engaging their senses of taste, smell, touch, sight and hearing with learning. This is referred to as pragmatic learning (Oldehaver, 2018).

The Kenyan CBC is a system of education designed by Kenya Institute of Curriculum Development (KICD) team in 2017 which is different from 8-4-4 (Munyasia & Olel, 2020; Ongesa, 2020). CBC focuses in a change of emphasis from the tradition of chalk-and-talk teaching to focusing on the learner by learning in groups and not just memorizing facts, but developing competencies and understanding core values and important issues. In CBC school is being restructured from 8-4-4 to 2-6-3-3-3. All learners take 2 years of pre-primary, then 6 years of primary, and then 3 years of junior secondary school. If the learner passes the grade 9 exams at the end of junior school, he or she can then go on to take 3 years of senior secondary school. University under CBC will be 3 years instead of 4 years. This CBC is designed to emphasize the significance of developing skills such as communication and collaboration, critical thinking and problem solving, imagination and creativity, citizenship, learning to learn, self-efficacy and digital literacy (Sifuna & Obonyo, 2019; Syomwene, 2022). These competencies are to be applied into real life situation.

Administration of assessment rubrics should be emphasized which are tasks tailored towards individual learner's proficiency to practice what they have acquired to practical situations (Jeffery, 2009). The paradigm shift from mastery towards CBC program implies that the role of the teacher is slowly changing from giving notes to being a facilitator, the learner taking the centre stage (Muraraneza & Mtshali, 2018; Njagi, 2020). In addition, many countries across the world are emphasizing on the introduction of technological sciences into school learning process. Stakeholders are ensuring ICT is integrated at all levels of learning and teaching. Teachers are also being trained in order to develop competencies and skills to use and apply in digital learning. Ouma *et al.*, (2013), assert that teachers are expected to create a technology based environment to facilitate teaching and learning. Kenya has a policy that all schools should integrate ICT in learning in order to realize vision 2030 (Mugalavai, 2012).

Use of instructional materials should allow for ease of interpretation of the curriculum design by way of scope and sequence charts which direct course books on the relevant age appropriate content. Instructional materials should be designed such that they allow learning process as opposed to the traditional approach where the learner was a passive recipient of knowledge. It is against common best practice for outdated instructional materials to be adapted alongside the new curriculum they do not match (Mundia, 2012). Furthermore, assessment of learner's level of mastery of competencies is important in the CBC (Akala, 2021; Ndiokubwayo & Habiyaemye, 2018).

A study by Momanyi & Rop, (2020) on teacher preparedness for the integrated English curriculum in Kenya, concluded that curriculum outcome is impacted by teacher

preparedness. Unprepared teachers are impediment to the successful implementation of a curriculum. The introduction of CBC in Kenya has raised a question on the capacity and teachers' preparedness to implement it. Execution of the CBC program in its first phase is facing quite a number of challenges. Competency Based Curriculum has been rolled out despite a lot of challenges and limitations that include heavy transitional spending and inaccessibility of teaching and learning resources. The process of piloting the new curriculum began by selecting schools from every county from pre-school, grade one, two and three. For teachers to fully implement CBC they need to have acquired knowledge, skills and competencies to implement the curriculum through further trainings, seminars and workshops. Teachers must be prepared adequately and also have positive attitude towards implementation. At the time of rolling out CBC for pre-primary, grade one to three; there was no Sessional Paper to guide the process, hence the roll out tended to be deficient of clear policies. The needs assessment was not properly conducted by the ministry of education. The summative evaluation which was conducted in 2016 could not be the basis for reforming the curriculum in 2018. Apparently, there is no research to support the argument that implementation of CBC was rushed into before adequate preparation. The learning facilities are somewhat inadequate, parents, pupils and even teachers are not yet prepared. Therefore this study fills this knowledge gap by establishing the level of teachers' preparedness on implementation of Competency Based Curriculum in public primary schools in Bomet East, Sub- County, Kenya.

Materials and methods

Research design

The researcher used descriptive survey research design. Descriptive survey research involves to a scientific technique or approach involving the observation and description of behaviors of subjects in a study without influencing them in any way (Creswell & Creswell, 2017).

Study area and target population

The county of study borders Kericho County to the North Eastern, Narok County to the South Eastern, Nyamira County to the North West and Nakuru County to the East. It covers an approximate area of 2,037.4 Kilometers square. Bomet County is divided into five sub-counties namely: Sotik, Chepalungu, Bomet East, Bomet Central, and Konoin (Bomet County Development, Profile 2013). The study was done in Bomet East sub-county. The researcher has chosen this sub-county because the schools are homogenous and accessible.

The research proposal involved all the head teachers, all grade one, grade two and grade three and the Curriculum Support Officer (CSO) in the implementation in the zone. All these made a target population of one hundred and ten (110) head teachers, three hundred and thirty (330) grade one to grade three teachers and four (4) CSO representing the Sub-County. Therefore the target population was four hundred and forty four (444) respondents.

Sample size and sampling procedure

Taro Yamane's formula (Yamane, 1973), was used in getting the sample size, since the target population of the study was relatively small. The formula used is as shown in the equation below:

$$n = N / 1 + (N)e^2$$

$$n = 444 / 1 + (444)0.05^2 = 210$$

n

=

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e = error of sampling method = 0.05

Table 1: Sample Size

Respondents	Target Population	Sample Size
Head teachers	110	52
Teachers	330	156
Curriculum Support Officers	4	2
Total	444	210

Source: Authors' Computation

Sampling procedure

A stratified random sampling procedure was used to obtain the sample size in the whole Sub County. Stratified random sampling since the sample was divided into stratus that is head teachers, teachers and curriculum support officers and can aid in providing greater precision. A proportionate sampling procedure was used to pick the head teachers and teachers for the study. A list of both head teachers and teachers was obtained from CSO's of each of the public primary schools in the five zones. The names of CSOs, head teachers and teachers in the lists was serially numbered first and then randomly ordered and picked using a simple random sampling technique. The 52 head teachers, 156 teachers and 2 CSOs was selected to be a representative of the target population. This technique gave each respondent an equal opportunity of being selected and therefore increase the chances of obtaining an appropriate and representative sample size. This was advantageous in the sense that the sample frame was already available in the form of a list (Kothari, 2004).

Data collection

This study used primary data only. The study utilized close ended questions in questionnaires which was administered to grade one to grade three teachers. The questionnaire was used because they can be completed by the respondents at their convenient time. Again they can facilitate an easier analysis as they are in immediate useable form. Questionnaires enabled the collection of quantitative data.

The study used open ended questions in the interview guides and the authority of scale was like a Likert scale that is 1-to no extent, 2- to little extent, 3- to some extent, 4-to a large extent and 5- to a very large extent. These were administered to the head teachers and CSOs to collect qualitative data. The head teachers are the supervisors of CBC implementation in their respective schools while the CSOs do the same work in the whole zone. Therefore the interview guide was used to collect data on teacher's training, utilization of CBC instructional resources, teachers' mode of assessment and teachers' lesson preparation.

The two instruments were divided into five sections A, B, C, D and E. Each of these sections was addressing different issues regarding the implementation of CBC. Section A dealt with background information, section B addressed teachers' training, section C dealt with the issue of utilization of CBC instructional resources, section D addressed the issue of teachers' mode of assessing learners and section E addressed teachers' lesson preparation and the implementation of CBC.

Data Analysis and Presentation

Receipt of the filled interview schedules and questionnaires, initial screening of data was done by sorting, coding, and cleaning. Incomplete data sources were discarded. The other pieces were then numbered and coded using a coding frame ready for entry and analysis. For the determination and description of elements of independent variables, descriptive statistics were used for the dependent variable. Editing, organizing, and analysis of data collected was done with the aid of IBM SPSS version 25 statistical package software. Closed ended questions were analyzed using descriptive statistics as tables. Qualitative data was analyzed through sequences, regularity and patterns of words and phrases for coding purposes which was then exposed to quantitative interpretations of frequencies and percentages. Open ended questions were analyzed by identification of the response and representing the data visually.

Results and discussion

The research results presented are on the respondents' response rate of research instruments, demographic data of the respondents who consisted of teachers, head teachers and Curriculum Support Officers. The research further presented and discussed teachers' competence, availability of instructional materials, teachers' lesson planning and head teachers and Curriculum Support Officers' mode of assessment as issues on the implementation of Competence Based Curriculum.

Demographic data of the respondents

The background data analyzed herein consists of gender, age and experience in teaching of the respondents and consisted of the head teachers, teachers and the curriculum support officers of the zones of the sampled public primary schools

The results revealed that a majority of teachers teaching lower primary grades were females (51.9%) while

the male teachers were 48.1% (Table 2). The results in table show that the majority of grade one to gradetwo teachers are aged between 31-40 years (43.8 %). Only 24.2 percent are between 20-30 years.

Table 2 Respondent's Age bracket

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	(20-30)	31	24	24.2	24.2
	(31-40)	56	43.4	43.8	68
	(41-50)	41	31.8	32	100
	Total	128	99.2	100	
Missing	System	1	0.8		
Total		129	100		

Teaching experience of teachers of teachers was also acquired and is as shown in table 3.

A lower primary teaching experience of 0-4 years occupy the highest percent (54.8 percent). Those with an experience of 5-8 years are 43 occupying a level of 34.1 percent. The lowest percentage is the teachers with an experience of over 9 years.

Table 3 Teaching experience in lower grades

		Frequency	Percent	Valid Percent	Cumulative Percent
	(1-4 years)	69	53.5	54.8	54.8
	(5-8years)	43	33.3	34.1	88.9

Valid	(> 9 years)	14	10.9	11.1	100
	Total	126	97.7	100	
Missing	System	3	2.3		
Total		129	100		

Influence of teachers' training on implementation of CBC in public primary schools

The researcher was interested in finding out the following: Training on the competency-based curriculum, the duration of training, frequency of training and infusion of core competencies.

The results showed that almost all teachers (94.6 percent) attended workshops on CBC training and the

paradigm shift from teaching to learning. The 4.7 percent who did not train could be attributed to the nature of their work and the fact that such trainings are planned during holidays.

Thirty-two (32) head teachers and two (2) curriculum support officers were also interviewed on the Influence of teachers' training on implementation of CBC in public primary schools. The group confirmed that 100% of teachers had received training on CBC. It was also established that 58.8% of the trained teachers were competent to give instruction in all areas according to CBC, while 41.2 percent were incompetent. It was also reported that 89.9 percent of respondents attended a one week training on the Competency Based Curriculum. Morrison, (2018), however, cautions that this duration is not adequate and affirms that a competent teacher is critical to learners' achievement. Teachers must adequately train for two years and must receive ongoing trainings even as they work in the classroom. This give teachers the background information they will need in the classroom.

The results on the frequency of the training of teachers on CBC showed that most of the teachers 32.3 percent have attended trainings at least twice while 29.1 percent have attended it thrice. Only 19.4 percent have attended it once while 18.6 percent have attended more than three times. Teachers in Competency Based Approach need to be specialists in learner-centered pedagogical experience in order to adopt the paradigm shift from teaching to learning.

Most of the respondents had the following content covered in

- their CBC trainingPortfolio and Assessment rubrics
- CBC teaching strategies
- Guiding principles for value based
- education Curriculum design
-

including for special need learners

Core competent values

- Assessment tools

When it comes to materials used for training, most of the respondents used the

- following Computers and laptops and projectors
- Stationeries
- Mobile phones and other digital devices

The methodology used in the training was mostly discussion method. However some respondents used the following

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From these results it is apparent that Bomet East is going in the right direction towards training teachers in CBC, however researchers have shown that for a teacher to fully implement CBC, trainings should be done for not less than 2 years. It was recommended that the ministry of education and all stakeholders should further provide enhanced training building programs for preschool teachers to prepare them fully for the new curriculum.

Infusion of core competencies during instruction

The research instruments sought data on the degree to which teachers were able to infuse core competencies during instruction i.e. communication and collaboration, thinking and problem solving, imagination and

creativity, citizenship, learning to learn and digital literacy. The responses are summarized as shown in table 4.

Table 4. Degree to which teachers were able to infuse core competencies during instruction

	Communication & collaboration	Thinking & problem solving	Imagination & creativity	Citizenship	Learning to learn	Digital literacy	Digital literacy

no extent	4.7	0.8	2.3	2.3	2.3	7.8	7.8
little extent	5.4	10.9	14.7	3.9	6.2	21.7	21.7
to some extent	36.4	45	42.6	46.5	39.5	42.6	42.6
large extent	41.1	38	32.6	30.2	40.3	21.7	21.7
very large	12.4	5.4	7.8	17.1	11.6	6.2	6.2
Overall rating	70.22	67.32	75.78	71.18	70.48	59.36	59.36

A majority of the teachers felt that they overly had the ability to appropriately inculcate communication and collaboration during instruction, (70.22%), inculcate critical thinking and problem solving (67.32%), inculcate imagination and creativity (65.78%), inculcate citizenship (71.18%), inculcate learning to learn (70.48%) and inculcate digital literacy during instruction (59.36%) According to the HTs and CSOs, there were also challenges encountered to infuse during instruction at 90.9% while only 9.1 percent did not have challenges.

Core competencies that are challenging to infuse during instruction

According to responds head teachers and CSOs, Digital literacy was the most challenging to infuse at 63.3% while critical thinking, problem solving and communication and collaboration were the least at 6.7%. the results are summarized in table 5. Infusing digital literacy was a real challenge for majority of teachers with most of the teachers needing support in the delivery of digital literacy. These shows that teachers had difficulties in teaching digital activities. The materials needed for digital learning as well as the competency of teachers seems to be a contributing factor. Digital learning gives challenges to the successful implementation of CBC. The ministry of education and the county governments should enhance the provision of the necessary ICT instructional resources in public primary schools in order to promote and enhance the implementation of the curriculum.

Table 5. Core competencies that are challenging to infuse during instruction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Digital literacy	19	55.9	63.3	63.3
	communication and collaboration	2	5.9	6.7	70
	critical thinking and problem solving	2	5.9	6.7	76.7
	citizenship	3	8.8	10	86.7
	learning to learn	4	11.8	13.3	100
	Total	30	88.2	100	
Missing	System	4	11.8		
Total	34	100			

Teachers' mode of assessment and implementation of Competency Based Curriculum

This study sought to also assess the influence of teachers' mode of assessments on implementation of CBC. The researcher sought to find out whether the teachers were competent in designing criterion (rating system), construct assessment rubrics (tasks) and report learners progress after formative assessment and if they kept assessment records for summative reporting. The research findings are indicated as shown in table

6. The results indicated that most of the teachers felt competent in designing assessment criterion or assessment rating with an overall rating of 63.7 per cent. Most of the teachers to a large extent 94.6% could design a CBC rating system with only 3.9% unable to design. Teachers also to a larger extent of 86.0% were able to design and make assessment rubrics while only 2.3% being unable. The rubric's is a way to measure how a student/learners are able to do perform in assignments allocated. The results obtained clearly showed that most of teachers 83.7% to a large extent could keep assessment records and 86.8% to a large extent could report performance after formative and summative assessment.

Table 6: Teachers mode of assessment and implementation of CBC

	design rating system	make assessment rubrics	keep assessment records	report performance after formative and summative assessment
no extent	3.9	2.3	2.3	1.6
little extent	22.5	10.9	9.3	9.3
to some extent	60.5	53.5	48.8	44.2
large extent	94.6	86.0	83.7	86.8
Overall rating	63.7	69.5	71.18	71.66

According to the head teachers and curriculum support officers 64.7 % of teachers were able to some extent develop assessment methods while 8.8 % have no ability to develop assessment methods (table 7). Only

11.8 percent were fully able to develop assessment methods.

Table 7: Ability of teachers to develop assessment methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no extent	3	8.8	8.8	8.8
	little extent	3	8.8	8.8	17.6
	to some extent	22	64.7	64.7	82.4
	large extent	2	5.9	5.9	88.2
	very large	4	11.8	11.8	100.0
	Total	34	100.0	100.0	

HTs and CSOs provided information that 76.5% of teachers that had undergone CBC training could develop assessment rubrics while, 23.5% however cannot develop assessment rubrics and that 94.1 percent of trained CBC teachers were able to keep assessment records, but only 5.9 percent did not have the ability to keep assessment records.

Head teachers and CSOs ascertained that 94.1% of teachers had the ability to keep summative assessment records for the learners. The ability to keep these records is important in tracking and understanding learner's weaknesses and strengths. The results further indicated that 5.9% of the teachers according to CSOs and HTs still require training and facilitation to achieve a 100% in keeping learners assessment record.

Utilization of CBC instructional resources on implementation of CBC in public primary schools

Instructional resources are methods, ways and materials required to implement successful curriculum. According to Chen and Wei 2015, these are what an instructor or teacher use make an abstract concept to be practical to a learner. These are used to pass on disseminate information to learners while promoting closer and clear information sharing and communication between the teacher and the learner.

The third objective of the study was to examine influence of availability of instructional materials on implementation of Competency Based Curriculum. The researcher sought to investigate whether course books and teachers guides were available for instruction and if

handbooks used to expound the designs had been received for use. The results of the study are shown below the extent of utilization of instructional materials on a scale of 1 to 5. 1 = to no extent, 2 – to little extent 3 – to some extent, 4 – to a large extent and 5 – to a very large extent. The study found that CBC books was the most used instructional material being used by to a very large extent of 28.1%, to a large extent of 41.4% and to no extent of 1.6%, with an overall rating of 76.46 percent. Teaching and learning aids was used at an overall rating of 69.14%, while digital devices was 55.86%, teachers facilitating learning at 71.62% and learners interacting with instructional material resources at 71.36% as shown in Table 8. Teacher facilitated learning seem to be preferred choice for most of teachers with 35.2%, using it to some extent, 43.0% using to large extent, 13.3% using it at a very large extent and 0% to no extent. Results from Table 8 show that teachers were not using competency- based approaches of teaching and learning. This indicates that teachers should be given in-service training for competency-based approaches for teaching and learning. CBC curriculum insists on a learner – centered approach which is different from traditionally known methods.

Table 8: Utilization of CBC instructional

	CBC coursebooks	Teaching and learning aids	Digital devices	Teachers facilitate learning	Learners interact with instructional resources
no extent	1.6	8.6	12.5	0	0.8
little extent	9.4	44.5	22.7	8.6	9.4
to some extent	19.5	36.7	42.2	35.2	38.3
large extent	41.4	10.2	16.4	43.0	32.8
very large	28.1	8.6	6.3	13.3	18.8
Overall rating	76.46	69.14	55.86	71.62	71.36

Availability of CBC instructional material

The availability of instructional material is important in meeting the requirements of any curriculum. Head teachers and CSOs were interviewed and according to 76.5% of them they believe there are enough CBC books, while 23.5 % believe there are no enough CBC books. HTs and CSOs believe that 91.2% of teachers prepare learning and teaching aids, 61.8% use digital devices, 79.4 % prepare lesson plans, 61.8% are able to present all lessons in time and 97.1 % of teachers are able to infuse lessons with CBC aspects as shown in table 9. The use of a particular instructional material is dependent in several factors such as the age of the learners, the objective, the physical skills, level, and social situation of the learners among other factors. Instructive assets / resources usage is vital in educational plan execution. Learning would be challenging to prompt extremely durable difference in conduct without the utilization of satisfactory informative materials in teaching.

Table 9: Availability of CBC instructional material

	Yes (%)	No (%)
Are there enough CBC course books for the learners	76.5	23.5
Do teacher prepare learning and teaching aids	91.2	8.8
Do teachers use digital devices	61.8	38.2
Are teachers able to prepare lesson plans	79.4	20.6
Are teachers able to present all lessons in the time	61.8	38.2
Are teachers able to infuse lessons with CBC aspects	97.1	2.9

Teacher's lesson planning and implementation of Competency Based Curriculum.

The objective of this study also was to determine influence of teacher's lesson planning on implementation of CBC to learning. The study focused in finding out if teachers: prepared lesson plans in all activity areas, prepared schemes of work, prepared assessment rubrics, presented all the lessons per day in the time table according to CBC and if they infuse lessons with CBC aspects lesson. The results in Table 10, revealed that a majority of teachers felt incompetent and needed support in designing lesson plans with all CBC aspects and in presenting competency based lessons systematically (42.0 percent). 95.1 percent of the teachers indicated that it was impossible to prepare lesson plans for all lessons. Only 4.9 percent felt otherwise. Most of the teachers (42.0 percent), felt that lesson planning consumed much time and went into teaching time. From the results it is noteworthy to say that teachers have not engaged themselves to planning and see it a waste of time rather than focusing on its advantages such as the beneficial outcomes for their own skills. According to Saidu and Saidu (2014), to carry out educational plan, requires prepared educators that are fit for conveying satisfied with pertinent and satisfactory instructive materials.

Table 10: Lesson planning and implementation of Competency Based Curriculum

	prepare lesson plans in all activity areas	prepare scheme of work	prepare assessment rubrics	present all the lessons in the time table per day according to CBC	infuse lessons with CBC aspects
no extent	1.6	0.8	0	3.1	1.6
little extent	12.5	4.7	11.7	14.1	10.2
to some extent	39.1	30.5	44.5	35.9	46.5
large extent	35.2	39.1	31.3	32.8	29.1
very large	11.7	25.0	12.5	14.1	12.6

Conclusion

In conclusion its note while to say that teachers are incompetent in delivering to learners using Competency based approach. Teachers have undergone minimal training on CBC curriculum and as such have challenges in infusing core competencies during instruction i.e. communication and collaboration, thinking and problem solving, imagination and creativity, citizenship, learning to learn and digital literacy. Stakeholders should consider retraining and training of teachers accordingly. Infusing digital literacy was a real challenge for majority of teachers with most of the teachers needing support in the delivery of digital literacy. These shows that teachers had difficulties in teaching digital activities. The materials needed for digital learning as well as the competency of teachers seems to be a contributing factor. Digital learning gives challenges to the successful implementation of CBC

Influence of teachers' mode of assessments on implementation of CBC was poor. A few of the teachers were incompetent in designing criterion (rating system), construct assessment rubrics (tasks) and report learners progress after formative assessment and poor in keeping assessment records for summative reporting. Teachers were also not using competency-based approaches of teaching and learning. This indicates that teachers should be given in-service training for CBC approaches for teaching and learning. CBC insists on a learner-centered approach which is different from traditionally known methods.

It can also be concluded that most of the teachers felt incompetent and needed support in designing lesson plans with all CBC aspects and in presenting competency based lessons systematically. Teachers in Competency Based Approach need to be specialists in learner-centered pedagogical experience in order to adopt the paradigm shift from teaching to learning.

The availability of instructional material was not fully met in Bomet East County. As such the ministry of Education in conjunction with the county government and other stake holders should enhance the provision of instructional materials. Instructive resources is vital in administering the curriculum. Learning would be challenging without the utilization of satisfactory instructional tools.

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