

**HEAD TEACHERS' AND TEACHERS' LEVEL OF PREPAREDNESS FOR  
THE IMPLEMENTATION OF THE COMPETENCY-BASED CURRICULUM  
IN PRIMARY SCHOOLS IN WARENG SUB-COUNTY, UASIN-GISHU  
COUNTY, KENYA**

**BY**

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## DECLARATION

### Declaration by the Candidate

This research project is my original work and has not been presented for a degree in any other university.

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**DEDICATION**

I dedicate this work to my beloved parents; Mr. and Mrs. Jonah Yattor, who tirelessly put effort and hopes in my education. You have been a source of inspiration to me, I am so grateful for your unremitting prayers and moral support. May God bless you.

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## ABSTRACT

Curriculum reform is usually an orderly process where all stakeholders affected become part of the process by making their contribution to operationalize the curriculum as designed and developed. The purpose of the study was to investigate head teachers' and teachers' level of preparedness for the implementation of the competency-based curriculum in primary schools in Wareng sub-county, Uasin-Gishu County. The study examined the level of head teacher and teacher involvement in the implementation of the competency-based curriculum, investigated the resources provided to them for the implementation, assessed the training needs of teachers and explored challenges faced by the head teachers and teachers in the implementation of the competency-based curriculum in primary schools. The study was guided by curriculum implementation theory by Gross. This was a mixed method study that was positioned in the pragmatic paradigm. The study adopted the concurrent triangulation research design. The target population was 120 primary schools, 120 head teachers and 220 grade 1-3 teachers. The schools were grouped into private and public schools, 21 public schools and 15 private schools were selected. Purposive sampling was then used to select the head teachers from the targeted 36 schools. Each head teacher was selected from the schools where the study was sampled, 66 teachers were selected purposively to those of early year grades. Data was collected quantitatively using questionnaires and qualitatively using interview schedules. The data were analyzed using descriptive, inferential statistics and thematic analysis through selective coding. The results of the study revealed that the four constructs used to determine the level of preparedness play a major role in helping the process. There was a positive influence of head teachers and teacher involvement ( $\beta=.169$ ), resources provided ( $\beta=.325$ ), training needs ( $\beta=.218$ ) and challenges faced ( $\beta=.254$ ) on curriculum implementation. The p-value ( $p=0.134>0.05$ ) implies that there was a linear relationship between independent and dependent variable. Qualitative data likewise revealed that the majority of the respondents indicated that they were not involved in the formulation of the new curriculum and the development of learning materials, they also highlighted learning resources were available but inadequate and physical resources needed renovations and equipment. Additionally, on training needs, it was revealed that, although they attended trainings the majority was not prepared, and the subject content knowledge is still very low. Teachers' training needs and negative attitude were the major challenges hindering the implementation process. The study concludes that there were challenges in implementing CBC. The study therefore recommended that teachers and head teachers should be adequately prepared for successful implementation of curriculum.

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**ABBREVIATION AND ACRONYMS**

BECT	Basic Education Curriculum Framework
CBA	Competency-Based Approach
CBC	Competency-Based Curriculum
CBE	Competency-Based Education
CBE	Competency-Based Training
EAC	East African Community
EFA	Education for All
EMPS	Educational Management and Policy Studies
GOK	Government of Kenya
ICT	Information Communication and Technology
KICD	Kenya Institute of Curriculum Development
KNUT	Kenya National Union of Teachers
MOE	Ministry of Education
NACOSTI	National Commission for Science, Technology, and Innovation
OBE	Outcome Based Education
PP1	Pre-primary 1
PP2	Pre-primary 2
SPSS	Statistical Package for Social Sciences
TSC	Teachers Service Commission
UNESCO	United Nations Educational Scientific and Cultural Organization

## **CHAPTER ONE**

### **INTRODUCTION TO THE STUDY**

#### **1.1 Introduction**

This section covers the background to the research problem, the statement of the problem, the purpose of the study, the objectives and research questions. It also describes the significance of the study, the scope, the limitations, and the assumptions of the study as well as the theoretical framework, the conceptual framework and the operational definition of words.

#### **1.2 Background of the Study**

Competency is described as an established aptitude that refers to proficiency, understanding and individual abilities in a varied study or work circumstances (Lurie, Mooney & Lyness, 2011). Every child is required to attain abilities and temperament needed to succeed in the 21st century (Best, Floyd & Mcnamara, 2008). Kenya has not been left behind on revising the working of the education curriculum to achieve this shared goal. The Kenya Institute of Curriculum Development (KICD), for instance, plans and executes curriculum changes as a strategy to change Kenya's education. Kenya adopted the competency-based curriculum (CBC) in 2017. This new curriculum focuses on a change from focus of content to proficiency. The new curriculum stresses tutoring instead of schooling. Tutors should not be teaching simply to complete the syllabus, but rather to pass all-round commensurate knowledge.

The CBC is founded on the need to transform school leavers with familiarity, proficiency, and creativity valuable for resolving societal and economic challenges of current our society (Serdenciuc, 2013; Paulo & Tilya, 2010; Ntongieh, 2016). The competency-based curriculum (CBC) seeks to expand learners' ability to identify suitable skills and knowledge to productively carry out a duty (KICD, 2017). It

highlights the relevance of skills and facts to daily life conditions. The agenda of the CBC spreads across the borders of Kenya. In 2013, the East African community settled on placing a common curriculum structure that will change the aim from the standard curriculum design to the competency based curriculum and one that measures up with the global trends.

Many centres around the globe have implemented the competency-based curriculum strategy (Carraccio, et al., 2002). Most of the countries are implementing extensive curriculum transformations which train learners for the advanced job market requirements of the twenty-first century. The British Columbia Ministry of Education of Canada places K-12 frameworks and syllabi, which describe to teachers what students are supposed to know, comprehend and be capable of accomplishing. British Columbia's learning regulations have openly encouraged a move towards personalized and proficiency-based learning anchored on well-documented sequence of guidelines since 2010 (Feather & Aznar, 2018). The government committed to transform learning in British Columbia to meet the learners' needs. British Columbia is, therefore, on a path towards student-centred learning, copying several similar aspects identified in proficiency learning in United States. "Students should be at the focus of their learning", affirms the website uncovering the region latest learning design (Owston, 1997:P. 27). Before the execution of the plan, the ministry involved stakeholders in a general consultation, consisting of a regional advisory team and the response from provisional gatherings. The latest learning design was to generate a new core curriculum that was more flexible, vigorous and adoptable to all learners (Feather & Aznar, 2018).

The chronological expansion of learning in Indonesia is another example of curriculum revision. The nationwide education in Indonesia's curriculum has undergone alterations



from 1947 to 2013 (Wahyudin & Suwirta, 2017). Earlier on, the curriculum developed at the moment was known as CBC which aimed at developing aptitude to do tasks in conformity with particular performance guidelines. Many other reforms were implemented to enhance the performance of the CBC (Lie, 2007).

The development of a learning plan is the central government's authority, except for planning of particular subjects which are developed by certain institutions in which all trainers have the mandate to plan lesson and develop the materials offered for operationalizing learning process (Wahyudin & Suwirta, 2017). The vital distinction between the competency-based curriculum and the school-based curriculum is on the practical implementation. The 2013 curriculum is the latest syllabus for efficient education in Indonesia. The execution of the curriculum began in July 2013; though, it is still limited to certain institutions and levels of education. The aim of the latest curriculum is to produce Indonesians who are imaginative, inventive and efficient through incorporated thoughts, ability and comprehension (Misbah, Gulikers, Dharma & Mulder, 2020).

In 2005, in sub-Saharan Africa, Tanzania inaugurated CBC. It resulted in the development of proficiency-based teaching with proficiency-based evaluation within high school education in 2005 (Makunja, 2016). The CBC was introduced in primary education in 2006 (Makunja, 2016). As of 2006, the CBC was in operation in both high and primary schools.

They were obliged to support the development of the required ability and declaration to successfully handle competence-based education (Muneja, 2015). The CBC consisted of various instructive adjustments to the curriculum and instructional strategies to assimilate results-based learning instead of theoretical comprehension of

ideas. Tanzania's current education curriculum design is the outcome of a significant and widespread partnership between the Ministry of Education, the science discipline, the president's bureau and local regime administration with the stakeholders.

Formal schooling in Kenya was established by the British. The education cycle consisted of seven years of primary school, four years of secondary school, two years of high school, and three years of university education (Okoth, 2014). The 8-4-4 system of education (eight years of primary school, four years of secondary school and four years of university education) was introduced later in January 1985. The Kenyan primary school curriculum is endorsed for all public schools and most private schools, with the exemption of international schools, which usually provide the British or American program. The subjects studied at the primary level are English, Kiswahili, Mathematics, Science, Social Studies, Religious Education, Creative Arts, Physical learning and Life skills. The completion of primary and secondary education cycles is marked by the national examinations of the two levels. The examinations are facilitated by Kenya of Primary and Secondary Education Certificates (KCPE and KCSE) respectively (Okoth, 2014).

In a major departure from the 8-4-4 system, the CBC launched in 2017 was designed to consist of two years of pre-primary education, six years of primary education, and three years of junior secondary education, three years of senior secondary education and, finally, three years of university education. The CBC is intended to properly equip every student in the seven core capability areas including: communication and collaboration; critical thinking and problem-solving; imagination and creativity; citizenship; learning to learn; self-efficacy; and digital literacy (Muricho, Chang'ach, 2013). The CBC places a lot of significance on the proficiency paradigm instead of the attainment of content understanding. This implies that the training and education

procedures have to adjust in configuration from rote memorization of information to the achievement of knowledge and proficiencies valuable for responding to real-life issues. Teaching strategies involves role play, issue solving, projects, case research, and learning visits, among other learner centred approaches. The teachers are expected to change from the responsibility of an expert to that of a facilitator. Students, on the other hand, are expected to be responsible for their personal education through direct examination and performance. Furthermore, the modified curriculum needs trainers/teachers to frequently assess their learners through evaluation techniques, such as portfolios, classroom or field surveillance, scheme/projects, verbal performance, individual assessments, interrogations and peer evaluations. Trainers are equally needed to change from a norm-referenced to a criterion-oriented judgment of learners' competencies to establish their development. Lastly, trainers are supposed to offer constant, periodical and productive responses to notify their students of the strengths and weaknesses of their performance since learning is evaluated and adjusted based on the response (Mackatiani, Imbovah, Imbova & Gakungai, 2016). However, based on the outcomes of the study performed by KNUT (2018), one can conclude that the execution of the CBC has not lived up to the focus of transforming education in the country.

### **1.3 Statement of the Problem**

Curriculum reform is usually an orderly planned strategy through collaboration with the stakeholders. This is because curriculum reform is a complex process of development or alteration of the curriculum. It is, therefore, not a ride in the park to fully implement the CBC.

This explains why the level of teachers' preparedness on the implementation of the competency-based curriculum seem still low despite the Kenya Institute of Curriculum

(KICD) implementing measures to train teachers during holidays on the same (IBEUNESCO, 2017; Wambu, 2019). In 2016 USAID, through the Ministry of Education improved its support for the change in the educational system to the CBC by providing some level of funding to aid syllabus development processes, including the production of instructional materials. Various workshops were conducted through this grant to realize the curriculum (IBE-UNESCO, 2017). Later, the curriculum was rolled out for piloting from pre-primary one to grade two. One year later, external reports emerged revealing gaps that needed to be addressed (Mackatiani et al., 2016).

Ondimu (2018), in his research on teachers' preparedness for the implementation of the CBC, recommended that head teachers and trainers must be effectively prepared for executing a new curriculum through in-service training, seminars and workshops for appropriate execution of the program. Moreover, he suggested that the KICD engage more trainers and headmasters in the curriculum modification development to generate affirmative attitudes among them to efficiently execute the competency-based curriculum.

In his research on influence of teacher preparedness on implementation of the CBC, Waweru (2018) found out that the approach of using rubrics to test the components of individual learners' achievement should be made practically possible within our school contexts. This is an indication that they were not adequately prepared for the roll out of the latest curriculum.

In 2017, a letter from the Kenya National Union of Teachers (KNUT) addressed to the Cabinet Secretary of Education expressed concern that the new system lacked suitable design, and books and trainers were ill prepared as it was speedily completed (Daily Nation, 27th Dec. 2017). From the above discussions, it is obvious that the headmasters

and teachers were not adequately prepared. Thus, this study investigated head teachers' and teachers' level of preparedness for the implementation of the CBC in Wareng Sub-County, Uasin-Gishu County in Kenya.

#### **1.4 Purpose of the Study**

The purpose of the research was to examine the head teachers' and teachers' preparedness for implementing the competency-based curriculum in Wareng Sub-County.

#### **1.5 Objectives of the Study**

##### **1.5.1 General objective**

The general objective of the study was to assess the level of preparedness in the implementation of the CBC among the teachers and head teachers in primary schools in Wareng Sub-County.

##### **1.5.2 Specific objectives**

The objectives of the research are

1. To examine level of head teachers' and teachers' involvement in the implementation of the competency-based curriculum in Wareng Sub-County.
2. To investigate the resources provided to the head teachers and teachers for the implementation of the competency-based program in Wareng Sub-County.
3. To assess the training needs of teachers in the competency-based programs implementation in Wareng Sub-County.
4. To explore the challenges encountered by the head teachers and teachers in the implementation of the competency-based curriculum in Wareng Sub-County.

### **1.6 Research Questions**

1. What is the level of head teachers' and teachers' involvement in the implementation of competency-based curriculum in Wareng Sub-County?
2. What resources are provided to the head teachers and teachers for the implementation/execution of the competency-based curriculum in Wareng Sub County?
3. What are some of the training needs of head teachers and teachers in the execution of the competency-based curriculum in Wareng Sub-County?
4. What are the challenges faced by the headmasters and teachers in the execution of the competency-based curriculum in Wareng Sub-County?

### **1.7 Significance of the Study**

It was anticipated that the outcome of the research would be of immense significance to teachers and head teachers as the administrators. The Ministry of Education would use the findings of the study to equip the trainers/teachers and head teachers sufficiently in terms of materials for use during instruction. Furthermore, the curriculum support officers (CSOs), Quality Assurance and Standard Officers (QASOs) and other curriculum implementers will use the recommendations of this study to determine focus areas when giving formative feedback. Lastly, researchers, students and other scholars researching curriculum issues will benefit from these study findings in supporting their studies.

### **1.8 Scope of the Study**

Research was done in chosen primary schools in Wareng district in Uasin-Gishu County due to time and resources constraints. The research was concerned with the head teachers' and teachers' level of preparedness in the implementation of the CBC. The study sample were the head teachers and teachers of grade one, two, and three.

Furthermore, the study covered four constructs in assessing the level of preparedness, the resources provided, their training needs, their role and the difficulties they encounter in the execution process. The interest group were grade one, two and three teachers since the CBC has been rolled out in these grades. This includes the headmasters of the selected institutions. The researcher considered research participants in this study as having characteristics similar to those of other parts in Kenya. The information was gathered from January to April 2020.

### **1.9 Limitations of the Study**

The research was done in primary schools of Uasin-Gishu County. The model for this research resulted from a restriction in the ability to generalize the findings to various counties even though this was the primary objective of the study. To resolve this issue, the researcher used a large sample size, proportionally stratified from public and private schools to increase the reliability of the data. Additionally, the sample could not be used to satisfactorily generalize findings because the sample size was generally smaller.

Uncooperative respondents opted to carry questionnaires with them or failed to answer all the questions. As a solution, the researcher incorporated interviews for triangulation purposes. Additionally, diverse job settings and differences in school management limited the possibility to simplify findings of this research to the other counties.

### **1.10 Justification of the Study**

The differences in opinion among the education stakeholders justify this study. In March 2018, the Kenya National Union of Teachers presented a report on teacher preparedness for the implementation of the CBC and the findings clearly ascertained and refuted claims made by the Teachers Service Commission and the Ministry of Education of the CBC execution procedure. This includes the implementation and

effectiveness of the CBC training programs in the country. On 21 June 2019, the Cabinet Secretary for Education used a Gazette Notice (No. 5328) to constitute a taskforce focusing on enhancing access, relevance, transition, equity and quality for effective curriculum reform implementation. It is, therefore, essential to conduct a study of the teachers' preparedness on the expected CBC implementation.

### **1.11 Assumptions of the Study**

The research was carried out based on various assumptions. Firstly, it assumed that head teachers and teachers were well prepared for the implementation of the CBC in primary schools. The researcher also assumed that the head teachers and teachers were offered the necessary materials for the execution process and that the challenges of head teachers and teachers from private schools and public schools are similar. Lastly, the researcher assumed that all the respondents would be cooperative and give appropriate and honest responses.

### **1.12 Theoretical Framework**

The research was based on the curriculum implementation theory by Gross (1971). Gross (1971) noted that for a prosperous execution of any educational curriculum, factors like support from the management, capacity of the implementer, clarity and awareness of the implementer, teachers' competency and teachers' attitudes, students and stakeholders should be considered. Gross states that the head teachers and teachers who are the actual implementers must be proficient; be responsive to the information and aware of what needs to be implemented. He further debated that when the implementers are not responsive to the changes of the program, they cannot effectively and adequately implement the syllabus. The implementer must have an affirmative approach towards the new curriculum and the adjustments therein.

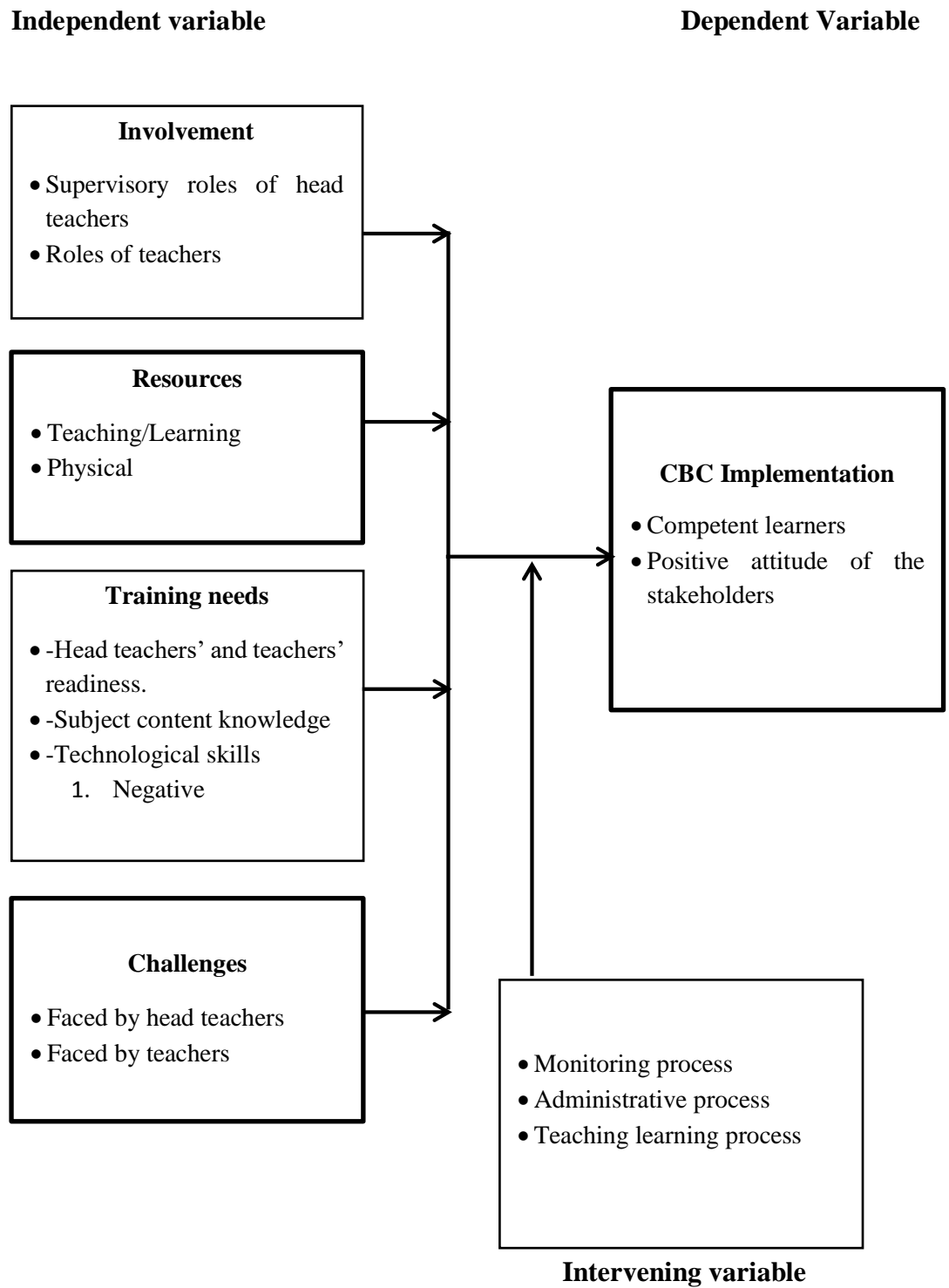


Kunter, et al. (2013) argue that the content of a teacher's knowledge has an impact on the child's learning because it influences how teachers convey their information during classroom instruction. Therefore, curriculum implementation theory is related to this study. Through adaption of this theory, the head teachers' and teachers' level of preparedness for the implementation of the competency-based program can be explored adequately. According to Gross (1971), the implementer's ability is essential for efficient syllabus implementation. Teachers executing curricula should have adequate skills to efficiently implement the program. In-service training for is significant to equip teachers with capabilities needed to tackle the new curriculum.

### **1.13 Conceptual Framework**

It is a demonstration of the interrelationship between the independent variable with the dependent variable. The independent variables are the head teachers' and teachers' involvement, resources provided, the training needs and challenges they face, and the dependent variable is competency-based curriculum implementation. Its indicators include competent learners and positive attitude of teachers and head teachers. The dependent variable thus relies on the independent variables.

Intervening variables are the factors which stand amid the independent and dependent variable. Intervening kind of variables are monitoring processes, administrative processes and the teaching learning processes. Figure 1 below shows a summary of the conceptual framework.



**Figure 1.1 Conceptual Framework**

### 1.14 Operational Definition of Terms

Challenges	Refers to a circumstance a person encounters that requires great intellectual or bodily endeavour in order to be completed successfully.
Competency-based curriculum	is defined as a program that aims at underlining the use of facts, ability, approaches and significances in real life circumstances as opposed to attainment of content
Curriculum reforms	the process of making changes to the curriculum with the intention of making learning and teaching more impactful, meaningful, effective, and efficient.
Head teacher	a teacher in charge of a school who is responsible for the whole running of the institution. Synonymous with headmaster.
Head teacher involvement	Refers to head teacher's participation in the procedures of the CBC execution.
Implementation	Refers to the practice of putting a choice or plan into effect; execution.
Instructional material	Materials or objects used by the trainers to direct and demonstrates a concept or theoretical notions about a subject.
Primary school	Refers to schools for students from about five to eleven years of age. Synonymous with primary institution.

Readiness of teachers	refers to preparedness and willingness of teachers to implements the competency-based curriculum.
Resources	It is defined as a supply of materials, capital, employees and other assets that can be used by an individual or group to function appropriately.
Teacher competence	Refers to the quality or state of having sufficient knowledge, judgment, skill to transfer in the educational approach of the new curriculum.
Teachers-	A person who helps grade one, two and three pupils to acquire knowledge, competence or virtue. Synonymous with trainer.
Training needs	Refers to the specific targets which need to be fulfilled at the end of training or teaching.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The section reviews literature regarding curriculum development process, the concept of implementation, the competency-based program in Kenya, the idea of stakeholders' participation, the roles of stakeholders in execution of the CBC, the resources provided, as well as the perceptions and challenges faced by stakeholders in the execution of the CBC curriculum.

The section is organized according to these different aspects.

#### **2.2 Concept of Implementation**

These are strategies by which policies are operationalized or effected within an organization. It focuses on the process over which strategies are realized. Executing strategies effectively is essential for any institution. Without execution, the greater approach is useless. Implementation includes the allotment of adequate resources, creating a sequence of control or optional structures, such as cross functional groups and assigning processes to certain individuals or teams. It also involves handling the procedures which involves monitoring outcomes, likening the standards and best performances, assessing the efficacy and competence of the practice, scanning for inconsistencies, and making alterations to the method as required (Wu et al., 2004).

Researchers have discovered various problems in execution, for example, weak administration roles in executions, inadequate communication, lack of dedication to the approach, unfamiliarity with the approach, unsupportive managerial structures and sources, poor synchronization with sharing of duties, insufficient competence, opposing

actions and unmanageable environmental aspects (Alexander, 1991; Giles, 1991; Galpin, 1998; Larens-Mankki, 1994; Beer & Eisenstat, 2000).

Johnson and Onwuegbuzie (2002) argue that inventing any structure without formal and informal organizational process cannot work effectively. The process used in implementation of strategy can either hinder or help to translate strategy into action. They include direct supervision, which is a procedure commonly found in small or large organizations facing alterations and institution where business complication is not too large for the executives to manage from the centre (Feurer & Chaharbabhi, 1995).

Performance targets are used to manage an organization's production attributes, such as product quality, price or its profits (Johnson & Onwuegbuzie, 2002). They are therefore grounded on organization's capability to meet the objectives with well-defined thresholds. This approach is appropriate where the corporate centre directs the methods and presentation of corporate components to ensure that business goals are accomplished. Presentation objectives are gauged by means of performance indicators. Balance scorecards are now used to identify key variables.

Most of the time, implementation is a social process. Social processes are mainly essential in organizations facing multifaceted and active environment since the development of improvement strategies is vital to the survival of the organization. The processes are quite essential for institutions as they work towards competition of projects. However, this can also create rigidity when it comes to change strategy since resistance to change may be legitimized by cultural norms in the organization (Peus & Frey, 2009).

Self-control and personal motivation mean that administrators guarantee that individuals have room for interaction, such as in information technology and in

communication infrastructure system. Social process is generated by a type of relation that effectively avoids rigidities. Notably, for good performance individuals need support through necessary resources, such as information (Rashid, Asad & Ashraf, 2011).

Curriculum execution involves the application of legitimately stipulated tracks of research, curriculum and topics. The process consists of assisting the students in getting experience. It is essential to consider that syllabus execution cannot happen without the students. Therefore, the students are a significant party in the syllabus execution process. “Execution occurs as the student obtains the intended practice, facts, skills, concepts and approaches that are targeted at facilitating the students to perform appropriately in a community” (University of Zimbabwe, 1995: 8). Seen from this outlook, syllabus execution can also be described as “the period when the syllabus itself, as a learning plan, is employed. Application of program needs an executing driving force”. Stenhouse (1979: 4) points out trainers as driving force in the syllabus execution procedure. She debated that execution is the conduct that the trainer chooses and combines with diverse elements of skills enclosed in a program guide or syllabus. Execution occurs when the “trainer-constructed program, the trainer’s behaviour, the training matters and the training surrounding interrelate with the student” (University of Zimbabwe, 1995: 9). Thus, syllabus execution is described as the ways the designed or officially intended line of research is interpreted by the trainer into a curriculum, a system of tasks and education to be attained by learners.

### **2.3 The Concept of the Competency-Based Curriculum**

Plans to combine proficiencies frequently concentrate on fostering knowledge that integrates all parts of soft knowledge, such as communication capabilities, teaming up, reasonable thinking and decisive view of issues (Sullivan & Bruce, 2014). In this

curriculum, learners should be offered resources with which they can interrelate and build income from. This way, they are perceived not only as consumers of knowledge but as active producers of knowledge (Barman, 2011).

The competency-based program is considered suitable for tackling the transforming social requirements, which form the socio-economic commands of the nation (Mackatiani et al., 2016). It is aimed at addressing problems pertaining to lack of opportunities among the youth and graduates through emphasizing achievement of proficiencies, comprehension conducts and outlooks which are essential in taking part in various activities (Maodzwa-Taruvunga & Cross, 2012).

The CBC program stresses the comprehensive results of education, such as facts, proficiency and outlooks which can be used by students instead of basically aiming at what students are anticipated to discover traditionally. Any standard curriculum should be one that is student centred and adaptive to the advanced needs of learners, teachers and communities. It means that educational activities and surroundings should be selected, in such a way that students can obtain and use the understanding, abilities and thoughts in conditions they face in day-to-day activities (Wahyudin & Suwirta, 2017). The CBC is normally planned around a set of main proficiencies that can be cross-curricular and /or subject-bound (UNESCO-IBE 1995-2019).

The recognition of personal capability, aptitude and talent is believed to be the most essential, and the main activity of learning in self-actualization. The need for personal capabilities is the avenue of appreciating and promoting the acquisition of such capabilities and aptitudes (Moon, 1993). The CBC attempts to build up these capabilities and aptitudes so that pupils are exposed to similar advantages, rather than attempting to edge them consistently into classes of academic prowess.



CBC education is grounded on various serious elements. These include clear education results with valuable ability and the competency to master expertise. Additionally, it focuses on a diversity of educational activities to ease education, testing of the needed results, and documentation (Van der Horst & McDonald 1997).

The CBC syllabus has an important set up in which the career is central (Boyatzis et al., 1996). Furthermore, it aims at equipping students with the capability to do things, to study and to have knowledge of how to do something (Jallow, 2011). In agreement with this, Jeng'ere (2017) observes that proficiency is the aptitude to use learning resources like attitudes, talents, skills, knowledge and attitude effectively in different real-life backgrounds, which can include learning, tasks, individual or qualified set up.

#### **2.4 The Competency-Based Curriculum in Kenya**

The latest education program was adopted in 2017 and is known as the competency-based curriculum. It was planned by the Kenya Institute of Curriculum Development (KICD) group and established by the Ministry of Education (MoE) in 2017. The CBC is intended to highlight the importance of coming up with skills and information and using those proficiencies in day-today circumstances.

The CBC creators visualized that upon completion of their education cycle, every student should have accomplished the following proficiencies: communication and teamwork, critical opinion and issue solving, thoughts and inspiration, citizenship, learning to learn, self-worth, and digital literacy. At the end of the education process, the students should have been shaped to have the following values: love, accountability, respect, unity, peace, loyalty, and honesty.

The 2-6-3-3-3 learning program dubbed as the competency-based education is arranged in three stages: early year learning, middle school learning, and senior school. It

highlights formative years of education where students will spend two years in lower primary, six years in upper primary, three years in junior secondary (grade 7,8,9), three years in senior secondary (grade 10,11,12) and three years on campus. The latest curriculum is expected to focus on pupils' development, abilities and proficiencies to study and to ensure that definitive results are achieved at each stage from Early Childhood Education Development (ECED) to university level. The competency-based program (ECED) incorporates adjustments in the basic learning, and it has two stages, namely pre-primary I and II. The topic areas are called education areas.

The pre-primary education areas include Mathematical programs, Language Activities/Kenya Sign Language/Pre-braille-Activities, Environmental Activities, Psychomotor and Creative Activities/Outdoor Activity, (CRE, IRE, HRE) and Pp1 with a total of 25 lessons per week. The lower primary, learning areas include Literacy Activities and Indigenous Language/Braille, Kiswahili language Activities/Kenya Sign Language, English Language Activities, Mathematical Activities, Environmental Activities, Hygiene and Nutrition Activities, Religious Activities (CRE, IRE, HRE), Movement and Creative activities and Pastoral Program count for a total of 35 lessons per week.

The learner in the CBC program should be abreast and conscious of relevant and existing issues, which includes nationality, health learning and life abilities. The inculcation of values is essential to this program. It forms outlooks so that students become responsible, moral citizens who will contribute to a hardworking community that lives in harmony with itself and with others. Competency-based education depends on assessable objectives which allows the student to understand self-worth better. Education outcomes and education experiences stress the generation and use of knowledge alongside essential skills and affirmative thoughts.

Promoting and structuring proficiencies or the ability to do something is at the centre of the CBC. It involves the students' ability to communicate by speaking and listening and responding in both verbal and non-verbal languages. This includes sign languages in communicating across distances through digital platforms. The teachers' role in the CBC shifts from the trainer's traditional role in the past program of training, narration, lecturing, and discussion to a far less managed function of enhancing, directing, supervision, and demonstrating.

### **2.5 Role of Head Teachers and Teachers in the Curriculum Implementation**

Current studies are helpful in recognizing that learning has to be given the chance to actualize transformation in education (Gatlin, 2009). The trainers' responsibility is to offer a chance for the students to understand and to achieve educational goals (Stronge et al., 2011). From a 21st century perspective, the acquisition of skills includes a conceptualization of the students' inherent capabilities which have to be cherished. This is the path which learning modifications intend to follow (Gatt, 2009).

According to Makunja (2016), teachers' minds have to conceptualize the paradigm shift from teaching to learning under the new curriculum and, therefore, shift their attention to learning experiences. Consequently, trainers should obtain enough capacity building on the recent syllabus in a variety of qualified set ups to facilitate their command and ability to convey their lessons successfully (Kelly, 2018).

Under the new curriculum, teachers should have in mind the additional role aimed at creating the associations between the program and the learner during the educational process (Mundia, 2017). For successful education, particularly under the CBC, the best decision for a diverse pedagogy is essential. As such, the trainers need to be highly

skilled in the use of training techniques which are essential to make students education successful (Kafyulilo, 2012).

The head teacher is accountable for the general organization, directing and upholding of guidelines in the institution as stipulated in the learning Act (1968). A head teacher is, therefore, responsible for all that occurs in the instructive institution. The head teacher has control over a society of trainers and learners and it is his responsibility to ensure that they find direction and instruction. The head teacher takes a management function of driving the school union towards the achievement of education targets.

The Ministry of Education and Human Resource Expansion (1999) stated that the headmaster is liable for all issues involving the effective management of the institution, including (i) school development planning; (ii) management of the curriculum; (iii) management of people; (iv) management of resources; (v) stewardship of the school; (vi) teaching, (vii) secretary to the school's Parents-Teachers-Association, and (viii) liaising with the local educational office.

Okumbe (2001) concurs with Sergiovanni et al. (1980) that administrative tasks, which all educational administrators take up, include (i) syllabus and teaching; (ii) learner personnel; (iii) employee personnel; (iv) institutional plant or physical facilities; (v) business management; (vi) staff development; (vii) school community relations and (viii) evaluation. Kochhar (1988) observes that the main duties of the head teacher are (i) supervision of instruction, curriculum development and improvement of curriculum program; (ii) head teacher; (iii) management of the learning institutional, school business and school office; (iv) preparation of the school calendar, purchase necessary equipment and supplies and distribution of teaching work.

From the above literature, there is no clear-cut definition of the head teachers' roles/tasks as various scholars have identified. However, there seems to be a consensus among the various scholars. Most evidently, the implementation of the CBC would not be possible without the function of the head teachers. In other words, the head teachers are directly involved in all aspects of leadership required to implement every facet of the CBC. As the main agents in learning, school heads are taking a significant role in the execution of educational transformation and expansion. How head teachers' leadership can be successful in terms of these signs of learning development inevitably becomes an essential point of concern in formulating guidelines, public discussions and worldwide communities.

The significant function of administrators cannot be overlooked; head teachers are crucial in instructive organization. This was verified by Amoloyee (2004) who called them school administrators. In the learning system, the head teacher acts as a manager and ensures that his trainers accomplish the aims and targets of the institution. The target of the institution is to facilitate training and education procedures. Thus, school managers should endeavour to control the behaviour of the trainers for them to attain the school's goals.

The head teacher's main role is to improve training and education in the school. Adetona (2003) noted that the headmaster's duty is to produce well-educated students via successful training and education. Some of the literature reviewed above demonstrates that the connection between headmasters' management and learning results is moderated by school's conditions, such as civilization and structures. As a result, the potential for educational managers to thrive relies on their classroom teachers' effectiveness and efficiency. Thus, it is also reliant on the execution of the

latest program in which the head teacher will play a similarly essential function as stated in the syllabus of various institutions.

## **2.6 Resources for Implementation of Curriculum**

### **2.6.1 Teaching and learning resources for the curriculum implementation**

Learning is a challenging process that consists of relations between students' incentives, physical services, teaching resources and skills on training and program commands (Lyons, 2012). According to DFID (2007), sufficiency of educational materials, such as textbooks as the key learning material, is the most cost-effective input affecting student performance. Additionally, competency of teaching and learning resources determines educational systems' competence (Padmanabhan, 2001). For effective education, textbooks and supply materials are basic tools; therefore, their shortage makes trainers tackle subjects in a theoretical manner, rendering it dry and non-effective. Past research indicates that resources are not always accessible in learning institutions (Mackatiani et al., 2016). This insufficiency of educational resources has been of severe distress to managers. Resources aid in advancing access and instructive results since students are less likely to be absent from schools that offer them interesting, meaningful and significant experiences. These resources should be offered in quality and quantity in schools for successful teaching and learning processes.

Some interesting critical perspectives on the effects of educational materials on learning are available. Momoh (2010), for example, investigated the topic of the effects of learning resources on students' results in (WASCE). In WASCE, learners' accomplishments were connected to the resources accessible for learning. He summarized that material resources have an essential impact on learners' goals since they ease the process of conveying abstract ideas via rote education. Where TLR do not

suffice, learning is compromised and, consequently, it reflects in low academic achievements, increased dropout rates, challenging behaviour, poor teacher inspiration and unmet instructional goals.

For the theoretical program to be implemented according to plan, the Ministry of Education should provide institutions with a sufficient supply of materials like textbooks, learning aids and stationery to ensure that trainers and students take their responsibilities seriously in the syllabus execution procedures. The Ministry of Learning has been supplying endorsed core textbooks to communal primary and secondary instructive organization since January 2018. The project's expansion goal is to advance students' education in secondary learning and to progress from primary to secondary learning (MOE, 2018).

### **2.6.2 Digital course materials for the curriculum implementation**

Digital course materials are planned to be applied in education lessons within Kenya and should be suitable for attaining education performance for different stages in the program. CBC materials for digital topics are needed for all educational and activity areas across the various levels of learning for both regular and special needs students. The CBC digital course materials should match with the competency-based program through covering component, subcomponents, topics, concepts and proficiencies. The whole paradigm should be significant to the educational areas, especially to learning performance and to establishing ideas appropriately to increase skills and be right and accurate.

### **2.6.3 Educational mobile applications for the curriculum implementation**

Educational mobile apps (Edu apps) are intended for pre-primary, primary, secondary and tertiary levels. The apps should be useful in teaching and learning. They should support creativity, critical thinking, collaboration, and communication.

### **2.6.4 Online open educational resources (OERS) for the curriculum implementation**

These learning materials are readily available for public accessibility with open permit. Due to the nature of these open resources, anyone can lawfully and liberally duplicate, apply, copy and re-share them (not for resale purposes). OERS vary from different kinds of books to curricula, and animation (UNESCO, 2017).

## **2.7 Physical Resources for the Curriculum Implementation**

The broad term „physical resources“ implies the capital, equipment, personnel and time that goes into making a learning environment (Barasa, 2007; Cohen, 2007). The Ministry of Learning Science and Technology (MOEST) (2005) argues that sufficient and suitable physical equipment for instructive and education is essential in order for an instructive curriculum to be executed appropriately. A classroom is a place in which learning activities occur. Classrooms are found in learning institutions of all types, in public and private institutions, companies, and spiritual and humanitarian institutions (Cohen, 2007). In program execution, the University of Zimbabwe, (1995) recommended that the main administration should also offer physical work places like classes, laboratories, workshops, libraries and sports fields so as to generate a surrounding in which learning can be implemented. The accessibility and value of resource material have a great effect on curriculum execution.



According to Harris (1984), the classes offer a secure space where education can happen without interruption or distractions. Most classes have big writing areas where the teacher or learners can share ideas with other students in the class.

Another essential resource is the library. A library is a systematically organized compilation of physical resources. They are physical locations in which such resources are domiciled. A library is a systematized application preserved by an organization or an individual and it aims at making knowledge accessible. In a more customary sense, a library is a compilation of material for literature reference (Barasa, 2007). According to Suri and Kalapana (2008) and UNESCO (2017), it can be described as the compilation itself, or the building that houses the compilation or both. The word library was given a secondary definition, namely that is a compilation of significant material for general use (Barasa, 2007).

Public and organizational libraries may be designed for use by individuals who decide not to or cannot buy a material of interest, but who need the material. In addition to giving materials, libraries also offer the services of librarians who are skilled at getting and arranging information and at understanding information requirements. Libraries often offer a place for studying where silence is considered (Virginia, 2004). Recently, libraries have become established places for printing, auditory and image materials in various formats such as maps, manuscripts, CDs, video tapes, cassettes, DVDs, video games, e-books, audio books and many more digital physical sources (Suri & Kalapana, 2008).

Recently, libraries are continuously re-described as locations where users can get unlimited access to data in various ways and from diverse sources (MOE, 2008). They are setting up services beyond the physical building walls by offering material found

electronically. They also offer the aid of librarians by forming connections and assessing tremendous sums of information with a diverse range of digital equipment (Gutierrez & Jose, 2009).

## **2.8 Training needs for the Curriculum Implementation**

In light of immense development, new skills and an economy-based community, trainers must plan sufficiently to cope with a difficult innovative and receptive approach while bearing in mind syllabus transformation (Gatlin, 2009). Serdenciuc (2013) affirmed that the training profession should be designed based on a practical conduct and on establishing an advanced responsiveness to the teaching needs. In the socio-economic community, issues should be resolved by the transformation to amplify teachers' ability and knowledge in executing the CBC. This is connected to teaching the set-up of added educational skills that permit the shift of education outcomes to increased individual professional achievement and societal integration. Darling Hammond, Wei and Andree (2010) saw that nations which maintain trainers' in-service training in continuous specialized expansion and engage trainers in program decision making exhibit high learners' success in learning institutions. It thus implies that success of learners in the CBC would not just be based on how much their teachers train them, but equally on how much the teachers are trained.

Educational materials applied to support the competency-based program revealed that most schools did not have sufficient services. Moreover, teachers had not received adequate training making classroom execution of the competency-based program difficult (Jidamva, 2012). It further showed that teachers lacked the required competencies and the textbooks and teachers' guides. Those who contributed to the production of the CBC recommended books had not been trained and had limited knowledge about the competency-based program. They were not well-informed about

the competency-supported curriculum, hence their ability to write quality books was limited. Teachers were hesitant to use textbooks and other materials related to the CBC since they required long periods for lesson preparation (Mestry, 2017).

According to Mestry (2017), tutors had not attained any guidance on the latest syllabus, despite the fact that the learning professional asserted that the tutors had been guided. Inadequate teacher guidance generates a challenge for employing competency-based program materials, such as textbooks, as they lacked proficiencies. Thus, to ensure successful execution of the competency based program, tutors should be introduced and guided on the new program.

### **2.8.1 Subject content knowledge for the curriculum implementation**

Subject content knowledge is a constituent of tutors' skills and professionalism. Various researches have elaborated on the significance of the skills trainers embrace in the education process (Blomeke & Delaney, 2012). Thus, tutors need to be equipped for this program, which is a strategy primarily aimed at proficiencies. This strategy can only be implemented if tutors comprehend the topics in the CBC to execute it in totality.

According to Paulo (2014), comprehension of various disciplines aids tutors in preparing effectively for the topics to be taught, for applying various educational methodologies and appraising their students' tasks suitably. Paulo suggests that for a tutor to assess the students' tasks on a particular activity; they must be well-prepared for the topics. Comprehension involves a responsiveness of one's ability to various skills, concepts and facts to resolve issues in real situations. Paulo contends that trainer's scope of skills and knowledge on topics should be extensive and more than the syllabus they lecture.

In investigating reflections on the implementation of the CBC in Tanzania, Komba and Mwandangi (2015) observed that many teachers were not well equipped and acquainted with the topic content while others had not fully internalized the concepts of the concepts of the competency-based program. The trainers were not guided on the purpose of the competency based curriculum. Moreover, Komba and Mwandangi (2015) found that there was a gap between the means by which the trainers were leaning and being equipped for the competency-based program.

According to Baumert et al. (2010), the trainers' ability has an influence on the child's education. The trainers' knowledge of a topic influences how content is conveyed in classroom and impacts the learners' success. Bumert, Voss, and Kunter (2011) also emphasize the essential function of trainers on students' success. Another study done by Paulo (2014) on pre-equipped teacher's preparing to execute the competency-based program in secondary institutions in Tanzania disclosed that pre-service trainers were not applying the techniques highlighted for training in classroom although they were well guided by the assessment and teaching methods laid down. Paulo demonstrated that pre-service tutors continue applying traditional teacher centred instruction forms in the classroom training instead of the recently launched CBC that uses learner-centred leaning techniques.

### **2.8.2 Technological skills for the curriculum implementation**

There is a growing argument in favour of ICT application in learning institution to convey skills needed for the twenty-first century (Buabeng-Andoh, 2012). In this view, learning institutions have recently been launching and varying their program and learning modes to advance education and increase its significance make it more significant.

Kenya's administration is envisioning a technologically empowered country by 2030 as a result of which Kenya can attain the status of an informed economy. However, to achieve this, vital modification and implementation of technology is required to ensure the learning process is more successful (Tomei, 2005). ICT is a compilation of techniques employed to create, spread, converse, maintain and manage information. Therefore, ICT involves instruments like radios, televisions, projectors, cellular phones, machines, satellite schemes and many more (Tinio, 2003).

Teachers ought to be guided through the recent syllabus for them to adjust successfully from the past learning materials to more improved and technological resources. Trainers' preparedness and enthusiasm is essential for thriving, coping and integrating ICT into the learning activities and programs (Singh & Chan, 2014; Summaka, Baghbel & Samancioglu, 2010). They would be prepared with all the learning and technical proficiencies that will aid in implementing and assessing ICT in the school programs effectively (Al-Awidi & Aldhafeeri, 2017). Similarly, if tutors are not well guided and involved in all stages of their assessment to the program, digital technology maybe inadequately executed.

Blake and Vanderlinde (2016) as well as van Braak, and Hermans (2009) point out that if trainers implement their insights into technology in their training process, they stand a chance to translate the same to the children they train. Moreover, Vanderlinde, van Braak, and Hermans (2009) mentioned that fear, lack of self-confidence and proficiency among the trainers deter the application of ICT knowledge. Thus, trainers should be prepared with ICT knowledge to boost their self-confidence and proficiency in ICT so that they can handle technology and build up an affirmative approach towards application of ICT in class.

Research done by Higgins and Moseley (2011) showed that when trainers lack comprehension of why and how they should apply ICT in training, execution is impacted negatively. Most teaching and learning institutions aim more on what ICT is instead of how to apply it in classroom instruction. Hence, in-service teaching for trainers who are already in their careers should give teachers essential ICT knowledge and guidance on its application. A study by Vanderlinde, van Braak, and Hermans, (2009), Hennessy, Harrison and Wamakote (2010) proposed that the major obstacle in the execution of ICT was caused by low levels of trainers' ICT skills.

A statement on competency-based program activities by the KICD (2017) on tutors trained on ICT incorporation showed that 61 percent of trainers are not guided on ICT. Teachers should be prepared with ICT knowledge since electronic literacy is one of the vital proficiencies of the competency-based program.

## **2.9 Challenges Faced by Head Teachers and Teachers in the Implementation of the Competency-Based Curriculum**

Abagi and Odipo (1997) argue that though significant strides have been made in teaching, the management of schools still faces severe challenges in the learning system. There is a burgeoning countrywide discussion on the value of education. Odhiambo (2011) posits that quality is at the centre of the problems Kenya's education is encountering. In a widely read paper, Kenya's Ministry of Education Science and Technology lately declared that there is difficulty with the value of the training strength and saw this as the cause of inadequate quality in Kenya's education.

Head teachers have been offered a role in making curriculum execution successful. However, its execution should take various perspectives which are challenging given the background aspects on which the CBC was established. The head teachers put some

efforts to not only transform learning but also to change the way society incorporates education in optimizing individual's potential. The head teachers have to administer schools on a similar level as schools in the urban surroundings with suitable resources (Odhiambo, 2011).

Jansen and Sayed (2001) are of the opinion that comprehensible instructions included in the CBC program should be a prerequisite for successful program administration in schools. Head teachers often face challenges in understanding what it means to be a syllabus manager and are uncertain about the nature of program leadership. They fail to establish a balance in their functions since the functions are intertwined with a variety of related activities that cannot be separated from the entire school role.

Additionally, Marshall and Patton (2003) debate that head teachers' roles are rather complex and ambiguous. They are instructive leaders, administrators of community and resources, advocates of their schools and education in general within the wider community. They are negotiators and representatives of government authorities and unions. They act as specialists and models to members of the school community and they exercise authority to teachers and learners. Moreover, they are responsible for managing learning processes under the umbrella of program management.

In South Africa, school principals were not conscious of the intelligibility of their functions in program management; hence their outcome of program management responsibilities is ineffective. School leaders do not have role models for the latest instructive system since the department is still overwhelmed by the latest management organizations (John, 2008). If disagreement on functions is not successfully resolved, the whole school society may face the hurdle of an uncoordinated program (John, 2008).

Increased work load is also another challenge. According to Mestry (2017), managing schools today means being more accountable and most teachers would be reluctant to take up that position. The challenge head teachers face in curriculum administration is the speedy pace of transformation in the country's education system, particularly in CBC guidelines. Carno (2003) upholds that head teachers carry an enormously diverse workload and that the job nature has compounded and become constrained. This includes high managerial workloads, such as financial and possessions management, and liability to teaching executors often takes preference over focus on curriculum administration. On top of that, paperwork, disruptions, crises in schools, management of interpersonal conflicts among staff and students as well as guidance occupies most of middle administrators' time. This was in agreement with Olembo and Maneno (1991) who mentioned that principals in schools encounter ultra-organizational limitations, which include the organization of physical equipment in the school, time availability for performing the school tasks, communication patters within the school and the nature of staff and students in the school. Tilya and Mafumiko (2010) argue that some tutors were not executing the latest curriculum due to a lack of comprehension among potential executors. Even some program developers and book writers are yet to grasp the description of the competency-based program and student-centred strategy.

With the aim of quick development and establishment of latest knowledge in an economy-based community, the tutors must be equipped sufficiently to implement a complex evolutionary and receptive approach (Gatlin, 2009). The education career should be expanded in a technical manner based on an advanced responsiveness to the teaching needs as demanded by the socioeconomic changes in the community (Serdenciuc, 2013).



A study by Jidamva (2012) on learning materials used to deliver the competency-based curriculum disclosed that most schools do not have enough services and teachers had not received adequate training, which makes the classroom execution of the CBC program difficult. This study further revealed that teachers lacked prerequisite competencies and the textbooks and teachers guide had not been provided. Additionally, Jidamva (2012) stated that the book writers had not been trained and had limited knowledge about the competency-based curriculum. They were not well informed about the CBC, hence their ability to write quality books was limited. Therefore, teachers were hesitant to use textbooks and other materials related to the CBC and to invest long periods for lesson preparation.

Darling-Hammond, Wei and Andree (2010) examined that nations, which maintain trainers' inservice teaching in on-going professional expansion and engage teachers in the program decision making, display high students' attainment in schools. Contrary to by Jidamva's research, Makiya (2016) demonstrated that trainers had not received any guidelines on the latest curriculum though the training officials asserted the trainers had been equipped. Lack of trainers' training made it hard for them to apply the CBC materials, such as textbooks, as they lacked proficiencies. Therefore, to ensure successful execution of the CBC, teachers should be guided and taught on the latest curriculum.

Research done by KNUT on trainers' preparedness on the execution of the CBC found out that they had not been introduced to in-service programs to keep them at the same level of preparedness for executing the CBC (Wambu, 2019). Interviewers' views showed that inadequate teacher preparation was encumbering the implementation of the CBC. The teachers who are critical players lacked knowledge, skills and understanding for effective execution of the CBC.

Research results from Paulo (2014) further highlight that comprehension of the topics on the discipline aids tutors in preparing effectively to get ready for the session, applying various teaching techniques and in appraising their students' tasks effectively. He highlights that for tutors to assess the learners' assignment on a particular activity, they should be prepared for the course.

## **2.10 Summary of the Chapter**

Views expressed by various authors highlight the fact that head teachers and teachers should be adequately prepared for the implementation of a new curriculum. The available literature indicates that there has been a significant historical record on head teachers' and teachers' preparedness and involvement in curriculum implementation. Such literature emphasizes the significance of active teacher participation in curriculum implementation. Many authors acknowledge that teacher participation is crucial to curriculum development and implementation if identifying real needs of learners is to be effective. Authors maintained that since teachers and head teachers are the educators in the field, their feedback on curriculum should be respected by the curriculum developers.

However, as much as the teachers and head teachers are perceived as essential in the curriculum implementation process in literature, few studies seem to have been done in Kenya to establish the level of teacher and headmasters' preparedness in the execution of the CBC. As a result, little or no information is available on the prevailing situation as far as head teachers' and teachers' preparedness in the implementation of the CBC is concerned. Therefore, this project intends to fill this gap.

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## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

The chapter focuses on the study paradigm, research design and methodology, area of study, target population, sample size and sampling procedure, research instruments, validity and reliability, data collection, analysis, interpretation and ethical considerations.

#### **3.2 Research Paradigm**

A research paradigm is applied to explain a researcher's „worldview“ (Mackenzie & Knipe, 2006). This global view is the outlook, or thoughts, or set of shared beliefs that established the meaning of research data. Mertens (2010) views the study paradigms as grounded in philosophical paradigms which focused on verifying the direction of study, how the researchers reach their facts and how they respond to inquiries while aiding the researcher to apply effective methodology and the research findings.

The study adapted the pragmatic worldview which is a varied technique strategy where both quantitative and qualitative approaches were applied to test different methods of research in order to achieve the intended goal. When considered as an alternative paradigm, pragmatism prevents contentious concerns which can arise from research. Pragmatism allows researchers to be free from subjectivity and uphold rationality (Feilzer, 2010). According to Scotland (2012), the philosophical foundations of mixed methods studies is suitable for handling study challenges in social science and, subsequently, applying mixed approaches to draw skills from the challenges. A mixed method approach uses a technique which organizes the strategies offered by quantitative and qualitative studies (Johnson & Onwuegbuzie, 2004). Pragmatism

assists in recognizing how the approaches of the study can be mixed successfully to establish the conditions for responding to fundamental research questions.

In this study, pragmatic philosophy was used to guide the philosophical assumptions. The use of quantitative methods allowed for the collection of facts, data and evidence concerning the independent and dependent variables. These techniques also allowed for a simple descriptive analysis. The qualitative approach allowed for the collection of detailed narrative description, investigation and understanding of data primarily through verbal narratives.

### **3.3 Research Design**

The research design is an approach that specifies the strategies applied for collecting and examining data. It indicates the procedures and techniques used for gathering information and methods in data analysis (Tashakkori & Teddlie, 2010). Kothari (2004) defined a study plan as the organization of situations for gathering and examining data in a manner that focuses on compiling information relevant to the study. It provides insights into „how“ to conduct research using a particular methodology. Therefore, this study used mixed method approach comprising the planned collection of both quantitative and qualitative data and a combination of each method's strengths to answer research questions. In a mixed method approach, the study integrated quantitative and qualitative data instead of keeping them apart in order to take advantage of their strength and reduce the challenges inherent in different kinds of data (Creswell & Plano, 2003).

This study adopted a triangulation design. For this design, a researcher uses two diverse techniques in an effort to substantiate, cross-validate, or corroborate results in a particular study (Morgan, 1998; Steckler et al., 1992). This design generally employs

different quantitative and qualitative techniques, such as ways to counterbalance the limitation inherent in one approach. In this case, the quantitative information compilation and qualitative data compilation were concurrent. Ideally, the strategy was to balance between the two techniques, but in a sensible application, priority was given to the quantitative approach. This plan integrated the outcomes of the two techniques during the interpretation phase.

### **3.4 Area of Study**

The research covered primary schools in Wareng Sub-County in Uasin-Gishu County. The study was based on selected public and private primary schools, which were chosen as the study location. The region was chosen due to its typical features which combine both the urban and rural set up of schools. Additionally, the availability of both private and public school was considered given the researcher's time availability. However, the selection of the research location did not render other areas in the country less significant.

### **3.5 Target Population**

Rubin and Babbie (2011: p 359) define a research population as "that collective of factors from which the test is actually decided on". The study population comprised the head teachers and the grade one, two and three teachers of primary schools. In accordance with the statistics from Wareng Sub-county Education Office, the target population was 120 primary schools (70 public and 50 private schools) within the sub-county.

**Table 3.1: Target population**

Respondents	Type of school		Target population
	Public school	Private school	
Head teachers	70	50	120
Teachers	140	80	220
Total	210	130	340

### 3.5 Sampling Procedures

For a successful application of the mixed methods approach, it was critical that the challenges of representation, integration, validity and reliability were addressed. In this research, a concurrent sampling design was adopted whereby the respondents for quantitative and qualitative sample were selected simultaneously. According to the recommendation of Krejcie and Morgan (1970), a sample size formula for a given finite population sample of schools was considered. A large sample size in either quantitative or qualitative sample yields statistical generalization in mixed methods study (Collins, Onwuegbuzie & Qun, 2006).

Stratified sampling was applied to group schools in two categories, namely private schools and public schools. For the study, 21 public schools (30% of 70) and 15 private schools (30% of 50) were selected, which resulted in a total of 36 schools. All head teachers from the selected schools were interviewed. Additionally, the researcher used a prepared checklist to assess available resources in the selected schools. There was a total of 220 (140 public schools and 80 private schools) grade one, two and three teachers, hence the study selected 66 teachers (30% of 140) and (30% of 80). All of the selected teachers were given questionnaires. This way, the study achieved a sample of over 30% of the study population, thereby enhancing the external validity of the research findings. Gay (1981) as cited by Mugenda and Mugenda (2003) argued that

an approximate sample size of about thirty percent enables the researchers to collect data which is suitable to produce an informed overview and summaries. The method of thirty percent was adjusted to offer a representative test to acquire sufficient information and make comprehensively researched generalizations by ensuring that every participant had the same circumstances when participating in the study.

**Table 3.2 Study sample**

	<b>Population</b>	<b>Sample</b>	<b>Public schools</b>	<b>Private schools</b>	<b>Techniques</b>
Schools	120	36	21	15	Stratified sampling
Head teachers	120	36	21	15	Purposive
Teachers	220	66	36	30	Purposive
Total	138	78	60		

### **3.6. Research Instruments**

The study developed three tools to obtain information from the respondents. The development of the instruments examined the research objective and the related literature. Most studies employ techniques that offer high accuracy, generalizability and descriptive control, with low charges, but at rapid pace. This study applied the following tools to gather data: questionnaires, semi structured interview schedules.

#### **3.6.1 Questionnaires**

According to Kothari (2004), a questionnaire involves various questions published or typed in an explicit order as either closed-ended or open-ended questions in a Five Point Likert scale. The researcher used questionnaires to collect data and questions were constructed and administered to the teachers. The instrument was selected since it was cost-effective and easy to construct. Moreover, the questionnaire was bias free since respondents had sufficient time to respond to questions. This made the outcomes more trustworthy and reliable (Kothari, 2004). Additionally, the researcher preferred this

technique as it is used to establish the views, opinions and attitudes of participants (Oso & Onen, 2005).

The study used questionnaires consisting of both open-ended and close-ended items. The questionnaires were administered to grade one, two and three teachers to establish their roles, training needs, resources provided and challenges regarding the implementation of the CBC.

### **3.6.2 Semi-structured interview schedule**

A semi-structured interview was used to clarify themes in the survey study. According to Byrne and Humble (2007), the advantage of an interview schedule is that the meetings provide useful information when direct observation of the participants cannot be implemented, and it allows people to describe detailed personal information.

The interview schedule was used to obtain the necessary and detailed qualitative data from the head teachers. In this study, the interview schedule was applied as one of the key data gathering techniques. This is mainly because the researcher asked question in a flexible way to permit the respondents' sufficient time for answering and to express if they are willing to be contacted for a follow-up. The in-depth interview also makes use of intrinsic attributes which allows interviewees to take their time to widen their scope on answering the questions (Bryman, 2012).

During the interview, a guide structured the process to minimize deviations. Explanations were given and the respondents were notified about the necessity to take messages from the interviews beforehand. Interview agendas were thus applied to collect data from the head teachers. This helped prevent deviation from the questions and the questions were clarified in order to aid the main interviewee to give suitable answers. Mugenda and Mugenda (1999) argue that interviews are powerful tools for



collecting research data because a researcher is able to gain useful insights from what is and is not said and from how it is said. He further stated that structured questionnaires and interview schedules minimize weaknesses, such as low response return rates of questionnaires, misinterpretation of questions and incomplete questionnaires. Through probing for detailed and clear responses and through careful motivation of the subjects and maintenance of a kind relationship, more insightful information was obtained, including negative aspects about the subject.

### **3.7 Piloting of Research Instruments**

Piloting means assessing if a survey data collection tool, essential informant interview guide or observation framework will collect the intended data in the real world by implementing it with fewer individuals first. Piloting was important because it aids in recognizing uncertainty and indistinct queries (Murray, 2009).

The research tools were pretested in order to standardize them prior to the actual research. The purpose of piloting the tools was to ensure that the research tools realized the types of answers the researchers intended to attain, that the question are permitted in terms content of objectives and that the items sufficiently covered all the intended objectives. The reason for doing this was to recognize and assess some shortcomings that might have not been detected earlier. 10% of the actual study sample was used (4 head teachers and 7 teachers). The pilot study was done with similar participants who are the teachers in Soy Sub-County in Eldoret. These participants had similar characteristics to those in Wareng Sub-County that were public and private secondary schools.

### **3.8 Validity and Reliability of Research Instruments**

#### **3.8.1 Validity**

Validity is the value featured in measures of degree to which the presented information is accurate (Patton, 2002). Validity includes precision and significance of conclusions, which are grounded on investigation outcomes. Validity is also the extent to which effects gained from the examination of the data answers the question of the study. Mohamad et al. (2015) defined the validity of a tool by gauging the extent to which outcomes gained by applying the tool represents the actual occurrence under research.

The researcher used content and face validity as they are relevant to the nature and purpose of the questionnaire and interview guide that was used. Face validity is the extent to which an interview questionnaire indicates the content it intends to examine (Oso & Onen, 2005). Content validity refers to whether the content of the research instruments (such as questionnaires, interview schedules or observation checklists) can gauge what they are expected to measure. If such information is a factual indication of the variables, the presumptions grounded on such information would be considered precise and significant. The tools were assessed in terms of how successfully they sampled relevant elements of the research purpose. The content validity of the instruments was established in the following ways. Firstly, the researcher discussed the content of the tools with supervisors and student colleagues. For every item in the questionnaires, they indicated by tick whether it measured what it was supposed to measure. Advice from supervisors and student colleagues contributed to the conclusion of the tools' validity. Furthermore, necessary changes were made to advance the content validity of the tools.

### **3.8.2 Reliability**

Reliability is the determination of a theoretical concept that is stable or consistent across two or more attempts (Orodho, 2003). Reliability is the aptitude of the study tool to yield reliable outcomes after replicated measurements have been taken from similar respondents (Mugenda & Mugenda, 2003). In essence, dependability is characterized by steadiness in outcome creation. This refers to the constraint that another researcher or same researcher on another occurrence should be capable of repeating the same procedure and realizing similar evidence or outcomes with the same or a similar population. Data gathered from the planned research was applied to calculate the consistency of the tools' items.

The reliability of the research tool was realized through the test-retest technique. The questionnaires were administered to grade one, two, three and four teachers in public and private primary schools. Similar questionnaires were given to similar teachers again after a period of one week. The scores from the same test were correlated to obtain the correlation coefficient. The Pearson product moment was applied to gauge the correlation coefficient in order to establish the degree to which the content of the questionnaires was reliable in obtaining a similar answer each time the tool was managed. Kothari (2004) states that a coefficient of 0.7 or more implies a high degree of consistency.

On the other hand, to ensure consistency in the qualitative part of the study, the researcher reviewed the responses with the participants for confirmation. Respondents were also asked for clarification during the interviews. This ensured the accuracy of researcher's and the participants' account, their trustworthiness and their credibility (Creswell & Plano, 2003). The researcher further documented the procedures for data generation and analysis to enable an external audit.

### **3.9 Data Collection and Data Analysis Procedures**

#### **3.9.1 Data collection procedures**

The researcher requested a preliminary letter from Moi University. The letter aided in obtaining authorization from the National Commission for Science, Technology and Innovation (NACOSTI). An introductory letter outlining the significance of the research was attached in order to familiarize the respondents with the research. An introductory report at the top of the questionnaire guided the respondents on how to respond to the questionnaire and it guaranteed them discretion. A preliminary survey was carried out in the primary school to make prior engagements with the respondents.

The data was then collected employing the research instruments. The self-administered questionnaires were applied to collect information from the teachers. They were requested to complete the questionnaires in their preferred place but they were asked not to discuss it with one another. They then submitted the instruments to the researcher on the same day. This ensured a high return rate as opposed to when the respondents are left with the questionnaire.

The interview schedules were used to collect data from headmasters.

#### **3.9.2 Data analysis procedure**

Data analysis refers to categorizing, ordering, manipulating and summarizing data to obtain answers to research questions (Frankel & Wallen, 2000). Data analysis can be defined as the process of focusing on some of the data and disregarding other parts of it. Quantitative data collected from questionnaires was processed. The data cleaning was done to improve the quality of the findings. In order to avoid a huge data backlog, the transcription process was an ongoing activity, following the suggestion of qualitative researchers, such as Kvale and Brinkmann (2008) and Bryman (2012).

Transcribed interviews were then categorized into themes for ease of data analysis. Each research question formed the basis on which the themes were established. The thematic approach of data analysis helped in organizing interview responses related to specific research questions. Additionally, the hand written notes taken during the interviewing process were used alongside some recorded responses.

Both quantitative and qualitative data were analyzed using version 17.0. of the Statistical Package for Social Sciences (SPSS). Quantitative data was analyzed quantitatively using quantitative techniques, such as descriptive statistics (for instance, frequencies and percentages) and inferential statistics. Frequencies and percentages were used to determine and explain proportions. The Pearson correlation coefficient and a regression analysis were used to establish the relationship between the independent variables and the dependent variable. The qualitative data was also analyzed using qualitative methods of data analysis.

### **3.9.2 Regression model**

The following regression model was used to determine the effect of the independent variable on the dependent variable:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y = Implementation of the CBC

X<sub>1</sub> = Level of head teachers' and teachers' involvement

X<sub>2</sub> = Resources provided to the head teachers and teachers

X<sub>3</sub> = Training needs of teachers

X<sub>4</sub> = Challenges encountered by the head teachers and teachers

β<sub>0</sub> = Constant

β<sub>1</sub> – β<sub>3</sub> = Coefficients of independent variables

ε = Error term

Model for estimating the moderating variable:

$$Y = \beta_0 + \beta_1 X + \beta_2 MO + \varepsilon$$

Where

Y = Adoption of modern cooking technology

X = Socio-economic factors (independent variable)

MO = Moderating variables

The regression model estimates the direction and effect of the moderating variable on the independent variable and the total effect on the dependent variable.

### **3.10 Ethical Considerations**

The importance of ethical considerations in social study cannot be overemphasized. According to Cohen, Manion and Morrison (2007), this aids in protecting the honesty of the investigation process and the data found therein. In the beginning, an introduction letter from Moi University was acquired to validate the status of the researcher as a learner of the university who is expected to conduct fieldwork on the research topic. This letter was then applied as a stepping stone in obtaining a research permit letter and authorization from NACOSTI.

In order to clarify any misconception about the purposes of the research, a synopsis of the investigation and the outcomes could be applied. The researcher also conscientiously described the intentions and contribution of the research in person to obtain informed consent. The interviewer guaranteed the participants' privacy so that they would speak freely and without the fear of being recognized as having offered information.

Rapport was also established with the respondents in order to secure cooperation and facilitate the data collection. Therefore, the respondents' informed consent was obtained after careful consideration of research benefits and after pertinent questions had been asked. The respondents participated voluntarily, and no benefits were attached.

### **3.11 Summary of Chapter Three**

To achieve the objectives of the study, both qualitative and quantitative data were collected. In doing so, semi-structured interviews and questionnaires were applied respectively. Before the actual data collection, the instruments were tested for validity and reliability using a different sample from the one under study. The collected and generated data was later analyzed both qualitatively and quantitatively to establish results. Ethical considerations were also taken into account to ensure that no research ethics were breached.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the results of the research. It contains the findings from the analysis of the interviews and questionnaires as reported by head teachers and teachers respectively. The aim was to clarify the importance of implementing the competency-based program. The results are presented in the form of frequencies and tables.

Since both quantitative and qualitative data was collected, this section focuses on the presentation of descriptive and inferential statistics and the themes. Data collected from the questionnaires was complemented by qualitative data generated from interviews. The data included transcriptions. The transcriptions were then analyzed according to themes.

Quantitative data is presented separately, followed by qualitative data. Thereafter, both are interpreted and discussed in relation to each other for triangulation and complementarity purposes. Direct quotations from the transcripts are presented as evidence to support the major themes and issues identified.

#### **4.2 Data Presentation**

##### **4.2.1 Response rate**

The researcher administered 66 questionnaires to the selected teachers (36 from public schools and 30 from private schools). Out of 66 questionnaires administered, 59 questionnaires were returned.



**Table 4.1: Response rate**

<b>Response Rate</b>	<b>Frequency</b>	<b>Frequency</b>
Responded	59	89.4
No responses	7	10.6
<b>Total</b>	<b>66</b>	<b>100</b>

Table 4.1 indicates that the response rate was 89.4%. All return rates for respondents were above 80%. Therefore, they were deemed adequate for data analysis according to Mugenda and Mugenda (2003) who indicate that a response rate of 50% suffices. The response rate of 89.4% was thus satisfactory.

### **4.3 Demographic information of the respondents**

#### **4.3.1 Gender of the respondents**

The respondents were requested to state their gender.

**Table 4.2: Gender of the respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
<b>Male</b>	20	33.9
<b>Female</b>	39	66.1
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.2 indicates that females constitute the highest percentage with a number of 39 (66.1%) and males account for 20 (33.9%) in terms of the number of teachers. This implies that there were more females compared to male teachers. This affects the education of a boy child negatively since there are few male respondents to act as role models for the boys. This aligns with a study by Afolabi (2009) which found that learning exclusively from teachers of the opposite gender has detrimental effects on learners' academic performance and on other engagements in school. From the findings, Afolabi (2009) estimated that it lowers test scores for both girls and boys by approximately four percent.

### 4.3.2 Age bracket of the respondents

The respondents were requested to indicate their age.

**Table 4.3: Age bracket of the respondents**

Age Bracket	Frequency	Percent
20-29	11	18.6
30-39	27	45.8
40-49	14	23.7
50 and above	7	11.9
Total	59	100.0

The majority of respondents, namely 27 (45.8%), are between 30 and 39 years of age, while 11 (18.6%) are between ages 20 and 29, 14 (23.7%) are between ages 40 and 49 and only 7 (11.9%) are 50 years and above. This means that most of the respondents are younger than 40 years.

### 4.3.3 Academic qualification of the respondents

The respondents were requested to provide information about their academic qualifications.

**Table 4.4: Academic qualification of the respondents**

Academic Qualification	Frequency	Percent
Certificate	26	44.1
Diploma	16	27.1
Degree	17	28.8
Total	59	100.0

The data in Table 4.4 demonstrates that the majority of respondents, namely 26 (44.1%), are certificate holders while 17 (28.8%) were degree holders and 16 (27.1%) held a diploma. The level of education is significant in the respondents' ability to impart

knowledge on the learners. The findings imply that most of the respondents have the minimum qualifications required for the education of children.

#### 4.3.4 Grade

The respondents were asked to indicate the grade they were teaching.

**Table 4.5: Grade**

<b>Grade</b>	<b>Frequency</b>	<b>Percent</b>
Grade 1	17	28.8
Grade 2	12	20.3
Grade 3	30	50.8

Table 4.5 demonstrates that most trainers, namely 30 (50.8%), taught in grade three, while 17 (28.8%) taught grade one and a minority of 12 (20.3%) taught grade two.

#### 4.3.5 Years of service

The respondents were asked to indicate the number of years they have taught.

**Table 4.6 Years of service**

<b>Years of Service</b>	<b>Frequency</b>	<b>Percent</b>
0-9	12	20.3
10-19	25	42.4
20-29	15	25.4
30 years and above	7	11.9
<b>Total</b>	<b>59</b>	<b>100.0</b>

The information in Table 4.6 indicates that the majority of respondents, namely 25 (42.4%), have been in the teaching profession for 10-19 years, while 12 (20.3%) had been teaching between zero and nine years. Furthermore, 15 (25.4%) had been in the profession between 20 and 29 years and 7 (11.9%) had been teaching for longer than

thirty years. This indicates that the majority of teachers have taught for more than five years so that most of them have extensive experience in teaching.

#### 4.3.6 Location

The respondents were further asked about the location in which they taught.

**Table 4.7: Location**

<b>Location</b>	<b>Frequency</b>	<b>Percent</b>
Public-urban area	10	16.9
Public-rural area	28	47.5
Private-urban area	5	8.5
Private-rural area	16	27.1
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.7 demonstrates that the majority of the respondents, namely 28 (47.5%), taught in a public-rural area, while 10 (16.9%) taught in a public-urban area. Furthermore, 5 (8.5%) taught in a private-urban area and 16 (27.1%) taught in private-rural area. This implies that most public schools are in rural locations compared to private schools.

#### 4.4 Head teachers' and teachers' involvement in the implementation of the competency based curriculum

The first objective of the study sought to examine the level of head teachers' and teachers' involvement in the implementation of the CBC. In order to achieve this objective, the respondents were asked on the following constructs.

##### 4.4.1 Whether the respondents were involved in the formulation of the new curriculum

The respondents were asked if they were involved in the formulation of the new curriculum. Table 4.8 presents the study results.

**Table 4.8: Whether the respondents were involved in the formulation of the new curriculum**

<b>Involvement</b>	<b>Frequency</b>	<b>Percent</b>
Yes	28	47.5
No	31	52.5
<b>Total</b>	<b>59</b>	<b>100.0</b>

The results in Table 4.8 demonstrate that the majority of the subjects, namely 31 (52.5%), indicated that they were not involved in the formulation of the new curriculum, while 28 (47.5%) indicated that they were involved in the formulation of the new curriculum.

#### **4.4.2 Involvement in material development**

The respondents were further asked to indicate the teaching and learning materials which they were involved in developing.

**Table 4.9: Involvement in material development**

<b>Material</b>	<b>Frequency</b>	<b>Percent</b>
Program and syllabi	16	27.1
Teachers and learners guide books	16	27.1
Text books and other learning resources	27	45.8
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.9 demonstrates that 16 (27.1%) of the respondents were involved in developing program and syllabi, while 16 (27.1%) indicated that they were involved in developing teachers' and learners' guidebooks. Furthermore, 27 (45.8%) indicated that they were involved in developing text books and other learning resources. This implies that text books and other learning resources were the materials with the highest involvement level in its development.

#### 4.4.3 Curriculum implementation level and whether it is satisfactory

The respondents were further asked to state whether the current level of teachers' involvement in curriculum development and implementation is satisfactory.

**Table 4.10: Whether the level of curriculum implementation is satisfactory**

<b>Curriculum Satisfactory</b>	<b>Frequency</b>	<b>Percent</b>
<b>Yes</b>	22	37.3
<b>No</b>	37	62.7
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.10 demonstrates that the majority of respondents indicated that the teachers' level of involvement in curriculum implementation is unsatisfactory as shown by 37 (62.7%). This implies that the implementation of the competency-based curriculum in Kenya is still not satisfactory.

#### 4.4.4 Teacher involvement in curriculum implementation

The study sought to determine the extent to which respondents agreed with the following statements relating to head teachers' and teachers' involvement in curriculum implementation.

The results are presented in Table 4.11.

**Table 4.11: Teacher involvement in the curriculum development and implementation**

		SD	D	UN	A	Total	Mean	Std. Dev
Teachers are adequately involved in the curriculum implementation process.	F	6	27	1	25	59	2.76	1.11
	%	10.2	45.8	1.7	42.4	100.0		
The teachers who are involved in curriculum implementation are very representative.	F	5	12	11	31	59	3.15	1.03
	%	8.5	20.3	18.6	52.5	100.0		
Teachers are adequately involved in the development of curriculum materials, such as textbooks used in schools.	F	33	25	1	0	59	1.45	.53
	%	55.9	42.4	1.7	0.0	100.0		
There are adequate channels of communication between the KICD and schools on issues of curriculum.	F	3	13	6	37	59	3.31	.98
	%	5.1	22.0	10.2	62.7	100.0		
Teachers have understood the new/revised school curriculum.	F	3	22	11	23	59	2.91	.98
	%	5.1	37.3	18.6	39.0	100.0		
Teachers have accepted the new/revised curriculum.	F							
Teachers are forced to implement aspects of the reviewed/new curriculum even if they do not agree with the changes made.	%	6	8	35	59	3.25	1.04	
	F	10.2	13.6	16.9	59.3	100.0		
Teachers are in a better position to understand what should be reviewed and changed in the curriculum related to their area of specialization	%	3	12	5	39	3.35	.97	
	F	5.1	20.3	8.5	66.1	100.0		

Table 4.11 demonstrates that 25 (42.4%) of the respondents agreed, 1 (1.7%) was undecided, 27 (45.8%) disagreed and 6 (10.2%) strongly disagreed with the statement that teachers are adequately involved in curriculum implementation process. Furthermore, in terms of means and standard deviation, the findings showed that teachers are adequately involved in curriculum implementation processes (Mean =2.762, Std. dev =1.11941).

Furthermore, 31 (52.5%) of respondents agree, 11 (18.6%) were undecided, 12 (20.4%) disagreed and 5 (8.5%) strongly disagreed that the teachers who are involved in curriculum implementation are very representative. Furthermore, in terms of means and standard deviation, the findings show that the teachers who are involved in curriculum implementation are very representative (Mean =3.152, Std. dev =1.0308).

Moreover, 1 (1.7%) of the respondent was undecided, 25 (42.4%) disagreed and 33 (55.9%) strongly disagreed that teachers are adequately involved in the development of curriculum materials, such as textbooks used in schools. Moreover, in terms of means and standard deviation, the findings indicate that teachers are adequately involved in the development of curriculum materials, such as textbooks used in schools (Mean =1.458, Std. dev =.536).

Another 37 (62.7%) of the respondents agree, 6 (10.2%) were undecided, 13 (22%) disagreed and 3 (5.1%) strongly disagreed that there are adequate channels of communication between the KICD and schools on curriculum issues. Moreover, in terms of means and standard deviation, the findings show that there are adequate channels of communication between the KICD and schools on of curriculum issues (Mean =3.305, Std. dev =.9876).

Furthermore, 23 (39%) of the respondents agree, 11 (18.6%) were undecided, 22 (22.0%) disagreed and 3 (5.1%) strongly disagreed that teachers have understood the new/revised school curriculum. Moreover, the study findings showed in terms of means and standard deviation that teachers have understood the new/revised school curriculum (Mean =2.915, Std. dev =0.988).

Similarly, 35 (59.3%) of the respondents agree, 10 (16.9%) were undecided, 8 (13.6%) disagreed and 6 (10.2%) strongly disagreed that teachers are forced to implement aspects of the reviewed/new curriculum even if they do not agree with the changes made. Furthermore, in terms of means and standard deviation, the findings showed that teachers are forced to implement aspects of the reviewed/new curriculum even if they do not agree with the changes made (Mean =3.25, Std. dev =1.043).



Finally, 39 (66.1%) of the respondents agree, 5 (8.5%) were undecided, 12 (20.3%) disagreed and 3(5.1%) strongly disagreed with the statement that teachers are in a better position to understand what should be reviewed and changed in the curriculum related to their area of specialization. Furthermore, in terms of means and standard deviations, the study findings showed that teachers are in a better position to understand what should be reviewed and changed in the curriculum related to their area of specialization (Mean =3.355, Std. dev =0.978).

The findings also indicate that teachers are adequately involved in curriculum implementation processes and that they are effectively representative. There are adequate channels of communication between KICD and schools on curriculum issues. Teachers are forced to implement aspects of the reviewed/new curriculum even if they do not agree with the changes made. By virtue of being the main stakeholder, teachers are in a better position to understand what should be reviewed and changed in the curriculum related to their area of specialization.

Most teachers participated in filling out the questionnaires proved to have been involved but it was not satisfactory to them. Additionally, they indicated having the skills of the competency based program. This was also confirmed by the interviewees though few of them claimed that they did not have knowledge of the same. The study findings from the interviews found that the majority of the head teachers are knowledgeable about the competency-based program.

*“Competency-based program means a curriculum stressing on the hard results of an educational process. For instance, emphasizing on students attaining the aptitude, skills and attitudes instead of aiming at what students are anticipated to study about in terms of traditionally described subject content.”*

They further noted that:

*“In competency-based curriculum, learners acquire and apply knowledge, skills and attitude on a chosen learning activities and environments basing on the situations they encounter in everyday life.”*

Therefore, the findings from the first variable can be aligned with the following statement by Gatlin (2009). Accordingly, in the context of a vast expansion and creation of new knowledge and an economy-based society, teachers must be prepared adequately to adopt a complex evolutionary and responsive approach that considers curriculum change.

#### **4.5 Resources provided for the implementation of the competency-based curriculum**

The second objective sought to examine the resources provided to the head teachers and teachers for the implementation of the CBC. To achieve this objective, the following constructs were measured.

##### **4.5.1 Age of learners**

The researcher also attempted to establish the age of the learners.

**Table 4.12: Age of learners**

<b>Age of Learners</b>	<b>Frequency</b>	<b>Percent</b>
5-6 years	17	28.8
7-8 learners	18	30.5
Above 9 years	24	40.7
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.12 shows that 17 (28.8%) of the respondents indicated that they taught learners between five and six years, 18 (30.5%) of the respondents indicated that they taught learners between seven and eight years and 24 (40.7%) indicated that they taught learners who are nine years of age. This implies that the majority of learners were nine

years or older. Thus, the resources provided should be appropriate for their learning level and meet their learning needs.

#### 4.5.2 Availability of teaching materials

The respondents were further asked to indicate the extent to which learning materials are available in their class. Table 4.13 presents the results.

**Table 4.13: Availability of teaching materials**

		Not available	Available and not	Available and	Total	Mean	Std. Dev
Mathematics Activities	F	20	39	0	59	2.61	.55
	%	33.9	66.1	0.0	100.0		
Literacy Activities	F	2	19	38	59	2.61	.55
	%	3.4	32.2	64.4	100.0		
Kiswahili Activities	F	2	19	38	59	2.61	.53
	%	3.4	32.2	64.4	100.0		
Environmental Activities	F	25	34	0	59	2.57	.49
	%	42.4	57.6	0.0	100.0		
English Activities	F	3	19	37	59	2.57	.59
	%	5.1	32.2	62.7	100.0		
Creative Arts Activities	F	9	28	22	59	2.22	.69
	%	15.3	47.5	37.3	100.0		
Music Activities	F	1	22	36	59	2.59	.52
	%	1.7	37.3	61.0	100.0		
Home Science Activities	F	9	34	16	59	2.11	.64
	%	15.3	57.6	27.1	100.0		
Digital devices	F	17	21	21	59	2.06	.80
	%	28.8	35.6	35.6	100.0		
Digital devices	F	24	21	14	59	1.83	.79
	%	40.7	35.6	23.7	100.0		
Hand books	F	22	11	26	59	2.06	.90
	%	37.3	18.6	44.1	100.0		
Teachers' guide	F	4	14	41	59	2.62	.61
	%	6.8	23.7	69.5	100		

Table 4.13 demonstrates that 20 (33.9%) of the respondents indicated that resources for mathematics activities were not available and 39 (66.1%) indicated that they were available and not adequate. Similarly, 2 (3.4%) of the respondents indicated that resources for literacy activities were not available, 19 (32.2%) indicated that they were available but not adequate and 38(64.4%) indicated that they were available and adequate.

Furthermore, 2 (3.4%) of the respondents indicated that resources for Kiswahili activities were not available, 19 (32.2%) indicated that they were available but not adequate while 38 (64.4%) indicated that they were available and adequate. Another 25 (42.4%) of the respondents indicated that resources for environmental activities were not available and 34 (57.6%) indicated that they were available. Similarly, 3 (5.1%) of the respondents indicated that resources for English activities were not available, 19 (32.2%) indicated that they were available but not adequate while 37 (62.7%) indicated that they were available and adequate.

Moreover, 9 (15.3%) of the respondents indicated that resources for creative arts activities were not available, 28(47.5%) indicated that they were available but not adequate while 22 (37.3%) indicated that they were available and adequate. Similarly, 1 (1.7%) of the respondents indicated that resources for Christian/ IRE activities were not available, 22 (37.3%) indicated that they were available but not adequate and 36 (61.0%) indicated that they were available and adequate. Furthermore, 9 (15.3%) of the respondents indicated that resources for music activities were not available, 34 (57.6%) indicated that they were available but not adequate while 16 (27.1%) indicated that they were available and adequate.

Furthermore, 17 (28.8%) of the respondents indicated that resources for home science activities were not available, 21 (35.6%) indicated that they were available but not adequate while 21 (35.6%) indicated that they were available and adequate.

Additionally, 24 (40.7%) of the respondents indicated that resources for digital devices were not available, 21 (35.6%) indicated that they were available and but not adequate while 14 (23.7%) indicated that they were available and adequate. What is more, 22 (37.3%) of the respondents indicated that resources for handbooks were not available,

11 (18.6%) indicated that they were available but not adequate, while 26 (44.1%) indicated that they were available and adequate. Finally, 4 (6.8%) of the respondents indicated that teachers' guides were not available, 14 (23.7%) indicated that they were available but not adequate, while 41 (69.5%) indicated that they were available and adequate.

The study results on adequacy of learning materials show that the materials were available but not adequate. The findings concur with Momoh (2010) who conducted research on the effects of instructional resources on students' performance in West African School Certificate Examinations (WASCE). The achievement of students in WASCE was related to the resources available for teaching. He concluded that material resources have a significant effect on students' achievements since they facilitate the learning of abstract concepts and ideas and discourage rote learning. Where TLR are inadequate, education is compromised and, inevitably, this reflects in low academic achievement, high dropout rates, problematic behaviour, poor teacher motivation and unmet educational goals.

#### **4.5.3 State of the available physical resources**

Furthermore, it was important to establish the state of the available physical resources. The respondents were asked to indicate the state of physical resources. Table 4.14 presents the study results.

**Table 4.14: State of the available resources**

Availability of physical resources	Not available		Available but needs renovation		Available and not equipped		Available and equipped		Total	
	F	%	F	%	F	%	F	%	F	%
Classrooms	3	5.1	16	27.1	17	28.8	23	39.0	59	100.0
Laboratories	52	88.1	3	5.1	2	3.4	2	3.4	59	100.0
Workshop	52	88.1	1	1.7	3	5.1	3	5.1	59	100.0
Library	14	23.7	14	23.7	18	30.5	13	22.0	59	100.0
Sports field	24	40.7	20	33.9	11	18.6	4	6.8	59	100.0

Table 4.14 shows the results according to which 3 (5.1%) of the respondents indicated that the resources were not available, 16 (27.1%) indicated that the resources were available, but they needed renovation, 17 (28.8%) indicated that the resources were available but not equipped and 23 (39%) of the respondents indicated that the resources were available and equipped.

Furthermore, for physical or laboratory resources, the results demonstrate that 52 (88.1%) of the respondents indicated that the resources were not available, 3 (5.1%) indicated that the resources were available, but they needed renovation, 2 (3.4%) indicated that the resources were available and not equipped and 2 (3.4%) of the respondents indicated that the resources were available and equipped.

Additionally, the table shows the physical workshop resources, and the results demonstrate that 52 (88.1%) of the respondents indicated that the resources were not available, 1 (1.7%) indicated that the resources were available but they needed renovation, 3 (5.1%) indicated that the resources were available and not equipped and 3 (5.1%) of the respondents indicated that the resources were available and equipped.

Regarding physical library resources, 14 (23.7%) of the respondents indicated that the resources were not available, 14 (23.7%) indicated that the resources were available but they needed renovation, 18 (30.5%) indicated that the resources were available and not equipped and 13 (22%) of the respondents indicated that the resources were available and equipped.

Lastly, regarding the availability of sport fields as physical resources, 24 (40.7%) of the respondents indicated that the resources were not available, 20 (33.9%) indicated that the resources were available but they needed renovation, 11 (18.6%) indicated that the resources were available and not equipped and 4 (6.8%) of the respondents indicated that the resources were available and equipped.

#### **4.6 Teachers' training needs for the implementation of the competency-based curriculum**

The third objective sought to assess the training needs of teachers for the implementation of the CBC and to address this, the following constructs were measured.

##### **4.6.1 In-service training**

The researcher sought to know whether the respondents were provided with the in-service training.

**Table 4.15: In-service training**

	<b>Frequency</b>	<b>Percent</b>
Yes	56	94.9
No	3	5.1
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.15 shows the study results. The majority, namely 56 (94.9%), of the respondents indicated that they were trained, while the rest 3 (5.1%) indicated that they were not trained.

#### 4.6.2 Adequacy and effectiveness of CBC training

The researcher sought to know whether the CBC training was adequate and effective.

**Table 4.16 Adequacy and effectiveness of CBC training**

	Adequacy		Effectiveness	
	Frequency	Percent	Frequency	Percent
Strongly Disagree	7	11.9	7	11.9
Disagree	13	22.0	6	10.2
Undecided	4	6.8	2	3.4
Agree	29	49.2	37	62.7
Strongly Agree	6	10.2	7	11.9
<b>Total</b>	<b>59</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>

The results in Table 4.16 demonstrate that 7 (11.9%) of the respondents strongly agree, 13 (22%) agree, 4 (6.8%) were undecided, 29 (49.2%) disagree and 6 (10.2%) strongly disagree with the statement that the CBC training provided was adequate.

Similarly, 7 (11.9%) of the respondents strongly agree, 6 (10.2%) agree, 2 (3.4%) were undecided, 37 (62.7%) disagree and 7 (11.9%) strongly disagree that the CBC training provided were effective.

##### 4.6.2.1 Number of training sessions attended

The researcher sought to know the number of training sessions attended. Table 4.17 shows the study results.



**Table 4.17: Number of training sessions attended**

	<b>Frequency</b>	<b>Percent</b>
One training session	27	45.8
Two training sessions	13	22.0
Three training sessions	4	6.8
Four training sessions	9	15.3
Seven training sessions	1	1.7
Sixteen training sessions	2	3.4
Twenty training sessions	1	1.7
Twenty-three training sessions	2	3.4
<b>Total</b>	<b>59</b>	<b>100.0</b>

The results demonstrate that 27 (45.8%) of the respondents had attended one training session, 13 (22%) had attended two training sessions, 4 (6.8%) had attended three training sessions, 9 (15.3%) had attended four training sessions, 1 (1.7%) had attended seven training sessions, 2 (3.4%) had attended sixteen training sessions, 1 (1.7%) had attended twenty training sessions and 2 (3.4%) had attended twenty-three training sessions. As is evident, the majority of the respondents, namely 67.8%, had attended merely two training seasons which implies that they were not well prepared to implement the CBC in their routines.

#### **4.6.2.2 Content of training**

The researcher sought to know the content offered during training.

**Table 4.18: Content of training**

	<b>Frequency</b>	<b>Percent</b>
Curriculum changes	14	23.7
Subject content	6	10.2
Emerging issues	6	10.2
All of the above	33	55.9
<b>Total</b>	<b>59</b>	<b>100.0</b>

The results demonstrate that 14 (23.7%) of the respondents indicated curriculum changes, 6 (10.2%) of the respondents indicated subject content, 6 (10.2%) of the respondents indicated emerging issues, and 33 (55.9%) of the respondents indicated all of the above.

#### 4.6.2.3 Hindrance

The researcher sought to establish whether teachers' availability was ever a hindrance to attending any in-service course offered. Table 4.19 shows the study results.

**Table 4.19: Hindrance**

	Frequency	Percent
Yes	13	22.0
No	46	78.0
<b>Total</b>	<b>59</b>	<b>100.0</b>

The results demonstrate that 13 (22%) of the respondents indicated that their availability was hindrance to attending any in-service course offered, while the majority, namely 46 (78%) indicated that their availability was never a hindrance to attending any in-service course offered.

#### 4.6.2.4 Reasons for hindrance

The researcher sought to know the reasons for hindrances. Table 4.20 shows the study results.

**Table 4.20: Reasons for hindrance**

	Frequency	Percent
Family/personal	7	11.9
Overload curriculum	4	6.8
Lack of support from the school	9	15.3
<b>Total</b>	<b>20</b>	<b>33.9</b>

The results demonstrate that 7 (11.9%) of the respondents indicated family/personal reasons, 4 (6.8%) of the respondents stated an indicated overloaded curriculum and 9 (15.3%) of the respondents indicated a lack of support from the school.

#### 4.6.2.5 Need for more training

The researcher sought to know whether the respondents needed more training. Table 4.21 shows the study results.

**Table 4.21: Need for more training**

	Frequency	Percent
Yes	57	96.6
No	2	3.4
<b>Total</b>	<b>59</b>	<b>100.0</b>

The results demonstrate that the majority, namely 57 (96.6%), of the respondents indicated they needed more training, while 2 (3.4%) indicated that they do not need more training.

#### 4.6.2.6 Preparedness

The researcher sought to know the respondents' preparedness for the CBC. Table 4.22 shows the study results.

**Table 4.22: Preparedness**

	Frequency	Percent
Fairly prepared	22	37.3
Prepared	31	52.5
Very prepared	6	10.2
<b>Total</b>	<b>59</b>	<b>100.0</b>

The results demonstrate that the majority, namely 22 (37.3%), of the respondents indicated that they were fairly prepared, 31 (52.5%) of the respondents indicated that

they were prepared and 6 (10.2%) of the respondents indicated that they were very prepared.

#### **4.6.2.7 Teachers' content knowledge influence on how teachers evaluate and use instructional materials**

The researcher sought to know whether teacher content knowledge influences how teachers evaluate and use instructional materials. Table 4.23 shows the study results.

**Table 4.23: Teachers' content knowledge influence on how teachers evaluate and use instructional materials**

	<b>Frequency</b>	<b>Percent</b>
Disagree	7	11.9
Neutral	14	23.7
Agree	38	64.4
<b>Total</b>	<b>59</b>	<b>100.0</b>

The results demonstrate that 7 (11.9%) of the respondents disagree, 14 (23.7%) were neutral and 38 (64.4%) agreed with the statement that teachers' content knowledge influences how teachers evaluate and use instructional materials.

#### **4.6.2.8 Core competency**

The respondents were asked to indicate the extent to which they have been able to infuse the following core competency appropriately during subject content delivery. Table 4.24 shows the study results.

**Table 4.24: Core competency**

		Needs support	Developing	Good	very well	Total	Mean	Std. Dev
<b>Communication and Collaboration</b>	F	2	15	31	11	59	2.86	0.75
	%	3.4	25.4	52.5	18.6	100.0		
<b>Critical Thinking and Problem-Solving</b>	F	8	28	16	7	59	2.37	0.87
	%	13.6	47.5	27.1	11.9	100.0		
<b>Citizenship</b>	F	5	20	20	14	59	2.73	0.93
	%	8.5	33.9	33.9	23.7	100.0		
<b>Creativity and Imagination</b>	F	6	18	18	17	59	2.78	0.98
	%	10.2	30.5	30.5	28.8	100.0		
<b>Learning to Learn</b>	F	4	16	24	15	59	2.85	0.89
	%	6.8	27.1	40.7	25.4	100.0		
<b>Self-efficiency</b>	F	6	19	22	12	59	2.68	0.92
	%	10.2	32.2	37.3	20.3	100.0		
<b>Digital Literacy</b>	F	26	20	5	8	59	1.92	1.04
	%	44.1	33.9	8.5	13.6	100.0		

The results in Table 4.24 demonstrate that 2 (3.4%) of the respondents indicated that communication and collaboration need support, 15 (25.4%) rated this item as developing, 31 (52.2%) were good and 11 (18.6%) stated very good. Similarly, 8 (13.6%) of the respondents indicated that critical thinking and problem-solving needs support, 28 (47.5%) rated this item as developing, 16 (27.1%) stated good and 7 (11.9%) stated very good. Another 5 (8.5%) of the respondents indicated that citizenship needs support, 20 (33.9%) rated this item as developing, 20 (33.9%) stated good and 14 (23.7%) stated very good. Furthermore, 6 (10.2%) of the respondents indicated that creativity and imagination need support, 18 (30.5%) rated this item as developing, 18 (30.5%) stated good and 17 (28.8%) stated very good. Additionally, 4 (6.8%) of the respondents indicated that learning to learn needs support, 16 (27.1%) rated this item as developing, 24 (40.7%) stated good and 15 (25.4%) stated very good. Notably, 6 (10.2%) of the respondents indicated that self-efficiency needs support, 19 (32.2%) rated this item as developing, 22 (37.3%) stated good and 12 (20.3%) stated very good. Finally, 26 (44.1%) of the respondents indicated that digital literacy needs

support, 20 (33.9%) rated this item as developing, 5 (8.5%) stated good and 8 (13.6%) stated very good.

#### **4.6.2.9 Whether the respondents had been exposed to ICT facilities related to the implementation of the CBC**

The respondents were asked to indicate they have been exposed to ICT facilities related to implementation on CBC. Table 4.25 shows the study results.

**Table 4.25: Whether the respondents had been exposed to ICT facilities related to the implementation of the CBC**

	<b>Frequency</b>	<b>Percent</b>
Yes	36	61.0
No	23	39.0
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.25 demonstrates that the majority, namely 36 (61%), indicated that they have been exposed to ICT facilities related to CBC implementation while the minority of 23 (39%) indicated that they have not been exposed to ICT facilities related to the CBC.

#### **4.6.2.10 Level of competence in the use of Information communication technology (ICT)**

The respondents were asked to indicate their level of competence in the use of information communication technology. Table 4.26 shows the study results.

**Table 4.26: Level of competence in the use of information communication technology (ICT)**

	<b>Frequency</b>	<b>Percent</b>
Poor	12	20.3
Fair	30	50.8
Good	17	28.8
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.26 demonstrated that 12 (20.3%) indicated that their level of competence in the use of information communication technology was poor, 30 (50.8%) indicated that their level of competence was fair and 17 (28.8%) indicated that their level of good.

#### 4.6.2.11 Ability to perform the stated tasks in relation to information communication and technology (ICT)

The respondents were further asked to indicate the extent to which they have demonstrated the ability to perform the stated tasks in relation to information communication and technology (ICT). Table 4.27 shows the study results.

**Table 4.27: Ability to perform the stated tasks in relation to information communication and technology (ICT)**

		Never	Rarely	Sometimes	Often	Always	Total	Mean	Std. Dev
I have been exposed to ICT related facilities in the CBC.	F	7	9	30	11	2	59	2.86	0.97
	%	11.9	15.3	50.8	18.6	3.4	100.0		
My level of competence in the use of ICT is very high	F	19	15	16	5	4	59	2.32	1.21
	%	32.2	25.4	27.1	8.5	6.8	100.0		
I browse the internet to collect Information to prepare.	F	9	21	19	5	5	59	2.59	1.12
	%	15.3	35.6	32.2	8.5	8.5	100.0		
I use ICT to prepare exercise and task for students.	F	31	15	10	3	0	59	1.75	0.92
	%	52.5	25.4	16.9	5.1	0.0	100.0		
I use ICT to create my own digital learning materials for students.	F	22	21	11	2	3	59	2.03	1.08
	%	37.3	35.6	18.6	3.4	5.1	100.0		
I use ICT to provide feedback and access students learning.	F	32	15	7	5	0	59	1.75	0.98
	%	54.2	25.4	11.9	8.5	0.0	100.0		
I use PowerPoint presentation to teachers' learners in the class.	F	32	12	11	4	0	59	1.78	0.98
	%	54.2	20.3	18.6	6.8	0.0	100.0		
I can download E-materials from a learning platform.	F	19	12	21	5	2	59	2.31	1.12
	%	32.2	20.3	35.6	8.5	3.4	100.0		
I can search for a lesson song on the internet.	F	17	12	20	9	1	59	2.41	1.12
	%	28.8	20.3	33.9	15.3	1.7	100.0		

Regarding the respondents' exposure to ICT, Table 4.27 demonstrates that 7 (11.9%) of the respondents stated that they are never exposed, 9 (15.3%) stated that they are rarely exposed, 30 (50.8%) stated that they are sometimes exposed, 11 (18.6%) stated that they are often exposed while 2 (3.4%) stated that they have always been exposed to ICT related facilities in the CBC. In addition, 19 (32.2%) of the respondents stated that they are never competent in the area, 15 (25.4%) stated that they are rarely competent in the area, 16 (27.1%) stated that they are sometimes competent in the area, 5 (8.5%) stated that they are often competent in the area while only 4 (6.8%) stated that their level of competence in the use of ICT is very high.

Furthermore, 9 (15.3%) of the respondents stated that they never use the internet, 21 (35.6%) stated that they rarely use the internet, 19 (32.2%) stated that they sometimes use the internet, 5 (8.5%) stated that they often use internet, while 5 (8.5%) stated that they always browse on the internet to obtain information to prepare for work.

Another 31 (52.5%) of the respondents stated that they never use ICT, 15 (25.4%) stated that they rarely use ICT, and 10 (16.9%) stated that they sometimes use ICT, while 3 (5.1%) stated that they often use ICT to prepare exercises and task for students. Additionally, 22 (37.3%) of the respondents stated that they never use ICT, 21 (35.6%) stated that they rarely use ICT, 11 (18.6%) stated that they sometimes use ICT, and 2 (3.4%) stated that they often use ICT while 3 (5.1%) stated that they always use ICT to create their own digital learning materials for students.

Furthermore, 32 (54.2%) of the respondents stated that they never use ICT, 15 (25.4%) stated that they rarely use ICT, 7 (11.9%) stated that they sometimes use ICT and 5 (8.5%) stated that they often use ICT to provide feedback and access students learning. In addition, 32 (54.2%) of the respondents stated that they never use PowerPoint, 12



(20.3%) stated that they rarely use PowerPoint, 11 (18.6%) stated that they sometimes use PowerPoint, and 4 (6.8%) stated that they often use PowerPoint, while 1 (1.7%) stated that they always use PowerPoint presentations to teach learners in class.

Besides, 19 (32.2%) of the respondents stated that they never download e-materials, 12 (20.3%) stated that they rarely download e-materials, 21 (35.6%) stated that they sometimes download ematerials, 5 (8.5%) stated that they often download e-materials while 2 (3.4%) stated that they always download e-materials from a learning platform. Finally, 17 (28.8%) of the respondents stated that they never search for a lesson song on the internet, 12 (20.3%) stated that they rarely search for a lesson song on the internet, 20 (33.9%) stated that they sometimes search for a lesson song on the internet, and 9 (15.3%) stated that they often search for a lesson song on the internet while 1 (1.7%) stated that they always search for a lesson song on the internet.

From the statistics of the quantitative analysis, the majority of respondents indicated that they received training on the new curriculum through in-service training organized by the ministry. On the contrary, they indicated that the training was not comprehensive enough for the complex curriculum at hand. This was paralleled by the responses from interviews where the majority of head teachers agreed that they have attended in-service training to prepare for the implementation of the competency-based curriculum.

*“Yes, I have attended the in-service training preparing us to implement the competency based curriculum. However, we are still facing challenges from the teachers in implementing the CBC. This is because since trainers are still applying teacher centred strategies as contested to the finding techniques that permits students to use their interest and abilities to obtain skills and competencies through modified learning.”*

The study findings indicated that despite the in-service training, the implementation of the CBC is still low, and all teachers still need to attend in-service training in order for them to apply a child-centred approach.

The head teachers noted

*“Despite the training by ministry of education the execution of CBC has been hurriedly undertaken while most teachers have not been adequately taught in CBC content and training techniques.”*

This implies that teachers have not received enough training to implement the CBC.

The head teachers interviewed noted that:

*“The training sessions we attended were poorly conducted and the performance of the training was below our expectations. This hindered our ability and those of trainers to plan evaluate, and estimate the delivery of lessons and students’ results.”*

They further revealed that:

*“Pre-primary teachers and grades one to three teachers have not attained any teaching whatsoever while those that did attend training workshops were inadequately trained by trainers and facilitators who were themselves unskilled in the liberation of the CBC strategies.”*

The head teachers interviewed revealed that

*“Teachers are not ready to implement the CBC because majority of them have not acquired enough training on delivering the CBC content. For effective implementation of CBC there is need for complete transformation in the educational approach in terms of training, knowledge and evaluation, and this needs changes in tutor training plans in order to provide them (both pre-service and in-service) with the proficiencies that will facilitate them to successfully tackle the problems involved with CBC execution in schools.”*

This means that for the CBC to be successfully executed, the teachers are required to have the skills to evaluate their learners’ application of assessment techniques, such as portfolios, classroom or field inspection, projects, oral presentations, self-assessments, interviews and peer evaluations. Trainers are also required to modify from a norm-referenced to a criterion referenced assessment of students’ proficiencies to continue their progress. Finally, trainers are expected to offer constant, suitable and constructive responses to notify their learners about the potential and weaknesses of their presentation since teaching and learning are evaluated and adjusted depending on the response.

The head teachers revealed that:

*“The teachers are not well equipped with subject content knowledge. Teachers have not been well trained to change their old teaching methods to new one of role-playing, problem-solving, projects, case studies, and study visits, among other learner-centred strategies.”*

In the CBC program, teachers are expected to change from the function of dictating authority to a facilitator who directs the education process. Students are supposed to take responsibility for their own knowledge via direct examination and practice, while their trainers are supposed to plan efficient knowledge activities guided towards the expansion of particular competencies.

The head teachers discovered that the teachers’ topic content skills have an effect on how tutors assess and apply educational materials.

*“A majority of pre-school and PP1 and PP2 teachers do not have content knowledge on how to design and prepare CBC test. This is because most teachers rely on commercial exams that are set by vendors which cover topics not to test competencies. The teachers also do not have enough knowledge on evaluation.”*

The head teachers revealed that their CBC competence is low since they have not received sufficient training.

#### **4.7 Challenges in the implementation of the CBC**

The fourth objective of this project is to explore the challenges faced in the implementation of the CBC. In order to achieve this objective, it was important to know the following aspects.

##### **4.7.1 Whether the respondents faced any challenge in the implementation of the CBC**

The respondents were further asked to indicate whether they faced any challenge in the implementation of the CBC. Table 4.28 demonstrates the study results.

**Table 4.28: Whether the respondents faced any challenge in the implementation of the CBC**

	Frequency	Percent
Yes	56	94.9
No	3	5.1
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.28 demonstrates that the majority, namely 56 (94.9%), of the respondents indicated that they faced challenges in implementing the CBC. This implies that there were many challenges faced by teachers in the implementation of the CBC in Kenya.

#### 4.7.2 Types of challenges

The respondents were further asked to indicate the type of challenges faced in the implementation of the CBC. Table 4.29 shows the study results.

**Table 4.29: Types of challenges**

		SD	D	A	SA	Total	Mean	Std. Dev
There is a challenge in the availability of resources.	F	4	7	38	10	59	3.73	1.10
	%	6.8	11.9	64.4	16.9	100.0		
There is a challenge in teachers training needs.	F	5	1	35	18	59	4.02	1.07
	%	8.5	1.7	59.3	30.5	100.0		

Table 4.29 demonstrates that 10 (16.9%) of the respondents strongly agree, 38 (64.4%) agree, 7 (11.9%) disagree, 7 (11.9%) strongly disagree that there is a challenge in the availability of resources for implementation of the CBC. On the other hand, 18 (30.5%) of the respondents strongly agree, 35 (59.3%) agree, 1 (1.7%) disagrees and 5 (8.5%) strongly disagree with the statement that there is a challenge in teachers' training needs.

#### 4.7.3 Challenges encountered by teachers with current curriculum materials

The respondents were further asked to indicate challenges encountered by teachers with current curriculum materials that they use, such as textbooks.

**Table 4.30: Challenges encountered by teachers with current curriculum materials**

	<b>Frequency</b>	<b>Percent</b>
Yes	41	69.5
No	18	30.5
<b>Total</b>	<b>59</b>	<b>100.0</b>

Table 4.30 demonstrates that the majority, namely 41 (69.5%), of the respondents indicated that there were challenges encountered by teachers with current curriculum materials that they use, such as textbooks.

#### **4.7.4 Awareness**

The respondents were further asked to indicate whether the teachers are sufficiently aware and encouraged to participate in the implementation of the curriculum. Table 4.31 shows the results.

**Table 4.31: Awareness**

	<b>Frequency</b>	<b>Percent</b>
Yes	28	47.5
No	31	52.5
	<b>59</b>	<b>100.0</b>

Table 4.31 demonstrate that the majority, namely 31 (52.5%), of the respondents indicated that teachers were not sufficiently aware and encouraged to participate in the development and implementation of the curriculum.

#### **4.8 Implementation of the CBC**

The respondents were further asked to indicate their level of agreement on the implementation of the competency-based curriculum. Table 4.28 demonstrates the study results. Descriptive statistics in the table revealed that the majority of respondents faced various challenges in the implementation of the competency-based curriculum.

The head teachers cited similar challenges which they face in implementing the CBC.

They noted that

*“Teachers are not well prepared, there is problem in availability and adequacy of teaching materials, the engagement between teachers and parents is low has affected the implementation of CBC. The implementation of CBC requires the participation of all stakeholders.”*

This implies that the resources and infrastructure required for learning, assessment and capacity building in the CBC approach are completely different from those in use in the current system. Parents and other stakeholders have not been involved in the reform process, nor have public awareness campaigns been conducted following the roll-out of the CBC.

#### **4.9 Multiple regression model assumption**

The study tested for normality assumptions, linearity assumptions, multicollinearity assumptions, independence of residuals and homoscedasticity assumptions.

##### **4.9.1 Normality assumption test**

The Kolmogorov-Smirnov test was used to assess if residuals follow normal probability distribution. The data is considered to come from a normal distribution if the significance value is greater than 0.05.

**Table 4.32: Normality assumption test**

		Implement ation of the CBC	Level of head teachers' and teacher's involvement	Resources provided to the head teachers and teachers	Training needs of teachers	Challenges faced by the head teachers and teachers
N		59	59	59	59	59
Normal Parameters	Mean	2.6862	2.2641	2.4986	2.4496	2.6921
	Std. Deviation	.52836	.64106	.53123	.63193	.53118
Most Extreme Differences	Absolute	.368	.287	.210	.215	.414
	Positive	.276	.287	.182	.175	.281
	Negative	-.368	-.230	-.210	-.215	-.414
Kolmogorov-Smirnov Z		2.825	2.204	1.615	1.651	3.179
Asymp. Sig. (2-tailed)		.149	.214	.211	.219	.257

a. Test distribution is Normal.

b. Calculated from data.

Table 4.32 demonstrates that all sample p -values were above 0.05. This is an indication that the data is normally distributed.

#### 4.9.2 Test for linearity

Linearity assumption was tested for each objective variable as presented in Table 4.33, Table 4.34, Table 4.35, and Table 4.36.

##### 4.9.2.1 Linearity test for level of head teachers' and teachers' involvement

This section tested if there is a linear relationship between the level of head teachers' and teachers' involvement in implementation of the CBC.

**Table 4.33: Linearity test**

		Sum of Squares	Df	Mean square	F	Sig.
Implementation of the CBC head teachers' and teachers' involvement	Between groups (combined)	6.760	4	1.690	9.677	.000
	Linearity	5.801	1	5.801	33.214	.000
	Deviation from linearity	.959	3	.320	1.831	.152
	Within groups	9.431	54	.175		
	Total	16.192	58			

Table 4.33 indicates that there was a significance value ( $p < 0.05$ ), which suggests a linear relationship between the level of head teachers' and teachers' involvement in the implementation of the CBC. The test for deviation from linearity also has a p-value greater than 0.05 ( $p = 0.152 > 0.05$ ) which implies a linear relationship between the independent and dependent variables.

#### 4.9.2.2 Linearity test for level of resources provided to the head teachers and teachers

This section tested if there is a linear relationship between resources provided to the head teachers and teachers and implementation of the CBC.

**Table 4.34: Linearity test for resources provided to the head teachers and teachers**

		Sum of Squares	df	Mean Square	F	Sig.
Implementation of the CBC resources provided to the head teachers and teachers	Between groups (combined)	9.126	15	.608	3.703	.000
	Linearity	6.243	1	6.243	37.992	.000
	Deviation from linearity	2.883	14	.206	1.253	.275
	Within groups	7.066	43	.164		
	Total	16.192	58			

Table 4.34 indicates that there was a significance value ( $p < 0.05$ ), which suggests a linear relationship between resources provided to the head teachers and teachers and the implementation of the CBC. The test for deviation from linearity also has a greater p-value ( $p = 0.275 > 0.05$ ) which implies a linear relationship between the independent and dependent variable.

#### 4.9.2.3 Linearity test for training needs of teachers

This section tested if there is a linear relationship between training needs of teachers and the implementation of the CBC.



**Table 4.35: Linearity test training needs of teachers**

		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Implementation of the CBC* training needs of teachers	Between groups (combined)	9.082	13	.699	4.422	.000
	Linearity	6.099	1	6.099	38.603	.000
	Deviation from linearity	2.983	12	.249	1.574	.134
	Within groups	7.110	45	.158		
	Total	16.192	58			

Table 4.35 indicates that there was a significance value ( $p < 0.05$ ), which suggests a linear relationship between training needs of teachers and the implementation of the CBC. The test for deviation from linearity also has a greater p-value ( $p = 0.134 > 0.05$ ) which implies a linear relationship between independent and dependent variable.

#### 4.9.2.4 Linearity test for level of challenges faced by head teachers and teachers

This section tested if there is linear relationship between level of head teachers' and teachers' involvement and implementation of the CBC.

**Table 4.36: Linearity test challenges faced by the head teachers and teachers**

		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Implementation of the CBC* training needs of teachers	Between groups (combined)	9.082	13	.699	4.422	.000
	Linearity	6.099	1	6.099	38.603	.000
	Deviation from linearity	2.983	12	.249	1.574	.134
	Within groups	7.110	45	.158		
	Total	16.192	58			

Table 4.36 indicates that there was a significance value ( $p < 0.05$ ), which suggests a linear relationship between the level of head teachers' and teachers' challenges and the implementation of the CBC. The test for deviation from linearity also has a greater p-

value ( $p=0.148>0.05$ ) which implies a linear relationship between independent and dependent variables.

#### 4.9.3 Multicollinearity test assumption

Multicollinearity was assessed using the tolerance and variance inflation factors (VIF). According to Field (2009), VIF values in excess of 10 are an indication of the presence of multicollinearity.

**Table 4.37: Multicollinearity test assumption**

	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
level of head teachers' and teacher's involvement	.622	1.609
Resources provided to the head teachers and teachers	.737	1.357
Training needs of teachers	.640	1.561
Challenges faced by the head teachers and teachers	.471	2.124

The results in Table 4.37 present VIF values and tolerance values for the level of head teachers' and teachers' involvement (tolerance =0.622 and VIF=1.609), for resources provided to the head teachers and teachers (tolerance =0.737 and VIF=1.357), for the training needs of teachers (tolerance=0.640 and VIF=1.561) and for the challenges faced by the head teachers and teachers (tolerance=0.471 and VIF=2.124). All tolerance values for the four variables under study are above 0.10 while all VIF values are less than 10, which according to Field (2009), implies that there was no multicollinearity of the data.

#### 4.9.4 Test for autocorrelation

To establish whether or not the residual is serially correlated, the Durbin-Watson test for autocorrelation was conducted.

**Table 4.38: Autocorrelation test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.813 <sup>a</sup>	.661	.636	.31872	1.155

The Durbin Watson test reports a test statistic, with a value from 0 to 4, where 2 denotes no autocorrelation; and 0 to <2 denotes a positive autocorrelation, while >2 denotes a negative autocorrelation. The decision rule is that test statistic values in the range of 1.5 to 2.5 are relatively normal. Values outside this range could be a cause for concern (Field, 2009). The results are as indicated in Table 4.38 above and, therefore, the null hypothesis of no autocorrelation is accepted and residuals are not auto-correlated (Durbin Watson statistic value=2.020).

#### **4.10 Inferential statistics**

This section consists of correlation and regression analysis. The section intends to achieve both general and specific objectives in establishing the relationships that exist between the study variables.

##### **4.10.1 Correlation analysis**

The correlation analysis was done to achieve the specific objectives. The findings are presented in Table 4.39.

Correlation can be described as the power of an involvement between two variables. A strong correlation means that two or more variables have a powerful association with each other, while a feeble or low correlation means that the variables are barely related. The correlation coefficient can vary from -1.00 to +1.00. The coefficient of -1.00 implies a significantly harmful correlation, while a coefficient value of +1.00 suggests a perfectly affirmative correlation. A coefficient value of 0.00 implies that there is no correlation between variables being examined (Orodho, 2003)

**Table 4.39: Correlations analysis results**

		Implementation of the CBC	Level of head teachers' and teachers' involvement	Resources provided to the head teachers and teachers	Training needs of teachers	Challenges faced by the head teachers and teachers
Implementation of the competency-based curriculum	Pearson Correlation	1	.599**	.621**	.614**	.692**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	59	59	59	59	59
Level of head teachers' and teacher's involvement	Pearson Correlation	.599**	1	.380**	.454**	.595**
	Sig. (2-tailed)	.000		.003	.000	.000
	N	59	59	59	59	59
Resources provided to the head teachers and teachers	Pearson Correlation	.621**	.380**	1	.343**	.500**
	Sig. (2-tailed)	.000	.003		.008	.000
	N	59	59	59	59	59
Training needs of teachers	Pearson Correlation	.614**	.454**	.343**	1	.583**
	Sig. (2-tailed)	.000	.000	.008		.000
	N	59	59	59	59	59
Challenges faced by the head teachers and teachers	Pearson Correlation	.692**	.595**	.500**	.583**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	59	59	59	59	59

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

The findings revealed that level of head teachers' and teachers' involvement was strongly positive and correlated statistically significantly with the implementation of the CBC ( $r=0.599$   $p<0.01$ ). Furthermore, resources provided to the head teachers and teachers were strongly positive and correlated statistically significantly for the implementation of the CBC ( $r=0.621$   $p<0.01$ ). Training needs of teachers were strongly positive and correlated statistically significantly with the implementation of the CBC ( $r=0.614$   $p<0.01$ ). Finally, challenges faced by the head teachers and teachers were strongly positive and correlated statistically significantly with the implementation of the CBC ( $r=0.692$   $p<0.01$ ).

This allows for arguing that all the research variables absolutely correlated with the execution of the CBC. The level of head teachers' and teacher's involvement contributes 59.9% to the implementation of the CBC. Resources provided to the head teachers and teachers contribute 62.1% to the implementation of the CBC. Training needs of teachers contribute 61.4% to the implementation of the CBC. Challenges faced by the head teachers and teachers contribute 69.2% to the implementation of the CBC.

#### **4.10.2 Multiple regression analysis**

Regression examination is a statistical instrument for the study of the correlation between variables. Usually, researchers tend to retain the causal result of one variable upon another. Regression analysis permits you to model, inspect and discover spatial correlation, and it can aid in describing the aspects behind observed spatial samples. Regression analysis is also used for the forecast.

#### 4.10.2.1 Regression analysis for overall model

The research investigated on the headmasters' and trainers' preparedness in the execution of the competency-based program in Wareng Sub-County. Table 4.40 presents the outcomes of numerous regression analyses.

**Table 4.40: Multiple regression model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.813 <sup>a</sup>	.661	.636	.31872	1.155

The results in Table 4.40 demonstrate that the correlation between headmasters' and teachers' preparedness and the execution of the CBC in Wareng Sub-County was positive ( $R^2 = 0.661$ ). The outcomes demonstrate that 66.1% of the variation in the execution of the CBC program in Wareng Sub-County accounted for the four independent variables in the study, while 33.9% of the execution of the CBC program in Wareng Sub-County was caused by other factors not involved in the research.

#### 4.10.2.2 Model Fitness

The study observed whether the multiple regression models were a good fit for the data. Analysis of Variance (ANOVA) was done so as to discover if sustainability can be foreseen without depending on teachers' and head teachers' preparedness observed in the research. The outcome of the Analysis of Variance (ANOVA) is displayed in the Table 4.41.

**Table 4.41: Model fitness results**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	10.706	4	2.677	26.349	.000 <sup>b</sup>
Residual	5.485	54	.102		
Total	16.192	58			

The results of the research suggest that the correlation between the independent variables and the dependent variable was statistically essential ( $F=26.349$ ;  $p < 0.05$ ). This means that the multiple regression form was the best fit for the information. Thus, the independent variables affect the execution of the CBC and they should be emphasized.

#### 4.10.2.3 Regression coefficient

**Table 4.42: Regression analysis coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.277	.244		1.138	.026
Level of head teachers' and teacher's involvement	.169	.083	.205	2.036	.047
Resources provided to the head teachers and teachers	.325	.092	.326	3.538	.001
Training needs of teachers	.218	.083	.260	2.631	.011
Challenges faced by the head teachers and teachers	.254	.115	.255	2.209	.031

The regression of coefficients outcomes in Table 4.42 indicates that the level of head teachers' and trainers' engagement has an affirmative and essential effect on the execution of the CBC ( $\beta=.169$ ,  $p=0.047$ ). It was further recognized that resources offered to the head teachers and teachers has positive and vital effects on the execution of the CBC ( $\beta=.325$ ,  $p=0.001$ ). It has been demonstrated that the learning requirement of teachers has an affirmative and essential effect on the execution of the CBC ( $\beta=.218$ ,  $p=0.011$ ). Finally, it has been shown that the challenges encountered by the headmasters and tutors have a positive and vital effect on the execution of the CBC ( $\beta=.254$ ,  $p=0.031$ ).

The optimal model was

$$Y = 0.277 + 0.169X_1 + 0.325X_2 + 0.218X_3 + 0.254X_4$$

Where

Y represents implementation of competence-based curriculum, dependent variable

X<sub>1</sub> represents level of head teachers' and teachers' involvement

X<sub>2</sub> represents resources provided to the head teachers and teachers

X<sub>3</sub> represents training needs of teachers

X<sub>4</sub> represents challenges faced by the head teachers and teachers

#### **4.11 Summary**

This section presented the results from the quantitative and the qualitative data gathered in this research. Both sets of data offered valuable insights into the level of preparedness in the implementation of the CBC. The method of data collection was outlined to provide clarity and to guide the reader's understanding of the findings of the study. The findings were presented according to the level of head teachers' and teachers' involvement in the implementation, the resources provided, the training needs of teachers and the challenges faced. The findings demonstrated that the majority of the subjects, namely 31 (52.5%), indicated that they were not involved in the formulation and implementation of the new curriculum. Furthermore, 56-(94.9%) of the respondents indicated that they were trained for the implementation of the CBC. Additionally, the study results on the resources provided demonstrate that the materials were available but not adequate and, lastly, 56-(94.9%) of the respondents indicated that they faced challenges in implementing the CBC. The chapter concluded by focusing on the key issues emerging from an interpretation of the data collected for the purposes of the study as a whole.



## **CHAPTER FIVE**

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

#### **5.1 Introduction**

The chapter provides the review of findings, conclusions, suggestions, and other areas for further research in accordance with the results of the study. The study examined the head teachers' and teachers' level of preparedness for the execution of the competency-based curriculum.

#### **5.2 Summary of the Findings**

The study aimed to determine teachers' preparedness to execute the competency-based curriculum in schools. Four objectives were devised to conduct data compilation and examination. The research employed descriptive study design. The research was conducted among headmasters and teachers in schools.

##### **5.2.1 Teacher involvement in the implementation of the competency-based curriculum**

The research results demonstrate that most respondents were not involved in the new curriculum formulation. Furthermore, some of the respondents expressed concern regarding the development of teaching and learning materials. The majority indicated that the involvement of teachers was not satisfactory. The regression results also showed that the level of head teachers' and teachers' involvement has a positive and statistically significant influence on implementation of the CBC.

These findings were not different from the interviews results, where majority of the head teachers stated that the number of those involved in the formulation was not representative of all head teachers, and hence the involvement process was not satisfactory at all.

### **5.2.2 Resources provided for the implementation of the competency-based curriculum**

The second research objective was to determine the resources provided for the successful implementation of the competency-based curriculum. However, there was a positive and significant influence. The study results on the adequacy of learning materials shows that the materials were available but not adequate. Furthermore, the majority of respondents indicated that the physical resources, which included classrooms, were available and equipped. Regarding laboratories and workshops, the majority indicated that they were not available. Similarly, libraries were available but not equipped and sports field were available but needed equipment.

In the interviews, the majority of the respondents reported that the teaching and learning resources were available for all the classes but that they were limited. A number of them reported that subjects like languages and mathematics activities had very few copies of textbooks, which makes it difficult for students to have books for reference purposes.

### **5.2.3 Teachers' training needs for the implementation of the competency-based curriculum**

The third objective sought to know teachers training needs for the implementation of the CBC. The regression output showed a positive and statistically important influence this has on the implementation of the CBC. The majority of the respondents showed they were trained through in-service trainings organized for them. Additionally, the respondents indicated that they disagree that CBC training provided was adequate and effective. Furthermore, most of the respondents showed the contents of the training were on curriculum change, subject content, and emerging issues. A majority indicated the need for more training. Additionally, most responded that they were fairly prepared for the implementation of the CBC. The majority agreed to the statement that teachers“

content knowledge influences how teachers evaluate and use instructional materials. Many responded that they have been exposed to ICT facilities related to the implementation of the CBC. On the other hand, the majority indicated that the competence level in using information communication technology skills was still very low.

The findings from the interviews were not any different from the above. It was stated that the respondent still needed more training to enable them to be more conversant with the new curriculum, and how to handle and explain the ICT facilities to the pupils.

#### **5.2.4 Challenges of Implementing the CBC**

The last research objective was to establish the problems faced by teachers and head teachers in executing the CBC. The respondents indicated that they faced several challenges, including teachers training needs, insufficient awareness, and encouragement to partake in the curriculum development and implementation. The majority of the respondents indicated that they are willing to participate in the development of the curriculum if they are given a chance. The stages involved in implementation of the CBC included the development of education purposes and the syllabus scheme as well as piloting new programs and improving existing programs. The regression output found that the challenges faced had a positive and important influence on implementation of the CBC.

This was evident from the interviews conducted as they indicated that various challenges faced were based on the resources provided, which were not adequate. Most of the time, the school was required to go out of their way to provide for its students which is strenuous to the administration.

### 5.3 Conclusions

The study investigated the head teachers' and teacher's preparedness level on the competency based syllabus implementation. The review of teachers' and head teachers' involvement in the implementation of the CBC showed that trainers were not engaged in the new syllabus formulation. Furthermore, the number of teachers who were involved in curriculum development process was not representative of the total number of teachers in the sub-county. There are adequate channels of communication between the KICD and schools on issues of curriculum and trainers being forced to execute features of the reviewed syllabus even if do not agree with the changes made. The teachers' expertise and experience puts them in a better position to understand what should be reviewed and changed in the curriculum related to their area of specialization.

The study also concluded that learning materials were available but not adequate. Finally, the respondents indicated that the resources were good, which indicated that they were available and well equipped but limited.

Additionally, the research concluded that most of the trainers were trained but the CBC training provided was neither adequate nor effective. The content of training included curriculum changes, subject content, and emerging issues. The trainer of the CBC was the Ministry of Education. The teachers were fairly trained on their competence level and on the employment of data communication technology.

The research finally concluded that there were challenges in implementing the CBC. The challenges included challenges in the teachers' training needs. The teachers are not given enough awareness and encouragement to enable them to participate in the development and implementation of the new curriculum. The stages involved in the

implementation of the CBC included education purpose formulation, curriculum project execution, piloting of new program and improving existing programs.

#### **5.4 Recommendations**

Based on the results of the research, recommendations are proposed are as follows:

- i. It has been revealed that most teachers only attended few training sessions for the CBC. As a result, they are not sufficiently familiar and comfortable with the new curriculum. It is crucial for teachers at every institution to receive the maximum amount of training and, therefore, attendance of all training sessions should be compulsory. This can be achieved by incentivizing attendance.
- ii. It was shown that teachers feel demotivated and frustrated with aspects of the new curriculum which they have to implement despite their own disagreement with the content. Teachers should be motivated to implement the new curriculum. This can be done by allowing teachers with specific specializations to voice their concerns by using existing communication channels between educational institutions and the government.
- iii. A second step towards involving teachers more effectively would be using the same communication channels so that teachers with subject specializations can contribute to the development of teaching materials, such as syllabi and teaching aids. This will ensure that they are familiar with the material and motivated to implement it correctly.
- iv. Existing physical resources are not always in working condition. To ensure that this does not have a negative effect on the implementation of the new curriculum, the state of these resources should be assessed on a regular basis.
- v. Adequate and effective training of teachers is crucial for implementing the new curriculum. Teachers felt that the training was not detailed enough and,

therefore, it should be made more comprehensive. This can be achieved by structuring the training according to the significant infrastructural differences between the old and the new curriculum so that teachers find the transition to the new curriculum easier. More comprehensive training should also be conducted in skills areas, such as ICT competencies, where teachers felt they are not sufficiently prepared.

### **5.5 Suggestions for Further Research**

The debate on the head teachers' and teachers' level of preparedness for the implementation of the CBC is scanty in Kenya. To generate firm conclusions on this, there is need for more studies on the implementation of the CBC. Therefore, a comparative study should be conducted in other regions of the country in order to compare the various constructs of the CBC. Moreover, the research examined a small number of determinants which would establish trainers' preparedness in implementing the competency-based curriculum. There are, however, several other indicators that found out trainers' preparedness, such as assessments, the availability of resources and governmental support.

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## APPENDICES

### Appendix I: Letter of Introduction

Sheilla Chepkemei,  
Moi University,  
P.O Box 3900,  
Eldoret.  
8<sup>th</sup> October 2019.

Dear Sir/Madam

**RE: REQUEST TO CONDUCT RESEARCH IN YOUR SCHOOL**

I am the above named person a post graduate student at Moi University pursuing Masters of Educational Research degree. I am writing to seek authorization to carry out a research on the topic, Head teachers and Teachers level of preparedness in the execution of the competency-based program in primary schools in Wareng Sub-County, Uasin-Gishu County.

Kindly permit me to perform the study in your institution by responding to the provided questionnaires and interview, identity of participants will remain private and responses will be applied for study purposes only.

Thank you in advance.

Yours

Sheilla Chepkemei.

## **Appendix II: Informed Consent**

### **MOI UNIVERSITY**

**STUDY TITLE:** HEAD TEACHERS' AND TEACHERS LEVEL OF PREPAREDNESS FOR THE EXECUTION OF THE COMPETENCY BASED CURRICULUM IN PRIMARY SCHOOLS IN WARENG SUB-COUNTY, UASIN-GISHU COUNTY

**RESEARCHERS NAME:** Sheilla Chepkemei

P.O BOX 1738-30100,

Eldoret.

### **Background and purpose**

I would wish to request you to participate in an investigation study. The study aims to look at how the head teachers and teachers are prepared for the execution of the competency-based program (CBC) in primary schools. Choosing to take part, you will be required to fill in the questionnaires and respond to individual interview questions. The interviews will last utmost thirty minutes. In required cases I will audiotape the interviews; this will be convenient in transcribing the discussion. All this will be conducted within your schools and will be required to provide more details in the body of the form.

### **Time of participation**

The membership of the study will be between November 2019 and January 2020, a breakdown of two sessions per week will be held.

### **Confidentiality and Potential risks**

The possible risk of the study is having long time discussions responding to interviews, disclosing personal information is of great risk; hence the option is to use pseudonyms which increase privacy and confidentiality.

If you wish to be quoted by name on any particular thing be cautious of future consequences. Note that you do not have to answer any question on a topic that makes you feel uneasy.

**Withdrawal of participation**

At some point of the dialogue or during the interview you no longer wish to play a part, you may withdraw your consent without any fear of victimization.

**Benefits of the Study**

Your participation will be a contribution to different educational stakeholders like teachers' bureaucrats and schools. The results of the research may also be employed by the Ministry of Education and Curriculum officers to intercede on the situation and give solutions. Additionally, there are no direct costs involved with taking part.

**Consent**

I verify that the drive of the study, the procedure, potential threats and discomforts and the advantages have been described to the participants. The participants have accepted to take part in the research.

Participants signature..... Date.....

Researchers signature..... Date.....

### Appendix III: Questionnaire for Teachers

Dear respondent,

This questionnaire is for rationales of gathering information on Teachers level of vigilance in the execution of the competency-based program in primary school. All the information offered will be used for the study purposes only. Kindly answer all questions as sincerely and don't signify your initials.

School.....

**INSTRUCTIONS: Please tick (√) or fill information as appropriate**

#### SECTION A: Demographic information

1. Kindly indicate your gender

(a) Male '  (b) Male

2. What is your age bracket?

(a) 20-29  (b) 30- 39  (c) 40-49  (d) 50 and above

3. What is your highest academic qualification?

(a) Certificate  (b) Diploma  (c) Degree  (d) Masters

(e) Any other specify.....

4. Which grade do you teach?

a) Grade 1  (b) Grade 2  (c) Grade 3

5. How many years have you taught?

a) 0-9yrs  (b) 10-19yrs  (c) 20-29yrs  (d) 30yrs and above

6. My school is in a?

Public- Urban area  Public- Rural area   
Private- Urban area  Private- Rural area



**SECTIONB: TEACHER INVOLVEMENT IN THE IMPLEMENTATION OF COMPETENCY BASED CURRICULUM.**

1. Were you involved in the formulation of the new curriculum?

Yes [ ] No [ ]

2. What would you give as some of the demands by KICD, before changing a curriculum?

- i)
- ii)
- iii)

3. Which materials were you involved in development?

- a) Programs and syllabi [ ]
- b) Teachers and learners guide books [ ]
- c) Text books and other learning resources [ ]
- d) Others (specify).....

4. Do you think the current level of involvement of teachers in curriculum development and implementation is satisfactory?

Yes [ ] No [ ]

Give a reason for your answer

above.....  
 .....  
 .....  
 .....

5. Please, indicate by the use of a tick in the related columns the extent to which you agree with the following statements on the extent of teacher involved in curriculum development and implementation.

Statement on extent of teacher involvement	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
Teachers are adequately engaged in program development and execution process.					

The teachers who are engaged in program development and execution are very representative.					
Teachers are adequately engaged in the development of program materials, such as textbooks used in schools.					
There are adequate channels of communication between KICD and schools on issues of curriculum.					
Teachers have understood the new/revised school curriculum.					
Teachers have accepted the new/revised curriculum					
Teachers are forced to implement aspects of the reviewed/new curriculum even if they do not agree with the changes made.					
Teachers are in a better position to understand what should be reviewed and changed in the curriculum related to their area of specialization.					

**SECTION C: RESOURCES PROVIDED FOR THE IMPLEMENTATION OF  
COMPETENCY BASED CURRICULUM.**

1. How many learners do you have in your class?.....

.....

Please indicate by the use of a tick ( ) in the related columns the extent to which teaching learning materials are available in your class.

	<b>COURSE BOOK (CBC)</b>	<b>Available and adequate.</b>	<b>Available and not adequate</b>	<b>Not available.</b>
1.1	Mathematics Activities			
1.2	Literacy Activities			
1.3	Kiswahili Activities			
1.4	Environmental Activities			
1.5	English Activities			
1.6	Creative arts Activities			
1.7	Christian/ IRE Activities			
1.8	Music Activities			
1.9	Home science Activities			
1.10	Digital devices			
1.11	Hand books			
1.12	Teachers guide			

2. What is the general state of the available physical resources in the school?

Very good [ ] Good [ ] Well developed [ ] Needs renovation [ ]

Please indicate by the use of a tick in the relevant columns the availability of physical resources in your school.

<b>Resources</b>	<b>Available and Equipped</b>	<b>Available and not Equipped</b>	<b>Available but need renovation</b>	<b>Not available</b>
Classrooms				
Laboratories				
Workshops				
Library				
Sports field				



- c) Lack of support from the school management [ ]
- d) Any other (specify).....
5. Who organized the training you attended?
- a) Ministry of Education [ ]
- b) School Head Association [ ]
- c) K. I.C. D [ ]
- d) Any other (specify).....
6. In your own opinion, do you need more training in the handling of recent changes in the curriculum and pertinent issues in education?
- Yes [ ]
- Explain.....
- No [ ]
- Explain.....
7. In your own opinion, what is the school administration attitude towards your participation in the competency based programs?
- Supportive [ ]
- Explain.....
- Not Supportive [ ]
- Explain.....
8. How much have you been prepared with subject content knowledge for Implementation of the Competency Based Curriculum?
- a) Fairly prepared [ ] (b) Prepared [ ] (c) Very prepared [ ]

9. Teacher content knowledge influences how teachers evaluate and use instructional materials.

a) Disagree  (b) Neutral  (c) Agree

10. To what extent does the teacher subject content knowledge influences how teachers evaluate and use instructional materials?

a) Small extent  (b) Neutral  (c) Large extent

11. Have you been exposed to ICT facilities related to implementation on CBC?

Yes  No

12. What is your level of competence in the use of Information Communication Technology (ICT)?

a) Poor  (b) Fair  (c) Good

13. Please indicate by the use of a tick in the relevant columns the extent to which you have demonstrated the ability to perform the stated tasks in relation to Information Communication and Technology ( ICT)

	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
I have been exposed to ICT related facilities in the CBC.					
My level of competence in the use of ICT is very high.					
I browse the internet to collect Information to prepare					
I use ICT to prepare exercise and task for students.					

I use ICT to create my own digital learning materials for students.					
I use ICT to provide feedback and access students learning.					
I use PowerPoint presentation to teachers' learners in the class.					
I can download E-materials from a learning platform.					
I can search for a lesson song on the internet.					

#### **SECTION D: CHALLENGES ON THE IMPLEMENTATION OF CBC.**

1. Do you face any challenge in the implementation of CBC?

Yes [ ] No [ ]

If your answer to the above question is yes, please answer the question below by indicating by use of a tick in the relevant column.

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>
There is a challenge on the availability of resources.					
There is a challenge on teachers training needs.					

2. In your view, are there any challenges encountered by teachers with current curriculum materials that they use, such as textbooks?

Yes            No       

a) If your answer is Yes, list the challenges

.....

.....

.....

.....

.....

b) If your answer is Yes, how can these challenges be overcome?

.....

.....

.....

c) If your answer is Yes, what do you think are the causes of these challenges?

.....

.....

.....

.....

.....

3. In your opinion, are teachers given enough awareness and encouragement to enable them participate in the development and implementation of the curriculum?

Yes                No





### **Appendix IV: Interview Schedule For Headteachers**

This interview schedule is for purposes of collecting information on head teachers' preparedness for the implementation of the competency-based curriculum in primary schools. All the information provided will be used for the purpose of the study only. Kindly respond to all questions as honestly as possible. Your cooperation will be highly appreciated.


School.....

Male..... Female.....

1. What do you understand by the term competency-based curriculum? Please explain
2. Have you received any in-service training in readiness for the implementation of the competency-based curriculum.
3. (a) Since the inception of the competency-based curriculum in your school, have you conducted training (seminars or workshop) about the competency-based curriculum?
  - a) List the types of training conducted and the areas of discussion
  - b) Explain the effectiveness of the training and the challenges encountered.
4. Are the teachers ready to implement the competency-based curriculum?
5. How much have the teachers been prepared with subject content knowledge for implementation of the competency based curriculum?
6. To what extent does the teachers' subject content knowledge influence how teachers evaluate and use instructional materials?
7. What is your level of competence in the use of information
8. How often do you use a projector to teach?
9. Do you have technological skills for effective implementation of the competency-based curriculum?
10. What challenges are you facing in implementing the competency-based curriculum?

**Thank you for your cooperation**

Appendix VI: Research License


  
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